1981 ASSESSMENT REPORT

KITSAULT PROPERTY

DIAMOND DRILLING REPORT

MAY 1982 B. FRASER

TITLE:	1981 Diamond Drilling Report for Assessment Credit Kitsault Mine
CLAIMS:	Lease M-160
MINING DIVISION:	Skeena M.D.
NTS REFERENCE:	103 P/6
LATITUDE/LONGITUDE:	55°25N/129°25'W
OWNER AND OPERATOR:	Amax of Canada Ltd.
AUTHOR:	B. Fraser
DATE SUBMITTED:	May 28, 1982

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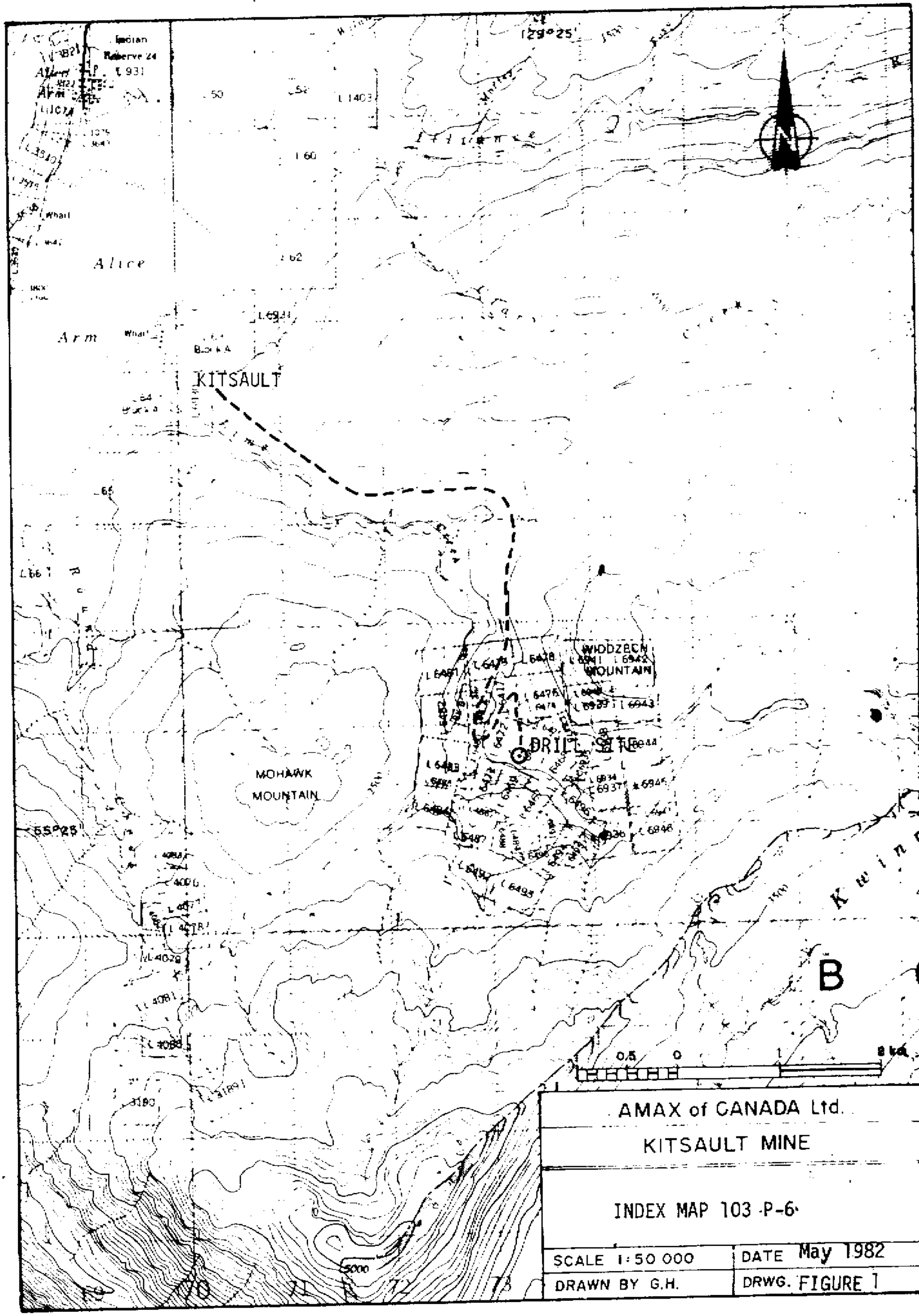
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AMAX of CANADA Ltd.
KITSAULT MINE
INDEX MAP 103 P-6
SCALE 1:50 000
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DRAWN BY G.H.
DRWG. FIGURE 1

INTRODUCTION

Location and Access

Lease M-160 is part of the Kitsault molybdenum property, which is located roughly 150 km northeast of Prince Rupert near the head of Alice Arm. Lease M-160 is 5.5 km southeast of the entrance of Lime Ck. into Alice Arm. The drill locations were within the Kitsault Mine open pit. Access to the drill sites was via well-maintained gravel road from the community of Kitsault.

Physiography

Topography of the Kitsault property is rugged with elevations varying from 975 m. to 450 m. within a 2 km. radius of the drill site. Relief is extreme with valley slopes of the order of 20°-30° modified by swamp covered benches and localized flat areas. The drill holes were collared on a flat bench within the Kitsault Mine open pit at approximately 606 m. elavation.

History

Prospecting of the local area with a focus on silver-lead-zinc occurrences began at the turn of the century. The first serious consideration of molybdenite on the Kitsault property began with an option in 1957 by Kennecott Copper Corporation of claims held by Gunn Fiva, Oscar Flint et.al. Further work led to purchase of part of their claims in 1959 and the remainder in 1961 by Kennco. In 1963, B.C. Molybdenum Ltd. was formed to assume development and production work for Kennecott. Production by B.C. Moly Ltd. extended from 1964 to 1972. The mine site and surrounding claims were purchased by Climax Molybdenum Corporation in 1973. Further work led to a production decision and transfer of ownership to Amax of Canada Ltd. Ore production began in 1981 by Amax of Canada, current operator and owner of the property. Economic mineralization is molybdenite with plans for future recovery of silver from by product lead.

Work Summary

Six NQ size wire-line diamond drill holes were drilled from two set-ups at 606 m. elevation. In total 1384 m. were drilled. Object of the program was definition of molybdenite mineralization at depth.

Claim List

Claim	Lease No.	Lot No.	Size	Mining Division
Patricia No. 4	M-160	L. 6470	16 Hectares	Skeena

TECHNICAL DATA AND INTERPRETATION

Purpose

The program was designed to test grade and character of molybdenite mineralization at depth. Also tested were the extent and magnitude of the following impurities: Pb, Cu, Fe (indicator element for pyrite, pyrrhotite). Detail geology and its relation to ore was a second aim of the program.

Method

Six NQ size diamond drill holes were drilled from two set-ups using a Longyear 38 drill (see Figure 2). Whole core was logged then split at 3.0 m. intervals and analyzed for MoS_2, Pb, Cu, Fe by the Kitsault Mine assay lab using a Varian Model AA475 double beam atomic absorption spectrophotomer (see Appendix I). Hole locations were surveyed by Kitsault Mine staff using a AGA Geodimeter 112 and referenced to the mine grid. Down hole orientation was measured using a Pajari (see Appendix II). Bearings adjacent to lamprophyre dikes were discarded due to highly magnetic nature of rocktype. Recovery was measured based on weight of split core, (see Appendix III).

RESULTS AND INTERPRETATION

(Refer to detail logs in Appendix IV and Figures 3-8)

Geology

The area drilled was along the contact of a multiphase intrusive stock with older sediments. The stock was previously classified by Carter as a member of the Alice Arm Intrusives and age dated at circa 50 million years. The sediments are part of the Bowser Lake Group of Upper Jurassic age. Contact metamorphism of the surrounding sediments during intrusion has resulted in an aureole of biotite horrfels which has been recognized at over 300 m. beyond the intrusive contact. The current drilling defined a structurally complex area of multiple faulting, vein emplacement and intrusion. Rocktype identification was macroscopic and followed the following divisions:

1) Diorite unit - generally medium grey, fine to medium grained biotite quartz diorite containing 10-15% anhedral quartz, 50-70% plagioclase, 10-20% potassium feldspar, 20-30% mafics predominantly biotite with minor hornblende. Texturally the diorite unit tended to be equigranular with a grain size on the order of 1-2 mm. In some sections, foliation was well developed.

2) Granodiorite unit-medium grained pinkish grey biotite granodiorite with 10-15% biotite, 10-20% quartz, 30-40% plagioclase, 30-40% potassium feldspar. Texturally the granodiorite unit was weakly porphyritic with subhedral phenocrysts of quartz, plagioclase and alkali feldspar in a finer grained groundmass of the same minerals plus mafics (predominantly biotite).

3) Aplite unit - pink to creamy aplite consisting of intergranular quartz and feldspar as a fine grained interlocking mosaic with minor biotite and sericite to 5%. Aplite commonly contained disseminated molybdenite and was considered an important source of ore grade.

4) Intermineral porphyry unit - Distinguished by well-developed porphyritic text. Rocktype consisted of 5-15% porphyritic subhedral 1-3mm phenocrysts of plagioclase, quartz, alkali feldspar, minor biotite in an indistinct leucocratic groundmass. For the most part, the porphyry unit was intrusion breccia and commonly had from 10-50%

sub-angular fragments of all other rocktypes except lamprophyre. This was considered important as molybdenite grade of porphyry was related to character of fragments.

5) Lamprophyre - fine grained biotite lamprophyre forming post-mineral generally less than 1 m. dikes. Essentially barren of molybdenite, lamprophyre dikes were an important source of dilution of grade.

6) Hornfels - contact metamorphosed Bowser sediments of Upper Jurassic age. Unaltered sediments are mainly argillite and very fine grained greywacke. Hornfels was recognizable by increase in biotite content and size as well as bleaching of rock from original dark grey to shades of pale green to light grey to cream. This bleaching was easily recognizable on a small scale as vein envelopes.

Alteration on the macroscopic level was broken down as follows:

1) Argillic - alteration of plagioclase phenocrysts to pale green to chalky clay minerals. Especially pronounced in the diorite unit, strong argillic alteration resulted in an incompetent easily broken rock. Argillic alteration appeared related to faulting.

2) Potassic - overgrowths of potassium feldspar on phenocrysts potassium feldspar vein envelopes, patchy secondary biotite both as disseminations and as minor vein envelopes. This alteration was dominant in the granodiorite unit. At contacts between granodiorite and diorite, a subjective decision had to be made if biotite was secondary or primary. Better definition of these contacts would require thin section work.

3) Phyllic - quartz-sericite alteration usually of local extent as vein envelopes on polymetallic galena-sphalerite-pyrite veins. Most easily recognizable in the intermineral porphyry unit. In some cases, phyllic alteration would envelope an inner potassic vein envelope.

4) Chloritic - alteration of biotite to chlorite and chloritic development along fractures. Chloritic alteration was strongest adjacent to lamprophyre dikes.

Molybdenite mineralization occurs mainly as stockwork quartz-molybdenite ± pyrite, galena, sphalerite veining. Intermineral prophyry post dates at least one phase of mineralization as indicated by contained fragments of moly veined hornfels, aplite and diorite. Therefore, porphyry has a poorer developed stockwork and lower grade than the aforementioned rocktypes adjacent in the same zone. Molybdenite also occurs coarsely disseminated in aplite. Well mineralized aplite is generally found outside of the granodiorite zones and is an important source of ore grade.

B. GEOCHEMISTRY

Drill core was split and assayed on regular 3.0 m. intervals. To analyze the assay data, each drill hole was then subdivided into sections based on the current .110% MoS_2 cut-off grade at Kitsault Mine and mean grades for MoS_2, Pb, Cu, Fe calculated for each section. This work is summarized in Table 1. Each section was then related to rocktype as recorded in the detail logs (Appendix IV). Impurity elements Pb, Cu, Fe were next considered using levels of significance currently employed at Kitsault Mine and their relationship and affect on "ore" grade MoS_2 sections detailed.

TABLE 1

DRILL HOLE SUMMARY SHEET

DRILL HOLE	INTERVAL (m)	MoS_2	Pb	Cu	Fe	ROCKTYPES
81-1	3-84	.250	.027	.005	1.53	dio, ap, ppy
	84-105	.062	.371	.006	2.92	ppy, lp,
	105-132	.129	.062	.006	3.38	hf, lp
	132-239.3	.064	.012	.007	3.39	hf, lp
81-2	3-54	.141	.013	.003	1.51	dio, ap, ppy
	54-181-4	.047	.011	.003	1.35	ppy, gd, ap
81-3	3-84	.155	.008	.002	1.35	dio, ap, ppy
	84-186	.065	.004	.002	1.58	ppy, dio, ap, gd.
	186-207	.109	.003	.001	1.66	gd, ppy
	207-306.6	.081	.010	.002	1.57	gd, ap, ppy
81-4	3-18	.065	.006	.001	1.77	dio, ap, ppy
	18-60	.119	.048	.003	2.01	dio, ap, ppy, hf
	60-72	.066	.002	.003	1.78	hf, ap, ppy
	72-96	.263	.006	.003	1.72	hf, ppy, gd
	96-123	.065	.012	.003	2.29	gd, ap, ppy, lp
	123-147	.140	.012	.002	1.11	dio, ap, gd
	147-159	.081	.007	.002	1.19	dio
	159-233.78	.194	.035	.004	1.18	dio, ap, gd
81-5	4-67	.084	.011	.002	1.31	ppy, gd
	67-153.96	.044	.006	.002	1.95	gd, ppy, ap, lp
81-6	3-27	.061	.013	.002	1.56	dio
	27-45	.117	.022	.002	1.39	ppy
	45-268.9	.035	.014	.003	1.46	gd, ppy, ap

Where
dio = diorite unit
ap = aplite unit
gd = granodiorite unit
ppy = intermineral porphyry unit
lp = lamprophyre unit
hf hornfels unit

MOLYBDENITE DISTRIBUTION

1. DDH 81-1

a. 3-84 m. - ore grade mineralization occurs in:
1) argillic diorite cut by stockwork quartz-moly veins and aplite dikes.

2) intermineral porphyry with a weak qtz-moly vein stockwork but an abundance of mineralized fragments of hornfels and aplite.

b. 84-105 m. Sub grade mineralization is in stockwork quartz-moly veins cutting bleached porphyry. Porphyry shows strong argillic alteration of plagiochase porphyroblasts and sericitic alteration of biotite. Phyllic alteration of porphyry related to polymetallic galeva-sphalerite-pyrite veining. Most notable of these veins at 87.7-88.2 m at 25° to core axis brings the lead assay for the 87-90 m. section up to 2.35%. Absence of mineralized aplite fragments in this section is distinctive. Grade is further lowered by abundant lamprophyre dikes.

c. 105-132 m. ore grade mineralization as stockwork quartz-moly veins in hornfels. Intrusive - hornfels contact is at 110.1 m. with hornfels extending beyond the interval to the end of the hole.

d. 132-239.3 sub grade mineralization in weakly developed quartz-moly vein stockwork in hornfels. Lower density of veining in this section as opposed to hornfels above is reflected by RQD which averages greater than 50 as opposed to 25 above.

2. DDH 81-2

a. 3-54 m ore grade mineralization in a mixed zone of quartz diorite, aplite and intermineral porphyry. Porphyry contains abundant frags of diorite and aplite. Both diorite and porphyry units show strong argillic alteration of plagioclase. Granodiorite frags first noted in porphyry at 41.1 m. and increase with depth.

b. 54-181.4 m sub grade mineralization as poor qtz-moly vein stockwork in porphyry and potassic granodiorite.

DDH 81-3

a. 3-84 m. ore grade mineralization in quartz-moly vein stockwork in strong argillic diorite cut by aplite and porphyry. Friable argillic zone extends to 73.1 m. From 73.1-84 m is well jointed biotite rich quartz diorite with pervasive patchy secondary biotite and pyrite. Biotite selvages are common on veins.

b. 84-186 m. Sub-grade mineralization in potassic quartz diorite and intermineral porphyry to 127.57 m. From 127.7 to 186 m., section is potassic granodiorite cut by intermineral porphyry. Fluorite veining is first noted below 93 m. and abundant throughout the zone. Localized quartz-flooding also common.

c. 186-207 m. Marginal grade mineralization is similar to above in rock-type but alteration shows overprint of argillic alteration associated with faulting at roughly 20° to core axis.

d. 207-306.6 m. Sub-grade mineralization in granodiorite, porphyry and quartz monzonite. Strong potassic alteration. Fluorite veining is common.

4. DDH 81-4

a. 3-18 m. Sub-grade mineralization in foliated quartz diorite. Only minor porphyry and aplite. Strong argillic alteration.

b. 18-60 m. Ore-grade mineralization in argillic quartz diorite cut by intermineral porphyry and aplite to 45.54 m. contact with hornfels. Remainder of section is hornfels cut by intermineral porphyry.

c. 60-72 m. Sub-grade mineralization in porphyry with minor hornfels and granodiorite. High silica zones as large qtz-kspar veins sub-parallel to the core axis.

d. 72-96 m. Ore grade mineralization in hornfels porphyry and granodiorite. Strong qtz-moly veins sub-parallel to core axis. Contact zone of hornfels - granodiorite at 83.43 m abundant aplite dikes 83.78 - 96 m.

e. 96-123 m. Sub-grade mineralization is potassic granodiorite and aplite with minor porphyry and lamprophyre. Aplite shows bleaching from pink to cream adjacent to lamprophyre dikes. Abt. chloritic fractures. First occurrence noted of qtz-fluorite veining at 121.84.

f. 123-147 m. Ore grade mineralization in potassic granodiorite, foliated qtz diorite and aplite. Abundant qtz-fluorite veining and silica flooded zones.

g. 147-159 m. Sub-grade mineralization in foliated qtz diorite with patchy biotite. Pervasive silicic and chloritic alteration.

h. 159-233.78 m. Ore grade mineralization in mixed qtz diorite and aplite. With minor porphyry to 207 m. Mixed potassic granodiorite and aplite with minor porphyry to 233.78 m. Porphyry dike at 171.85 - 173.89 m. responsible for drop of grade to .085 MoS_2 in 171-174 m. section.

5. <u>DDH 81-5</u>

   a. 4-67m. Sub-grade mineralization in argillic porphyry to 28.81 m. and mixed potassic granodiorite and porphyry 28.81-67 m.

   b. 67-153.96 m. Sub-grade mineralization in potassic granodiorite and porphyry. Abundant lamprophyre dikes from 130 m. to 153.96 m.

6. <u>DDH 81-6</u>

   a. 3-27 m. Sub-grade mineralization in strongly argillic quartz diorite from 3-12 m. Weakly argillic porphyry from 12-27 m.

   b. 27-45 m. Ore grade mineralization in porphyry. Noticeable increase in vein size from the order of mm. in the above zone to cm. in this zone. Qtz-moly veining generally at shallow (0-25°) angles to core axis.

   c. 45-268.9 m. Sub-grade mineralization. Mainly porphyry with increasing potassic alteration to 216 m. From 216-268.9 m, section is mainly potassic granodiorite with abundant qtz-fluorite veining.

LEAD DISTRIBUTION

Lead greater than .030% in ore is considered to be a significant impurity at Kitsault Mine. Using this value as a cut-off, Tables 2 and 3 summarize the distribution of lead within ore grade material. These areas correspond to sections of rock crossed by polymetallic galena-sphalerite -pyrite veins. Of all core drilled, only 18% of ore grade sections correspond to intervals with lead > .030%. In only three cases were the lead grades within these restrictive zones high enough to make the overall lead grade for the ore grade sections higher than .030%. These were as follows:

HOLE	INTERVAL	MEAN LEAD
81-1	105-132	.062
81-4	18-60	.048
81-4	159-233.78	.035

TABLE 2

ASSAY INTERVALS WITH GREATER THAN .030% LEAD

DRILL HOLE	INTERVAL	Pb (%)	
81-1	3-6	.040	*
	42-45	.278	*
	57-60	.076	*
	60-63	.080	*
	102-105	.108	
	111-114	.067	*
	114-117	.059	*
	117-120	.073	*
	120-123	.290	*
	159-162	.116	
	195-198	.045	
81-2	12-15	.103	*
	33-36	.034	*
	54-57	.088	
	57-60	.078	
	165-168	.032	
81-3	9-12	.030	*
	48-51	.035	*
	207-210	.165	
	279-282	.079	
81-4	18-21	.041	*
	27-30	.122	*
	30-33	.068	*
	33-36	.064	*
	45-48	.245	*
	54-57	.054	*
	138-141	.031	*
	159-162	.130	*
	162-165	.077	*
	165-168	.031	*
	189-192	.043	*
	195-198	.194	*
	198-201	.033	*
	219-222	.101	*
81-5	10-13	.035	
	115-118	.060	
	118-121	.035	

TABLE 2 (CONT.)

DRILL HOLE	INTERVAL	Pb (%)*	
81-6	21-24	.044	
	33-36	.036	*
	42-45	.048	*
	66-69	.071	
	105-108	.046	
	111-114	.048	
	114-117	.067	
	171-174	.059	
	183-186	.051	
	201-204	.146	
	204-207	.052	
	264-267	.043	

* Interval in ore grade section.

TABLE 3

% OF ORE GRADE SECTIONS WITH >.030% LEAD

		MEAN Pb	INTERVAL LENGTH	LENGTH >.030	% LENGTH >.030
81-1	3-84	.027	81	12	15%
	105-132	.062	27	12	44%
81-2	3-54	.013	51	6	12%
81-3	3-84	.008	81	6	7%
	186-207	.003	21	0	0%
81-4	18-60	.048	42	18	43%
	72-96	.006	24	0	0%
	123-147	.012	24	3	13%
	159-233.78	.035	74.78	21	28%
81-5	NIL				
81-6	27-45	.022	18	6	33%
			425.78	78	18%

COPPER DISTRIBUTION

Copper $>$ .010% in ore is considered to be a significant impurity at Kitsault Mine. Using this value as a cut-off, Tables 4 and 5 summarize the distribution of copper within ore grade material. There is no ore grade intersection in which mean copper for the whole section achieves a significant level. Within ore grade sections, intervals with greater than .010% copper correspond to only 2% of the total. Of all sections whether in ore or not, in which copper is a significant impurity it is associated 60% of the time with high lead ($>$ .030% Pb) and only 20% of the time with ore grade MoS_2 ($>$ .110% MoS_2). This indicates high copper is a distinct mineral event more related to high lead than molybdenite.

It is therefore likely that high copper concentrations are related to polymetallic galena - sphalerite - pyrite veining.

TABLE 4

ASSAY INTERVALS WITH GREATER THAN .010% COPPER

	INTERVAL (m)	Cu (%)	Cu INTERVALS IN ORE GRADE SECTION	ASSOC. WITH HIGH Pb
81-1	42-45	.034	*	*
	57-60	.011	*	*
	159-162	.017		*
	177-180	.010		
	219-222	.056		
	228-231	.010		
82-2	54-57	.012		*
	57-60	.010		*
	87-90	.013		
	90-93	.015		
81-3	207-210	.019		*
81-4	198-201	.010	*	*
81-5	NIL			
81-6	48-51	.014		
	201-204	.046		*
	210-213	.011		*

TABLE 5

% OF ORE GRADE SECTIONS WITH >.010% COPPER

HOLE	INTERVAL (m)	MEAN Cu (%)	INTERVAL LENGTH (m)	LENGTH > .010% Cu (m)	% LENGTH * >.010% Cu
81-1	3-84	.005	81	6	7
	105-132	.006	27	0	0
81-2	3-54	.003	51	0	0
81-3	3-84	.002	81	0	0
	186-207	.001	21	0	0
81-4	18-60	.003	42	0	0
	72-96	.003	24	0	0
	123-147	.002	24	0	0
	159-233.78	.004	74.78	3	4
81-5	NIL				
81-6	27-45	.002	18	0	0
TOTALS			425.78	9	2

* Length of Ore Grade Section

IRON DISTRIBUTION

Iron was analyzed principally as an indicator for sulfide iron in the minerals pyrite, pyrrhotite. Interpretation must take account of the differences in iron oxide content of the principal rock types before a meaningful picture emerges. Lamprophyre dikes contain significant magnetite. Assay sections containing lamprophyre can reach as high as 5-6% total Fe. eg. 81-1; 159-162 m. Hornfels in general has a total iron content in the 2-3% range. What percentage is sulfide iron is difficult to ascertain but for indication purposes, hornfels zones should be separated from lamprophyre and intrusive zones which average 1-2% total Fe. The best way to examine Fe distribution is on section. Sections 4, 6, 8, summarize this data.

CONCLUSIONS

1. Drill hole 81-1 successfully determined an outer ore contact within the hornfels.

2. Drill hole 81-2 successfully determined an inner ore contact within the central intrusive complex.

3. Drill hole 81-3 successfully determined an inner ore contact within the intrusive complex.

4. Drill hole 81-4 bottomed in ore and did not cross the intrusive-hornfels contact to establish an outer ore contact within the hornfels. Further drilling along this north-south section is required to establish the outer ore contact.

5. Drill hole 81-5 defined sub-grade material within the inner intrusive complex.

6. Drill hole 81-6 defined generally sub-grade material within the intrusive complex.

7. Drill holes 81-4, 81-5, 81-6 were set up on a porphyry mass. As shown in this program porphyry is essentially marginal to sub-grade in MoS_2. The east-west extent of this porphyry unit should be defined from other sections or further drilling.

8. Drill hole 81-4 drilled down dip on mineralized veins for much of its length. To avoid sampling bias in this area, further drilling should be roughly at right angles to the orientation of 81-4 which was drilled true north at -65°.

9. Lead was the only significant impurity noted in ore grade material. Lead concentrations greater than .030% were limited to narrow zones and related to polymetallic galena-sphalerite-pyrite veining.

10. Copper was insignificant as an impurity and copper $>$ .010% was related to polymetallic galena sphalerite-pyrite veining.

11. Use of Fe as an indicator for pyrite, pyrrhotite is difficult and as a minimum zones should be separated based on the rocktypes; hornfels, intrusive complex, lamprophyre.

COST STATEMENT

A)	Six diamond drill holes total footage 1384 m.	99,383.91
B)	Room and board for drillers. 4 drillers @ 30/day for 28 days	3,360.00
C)	Mobilization and demobilization Vancouver to Kitsault via Rivtow barge	6,110.00
D)	Survey hole location $45/hr. (2 men) x 6 hrs.	270.00
E)	Survey down hole deviation $22.50/hr. x 24 hrs.	540.00
F)	Assaying 486 samples @ $10/sample Kitsault Lab.	4,860.00
G)	Geologists Wages: Drill supervision, Core logging, report writing $150/day x 50 days	7,500.00
H)	Assistant's wages: Core splitting $80/day x 40 days	3,200.00
TOTAL		$125,223.91

AUTHOR'S QUALIFICATIONS

Bryan M. Fraser

EDUCATION

Graduation from University of B.C. in 1976 with a B. Sc. in Geology.

PROFESSIONAL EXPERIENCE

1970 - 75	Summer field work with Noranda Exploration Co. Ltd., L.U.C. Syndicate, Candaian Superior Exploration Ltd., McIntyre Mines Ltd.
1976 - 78	Field geologist for Tyee Lake Resources Ltd.
1979	Summer field work for United Hearne Resources Ltd.
1979 - 80	Field geologist for J.C. Stephen Exploration Ltd.
1981 - present	Pit geologist for Amax of Canada Ltd., Kitsault Mine.

Bryan Fraser

APPENDIX I

CHEMICAL ANALYSES

Analysis of diamond drill core by Kitsault Lab follows the procedure below:

1) Split core is crushed then pulverized.

2) 2 g. of pulverized sample is digested using a hot three acid digestion. This involves addition of 10 ml. quantities of concentrated HNO_3, H Cl and $HCLO_4$ and heating for approximately 1 hour on a hot plate.

3) A solution is next prepared by mixing 10 ml. $AlCl_3$ with 1 drop separan and diluting the above to 200 ml. with distilled H_2O.

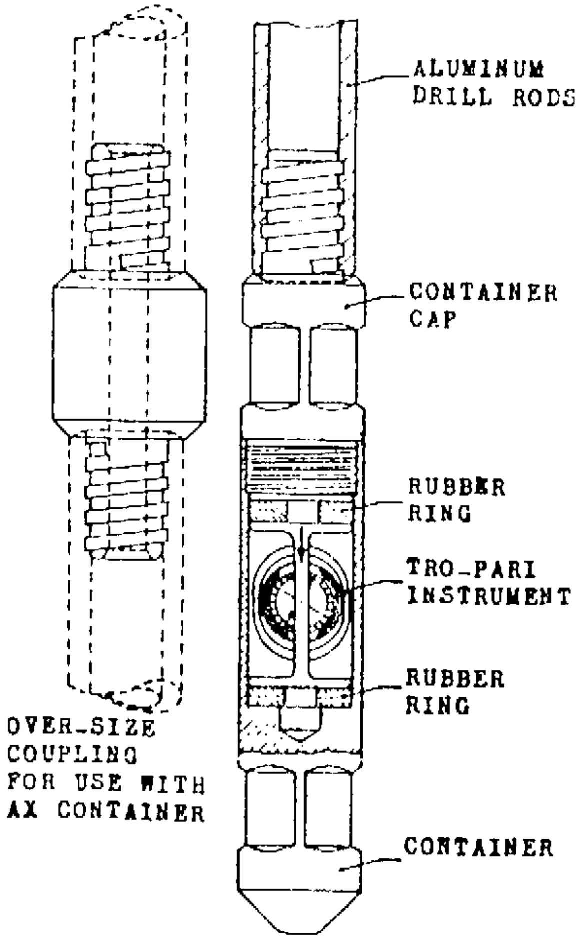
4) The solution in 3) is added to the digested sample, mixed and allowed to settle.

5) Fully prepared samples are run on a Varian Model AA475 double beam atomic absorption spectrophotometer.

APPENDIX II

DOWN HOLE SURVEYING USING PAJARI INSTRUMENT.

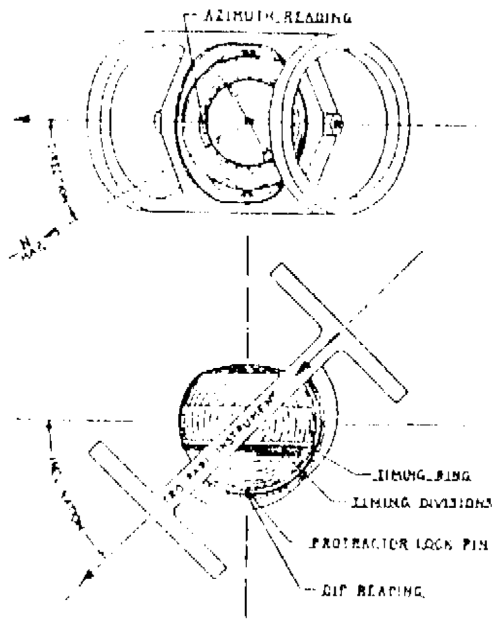
18 -- L'instrument Pajari ne devra jamais être laissé à proximité d'un aimant permanent alors qu'il est en position de blocage, ce qui risquerait de fausser le magnétisme de la boussole. L'expérience a même démontré que le mécanisme de la boussole peut être complètement déréglé au voisinage des tiges de fer fortement aimentées que l'on empile souvent près de l'orifice du trou de sonde et qui jouent alors le rôle de puissants aimants feuilletés. Pour éviter ce danger, on aura soin de toujours ranger l'instrument loin du cadre de la surface dès qu'on l'a retiré du trou de sonde. Lorsque l'instrument n'est pas bloqué, cette précaution est inutile, puisque l'aiguille de la boussole est libre de se déplacer selon l'orientation magnétique du lieu.



PAJARI

Bore - Hole Surveying

Operating Instructions



PAJARI INSTRUMENTS

1 Shouldice Court, Toronto,
Willowdale, Ontario.
Canada

Pajari Instrument

For

Determining Inclination and Direction

of Bore-Holes

OPERATING INSTRUCTIONS

1 — Unscrew container cap and remove two rubber rings leaving two rubber rings in the bottom of the Container.

2 — Estimate time required to lower instrument to point where readings are to be taken, allowing for any slight delay which may occur.

3 — To set the timing ring, hold the spherical case of the instrument by the first two fingers and thumb of the left hand with the glass towards the palm of the hand. With the index finger and thumb of the right hand, turn the timing ring anti-clockwise until the line on the ring coincides with the desired time setting mark on the case. Each timing division represents five minutes. Turn a little at a time and check with magnifying glass till lines coincides exactly when the ring is held lightly between finger and the thumb. On later models, holes are drilled in the timing ring and a small capstan bar may be used to make the setting. In practice the mark on the timing ring must be turned a fraction of a marked interval beyond the timing division required. This procedure is necessary as the clutch in the timming mechanism will move backward a fraction of a division before it engages.

4 — When the proper setting is made, return the ring clockwise until you feel it has come to its extreme clockwise stop and leave it there. This is important and failure of the test will result if this operation is omitted.

5 — If the timing ring is turned anti-clockwise beyond the desired mark, then the instrument will not lock until a time period has elapsed corresponding with the extreme anti-clockwise rotation given to the timing ring and the locking time must be noted accordingly. The time setting cannot be set backwards and is determined by the extreme anti-clockwise rotation given to the timing ring.

6 — Holding the instrument by the spherical case give it a few oscillating motions as you would use to start a watch. This is to ensure that the timing mechanism is in motion. A ticking sound may be heard by holding the instrument to the ear .Tap lightly if compass face does not drop into a floating position when timing has been set.

7 — Holding the bronze container at a slightly downward angle, insert the instrument in the container with the arrow on the frame pointing inwards so that when the container is in the drill hole the arrow will be pointing towards the bottom of the hole. The compass dial should be upwards when the instrument is placed in the container and it will retain this position by the gimbal arrangement of its assembly.

8 — Replace rubber rings and container cap. Tighten with spanners using the hexagons provided. Hexagons on the EX container are 1¼" across the flats to fit a ¾" spanner and those on the AX are 1⅜" to fit a 1" spanner. Two spanners of either size should on hand for this purpose. To seal the joint face, a light fibre gasket is used on the AX container. For the EX container a light smear of "Gasket Goo" is recommended. This is a rubber cement, used in automobile work and may be procured at garages or auto-supply stores. Care should be exercised so that the joint faces of the container do not become dented or damaged as it is important that the container must be watertight.

9 — Pipe wrenches should not be used to tighten the containers as the wall may be distorted resulting in damage to the instrument.

10 — Connect up the container case to the drill rods using three 5 ft. lenghts of brass or aluminum alloy rods separating the container case from the steel drill rods so as to prevent distortion of the magnetic field of the compass.

11 — When using the AX container, an oversize coupling is used between the first and second aluminum alloy rods so as to keep the assembly in line with the wall of the drill hole. An A to E coupling is required to couple the aluminum rods to the steel rods if the requirement on the job is A size.

12 — Lower the assembly to the desired point where readings are to be taken and tap the drill rods lightly with a wrench so that the vibrations will liven the compass needle and assist it to find its true magnetic position of repose.

13 — Allow the instrument to remain at rest until approximately ten minutes past the time for which it was set to lock. This is merely a precaution against moving the instrument before it has locked. The locking action is by means of a wedge effect which raises the compass dial so that it is pressed upwards against a brass ring and simultaneously the protractor locking pin is ejected by a gradual movement until it locks in the V groove opposite its plumb position. This locking action takes approximately ten minutes from the time the wedge first marks contact until final locking is completed. It is advisable to have the instrument placed at the desired point in the drill hole at least ten minutes before locking time and allow it to remain at rest till five minutes past locking time. For example, if the timing ring is set for thirty minutes, then the instrument should be in place within twenty minutes and allowed to remain at rest until thirty-five minutes have elapsed. This should be the minimum leeway on either side of locking time. Maximum elapsed time for which the instrument may be set is one hour thirty minutes.

14 — When five minutes past locking time have elapsed, remove the assembly from the drill hole. On removing the instrument from the container again check to make sure the arrow on the frame is pointing towards the bottom of the hole. If it has been placed incorrectly the reading can still be made but the observed azimuth reading must be corrected 180 degrees.

15 — Read inclination and azimuth angles with the aid of the magnifying glass provided. The inclination angle is observed at the V notch in which the protractor locking pin is seated. There is a V notch at each degree division of the protractor. To read the azimuth, hold the instrument with the arrow on the frame pointing away from you. There is a line on he brass ring under which the compass dial is locked and the coinciding reading on the compass dial is the magnetic bearing of the drill hole. Corresponding astronomical bearing may be noted depending on the magnetic deviation of the locality. It will be noted readings for inclination and direction may be obtained for holes at any angle throughout 360 degrees, consequently horizontal or upper holes as well as down angle vertical holes may be tested with equal accuracy.

16 — The instrument remains in its locked position until the timing ring is again rotated anti-clockwise. Re-set timing ring and proceed to take the next test.

17 — In very deep holes lowering and raising of the instrument may be accomplished in shorter time by using a wire line and drum suitably calibrated to indicate depth. Equipment of this nature is used in oil when surveying and is obtainable from various manufacturers of oil well accessories. Such an arrangement can only be used in vertical or steep angle holes and the container must have ample clearance within the drill hole. If there is evidence of caving or lose materials in the hole this method should not be used as there is a danger of getting the equipment stuck in the hole.

18 — The instrument should not be left in close proximity to any permanent magnet in its locked position as this may destroy the magnetism of the compass. Experience has shown that the magnetism in the compass of the instrument may be almost totally destroyed by the influence of highly magnetized drill rods when stacked at the drill collar where they take the form of a powerful laminated magnet. As a precaution against this, remove the instrument away from the drill hole collar immediately the container is removed from the drill hole. In its free position harm to the needle is not imminent since it can adjust itself to the magnetic field.

APPENDIX III

RECOVERY CALCULATION

Recovery calculation was made based on weight of core using the following assumptions:

1) Volume at NQ core is 5346 cm^3 for a 3-0 m. section.

2) Density of Kitsault rocktypes based on previous work is:
   a. hornfels -2.72
   b. diorite -2.64
   c. aplite -2.56
   d. intermineral porphyry -2.59

3) Assuming exactly one half of core is split for assay, given 100% recovery samples of the above rocktypes should weight:
   a. hornfels -7270 g.
   b. diorite -7056 g.
   c. aplite -6842 g.
   d. intermineral porphyry -6923 g.

Recovery for a given 3.0 m. section of core

$$= \text{wt. of core (gm)} \div \text{approximate wt above (gm)} \times 100$$

RQD CALCULATION

RQD is a quick measure of the fracture density of a given section of core. The percentage of core greater than 10 cm. for a given section is the RQD index.

APPENDIX IV

DETAIL DRILL LOGS

TABLE 6

KITSAULT ROCK CODES

1=H
2=D
3=GD
4=A
5=IP
6=NEP
7=L
8=OB
9=FLT
10=GD-IP
11=GD-L
12=H-GD
13=H-L
14=A-H
15=H-IP
16=L-D-H
17=H-D
18=D-IP
19=D-A-IP
20=D-L-IP
21=D-A
22=L-D
=H-IP-L
24=L-H-GD
25=D-FLT
26=D-GD
27=A-GD
28=L-NEP
29=H-NEP
30=H-QV
31=A-H-GD
32=D-H-IP
33=D-L-H-IP
34=L-D-H-A
35=GD-L-IP
36=H-L-A
37=L-IP
38=A-D-GD
39=ED
40=A-ED
41=ED-GD
42=L-ED
43=L-D-ED
44=L-A-ED
45=D-ED
46=D-ED-GD
47=L-A-IP
48=A-L-D-IP-FLT
49=IP-FLT
50=D-IP-GD
51=GD-QV
52=QV-NEP
53=NEP-GD
54=A-L-GD
55=A-GD-IP
56=GD-IP-NEP
57=D-L-GD
58=D-A-L
59=GD-H-IP
60=A-H-IP
61=D-QV
62=D-A-QV
63=A-IP
64=GD-FLT
65=L-GD-FLT
66=D-L-FLT
67=A-L
68=D-L-QV
69=BX-IP
70=BX-IP-D
71=QM
72=GD-QM
73=D-A-H
74=BX-H
75=H-FLT
76=A-H-FLT
77=L-A-FLT
78=A-FLT
79=VEIN
80=QV
81=A-QV
82=H-A-GD-L
83=PY
84=PY-H
85=H-QV-GD
86=L-GD-QV
87=H-QV-A-GD
88=S-D
89=H-S-D

H	=	hornfels	ED, D	=	diorite
A	=	aplite	QV	=	quartz vein
IP, NEP	=	intermineral porphyry	FLT	=	fault
GD	=	granodiorite	OB	=	overburden
QM	=	quartz monzonite	BX	=	breccia
L	=	lamprophyre	PY	=	pyrite

AMAX OF CANADA LIMITED

DIAMOND DRILL LOGS

Hole No: 81-1
Claim No: M-160
Easting: 13,288.87 E
Northing: 11,217.97 N
Elevation: 605.05
Azimuth: 360°
Dip: -45°
Length: 785' (239.3m)
Core Size: N.Q.
Collared: October 3, 1981
Completed: October 8, 1981
Drilling Co.: Maitland Exploration Ltd., Vernon, B.C.
Drillers: V. Quesnel, K. Caldwell

Logged By: G.Smith/B. Fraser
Date Logged: Oct 4 - Oct 14/81
Remarks: Minor MoS_2 below 84m depth, assays by Kitsault Lab.
Pajari azimuth at 110.36m probably influenced by lamprophyre dike at 108-110.20m. Azimuth arbitrarily set at mean of readings above and below ie: 359°20' rather than original reading of 1°00'

Hole survey data method: PAJARI

DEPTH	AZIMUTH	DIP
7.62 m	356°30m	-45°
49.39m	358° 0'	-45°
110.36m	357°50'	-46°
171.34m	357°40'	-46°
201.83m	356°50'	-46°
232.31m	356°30'	-45°

Bryan Fraser

HOLE Nº 81-1 PAGE 1A

DATE October 4-14/81 LOGGED BY G. Smith/B. Fras

DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROCK TYPE
	ROCK COMP	CORE Wt	REC	RQD	FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
0-3																			
3-6		2376	34%	-								.187		.040			.004	1.80	2
6-9		3123	44%	-								.225		.005			.003	1.87	2
9-12		6991	99%	-								.257		.008			.004	1.59	2
12-15		6083	86%	-								.394		.009			.003	1.74	2
15-18		10108	72	-								.324		.011			.002	.92	2
18-21		10108	72	-								.324		.011			.002	.92	2
21-24		6341	91%	-								.157		.007			.004	1.96	5
24-27		6197	89%	-								.201		.003			.003	1.67	5
27-30		5637	81%	-								.252		NIL			.003	1.87	5
30-33		6317	91%	-								.067		.008			.004	2.12	5
33-36		6294	90%	-								.317		.010			.003	1.60	63
36-39		5856	84%	-								.385		.011			.002	1.50	5
39-42		5668	81%	-								.148		.012			.003	1.75	5
42-45		7172	103	-								.230		.278			.034	1.78	5
45-48		7127	102	-								.244		.011			.003	1.12	63
48-51		5788	84%	78								.205		.007			.003	1.07	63
51-54		6085	88%	73								.190		.011			.002	1.15	4
54-57		6446	92%	76								.235		.012			.004	1.94	5
57-60		6655	95%	71								.260		.076			.011	1.53	19
60-63		6114	88%	74								.294		.080			.009	1.70	2
63-66		6093	87%	40								.377		.025			.002	1.23	73
66-69		5146	76%	76								.442		.017			.002	1.24	14
69-72		6830	102	56								.424		.007			.002	.73	4
72-75		6781	98%	44								.177		.013			.003	1.03	63
75-78		5323	77%	64								.172		.027			.006	1.47	5
78-81		6410	92%	56								.119		.011			.004	1.65	5
81-84		5243	76%	16								.137		.015			.005	2.32	15
84-87		5837	84%	59								.042		.010			.009	4.01	32
87-90		6085	86%	28								.080		2.35			.005	3.34	30
90-93		4626	67%	23								.081		.095			.003	4.25	37
93-96		6005	87%	31								.092		.015			.006	2.26	5
96-99		6661	96%	18								.037		.013			.006	2.48	5
99-102		6210	90%	29								.034		.008			.006	2.06	5
102-105		6635	96%	31								.067		.108			.006	2.03	5
105-108		5815	84%	33								.228		.012			.005	3.94	37

Bryan Fraser

HOLE Nº 81-1 PAGE 2A

DATE October 4-14/81 LOGGED BY G. Smith/B. Fras

DEPTH (M)	PHYSICAL PROPERTIES: ROCK CORE COMP. Wt	REC	RQD	ALTERATION: FeS_2	SIL	SER	[illegible]	[illegible]	FELD	VEIN QTZ%	MINERALIZATION: MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	ROCK TYPE
108-111	6544	94%	54								.097	.017				.005	3.94	13
111-114	3257	46%	3%								.088	.067				.007	3.72	1
114-117	4390	62%	29								.120	.059				.004	2.32	15
117-120	6436	93%	40%								.133	.073				.006	3.16	15
120-123	6532	90%	30%								.073	.290				.007	2.97	1
123-126	6103	84%	7%								.116	.023				.006	2.76	1
126-129	6600	90%	17%								.095	.007				.008	3.90	1
129-132	5853	82%	12%								.210	.012				.007	3.70	1
132-135	5851	80%	20%								.04	.012				.004	2.53	1
135-138	6946	96%	24								.105	.014				.006	3.46	1
138-141	5398	74%	21								.070	.021				.006	3.28	1
141-144	5862	80%	46								.064	.003				.006	2.91	1
144-147	8343	114	61								.065	.012				.009	4.94	13
147-150	7614	104	63								.010	.005				.007	5.96	7
150-153	6394	88%	64								.041	.013				.005	2.76	1
153-156	6624	92%	37								.093	.005				.003	2.35	1
156-159	7143	98%	78								.072	.021				.005	2.46	1
159-162	5817	80%	26								.033	.116				.017	6.02	13
162-165	5078	69%	23								.036	.002				.003	5.88	13
165-168	5911	81%	60								.068	.002				.004	2.78	1
168-171	6525	90%	93								.204	.007				.005	3.15	15
171-174	6984	95%	52								.048	.001				.006	3.69	1
174-177	6957	95%	70								.046	.001				.008	3.62	1
177-180	6868	94%	63								.050	.001				.010	3.52	1
180-183	6258	86%	34								.075	.005				.008	3.91	1
183-186	7102	98%	96								.067	.007				.004	2.38	1
186-189	7463	101	63								.069	.007				.006	2.71	15
189-192	7047	97%	80								.160	.005				.005	2.53	15
192-195	6324	86%	80								.041	.003				.003	2.14	15
195-198	5729	88%	48								.077	.045				.006	1.75	1
198-201	5587	76%	80								.066	.001				.003	1.86	1
201-204	6773	93%	50								.102	.002				.005	3.56	1
204-207	7248	100	95								.030	.002				.007	3.38	1
207-210	7363	101	86								.100	.005				.009	2.78	1
210-213	6595	90%	87								.044	.003				.004	1.88	1
213-216	6365	87%	50								.066	.015				.005	3.06	1

Bryan Fraser

HOLE Nº 81-1 PAGE 3 A

DATE October 4-14/81 LOGGED BY G.Smith/B.Fraser

DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROCK
	ROCK COMP	CORE WT	REC	RQD	FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MoS_2	WO_3	Pt	Ag	Acces	Cu	Fe	TYPE
216-219		7589	104	60								.085		.001			.005	2.71	1
219-222		6616	91%	77								.056		NIL			.056	3.66	1
222-225		6311	87%	80								.031		NIL			.008	4.12	1
225-228		7451	102	73								.029		.001			.006	5.84	13
228-231		6698	92%	60								.049		.007			.010	4.00	1
231-234		6417	88%	53								.021		.004			.006	3.08	1
234-237		5528	76%	86								.060		.067			.004	4.16	13
237-239.3		6550	100	82								.029		NIL			.006	3.35	1

END OF HOLE AT 239.3 M

Bryan Fraser

HOLE NO. 81-1 PAGE 18

DATE Oct. 4-14/81 LOGGED BY G.D. Smith
B. Fraser

DEPTH	ROCK DESCRIPTION
0-3.66m	Broken ground, casing.
3.66-6	Quartz diorite, 10-15% qtz, 70% plag, 5% kspar, 20% biotite, argillic
	alteration is mostly pockets of chalky white plag.
6-9	As above, 2cm aplite dikes with dissem. MoS_2
9-12	As above, increase in py surrounding bio phenos.
12-15	As above, chalky plagioclase.
15-18	15-16.4 As above; 16.4-18.0 Unbleached biotite decreases to 3-5%.
18-21	As above, abt. kspar selvages and zones; 20.7-21.0 fault, gouge bkn @ rt.
	angles to CA
21-24	21-22 Crowded ppy.,40% 1-3mm fspar phenos in lt gy groundmass;
	22-22.6 Biotite rich zone in ppy, biotite 25%; 22.6-24 Contact @ 30°
	to CA, med gy hnbd bio fspar ppy, frags of gd, hf, ap (104 cm) make up 5%
	of rock.
24-27	Med gy hnbd-bio fspar ppy, 10%-15% pptic fspar chalky argillic alteration
	mafics 3%, frags of ap, gd, hf.
27-30	27-28.4 as above; 28.4-30 alteration mainly silicic.
30-33	As above, pptic fspar 5%, mafics 2%, frags 1-15cm 10%;
33-36	33-35.5 silicic ppy as above; 35.5-36 pink aplite, upper contact @ 35° to CA
	strong MoS_2, aplite envelopes 4-6cm. hf frags.
36-39	36-36.3 As above, lower contact @ 65° to CA; 36.3-39 med gnish gy ppy, abt.
	frags of ap, hf; ppy weakly mineralized, aplite strongly mineralized,
	frags make up 10% of zone.
39-42	As above.
42-45	As above.
45-48	45-45.3 as above; 45.3-46.3 ppy bleached pale gn, fspar phenos palegn.,
	hf frags bleached pale gn; 46.3-48 pink aplite, strong ser. on fractures,
	small sections of str. argillic gd with gn. clay alteration of plag
	and lt gy bleached biotite.
48-51	48.0-48.3 aplite as above, lower contact @ 60°; 48.3-49.1 pale gn,
	ppy, lower contact @ 40°; 49.1-51 aplite, excellent moly stockwork.
51-54	51-51.4 aplite as above; 51.4-51.6 ppy dike @ 55°; 51.6-53.7 aplite as above
	53.7-54.0 med. gy gn ppy, upper contact @ 60°, 10% 1-2mm fspar phenos, 2%
	1-2mm bio phenos, abt frags of ap, hf.
54-57	ppy as above
57-60	57-58.6 ppy as above; 58.6-59.5 dioritic frags in aplitic matrix; 59.5-60
	biotite quartz diorite, strongly argillic, str. sericite on fractures.

Bryan Fraser

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DATE Oct. 4-14/81 LOGGED BY G.D. Smith
B. Fraser

DEPTH	ROCK DESCRIPTION
60-63	Biotite qtz diorite as above.
63-66	63-64.8 qtz flooded qtz diorite, qtz bands to 20cm, with patchy k-spar str MoS_2; 64.8-65.5 aplite; 65.5-66.0 qtz flooded pale gn hornfels, 2ry biotite as reddish bn patches to 2cn.
66-69	66.0-67.1 hf as above; 67.1-69.0 cream to pink aplite minor bleached hf frags.
69-72	aplite as above.
72-75	72-73.9 creamy aplite, str sericite on fractures; 73.9-75.0 pale gy bleached ppy, upper contact @ 20°, 15% fspar phenos, 2% biotite, abt aplite zones 5o 2cm.
75-78	75-77.2 bleached ppy; 77.2 - 78.0 med gy ppy mafics 3%
78-81	78-80.2 as above; 80.2-81 str argillic str sericitic ppy, bkn 80.2-80.7
81-84	81-83.3 ppy as above, bkn 81.1 - 81.7, 81.9-84.0p 83.3-84 pale gy bleached h
84-87	84-84.4 aplite; 84.4-85.1 bleached hornfels; 85.1-85.6 pale gn bleached ppy, biotite completed altered; 85.6-87 biotite qtz diorite, 40% mafics mainly biotite minor hnbd., 5% epidote, numerous biotite clots.
87-90	87-87.7 lt. gy hornfels; 87.7-88.2 polymetallic g.v. at 25° to CA, very strong py-sphal-gal; 88.2-88.9 lt. gy to lt. gn hornfels; 88.9-89.3 pale gn. argillic ppy, abt. sericite on fractures; 89.3-90 hornfels as above
90-93	90-90.4 hornfels; 90.4-91.0 ppy; 91.0=91.8 lamprophyre upper and lower contacts @ 30°; 91.8-92.7 ppy; 92.7-92.9 lamprophyre; 92.9-93 ppy
93-96	lt. gy ppy, chalky argillic fspar 10%, partially bleached biotite 2%, sericite common on fractures.
96-99	As above.
99-102	as above.
102-105	As above increasingly bleached.
105-108	105-106.6 ppy as above, 106.6-107.7 lamprophyre, lt, gy near contact dk. black near conter; 107.7-108 ppy.
108-111	108-108.1 ppy; 108.1-110.1 lamprophyre; 110.1-111 hornfels.
111-114	Hornfels, dissem. py
114-117	114-114.72 hornfels; 114.72-115.12 ppy; 115.23-116.16 hornfels; 116.16-116.52 ppy; 116.52-117 hornfels.
117-120	117-117.36 hornfels; 117.36-117.6 ppy; 117.6-120 hornfels
120-123	Lt. gy to drk. gy hornfels
123-126	As above
126-129	As above, very friable
129-132	As Above.

Bryan Fraser

HOLE NO. 81-1 PAGE 38

DATE Oct. 4-14/81 LOGGED BY G.D. Smith
B. Fraser

DEPTH	ROCK DESCRIPTION
132-135	Hornfels, dk. gn to gy, brown biotite vein envelopes.
135-138	As above.
138-141	As above.
141-144	As above, rock competency increasing.
144-147	144-146.3 as above; 146.3-147. lamprophyre, scarce 1-2mm plag phenos.
147-150	147-149.86 lamprophyre; 149.86-150 hornfels
150-153	150-153.84 hornfels; 153.84-154.04 lamprophyre as above; 154.04-156 hornfels
156-159	Hornfels, colour variable from green, grey, buff, brown.
159-162	159-161 Hornfels as above; 161-162 lamprophyre
162-165	162-164.2 lamprophyre, plag less than 1mm; 164.2-165 hornfels.
165-168	Hornfels, dissem. py
168-171	Hornfels minor ppy dikes
171-174	Hornfels, dissem, py
174-177	As above.
177-180	Hornfels, biotite envelopes on g.v.'s
180-183	Hornfels
183-186	Hornfels, minor lt. gy siliceous hornfels.
186-189	186.187.44 dark hornfels with aligned pyrite; 187.44-189 ppy with frags
	of hf, veining decreases in dike implying emplacement after several
	stages of veining.
189-192	189-190.04 ppy; 190.04-192 hornfels.
192-195	192-193.44 hornfels, mettled with black spots; 193.44-194.2 ppy with hf
	frags, dark green felty looking mineral as alteration product of mafics.
195-198	Hornfels
198-201	Hornfels, dissem.py
201-204	Hornfels, py crystals to 2mm
204-207	Hornfels, very minor ppy, grey to green to black.
207-210	Hornfels, black
210-213	Hornfels
213-216	Hornfels, diss. py
216-219	Hornfels
219-222	Hornfels, dark green to black
222-225	Hornfels.
225-228	225-226.08 Hornfels; 226.08-226.92 lamprophyre; 226.92-228 Hornfels
228-231	Hornfels, lt. grey
231-234	Hornfels, diss. py
234-237	234-234.68 Hornfels; 234.68-235.72 lamprophyre; 235.72-237 hornfels

Bryan Fraser

HOLE NO. 81-1 PAGE 4B

DATE Oct. 4-14/81 LOGGED BY G.D. Smith, B. Fraser

DEPTH	ROCK DESCRIPTION
237-239.3	237-239.1 Hornfels ; 239.1-239.3 lamprophyre
	END OF HOLE 81-1 AT 239.3m

Bryan Fraser

AMAX OF CANADA LIMITED

DIAMOND DRILL LOGS

Hole No: 81-2
Claim No: M-160
Easting: 13,290.79E
Northing: 11,217.97N
Elevation: 605.07
Azimuth: East (90°)
Dip: -50
Length: (595') 181.40m
Core Size: N.Q.
Collared: October 8, 1981
Completed: October 11, 1981
Drilling Co.: Maitland Exploration Ltd, Vernon, B.C.
Drillers: V. Quesnel, K. Caldwell

Logged By: G.Smith/B. Fraser
Date Logged: Oct 15-23/81
Remarks: Assays by Kitsault Lab.

Hole survey data method: PAJARI

DEPTH	AZIMUTH	DIP
7.62m	88° om	50°
27.44m	84° 0m	50°
57.93m	85° 0m	51°
88.41m	85°40m	51°
149.39m	82°40m	51°
179.88m	83°40m	51°

Bryan Fraser

HOLE Nº 81-2

PAGE 1A

DATE Oct 15-23/81

LOGGED BY G.Smith/B.Fraser

DEPTH (M)	[illegible] PROPERTIES			ALTERATION							MINERALIZATION							ROCK TYPE
	ROCK CORE COMP WT	REC	RQD	FeS_2	SIL	SER	[illegible]	[illegible]	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	[illegible]	Acces	Cu	Fe	
3-6	4804	68%	23								.179		.001			.003	1.34	21
6-9	6779	96%	70								.295		.007			.003	1.00	63
9-12	5246	75%	77								.135		.007			.001	0.84	4
12-15	5140	74%	50								.093		.103			.004	2.67	48
15-18	5992	84%	95								.107		.010			.002	0.97	19
18-21	5800	82%	83								.073		.002			.004	1.51	5
21-24	6874	98%	84								.138		.004			.003	1.38	5
24-27	6255	90%	77								.263		.011			.003	1.50	5
27-30	4476	64%	47								.115		.001			.003	1.74	5
30-33	6007	86%	57								.200		.004			.003	1.50	18
33-36	6914	99%	77								.161		.034			.002	1.50	18
36-39	6342	91%	74								.161		.004			.003	1.64	5
39-42	5378	77%	69								.074		.008			.003	1.61	5
42-45	7251	104	86								.064		.006			.002	1.79	5
45-48	6173	89%	67								.121		.003			.003	1.58	5
48-51	5833	84%	56								.103		.004			.002	1.51	55
51-54	5307	76%	32								.113		.005			.004	1.53	55
54-57	6464	92%	62								.067		.088			.012	1.37	55
57-60	5246	75%	28								.043		.078			.010	1.49	10
60-63	5472	78%	13								.032		.020			.002	1.37	10
63-66	5918	85%	14								.040		.003			.003	1.45	3
66-69	4645	68%	4								.073		.031			.002	1.44	3
69-72	5083	73%	32								.036		.021			.003	1.24	3
72-75	5791	83%	6								.040		.018			.003	1.01	3
75-78	6238	89%	73								.049		.015			.004	.91	3
78-81	5297	75%	24								.049		.009			.005	1.14	5
81-84	6931	99%	65								.050		.019			.008	1.22	5
84-87	6433	93%	40								.028		.000			.009	1.68	5
87-90	6423	92%	52								.039		.006			.013	1.48	5
90-93	5743	83%	63								.033		.000			.015	1.39	5
93-96	5996	85%	67								.030		.026			.007	1.49	5
96-99	6492	93%	83								.038		.000			.002	1.29	55
99-102	5571	80%	48								.020		.000			.001	1.46	5
102-105	6332	91%	8								.057		.000			.001	1.77	5
105-108	5601	81%	7								.042		.002			.001	1.55	5
108-111	5579	80%	18								.072		.011			.002	1.53	5

Bryan Fraser

HOLE No 81-2 PAGE 2A

DATE Oct 15-23/81 LOGGED BY G.Smith/B.Frase

Interval (m)	Physical Properties: Core Wt	Rec	ROD	Alteration: FeS_2	Sil	Ser	Vein Qtz%	Mineralization: MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	Rock Type
111-114	5187	74%	8					.035	.005				.002	1.77	5
114-117	5465	78%	9					.140	.008				.001	1.80	10
117-120	5746	82%	49					.174	.004				.001	.94	27
120-123	4702	68%	0					.040	.002				.001	1.28	10
123-126	5778	82%	6					.012	.003				.002	2.35	35
126-129	5742	82%	16					.040	.003				.003	2.67	35
129-132	4539	65%	9					.103	.005				.002	1.82	5
132-135	6006	86%	16					.072	.003				.001	1.36	63
135-138	4216	61%	4					.157	.003				.001	1.38	5
138-141	7733	108	27					.006	.002				.001	1.25	5
141-144	6149	87%	62					.075	.001				.002	.81	10
144-147	5970	85%	49					.030	.018				.001	1.05	3
147-150	4925	70%	61					.038	.001				.001	1.24	3
150-153	6411	92%	22					.037	.001				.001	1.15	11
153-156	6717	96%	59					.005	.004				.002	1.62	11
156-159	6531	94%	66					.078	.003				.001	1.23	3
159-162	6889	98%	54					.010	.004				.001	.98	10
162-165	6263	89%	37					.015	.019				.002	1.04	5
165-168	6551	94%	63					.053	.032				.002	1.13	5
168-171	6789	98%	88					.032	.009				.001	1.01	63
171-174	7221	104	80					.023	.001				.001	.96	5
174-177	5490	89%	7					.005	.003				.001	.92	5
177-180	5677	82%	9					.005	.001				.001	1.00	5
180-181.4	2641	82%	0					.002	.001				.001	1.04	5

END OF DIAMOND DRILL HOLE 81-2 AT 181.4M

Bryan Fraser

HOLE NO. 81-2 PAGE 1B

DATE Oct.15-23/81 LOGGED BY B. Fraser
G. Smith

DEPTH	ROCK DESCRIPTION
0-3	Casing
3-6	3.0-5.2 very broken, mixed aplite and qtz. diorite frags; 5.2-6.0 qtz
	diorite cut by 40mm ppy dike @ 50° to CA with 1-2mm plag phenos.
6-9	Mixed zone, 70% aplite, 20% qtz diorite, 10% ppy aplite cut by numerous
	barren g.v.'s # 30-45° to C.A. dissem. py, mo.
9-12	As above, ppy dikes contain 40% chalky plag to 3mm.
12-15	12-13.6 as above, with occasional hornfels frags to 13cm; 13.6-14.4
	lamprophyre with hairline calcite veins; 14.4-15.0 mixed ppy. qtz. dio. apl
15-18	15-16.08 as above; 16.08-16.72 aplite; 16.72-18.0 mixed quartz diorite,
	ppy, patches of intense argillic alteration, chalky plagioclase.
18-21	18-19.64 intermineral ppy, 25% 1-3mm plag phenos, alteration varies
	from 5-9 depending on how badly the plagioclase xstals have been altered;
	19.64-21.0 aplite.
21-24	21-21.24 aplite, veins within aplite cutoff by ppy.; 21.24-24 int. ppy.
	some sulfide has been washed out of vuggy qtz. veins.
24-27	Int. ppy., frags of aplite and quartz diorite, clots of 2ry biotite.
27-30	Int. ppy., aplite frags, lighter patches of int. ppy where mafics are alt.
30-33	Mixed zone, 74% int. ppy, 18% qtz. diorite, 8% aplite.
33-36	Mixed zone, 80% int. ppy, 20% qtz diorite.
36-39	36-36.8 int. p0y, intense argillic, plag altered to pale green and
	creamy clay, biotite bleached; 36.8-39.0 mod argillic int. ppy, med. grey.
39-42	39-39.9 as above 39.9-41.1 highly broken, str. argillic, sericitic int.
	ppy, bleached lt. grey; 41.1-42 med. grey int. ppy, increasing size of
	g.v.'s to 2cm, abt. frags of granodiorite to 4cm., aplite clots to 2cm.
42-45	42-44.2 as above; 44.2-45 med. gy gn int. ppy, peruasive silica, upper
	contact @ 60° to C.A.
45-48	45-45.16 as above; 45.16-47.5 upper contact is 13mm ribboned qtz-mo-py
	vein @ 30° to C.A., bleached lt. gy int. ppy., highly broken with sericitic
	mo gg at 45.9-46.4; 47.5-48.0 med gy. int. ppy
48-51	mixed zone, 80% int. ppy, 20% granodiorite and aplite frags, ppy is
	med gy with 10% pptic fspar, bkn 49.2-49.3
51-54	Mixed zone, as above.
54-57	54-55.1 as above; 55.1-57.0 bleached int. ppy.
57-60	57-57.1 as above; 57.1-57.88 mixed zone, 70% int. ppy, 30% frags of
	granodiorite and aplite; 57.88-60.0 mixed zone, 80% granodiorite, 20%int.pp
60-63	60-61.4 as above; 61.4-63 potassic granodiorite, biotite locally to 30%
	as granulated phenos, miorolitic with aplite zones to 10cm, poor stkwk with

Byron Fraser

HOLE NO. 81-2

PAGE 2B

DATE Oct. 15-23/81

LOGGED BY B. Fraser, G. Smith

DEPTH	ROCK DESCRIPTION
63-66	As Above, bkn 63.0-65.1, bkn 65.5-65.9
66-69	As above, bkn 66.2-69.0, uniform fractures at 5-10cm intervals at 40°to CA
69-72	69-69.8 as above; 69.8-72.0 75% strong potassic granodiorite, 5% int. ppy.
72-75	As above
75-78	as above, weak stockwork occasional widespaced (80cm) strong 1-2mm qt-mo
	veinlets.
78-81	78-78.4 as above; 78.4-81.0 med gn int. ppy, pervasive pale gn. clay
	alteration of plag, dissem, chlorite, 3% weakly altered black biotite.
81-84	Med. gn. int. ppy as above, bkn 82.5-82.7
84-87	84-84.35 as above, 84.35-85.0 50% frags in bleached Lt gn. int. ppy
	85.0-87.0 bleached lt. gn int. ppy, giotite completely altered to pale
	gy. mica, bkn 85.0-86.7, numerous 0-10° shears and gouge from 85.8-86.3
87-90	8787.2 as above; 87.2-90 med gn. chloritic int. ppy, bkn 89.6-90.7
90-93	90-92.1 as above; 92.1-93 bleached lt. gy int. ppy, original meter blocks
	off by 10' as they indicated a 20' run from 293.5' to 314' ie: 89.48-95.71m
	Core did not show any lsos so subsequent footages were adjusted, 2cm
	fault at 30° to C.A. at 92.44m.
93-96	93-95.2 bleached lt. gy. ppy; 95.2-96.0 alternatiely bleached and med. gn
	int. ppy.
96-99	96-97.65 as above, 2 cm fault at 30° to C.A. at 97.35 infilled with rusty
	qtz, carb gouge; 97.65-99 str potassic zone, 50% aplite, 35% int. ppy,
	15% granodiorite frags.
99-102	99.0-99.4 as above; 99.4-101.2 bleached int. ppy, 4 cm. fault, gouge
	@ 50° to C.A. at 101.0m; 101.2-102 med gn int. ppy.
102-105	As above.
105-108	As above
108-111	As above, moly occurs in generally less than 2mm qt-mo-py veins with k-spar
	selvages less than 1mm
111-114	As above, 4mm fault infilled with qtz,carb at 60° to C.A. at 111.08m
114-117	114-115.85 as above, bkn throughout; 115.85-117 mixed zone, 80% strongly
	potassic granodiorite with biotite to 35%, 20% med. gn. ppy.
117-120	117.-117.2 mixed zone as above; 117.2-119.75 aplite, upper contact is 2
	to 7cm fault zone bounded by upper and lower shears at 50° and 30° to C.A.
	veinlets sub-parallel to C.A. continuous to 1.5cm calcite infilled fault
	@ 50° to C.A. @ 118m., biotite rich zones and biotite granodiorite
	frags make up 20% of section; 119.75-120.0 potassic granodiorite.

Bryan Fraser

HOLE NO. 81-2 PAGE 3B

DATE Oct. 15-23/81 LOGGED BY B. Fraser
G. Smith

DEPTH	ROCK DESCRIPTION
120-123	120-121.9 potassic granodiorite, bkn. throughout, moly as hairline fractures with pyrite; 121.90-122.60 med gy int. ppy; 122.60-123 potassic granodiorite
123-126	123-123.73 greenish black biotite lamprophyre, abt. less than .5mm amygdules infilled with dk, gn zeolite; 123.73-126.0 mixed zone, 50% potassic granodiorite, 50% chloritic int. ppy.
126-129	126-128.47 Mixed zone as above; 128.47-129.00 biotite lamprophyre, upper contact @ 40° to C.A. with sub-parallel g.v., abt. amydules less than 0.5mm infilled with dk gn and white alternation minerals,.
129-132	129-129.23 biotite lamprophyre as above, lower contact @ 30° to C.A.; 129.23-132.0 med. gy mottled int. ppy, 10% granodiorite and aplite frags, dissem. chlorite, pink potassic clots 304mm, 3% pptic biotite as 2-3mm phenos, minor epidote, py on fractures.
132-135	132-132.45 ppy as above; 132.45-132.98 aplite frag; 132.98-135.0 med gy int ppy, bkn throughout
135-138	135-136 med gy int. ppy, strongly broken 135.5-136.0; 136.0-138.0 generally pale gn str. argillic int. ppy, 60% of zone is very friable, broken zone at 136.55-138.0 consists of disintegrated rock rather than gouge with str mo in two 3mm veins sub-parallel to C.A.
138-141	138-140.4 pale gn. argillic ppy as above; 140.4-140.9 pink argillic granodiorite, very bkn from 140.7-140.9 with associated rusty qtz veins; 140.9 - 141.0 med gy int. ppy.
141-144	141.0-141.98 med. gy. int. ppy, str. argillic; 141.98-144 creamy med. gnd. granodiorite, chalky feldspar, biotite bleached pale gy to white, excellent vein stockwork.
144-147	creamy argillic granodiorite as above.
147-150	147-149.56 as above; 149.56-150 chlorite potassic granodiorite, str. chloritic alteration of biotite, patchy reddish brown alteration mineral associated with chlorite.
150-153	150-151.2 as above; 151.2-151.71 creamy argillic granodiorite; 151.71-151.86 pale gy friable aphanitic lamprophyre bounded by 30° frac and fault zone; 151.86-152.20 fault zone at 30° to C.A. with bkn. qtz, clay gouge; 152.20-153 creamy argillic granodiorite biotite completely altered to pale gy or white mica.
153-156	153-153.4 as above; 153.4-154.05 dk gy lamprophyre, lt gy near margins, abt. 1-2mm amydules, upper contact at 350, lower contact at 40°; 154.05-156.0 pink argillic granodiorite, mod to strong potassic alteration, 5% unaltered biotite.

HOLE NO. 81-2 PAGE 4B

DATE Oct. 15-23/81 LOGGED BY B. Fraser G. Smith

DEPTH	ROCK DESCRIPTION
156-159	156-156.35 as above; 156.35-157.45 pinkish tan granodiorite, str. sericitic, str. potassic, abt. faults sub-parallel to C.A., mod. chlorite and soft reddish brown alteration mineral; 157.45-159 potassic granodiorite, str. sericite, str. py.
159-162	159-160.10 as above; 160.10-161.0 str potassic mod argillic granodiorite, abt pale gn alteration of plag, mod. chlorite; 161.0-162 lt gy int. py
162-165	162-165 med to lt. gy int. ppy, abt qtz-carb veins, pale gn clay, alteration of plag, as well as dk gn soft alteration mineral (possible zeolitcs), lt. gy phyllic zones to 25 cm. generally @ 30° to C.A. less altered rock is 90% mod chl. int. ppy
165-168	As above
168-171	168-169.36 as above; 169.36- 169.60 aplite, salmon pink potassic zone, abt dissem muscovite to 1mm; 169.60-171.0 int ppy, banded by phyllic zones.
171-174	171-171.5 as above; 171.5-173.85 pale gn str sericitic str argillic int. ppy, biotite completely altered to pale gy to white mica, core continous but rock is very frizble; 173.85-174 mottled med. gy biotite rich ppy, 15-20% biotite with mod chlorite alteration, bkn throughout
174-177	As above
177-180	177-178.55 as above; 178.55-180 med gy biotite feldspar ppy, pptic biotite 3%, bkn throughout
180-181.40	As above
	END OF HOLE 81-2 AT 181.40m

Bryan Fraser

AMAX OF CANADA LIMITED

DIAMOND DRILL LOGS

Hole No: 81-3
Claim No: M-160
Easting: 13288.43 E
Northing: 11215.77 N
Elevation: 604.94m
Azimuth: 180° (south)
Dip: -70°
Length: 306.6
Core Size: NQ
Collared: Oct. 11, 1981
Completed: Oct. 17, 1981
Drilling Co.: Maitland Exploration Ltd, Vernon, B.C.
Drillers: V. Quesnel, K. Caldwell

Logged By: B. Fraser
Date Logged: Oct.24 - Nov.24, 1981
Remarks: Assays by Kitsault Lab

Hole survey data method

DEPTH	AZIMUTH	DIP
7.62m	180°30m	-70°
29.57m	179°40m	-70°
60.06m	179° 0m	-70°
121.04m	180°30m	-70°
182.01m	181°40m	-71°
212.50m	182° 0m	-71°
242.99m	185° 0m	-70°
273.48m	184°40m	-71°
303.96m	195° 0m	-70°

Bryan Fraser

HOLE No 81-3 PAGE 1A

DATE Oct 23 - Nov 23/81 LOGGED BY B. Fraser

DEPTH (M)	PHYSICAL PROPERTIES			ALTERATION							MINERALIZATION							ROCK TYPE
	ROCK CORE WT	REC	RQD	FeS_2	SIL	SER	[illegible]	[illegible]	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
3-6.1	6076	89	41								.307		.002			.002	0.69	21
6.1-9	7087	104	54								.368		.002			.001	0.45	21
9-12	6407	92	28								.318		.030			.002	0.68	21
12-15	6071	87	74								.195		.004			.002	0.96	21
15-18	6604	96	47								.184		.001			.001	0.48	21
18-21	5515	81	45								.182		.000			.003	1.75	67
21-24	4670	68	17								.078		.033			.005	1.93	67
24-27	6927	100	61								.131		.005			.003	2.54	48
27-30	6913	100	77								.113		.003			.001	.58	63
30-33	6410	94	79								.130		.000			.001	.37	4
33-36	5561	81	60								.207		.001			.002	1.56	58
36-39	6076	88	59								.124		.003			.002	1.20	21
39-42	7032	103	78								.130		.010			.001	0.40	4
42-45	5437	79	48								.228		.013			.001	1.17	63
45-48	6562	95	74								.099		.008			.002	1.94	63
48-51	5971	86	19								.147		.035			.003	1.78	5
51-54	5844	84	60								.109		.007			.002	1.45	5
54-57	7064	102	95								.082		.001			.002	1.45	5
57-60	6218	88	75								.121		.003			.003	1.55	2
60-63	7449	106	94								.124		.012			.006	1.36	2
63-66	5987	85	100								.110		.011			.003	1.41	18
66-69	6516	94	79								.070		.018			.002	1.54	18
69-72	6341	90	34								.103		.004			.003	1.80	2
72-75	5614	80	31								.138		.001			.003	2.04	2
75-78	5197	74	0								.139		.001			.003	2.11	2
78-81	5447	77	0								.080		.002			.0025	1.81	2
81-84	5107	72	8								.168		.002			.0022	1.54	2
84-87	4643	66	24								.034		.019			.0044	1.84	2
87-90	6250	89	69								.064		.010			.0027	1.79	18
90-93	7506	107	96								.080		.003			.0017	1.64	18
93-96	7324	105	87								.085		.003			.0017	1.56	18
96-99	7001	99	94								.103		.004			.0018	1.67	2
99-102	7486	106	96								.069		.002			.0024	1.88	18
102-105	-	-	94								.052		.001			.0023	2.15	18
105-108	-	-	89								.106		.001			.0015	1.65	18
108-111	-	-	90								.108		.002			.0016	1.35	2

Byron Fraser

HOLE No 81-3 PAGE 3A

DATE Oct 23 - Nov 23/81 LOGGED BY B. Fraser

DEPTH (M)	PHYSICAL PROPERTIES ROCK CORE COMP WT	REC	RQD	ALTERATION FeS2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MINERALIZATION MoS2	WO3	Pb	Ag	Acces	Cu	Fe	ROCK TYPE
219-222	7875	112	99								.081		.002			.001	1.85	3
222-225	7511	107	98								.167		.002			.002	1.83	26
225-228	7526	107	94								.082		.001			.002	1.53	27
228-231	7884	113	97								.070		.001			.001	1.45	10
231-234	7755	111	100								.063		.002			.002	1.58	10
234-237	7172	102	91								.050		.001			.001	1.72	3
237-240	7382	105	97								.065		.000			.001	2.16	35
240-243	8119	115	100								.075		.003			.002	1.85	71
243-246	7625	108	100								.116		.000			.001	1.57	71
246-249	6752	96	92								.070		.006			.002	1.55	3
249-252	7512	107	100								.112		.011			.002	1.66	5
252-255	7040	101	54								.098		.001			.001	1.98	10
255-258	7144	101	49								.091		.005			.001	1.59	3
258-261	7671	109	92								.079		.002			.001	1.28	3
261-264	6801	96	94								.077		.002			.001	1.19	3
264-267	7553	107	100								.115		.003			.001	1.32	71
267-270	7545	107	98								.089		.003			.001	1.27	3
270-273	7149	101	97								.091		.003			.001	1.34	10
273-276	7671	109	100								.138		.002			.001	1.24	10
276-279	7107	101	97								.112		.004			.001	1.02	3
279-282	8198	116	98								.059		.079			.009	1.65	10
282-285	7821	111	98								.071		.008			.002	1.80	10
285-288	7445	106	85								.070		.002			.001	1.46	3
288-291	8006	114	91								.055		.005			.001	1.63	3
291-294	6898	98	87								.060		.001			.001	1.57	3
294-297	7794	111	82								.055		.002			.001	1.82	3
297-300	7990	113	90								.050		.002			.001	1.52	3
300-303	7673	109	94								.057		.003			.001	1.54	3
303-306	7716	110	97								.071		.001			.001	1.51	3
306-306.6			100															3
				END OF HOLE AT 306.6M														

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DATE Oct 23-Nov 23/81 LOGGED BY B. Fraser

DEPTH (m)	PHYSICAL PROPERTIES			ALTERATION							MINERALIZATION							ROCK TYPE
	ROCK CORE WT	REC	RQD	FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
111-114	-	-	88								.050		.001			.0019	1.39	18
114-117	-	-	98								.071		.005			.0017	1.72	18
117-120	-	-	97								.074		.001			.0011	1.25	2
120-123	-	-	98								.052		.005			.0009	1.04	2
123-126	-	-	87								.033		.002			.0009	1.17	61
126-129	-	-	89								.046		.001			.0014	1.24	26
126-132	-	-	94								.053		.001			.0009	1.19	3
132-135	7227	103	99								.041		.002			.0023	1.60	10
135-138	6769	98	81								.034		.007			.0039	2.35	5
138-141	6395	92	63								.072		.001			.0020	1.63	5
141-144	6135	89	77								.110		.000			.001	1.66	5
144-147	6464	93	83								.050		.001			.0016	1.65	5
147-150	6789	98	71								.054		.001			.0017	1.86	5
150-153	6699	96	77								.085		.001			.0012	1.26	10
153-156	7645	110	98								.032		.001			.0014	1.36	5
156-159	7459	106	95								.045		.029			.0016	1.41	3
159-162	7677	109	96								.067		.007			.0014	1.72	26
162-165	7278	103	100								.070		.004			.0012	1.70	10
165-168	7256	103	97								.097		.001			.0018	1.89	10
168-171	7465	106	95								.064		.009			.0013	1.64	10
171-174	8069	114	92								.061		.005			.001	1.17	55
174-177	7014	99	93								.098		.003			.001	1.48	10
177=180	8632	122	89								.046		.000			.002	1.70	10
180-183	7131	101	96								.058		.005			.001	1.37	55
183-186	6962	99	99								.056		.003			.001	1.68	3
186-189	7479	108	92								.130		.006			.002	1.61	55
189-192	6999	99	96								.110		.000			.000	1.29	10
192-195	7482	106	87								.045		.000			.001	1.82	5
195-198	7796	111	96								.125		.006			.001	1.65	5
198-201	7556	107	100								.111		.004			.001	2.11	55
201-204	7529	107	81								.122		.007			.001	1.76	3
204-207	7278	103	98								.122		.000			.001	1.37	3
207-210	7348	104	92								.078		.165			.019	1.28	4
210-213	7307	104	95								.094		.000			.001	1.77	27
213-216	7953	113	100								.066		.000			.001	1.70	10
216-219	7516	107	100								.033		.001			.001	1.64	10

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HOLE NO. 81-3 PAGE 1B

DATE Oct.23-Nov.23/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
3-6	Broken, ground core (surface rubble) to 3.9m; 3.9-5.1 pink aplite, str. moly atockwork, 3cm fault infilled with bkn qtz, moly gouge @ 30° to C.A. @ 4.8m; 5.1-6.0 mixed zone, 60% argillic diorite, 40% aplite dikes
6-9	6.0-6.1 mixed zone as above; 6.1-8.0 pink aplite; 8.0-9.0 mixed zone, 60% diorite, 40% aplite.
9-12	As above
12-15	As above
15-18	15.0-16.1 as above; 16.1-18.0 pink aplite, well developed stockwork of sub-parallel qt-moly veins (< 3mm) and occasional ribboned qt-moly to 17mm at 30°-45° to C.A.
18-21	18.0-19.68 aplite as above; 19.68-19.97 dk gy lamprophyre, upper contact 4-8mm fault gouge @ 15° to C.A., lower contact @ 30° to C.A.; 19.97-20.22 aplite; 20.22-20.77 greenish-bk lamprophyre, @ 20° to C.A.; 20.77-21.0 pink aplite.
21-24	21.0-22.1 pink aplite; 22.1-22.3 dk gy lamprophyre, upper contact @ 10°, lower contact 2cm gouge @ 30° to C.A.; 22.3-23.12 strongly sericitic aplite; 23.12-24.0 dk gy lamprophyre, 102mm amygdules infilled with white zeolites, upper contact @ 25° to C.A.
24-27	24.0-24.6 lamprophyre as above, lower contact @ 25° to C.A.; 24.6-25.07 pale gy highly argillic qtz diorite; 25.07-25.33 med gy, friable, lamprophyre upper dike contact 3cm of fault gouge @ 50° to C.A., lower contact 4cm of fault gouge @ 50° to C.A.; 25.33-27.0 mixed zone, 30% pale gy bleached str argillic, str sericitic int ppy, 5% str argillic dio,65% aplite.
27-30	27.0-27.4 mixed zone as above; 27.4-28.13 xenolith rich int ppy 50% frags of aplite and diorite; 28.13-30.0 pink aplite, 10% argillic diorite frags.
30-33	Pink aplite, excellent moly stockwork
33-36	33-34.03 as above; 34.03-34.67 dk gy lamprophyre, upper contact @ 35° to C.A., lower contact @ 10° to C.A.; 34.67-36.0 mixed zone, 60% diorite, 40% aplite.
36-39	As above, 60% med gn to gy wk argillic qtz diorite, 40% aplite.
39-42	Pink aplite, occasional potassic diorite frags.
42-45	42.0-43.26 aplite as above; 43.26-43.88 mixed zone, 60% aplite, 30% argillic diorite, 10% int. ppy; 43.88-45.0 med gy. argillic crowded int. ppy, 25% anhedral porphyritic feldspar 2-3mm, 2% biotite 102mm, feldspars altered to very pale gn clay.
45-48	45.0-45.2 as above; 45.2-46.08 mixed zone, 80% aplite, 20% argillic diorite; 46.08-48 med gn int. ppy, 10% frags of aplite and diorite less

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DATE Oct.23-Nov.23/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
48-51	48.0-48.33 AS ABOVE; 48.33-51.0 STRONGLY ARGILLIC INT PPY, VERY FRIABLE,
	CHALKY FELDSPARS
51-54	As above
54-57	54.0-56.9 as above; 56.9-57.0 med gnd. med gy to gn argillic qtz diorite
57-60	As above
60-63	As above
63-66	63.0-64.96 as above; 64.96-65.20 lt gn argillic int ppy; 65.20-65.35
	argillic diorite; 65.35-65.59 pale gy bleached strongly sericitic int
	ppy @ 35° to C.A.; 65.59-66.0 argillic diorite.
66-69	66.0-66.53 as above; 66.53-67.23 mixed zone, 60% lt gy int ppy, 40% qtz
	diorite; 67.23-67.68 med gy gn str. sericitic int. ppy @ 45° to C.A.;
	67.68-69.0 med gnd. argillic qtz diorite, plagioclase variably altered
	to pale gn clay.
69-72	As above
72-75	72.0-73.1 as above; 73.1-75.0 biotite rich phritic qtz diorite, bkn
	throughout in contrast to argillic zone above, patchy secondary biotite
	and pyrite pervasive, biotite selvages common on veins.
75-78	As above.
78-81	As above
81-84	As above
84-87	84.--84.82 as above; 84.82-85.4 strongly argillic qtz diorite, biotite
	bleached, chalky plagioclase, friable, associated with 2-3mm faults @
	30° to C.A.; 85.4-87.0 biotite rich qtz diorite as above.
87-90	87.0-88.71 as above; 88.71-89.35 med gy int ppy abt 3-5cm frags of qtz
	diorite, aplite and quartz; 89.35-90.0 med gnd biotite qtz diorite.
90-93	90.0-91.22 as above; 91.22-93.0 med gy str. potassic int ppy, abt salmon
	pink aplite frags 0.5-2.0 cm, salmon pink k-spar selvages on barren g.v.'s.
93-96	93.0-93.42 as above; 93.42-96.0 med to dk gy med gnd biotite qtz diorite
	abt fluorite veining.
96-99	As above
99-102	99.0-100.47 as above; 100.47 - 100.77 med gy int ppy @ 30° to C.A.; 100.77
	-102.0 biotite rich qtz diorite, weak foliation @ 50° to C.A.
102-105	102.0-104.63 as above, abt fluorite veining; 7cm chill zone of very fine
	gnd biotite @ contact; 104.63-105.0 potassic int. ppy
105-108	105.0-105.23 potassic int ppy; 105.23-105.94 med gnd qtz diorite as above,
	2c m chill zone at upper contact; 105.94-106.46 med gy int ppy; 106.46-108.0
	qtz diorite as above, abt fluorite veining, *at 107.98-108.04 unusual pink

[illegible]

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HOLE NO. 81-3 PAGE 3B

DATE Oct.23-Nov.23/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
108-111	Qtz diorite, qtz flooded kspar rich areas to 25cm, abt. qt-carb-fluorite vein
111-114	111.0-111.56 as above; 111.56-111.96 med gy int ppy, upper contact @
	40°, lower contact @ 50°; 111.96-112.8 qtz flooded highly silicic qtz
	diorite; 112.8-113.2 med gy int ppy @ 40° to C.A.; 113.2-113.9 med gy
	highly silicic and potassic qtz diorite, qtz flooding @ lower contact.
114-117	114.0-114.23 med gy int ppy; 114.23-114.49 str potassic. str. sericitic
	qtz diorite; 114.49-115.15 med gy int ppy @ 40° to C.A.; 115.15-116.21
	str silicic potassic qtz diorite, very strong pyritic potassic zone @
	upper contact with dike; 116.21-116.91 med gy int ppy , cut by 4mm fault @
	25° to C.A. infilled with gypsum; 116.91-117.0 med gy strongly silicic
	strongly potassic qtz diorite, numerous qtz flooded zones with pink
	potassic diorite frags .
117-120	As above
120-123	As above
123-126	123-124.34 as above; 124.34-124.63 med gy gn int ppy weakly phyllic @
	40° to C.A.; 124.62-125.36 qtz diorite as above; 125.36-126.0 quartz
	flooded zone with abot kspar, fluorite;
126-129	126-127.57 qtz diorite as above, biotite content 15%; 127.57-129.0 med
	gnd biotite granodiorite, biotite content 7%;
129-132	129.0-129.19 med gy int. ppy @ 40° to C.A.; 129.19-132.0 potassic granodiorite
	biotite 7%, numerous gypsiferous fractures.
132-135	132.0-132.93 as above; 132.93-133.37 dk gy silicic int ppy upper contact
	@ 30° lower contact @ 15°; 133.37-134.64 potassic granodiorite, 12cm fine
	gnd biotite rich dioritic xenolith @ 133.57m; 134.64-135.0 phyllic pale
	gy int. ppy, phyllic envelopes to 2cm on polymetallic veins @ 0-15° to
	C.A.;
135-138	135.0-136.79 as above; 136.79-138.0 pale yel gn strongly argillic int
	ppy, very friable, pale gn clay alteration of plag, abt sericitic fractures,
	faulting 0-15° to C.A.;
138-141	As above
141-144	As above to 142.84; 142.84-144.0 med gn to gy argillic int. ppy
144-147	As above, dk gn chloritic fractures
147-150	147.0-148.62 as above; 148.62-150.0 pale gn strongly argillic int ppy.
150-153	150.0-150.94 as above, faulting @ 50-60° to C.A.; 150.94-152.18 strongly
	silicic potassic granodiorite abt fractures lined with selenite (sparry
	gypsum) @ 35° to C.A.; 152.18-153.0 dk gy int ppy with abt aplite and hornfel
	frags, ground bkn core with 50% recovery from 152.23-152.40;

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HOLE NO. 81-3 PAGE 4B

DATE Oct.23-Nov.23/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
153-156	153-155.5 as above; 155.5-156.0 potassic granodiorite;
156-159	As above, biotite 10%, 20% of section, dk gy int ppy with aplite frags.
159-162	159.0-160.47 as above; 160.47-161.8 dk gy str sil str pot biotite qtz diorite, biotite 20-30%; 161.8-162.0 mixed zone, xenolith rich dk gy ppy, abt. absorbed granodiorite frags, ppy is hybrid rock with up to 12% biotite, granodiorite has biotite 15%
162-165	As above;
165-168	165.0-167.61 as above; 167.61-168.0 lt gy bleached zone, upper contact @ 35° to C.A., rock types as above;
168-171	168.0-168.08 as above; 168.08-171.0 xenolith rich ppy as at 161.8-167.61, abt fluorite veining;
171-174	171.0-171.86 as above; 171.85-172.68 pink aplite; 172.68-174.0 xenolith rich dk gy int ppy as above;
174-177	As above, abt gypsiferous fractures;
177-180	177.0-178.87 as above; 178.87-180.0 lt gy silicic int ppy, abt gypsiferous fractures
180-183	180.0-180.34 as above; 180.34-182.03 xenolith rich med gy int. ppy, 50% frags of aplite and granodiorite; 182.03-183.0 potassic granodiorite;
183-186	183.0-183.56 as above; 185.56-186.0 med gy int ppy, 30% frags of aplite and granodiorite;
186-189	As above
189-192	189.0-189.99 as above; 189.99-192.0 argillic potassic granodiorite, chalky plag, biotite 15%
192-195	192.0-192.24 as above; 192.24-193.43 lt gy str argillic int ppy, biotite completely altered to sericite, plag altered to pale gn to cream clay, zone centered on 6cm fault infilled with white clay gouge @ 20° to C.A. at 192.90m; 193.43-195.0 med gy int ppy, 15% xenoliths of granodiorite and aplite, abt. gysiferous fractures and fluorite veining.
195-198	195.0-196.8 as above; 196.8-198.0 xenolith rich int ppy, 40% xenoliths of gd and ap
198-201	198.0-200.1 as above; 200.1-201.0 potassic granodiorite.
201-204	201-201.8 as above; 201.8-204.0 argillic potassic granodiorite, related to faulting @ 45-80° to C.A.
204-207	As above, faulting @ 15° to C.A.
207-210	Pink aplite, 6.2cm wide qt-py-sphal-gal vein @ 18° to C.A. at 208.46 with base 15mm fault gouge.

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HOLE NO. 81-3

PAGE 5B

DATE Oct.23-Nov.23/81

LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
210-213	210.0-210.35 as above; 210.35-212.02 potassic biotite granodiorite,
	biotite 20%; 212.02-212.29 lt gy biotite rich int ppy, biotite 7%,
	chilled upper contact; 212.29-213.0 potassic granodiorite.
213-216	As above to 215.70; 215.70-216.0 dk gy int. ppy
216-219	Ab above to 216.29; 216.29-219.0 med gnd potassic biotite granodiorite,
	biotite 20%, abt fluorite veining
219-222	As Above
222-225	222-224.31 as above; 224.31-224.92 dk gy qtz diorite, biotite 40%, abt
	aplite dikes, 224.92-225.0 biotite granodiorite as above;
225-228	As above to 227.01; 227.01-227.90 aplite; 227.90-228.0 int ppy
228-231	228.0-228.17 int ppy; 228.17 228.47 aplite; 228.47-229.51 granodiorite
	with fine gnd biotite rich dioritic xenoliths; 229.51-231.0 med gy int.
	ppy, 30% xenoliths of gd and ap, abt gypsiferous fractures.
231-234	231-232.4 as above; 232.4-234.0 med gnd med gy granodiorite.
234-237	234.0-234.41 as above; 234.41-234.69 aplite; 234.69-235.21 argillic
	granodiorite associated with faulting @ 50-55° to C.A.; 235.21-237.0
	potassic granodiorite, biotite 15%, occasional find, gnd diorite xenoliths.
237-240	237.0-238.81 as above; 238.81-238.90 broken zone, frags of lamprophyre
	and granodiorite; 238.90-239.81 dk gy int ppy, 10% gd xenoliths; 239.81-
	240.0 med gy biotite qtz monzonite, 7% biotite
240-243	As above
243-246	243.0-245.70 as above, scarce fine gnd biotite diorite xenoliths @
	243.82m; 245.70-246.0 granodiorite, biotite 15-20%
246-249	granodiorite, cut by *salmon pink muscorite feldspar ppy dike @ 248.15-
	248.31 @ 85° to C.A.
249-252	249.0-249.02 as above; 249.02-252.0 med gy int ppy, 30% xenoliths, abt
	fluorite veining
252-255	252-253.02 as above; 253.02-253.56 mixed zone, 60% argillic gd frags,
	40% int ppy; 253-56-255.0 str argillic granodiorite, friable, abt
	qt-py veins
255-258	255.0-256.54 as above; 256.54-257.52 argillic granodiorite; 257.52-258.0
	biotite qtz monzonite, occasional fine gnd biotite-rich dioritic xenoliths
	to 1cm, biotite selvages on a few veins, biotite 7%
258-261	As above, abt fluorite veining
261-264	As above
264-267	As above

Byron Fraser

HOLE NO. 81-3 PAGE 6B

DATE OCT.23-NOV.23/81 LOGGED BY B. FRASER

DEPTH	ROCK DESCRIPTION
267-270	267.0-267.39 as above, 267.39-268.26 argillic potassic granodiorite, pyritic-biotite layering @ 35° to C.A.; 268.26-270 potassic granodiorite, occasional find gnd biotite rich diorite xenoliths, abt fluorite veins.
270-273	270.0-271.87 as above; 271.87-272.19 dk gy int ppy @ 15-20° to C.A. 1% biotite phenos as 2mm. grains; 272.19-272.92 granodiorite as above; 272-92-273.0 med gy int. ppy @ 10° to C.A.
273-276	273.0-273.35 as above; 273.35-275.09 granodiorite; 275.09-275.89 med gy int ppy, phyllic alteration subparallel to dike boundaries, upper dike contact @ 45°, lower contact @ 20° to C.A.; 275.89-276.0 granodiorite as above.
276-279	276-277.52 as above; 276.52-278.4 str sericitic potassic granodiorite, muscovite books 2-3mm; 278.4-279.0 potassic granodiorite, biotite 10%
279-282	279.0-281.1 as above; 281.1-282.0 med gy int ppy, phyllic envelopes on veins sub- parallel to C.A.
282-285	282.0-283.06 as above; 283.06-283.92 str phyllic int ppy alteration due to polymetallic veins @ 10-30° to C.A.; 283.92-285.0 potassic granodiorite occasional fine gnd biotite rich dioritic xenoliths.
285-288	285.0-286.32 as above; 286.32-287.52 argillic granodiorite, chalky plagioclase 9cm fault infilled by qtz, carb frags, gypsum, gouge @ 25° to C.A. @ 287.16; 287.52-287.74 lt gy int ppy @ 40° to C.A., 3% biotite; 287.74-288 argillic potassic granodiorite, chalky plag, pinkish cream colour.
288-291	As above
291-294	As above
294-297	294-294.66 as above; 294.66-297.0 biotite rich granodiorite, 20-25% biotite, abt aplite dikes,
297-300	297.0-297.77 as above, 2ry biotite cutting 5cm aplite dike @ 297.63m; 297.77-300.0 Ootassic granodiorite, biotite 10%, abt qtz-fluorite veins with kspar selvages, work patchy, chalky clay alteration of poag <5% of section.
300-303	As above, abt qtz fluorite veining
303-306	As above
306-306.7	As above
	END OF HOLE 81-3 AT 306.7M

Bryan Fraser

AMAX OF CANADA LIMITED

DIAMOND DRILL LOGS

Hole No: 81-4
Claim No: M-160
Easting: 13,350.09E
Northing: 11,249.51N
Elevation: 606.00m
Azimuth: 360° (North)
Dip: -65°
Length: 233.78m
Core Size: NQ
Collared: Oct. 17, 1981
Completed: Oct. 21, 1981
Drilling Co.: Maitland Exploration Ltd., Vernon, B.C.
Drillers: V. Quesnel, K. Caldwell

Logged By: B. Fraser
Date Logged: Nov. 30 - Dec. 10/81
Remarks: Assayed by Kitsault Lab.

Hole survey data method PAJARI

DEPTH	AZIMUTH	DIP
8.54m	359°30m	-65°
18.90m	358°50m	-65°
49.39m	1°30m	-66°
110.37m	359°30m	-66°
140.85m	0m	-66°
201.83m	358°50m	-67°
232.32m	359° 0m	-67°

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DEPTH (M)	PHYSICAL PROPERTIES: ROCK COMP	CORE Wt	REC	RQD	ALTERATION: FeS_2	SIL	SER	ARG	CH.	FELD	VEIN QTZ%	MINERALIZATION: MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	ROCK TYPE
3-6		5842	85	14								.077		.007			.001	1.31	19
6-9		6121	89	57								.049		.001			.001	1.51	21
9-12		6477	93	40								.077		.000			.002	1.66	18
12-15		5745	83	32								.076		.022			.001	2.06	18
15-18		6211	89	62								.048		.001			.002	2.30	2
18-21		7161	102	56								.170		.041			.001	2.20	18
21-24		6789	96	80								.076		.007			.002	2.69	2
24-27		6625	94	75								.090		.018			.002	1.95	18
27-30		6787	96	49								.172		.122			.002	1.64	63
30-33		6558	95	68								.165		.068			.003	1.37	5
33-36		6703	97	72								.049		.064			.003	1.90	70
36-39		5658	83	24								.117		.016			.002	2.33	25
39-42		6119	90	3								.081		.007			.002	2.00	25
42-45		6331	93	13								.032		.008			.003	2.82	2
45-48		5796	79	11								.181		.245			.004	3.58	17
48-51		6140	84	62								.106		.020			.002	1.37	1
51-54		6514	90	38								.140		.002			.002	1.30	30
54-57		7002	101	62								.072		.054			.005	1.66	5
57-60		5496	80	18								.212		.003			.002	1.27	75
60-63		6656	95	78								.057		.000			.003	1.78	15
63-66		7146	102	79								.057		.000			.002	1.47	51
66-69		7453	102	95								.092		.000			.003	1.97	41
69-72		6269	90	78								.059		.008			.003	1.88	59
72-75		7007	101	85								.197		.009			.003	1.68	69
75-78		7289	103	51								.129		.004			.004	2.51	59
78-81		5609	77	17								.329		.008			.004	2.11	14
81-84		5443	75	13								.408		.013			.004	3.29	1
84-87		5603	79	0								.263		.001			.002	1.19	10
87-90		5594	80	14								.299		.000			.001	1.02	27
90-93		5641	80	13								.243		.003			.002	0.94	10
93-96		4825	68									.233		.010			.002	1.01	10
96-99		5402	78	29								.034		.021			.002	1.61	5
99-102		5510	93	14								.050		.014			.002	1.41	10
102-105		4982	72	13								.074		.007			.003	1.32	27
105-108		5621	81	5								.089		.007			.002	0.96	27

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DEPTH (M)	PHYSICAL PROPERTIES ROCK COMP	CORE Wt.	REC	RQD	ALTERATION FeS$_2$	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MINERALIZATION MoS$_2$	WO$_3$	Pb	Ag	Acces			ROC. TYPE
108-111		5245	74	8								.105		.012			.002	1.08	3
111-114		5129	73	26								.047		.003			.005	4.52	35
114-117		4976	73	20								.033		.020			.006	5.00	11
117-120		9780	143	27								.091		.009			.002	1.18	27
120-123		7487	107	78								.060		.012			.004	3.56	20
123-126		7742	111	99								.147		.007			.002	1.09	21
126-129		7075	100	97								.118		.013			.003	1.27	26
129-132		9388	133	100								.092		.014			.001	0.85	38
132-135		5950	87	100								.189		.005			.001	0.52	4
135-138		7010	102	100								.113		.001			.001	.77	21
138-141		6888	98	100								.112		.031			.001	1.77	61
141-144		7157	103	97								.147		.016			.001	1.02	10
144-147		7581	108	89								.203		.006			.002	1.56	62
147-150		6973	99	97								.042		.004			.002	1.11	61
150-153		6666	95	94								.095		.016			.002	1.09	62
53-156		8364	119	96								.102		.005			.002	1.40	[illegible]/2
156-159		7826	111	99								.086		.003			.002	1.16	21
159-162		5250	76	65								.144		.130			.006	1.16	21
162-165		7054	101	89								.232		.077			.007	0.85	21
165-168		6923	100	74								.112		.031			.003	.70	21
168-171		6476	95	87								.218		.000			.001	.50	4
171-174		7208	102	88								.085		.028			.003	1.59	63
174-177		6166	89	89								.208		.015			.001	.75	21
177-180		8539	121	97								.307		.018			.001	1.18	21
180-183		6901	99	63								.357		.008			.001	.87	62
183-186		7200	105	68								.142		.113			.001	.94	21
186-189		6966	99	75								.415		.009			.002	.86	18
189-192		6017	85	66								.142		.043			.001	1.06	25
192-195		6544	93	79								.221		.012			.002	1.54	21
195-198		6213	88	71								.155		.194			.001	1.56	2
198-201		7135	103	67								.142		.033			.010	1.12	21
201-204		6161	90	48								.163		.001			.001	.93	21
04-207		6155	89	54								.305		.008			.002	.68	2
207-210		7412	107	56								.165		.016			.002	.93	38
210-213		7596	108	85								.137		.002			.003	1.36	3

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DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROC TYPE
	ROCK COMP	CORE Wt.	REC	RQD	FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
213-216		6789	96	95								.128		.003			.003	1.70	3
216-219		7863	113	99								.178		.014			.002	.99	27
219-222		7720	110	86								.190		.101			.021	1.40	51
222-225		7219	102	85								.213		.010			.003	1.14	3
225-228		7490	106	95								.183		.002			.004	1.91	3
228-231		7282	103	97								.165		.002			.004	1.98	3
231-233.78		7072	101	97								.153		.009			.003	1.89	10
					END OF HOLE AT 233.78														

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DEPTH	ROCK DESCRIPTION
0-3	Casing
3-6	3.0-3.47 med gnd qtz diorite; 3.47-3.75 mixed ppy, dio, ppy dike sub-paralle to C.A.; 3.75-4.19 qtz diorite; 4.19-4.56 mixed ppy and aplite, ppy bleached palegy; 4.56-5.08 rusty aplite; 5.08-5.56 argillic qtz diorite, chalky plag; 5.56-5.81 biotite - fspar-ppy @ 30° to C.A.; 5.81 - 6.0 aplite with occasional diorite frags.
6-9	6-6.35 aplite as above; 6.35-6.99 mixed aplite and diorite, contact sub-parallel to C.A.; 6.99-7.67 med. gy. med gnd. qtz diorite, 15% biotite, weakly foliated at 25° to C.A.
9-12	9-9.84 fine gnd qtz dio as above; 9.84-10.14 pale gy biotite feldspar ppy, fspar 2-4mm, biotite 1%; 10.14-12.0 pale gy to creamy strongly bleached med gnd. qtz diorite, qtz flooded zone from 10.14-11.04; 11.04-12.0 strongly argillic and very friable with fault gouge at 11.52-11.64 and 11.88-12.56 at 20° to C.A.
12-15	12.0-13.8 str argillic qtz diorite as above; 13.8-14.08 bleached bio-fspar ppy as above; 14.08-14.28 med gnd. qtz diorite as above; 14.28-14.56 pale gy bleached biotite feldspar ppy, fspar 2-4mm; 14.56-15.0 med gy med gnd qtz diorite with occasional fine gnd biotite rich xenoliths to 8cm with diffuse margins.
15-18	15-17.63 med gnd. qtz diorite as above; 17.63-17.87 find gnd (1mm) qtz diorite, foliated @ 20° to C.A.; 17.87-18.0 int. ppy, chalky feldspar 2-4mm, argillic.
18-21	18.0-18.47 argillic int. ppy as above; 18.47-19.71 med gnd argillic qtz diorite as above; 19.71-21.0 quartz flooded zone, strong py, biotite bleached completedly to sericite in diorite frags between abt 1-2cm g.v.'s
21-24	21-21.23 qtz flooded zone as above; 21.23-21.48 fine gnd argillic qtz diorite, mainly dk grey with chalky plag but bleached pale gy with phyllic alteration adjacent to 1cm g.v.; 21.48-24.0 med gnd. qtz diorite similar to above except for grain size.
24-27	24-24.72 dk. gy qtz diorite as above with foliation at 30° to C.A. at 24.35m; 24.72-27 lt gy int. ppy, abt splite, granodiorite but rare hornfels frags, frags make up 35%, biotite bleached to sericite in ppy, aplite frags show remobilization with patchy phyllic reaction rims.
27-30	27-27.4 int. ppy as above; 27.4-28.4 pink aplite, coarse muscorite to 2mm and moly to 3mm in patchy disseminations; 28.4-30.0 med to pale gy int. ppy, phyllic alteration associated with polymetallic veining, abot. frags of aplite and granodiorite.

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DEPTH	ROCK DESCRIPTION
30-33	Int. ppy., as above
33-36	33-34.66 int ppy as above; 34.66-35.10 quartz vein, upper contact @ 15° to C.A., lower contact disturbed by shear zone; 35.10-36.0 fault breccid, upper contact bounded by chloritic shear @ 10° to C.A., abt chloritic slicks sub-parallel to C.A. with moly and pyritic paint.
36-39	fault breccia, zone generally bkn, quartz with potassic margins and bkn. diorite in a sheared gouge matrix, major gouge seams at 36.9-37.1, 37.29-37.65, colour cream to pale gy.
39-42	39.0-41.25 fault breccia as above, major gauge seams at 39.43-39.95, 40.17-40.25; 41.25-42.0 rusty greenish grey strong argillic fine gnd qtz. diorite, very friable, waxy green plag (1 mm).
42-45	42.0-43.08 qtz dior. as above; 43.08-44.18 dk gy argillic find gnd. qtz. diorite, chalky plag; 44.18-44.88 lt. grey to cream fine fnd qtz dio, quartz flooded, strong silica, sericite; 44.88-45.0 pink aplite
45-48	45.0-45.16 pink aplite; 45.16-45.54 greenish gy fine gnd qtz diorite with scattered hornfels frags, argillic; 45.54-46.35 lt gy hornfels, silicic; 46.35-46.85 black hornfels, friable, abt moly slicks, dissem py; 46.85 - 48.0 lt. gy silicic hornfels
48-51	lt gy silicic hornfels, potassic zone from 50.6 -50.8 associated with poly metallic veining.
51-54	51-51.19 hornfels as above; 51.19-52.26 quartz flooded zone, dissem moly py, patchy biotite, 5% hornfels frags with variable alteration from pale gy silicification to k-spar replaced margins, upper contact arbitrary as veins continuous from above; 52.26-53.97 med. gy hornfels; 53.97-54.0 med gy int. ppy.
54-57	54-56.69 med gy int. ppy, wk argillic; 56.69-57.0 med to lt. gy hornfels
57-60	57-58.14 hf as above, lower contact at 90°; 58.14-60.0 high silica zone, abt frags of hf, ppy and gd make up 20%, abt. kspar and patchy biotite weak dissem moly py
60-63	60.0-60.31 high silica zone as above; 60.31-60.86 dk gy to bk hornfels, contact with ppy below marked by stoping of bk hornfels frags; 60.86-62.42 lt. gy int. ppy., younger than ppy below contact marked by high sili[illegible] and k-spar rimming frags of older ppy, biotite 5%; 62.42-63.0 med gy int. ppy 15% biotite, only 1% of biotite is fresh looking 1-2mm phenocrysts, the rest is chloritic and less than 0.5mm.
63-66	63-63.84 dk gy-bk hornfels, possibly frag, high silica as qtz-kspar veins sub-parallel to C.A.;63.84-65.87 med gy int ppy, similar to porphyry

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DEPTH	ROCK DESCRIPTION
63-66	(con't) 65.87-66.00 contact marked by high silica zone with frags of gd
66-69	66-66.13 contact high silica as above; 66.13-67.25 dk gy-bk hornfels, bleached lt. gy for 20 cm from upper contact; 67.25-69.0 mixed zone, 50% hornfels 50% aplite.
69-72	69.0-69.78 mixed aplite, hornfels as above; 69.78-71.33 med gnd biotite granodiorite, frags of aplite and hornfels to 15cm make up 15% of section; 71.33-72.0 dk gy int ppy, upper contact sub-parallel to C.A. from 71.33-71.63
72-75	72-73.75 dk gy int ppy, lower contact sub-parallel to C.A. from 72.89-73.75; 73.75-75.0 high silica zone, 40% vein quartz, 30% kspar, frags of gd and minor hornfels make up 30%, strong moly as undulating veins sub-parallel to C.A.
75-78	75-75.62 high silica zone as above; 75.62-76.67 med to dk gy int. ppy; 76.67-77.41 med gy granodiorite; 77.41-78.0 upper contact marked by g.v. @ 50% to C.A., variable med. gn to bk hornfels.
78-81	78-78.14 hornfels as above; 78.14 -79.15 rusty green hornfels, high bkn, core recovery as 2-8cm frags; 79.15-79.84 dk gy to bk hornfels; 79.84-79.52 pink aplite, 10% str. potassic granodiorite; 79.52-81.0 variable gn to pale gy to bk hornfels, epidote on fractures in green zones.
81-84	81-83.43 hornfels as above; 83.43-73.78 contact zone, 50% frags of hornfels in granodiorite, 83.78-84.0 potassic granodiorite.
84-87	84.0-86.17 med gnd potassic granodiorite, str pot. alteration as vein envelopes, bkn throughout by fractures at shallow angles to C.A., biotite 15% as 1-2mm hooks, microlitic - abt. 1-3mm cavities, abt pyritic fractures; 86.17-86.58 med. gy int. ppy, 40% absorbed frags of gd; 86.58-87.0 potassic granodiorite, abt. aplite dikes.
87-90	87-88.55 potassic granodiorite as above; 88.55-89.32 pink aplite; 89.32-89.52 high silica zone, 80% qtz, str moly; 89.52 -90.0 pinkish grey pot granodiorite.
90-93	90-92.25 granodiorite as above; 92.25-92.73 med gy int. ppy; 92.72-93.0 granodiorite as above.
93-96	93-95.76 pot granodiorite as above; 95.76-96.0 lt. gy int. ppy, upper contact @ 40°, 10 cm biotite rich moly rich zone at contact.
96-99	lt. gy int. ppy, biotite 2% as 1-2mm phenos, groundmass bleached, pervasive ser, pot, similar to dike @ 60.86-62.42, abt fractures at shallow angles to C.A. coated with moly and pyrite paint.

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DEPTH	ROCK DESCRIPTION
99-102	99-100.33 Lt gy ppy as above; 100.33-102.0 pinkish grey pot granodiorite.
102-105	102-102.85 granodiorite as above; 102.85-.03.52 pink aplite, dissem moly, py; 103.52-104.72 potassic granodiorite, continuous jointing at shallow angles to C.A. gives low RQD although individual core chunks >4"; 104.7-105.0 strongly aplitic potassic granodiorite, aplite dikes make up 30% minor phyllic alteration as vein envelopes.
105-108	105-107.08 aplitic gd as above; 107.08-108.0 med gnd. lt gy biotite granodiorite, abt fractures at shallow angles to C.A. coated with dk. gy. chlorite and pyrite, aplite where present bleached to cream, patchy reddish bn 2ry biotite, biotite 10% as less than 2mm phenos.
108-111	Granodiorite as above
111-114	111-112.01 granodiorite as above; 112.01-112.71 med. gy. int. ppy; 112.71-114.0 rusty black lamprophyre, upper contact at 20° to C.A.
114-117	114-115.42 lamprophyre as above, lower contact at 10° to C.A.; 115.42-117.0 granodiorite with chloritic fractures similar to above.
117-120	117-117.6 granodiorite as above; 117.6-120.0 bleached white aplite, minor absorbed frags of biotite granodiorite.
120-123	120-120.16 aplite as above; 120.16-121.51 black lamprophyre, upper contact at 10°, lower contact at 12°; 121.51-121.84 med. gy. int. ppy, biotite 10%, 1% as 1-2mm phenos, 9% ∠ 1mm grains; 121.84-123.0 biotite rich med. gnd. qtz. diorite, qplite dikes make up 40% of section, pervasive silica as well as abot qtz-fluorite veins, biotite 35-40%
123-126	123-125.21 qtz diorite as above; 125.21-125.67 lt. pinkish grey aplite, irregular salmon pink zone at 30° to C.A. carries fluor, sphal, carb; 125.67-126.0 biotite rich qtz diorite as above.
126-129	126.0-127.27 qtz diorite as above; 127.27-127.40 biotite granodiorite, biotite 7%; 127.40-127.64 qtz diorite with foliation at 80° sub-parallel to lower contact; 127.64-129.0 potassic med. gnd. biotite granodiorite, abt. fluorite in veins.
129-132	129-129.31 granodiorite as above, 129.31-129.93 mixed zone, 50% aplite, 50% qtz diorite, veining dominantly sub-parallel to C.A.; 129.93-130.61 high silica, 85% quartz, 15% rocks frags, wk moly, py: 130.61-131.01 granodiorite as above; 131.01-132.0 aplite.
132-135	Aplite as above, abt qtz fluorite veining
135-138	135-137.59 aplite as above, 137.59-138.0 dk. gy. qtz. diorite.

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DEPTH	ROCK DESCRIPTION
138-141	138-139.48 qtz diorite as a bore; 139.48-139.94 lt. gy granodiorite, absorbed xenoliths of diorite; 139.94-141.0 high silica zone, 75% quartz, 20% patchy biotite and k-spar, 5% fluorite.
141-144	141-141.15 high silica zone as above; 141.15-141.78 pale gy to pink potassic granodiorite, cut by 150 mm qt-fluor-kspar-biotite vein with 50mm kspar margins; 141.78-144.0 med gy int ppy, 10% xenoliths of gd and aplite up to 15cm.
144-147	144.0-144.71 high silica zone, 85% silica, 15% patchy biotite and k-spar, core gnd. @ 144.17; 144.71-145.04 dk. gy int ppy @ 30° to C.A.; 145.04-146.26 dk gy qtz diorite; 146.26-146.75 pink aplite; 146.75-147.0high silica zone, 80% quartz, 20% patchy biotite, kspar and fluorite.
147-150	147-147.86 high silica zone as above; 147.86-149.72 qtz diorite, biotite patches to 3cm, layering of biotite @ 20° to C.A.; 149.72-150 aplite.
150-153	150-150.17 aplite; 150.17-150.67 potassic qtz diorite; 150.67 - 150.98 qtz-kspar vein, 85% quartz; 150.98-152.01 qtz diorite; 152.01-152.66 aplite, 30% diorite frags which show pervasive silica and chlorite; 152.66-153 qtz. diorite.
153-156	153-153.36 qtz diorite; 153.36-153.63 aplite; 153.63-155.52 qtz diorite biotite content 30-40%, foliation at 35% to C.A., minor levcocratic zone with biotite 10% and str. chlorite; 155.52-156.0 aplite
156-159	156.0-156.79 pink to cream aplite with patchy biotite and chloritic frags; 156.79-157.32 mixed zone, 30% silicic diorite, 70% pale gy to pink strongly potassic gd to ap; 157.32-157.53 dk gy silicic qtz diorite; 157.53-159.0 lt. gy. argillic qtz diorite, chalky plag, abt aplite dikes.
159-162	159-160.38 argillic qtz diorite as above; 160.38-161.73 creamy aplite, bkn from 161.12-161.58 associated with polymetallic veining @ 20° to C.A.; 61.73-162 mixed zone, diorite and aplite, str qt-mo veining
162-165	Mixed zone as above, str qt-mo veining sub-parallel to C.A. from 163.6-165
165-168	165-166.17 mixed zone as above; 166.17-168 aplite
168-171	Pink aplite.
171-174	171-171.85 pink aplite; 181.85-173.89 lt. gy.gn.int.ppy. with frags of hornfels to 2cm; 173.89-174.0 str pot. zone, 80% aplite, 20% pot altered diorite.
174-177	Potassic zone as above.

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DEPTH	ROCK DESCRIPTION
177-180	177-178.28 potassic zone as above; 178.28-179.89 med. gy .qtz. diorite, pervasive sil-ser-py alteration of 20% of section associated with qt-py-sphal veining; 179.89-180.0 high silica zone, 50% quartz, 50% silicic dio
180-183	180-180.38 high silica zone as above, terminated by 27mm g.v. sub-parallel to C.A.; 180.38-182.39 argillic qtz diorite, 3cm qt-mo-kspar vein sub-parallel to C.A. from 181.03-182.15; 182.39-182.95 aplite; 182.95-183.0 chloritic diorite.
183-186	183.0-183.26 chloritic diorite; 183.26-185.73 aplite; 185.73-186.0 lt. gy qtz diorite, med. gnd., biotite 15%
186-189	186.0-186.09 lt. gy. qtz. diorite; 186.09-186.46 med gy int. ppy, 25% absorbed frags of aplite and diorite; 186.46-186.81 lt. gy . qtz. diorite as above; 186.81-189.0 creamy bleached potassic qtz diorite, biotite totally altered to sericite, pervasive potassic alteration, plagioclase altered to chalky to pale gn. clay, increase in jade gn. alteration of plag toward contact with breccia below, jade green alteration products are translucent (possibly zeolites), str. ribboned qt veins with composite width 14-37mm sub-paralled to C.A. from 186.81-187.86.
189-192	189-189.27 bleached diorite as above; 189.27-190.37 fault breccia, angular frags of creamy bleached diorite in a very fine gnd. med. gy matrix of ground rock, competent zone, upper contact @ 10° to C.A., contact of bx. in middle of core sub-parallel to C.A. from 190.37-190.69; 190.69-191.02 creamy bleached diorite; 191.02-191.14 breccia similar to above; 191.14-192.0 creamy bleached qtz diorite.
192-195	192-193.1 creamy bleached qtz diorite, broken rock and gouge 192.11-192.39 with recovery 65% and associated sparry gypsum; 193.1-193.98 creamy bleached aplite; 193.98-195.0 med. gy. gn. argillic qtz diorite, friable, similar to argillic diorite in 81-3 @ 58.3m.
195-198	Med gy. gn. argillic diorite, friable, occasional rusty fractures to 197.93; 197.93-198 aplite.
198-201	198-198.31 aplite; 198.31-199.17 med gy. gn. argillic qtz diorite 199.17-199.57 pink aplite; 199.57-199.82 pale gy.gn qtz diorite; 199.82-201 pink aplite, 2cm fault @ 20° to C.A. @ 200.11 infilled with vuggy calcite scalenohedra.
201-204	201-201.57 aplite; 201.57-201.83 med. pale gn. argillic qtz diorite; 201.83-202.65 pink aplite; 202.65-203.15 med-Oale gy gy qtz diorite;

Byron Fraser

HOLE NO. 81-4 PAGE 7B

DATE Nov. 30-Dec. 10/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
204-207	204-204.67 argillic diorite; 204.67-205.59 aplite; 205.59-206.08 med. gn. argillic diorite; 206.08-206.78 aplite; 206.78-207.0 strongly potassic diorite.
207-210	207-207.40 str. potassic diorite; 207.40-207.73 friable, broken, strong argillic diorite; 207.73-209.32 aplite, 20% of zone strongly potassic grandiorite as absorbed frags, 7 cm of broken, ground, qt-py-gal veined aplite @ 218.4-218.47; 209.32-210 med pinkish grey potassic grandiorite biotite 15%
210-213	Potassic granodiorite as above.
213-216	Potassic granodiorite.
216-219	216-216.69 potassic granodiorite; 216.69-218.56 mixed aplite and granodiorite, 80% aplite; 218.56-219.0 med gy potassic granodiorite.
219-222	219-220.8 med. gy granodiorite; 220.8-221.39 pale gy. argillic granodiorite; 221.39-222.0 high silica zone, 60% quartz, cut by faulted qt-sphal-gal vein of 2cm width at 15° to C.A., mineralization is ground with slicks on margins of vein.
222-225	222-222.24 high silica zone as above; 222.24-223.06 pale gy argillic granodiorite; 223.06-223.78 high silica zone, 60% quartz, bounded by fault planes at 30° to C.A. but 60° to each other; 223.78-225.0 weakly chloritic med. gnd. granodiorite.
225-228	Chloritic granodiorite as above.
228-231	Chloritic granodiorite as above to 230.81; 230.81-231.0 contact zone 30% ppy dike parallel to C.A.
231-233.78	231-231.09 contact zone as above; 231.09-231.75 med. gy. int. ppy, biotite 1% as 1-2mm phenos; 231.75-232.26 contact zone between ppy and gd, contact sub-parallel to C.A. and marked by 5mm quartz zone; 232.26-232.81 int. ppy., 30% subangular frangs of gd to 15cm rimmed by qtz; 232.81-233.53 weakly chloritic granodiorite; 233.53-233.78 weakly phyllic granodiorite.
	END OF HOLE 81-4 AT 233.78m

Byron Fraser

AMAX OF CANADA LIMITED

DIAMOND DRILL LOGS

Hole No: 81-5
Claim No: M-160
Easting: 13,349.92E
Northing: 11,246.71N
Elevation: 606.03m
Azimuth: 180° (south)
Dip: -50°
Length: 153.96m
Core Size: NQ
Collared: Oct. 21,1981
Completed: Oct. 23,1981
Drilling Co.: Maitland Exploration Ltd., Vernon, B.C.
Drillers: V. Quesnel, K. Caldwell

Logged By: B. Fraser
Date Logged: Dec.10 - Dec.16/81
Remarks: Assays by Kitsault Lab.

Hole survey data method PAJARI

DEPTH	AZIMUTH	DIP
9.15m	180°30m	-49°
30.49m	177°40m	-50°
60.98m	180° 0m	-50°
121.95m	180°30m	-51°
152.44m	181°30m	-52°

Bryan Fraser

HOLE Nº 81-5 PAGE 1A

DATE Dec.10 - Dec. 16/81 LOGGED BY B. Fraser

DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROCK TYPE
	ROCK COMP	CORE WT.	REC	RQD	FeS_2	SIL	SER	ARG	CH_1	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
4-7		6454	92	10								.058		.003			.003	1.37	18
7-10		6629	94	70								.107		.021			.003	1.43	18
10-13		5943	86	45								.113		.035			.003	1.35	5
13-16		7194	104	75								.100		.023			.001	1.17	5
16-19		5832	84	4								.047		.019			.004	1.98	5
19-22		6028	87	0								.088		.006			.003	1.81	5
22-25		6183	89	26								.036		.004			.001	1.78	5
25-28		7442	107	80								.085		.012			.001	1.04	63
28-31		6764	97	72								.150		.023			.002	1.35	10
31-34		5756	82	41								.083		.005			.001	1.15	3
34-37		5515	78	0								.088		.001			.001	1.01	10
37-40		7090	101	94								.072		.029			.001	1.17	3
40-43		6624	94	90								.147		.001			.002	1.04	3
43-46		7142	101	81								.091		.022			.001	1.03	51
46-49		5750	82	37								.072		.006			.001	1.00	3
9-52		6292	89	56								.103		.001			.001	1.15	64
52-55		7124	101	67								.095		.001			.001	1.12	64
55-58		6948	100	47								.040		.006			.001	1.20	5
58-61		5322	77	22								.082		.002			.001	1.59	5
61-64		6856	99	22								.052		.001			.001	1.42	5
64-67		6339	91	53								.053		.002			.001	1.30	10
67-70		5263	76	64								.040		.001			.001	1.51	35
70-73		7065	102	92								.045		.001			.001	1.17	3
73-76		7459	107	82								.060		.001			.001	1.18	11
76-79		6610	95	66								.045		.001			.001	1.18	10
79-82		6247	90	60								.033		.001			.001	1.06	49
82-85		7137	103	91								.025		.001			.001	.87	10
85-88		6742	97	85								.066		.001			.001	0.87	10
88-91		6537	94	70								.030		.001			.001	0.98	10
91-94		5435	79	36								.071		.001			.001	1.05	55
94-97		5916	85	60								.130		.001			.001	1.59	10
97-100		5794	84	21								.017		.001			.001	1.48	5
0-103		6296	91	54								.025		.001			.001	1.34	5
103-106		5604	81	10								.040		.006			.001	1.43	5
106-109		5019	73	4								.043		.010			.002	1.38	5

Bryan Fraser

HOLE Nº 81-5 PAGE 2A

DATE Dec.10-Dec.16/81 LOGGED BY B. Fraser

DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROCK TYPE
	ROCK COMP	CORE Wt.	REC	RQD	FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
109-112		5147	74	5								.057		.002			.001	1.38	10
112-115		3834	55	0								.035		.006			.001	1.14	3
115-118		5017	72	6								.050		.060			.003	1.40	10
118-121		5179	75	4								.055		.035			.001	1.06	3
121-124		4574	66	0								.050		.002			.001	1.31	10
124-127		5720	82	4								.037		.009			.002	1.40	10
127-130		5747	83	0								.035		.002			.001	1.33	3
130-133		6246	90	0								.032		.002			.004	5.74	11
133-136		4413	63	3								.076		.001			.001	1.28	3
136-139		6052	87	34								.023		.001			.003	4.27	11
139-142		7228	104	68								.023		.001			.005	5.70	7
142-145		6217	89	53								.060		.021			.005	2.07	3
145-148		6797	98	66								.027		.002			.003	4.46	11
148-151		7605	109	81								.008		.002			.004	5.74	11
151-153.96		6716	97	90								.045		.002			.001	1.14	3

END OF HOLE AT 153.96m

Byron Fraser

HOLE NO. 81-5 PAGE 18

DATE Dec. 10-16/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
0-4m	Core ground, poor recovery, surface rubble
4-7	4-4.25 argillic diorite,; 4.25-4.72 argillic int. ppy; 4.72-7.00 argillic diorite; surface oxidation extends to 13m with abt Fe-stained fractures, bkn core to 6.5m.
7-10	7-8.12 argillic diorite; 8.12-10.0 tan to pale gy argillic int. ppy, abt. xenoliths of diorite minor hornfels make up 20% of section, xenoliths subangular and 1-5cm.
10-13	Argillic ppy as above, scattered xenoliths less than Zcm, make up 10%, highly bkn with gouge from 11.99-12.60.
13-16	Lt. gy int. ppy to 15.16, mod argillic; 15.16-16.0 med. gy int. ppy, RQD is low due to dominant jointing at 45° to C.A. although rock is compete
16-19	Med gy. int. ppy. as above
19-22	Med. gy int. ppy, 15% xenoliths of ap and gd.
22-25	22-24.47 med gy. int. ppy, scattered xenoliths; 24.47-25.0 tan argillic int. ppy associated with faulting at 40-60° to C.A.
25-28	25-26.27 tan argillic int. ppy; 26.27-27.39 pink aplite; 27.39-28.0 lt. gy argillic int. ppy, abt. polymetallic veins.
28-31	28.0-28.81 int. ppy as above; 28.81-29.81 tan argillic granodiorite, biotite completely altered to sericite, 10% aplite dikes; 29.81-31.0 med gy. int. ppy, weakly argillic, upper contact 2.5cm fault gg @ 35° to CA
31-34	31-31.22 ppy as above; 31.22-34.0 pink potassic granodiorite, upper contact @ 30° to C.A.
34-37	34-35.05 granodiorite as above; 35.05-35.40 int. ppy at 30° to C.A.; 35.4-37.0 mixed zone, 40% granodiorite, 30% aplite, 20% int. ppy.
37-40	Argillic potassic granodiorite, minor phyllic alteration associated with polymetallic veins, aplite dikes show little alteration except where cut by polymet. veins,
40-43	Granodiorite as above.
43-46	43-43.41 qtz-carb-weak moly-py vein @ 15° to CA; 43.41-46 granodiorte as ab
46-49	Granodiorite as above.
49-52	49-49.28 granodiorite as above; 49.28-49.88 lt gy. bleached granodiorite, pervasive sericite, silica, sheared; 49.88-50.35 fault zone at 55° to C.A. pale gy. bkn. qtz, gouge, moly; 50.35-50.76 med. gy. gn int. ppy; 50.76-52.0 creamy argillic granodiorite.
52-55	52-53.34 granodiorite as above; 53.34-53.60 fault zone at 40° to C.A., moly gouge; 53.60-54.0 granodiorite as above, 54.0-54.52 fault zone @ @ 40° to C.A., broken granodiorite, gouge, 54.52-55.0 granodiorite as above

Byron Fraser

HOLE NO. 81-5 PAGE 2B

DATE Dec.10-16/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
55-58	Med. gy int. ppy, 15% xenoliths of gd and ap, strong jointing at 50° to CA
58-61	Med. gy ppy as above.
61-64	As Above
64-67	64-64.88 as above; 64.88-66.69 creamy argillic granodiorite, friable, fine gnd. biotite rich xenoliths; 66.69-67.0 med. gy.gn. int. ppy.
67-70	67-67.07 ppy as above; 67.07-68.52 argillic granodiorite; 68.52-68.95 med. gy. gn. int. ppy, upper contact at 15° to C.A.; 68.95-69.18 argillic granodiorite; 69.18-69.91 med gyish tan lamprophyre, 47% recovery bkn. ground core near center of dike, upper contact at 10° undulating, lower contact at 40°; 69.91-70.0 creamy argillic granodiorite, 5% int.ppy
70-73	Argillic granodiorite as above.
73-76	73.0-74.31 as above; 74.31-74.45 dk gy lamprophyre; 74.45-75.86 creamy argillic granodiorite; 75.86-76.0 rusty pale gy int. ppy
76-79	76.0-76.47 int. ppy as above; 76.47-77.36 creamy argillic granodiorite; 77.36-77.68 pale gy int ppy, biotite completely sericitized; 77.68-78.56 granodiorite as above; 78.56-79.0 int. ppy as above.
79-82	79.0-79.19 ppy as above; 79.19-79.88 fault zone, upper contact at 60° lower contact at 20°, creamy aplitic frags with intense clay alteration, abt. white clay gouge; 79.88-80.32 tan argillic int. ppy; 80.32-80.66 creamy argillic granodiorite; 80.66-81.06 med. gn arg int. ppy; 86.06-82.0 bleached pale gy to tan arg. int. ppy.
82-85	82.0-83.43 int ppy as above; 83.43-85.0 creamy argillic granodiorite.
85-88	85.0-85.62 as above ; 85.62-86.10 tan argillic int. ppy; 86.10-86.51 creamy argillic granodiorite; 86.51-86.75 med gy argillic int ppy; 86.76-88.0 granodiorite as above.
88-91	88.0-90.58 granodiorite as above; 90.58-91.0 tan argillic int. ppy.
91-94	91-91.59 ppy as above; 91.59-93.17 med gy argillic granodiorite, patchy secondary biotite, fine gnd. biotite rich xenoliths, pale gn clay alteration of plag; 93.17 - 94.0 pink aplite.
94-97	94.0-94.2 fault zone @ 20° to C.A.; 94.2-95.39 creamy argillic granodiorit several 1-3cm ribboned qt-mo veins at 60-70° to C.A.; 95.39-97.0 tan argillic int. ppy
97-100	97-97.43 as above; 97.43-100.0 med gy. int. ppy, patchy secondary biotite, biotite concentration along fractures, 15% xenoliths of gd and aplite, abt. chloritic joints.
100-103	Med. gy wk. argillic int. ppy
103-106	As above.

Bryan Fraser

HOLE NO. 81-5 PAGE 3B

DATE Dec.10-16/81 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
106-109	As above
109-112	109-111.03 wk potassic int. ppy; 111.03-112.0 med gy potassic
	granodiorite, abt. pyritic fractures, potassic alteration as k-spar
	patchy secondary biotite and aplite dikes, strong jointing sub-parallel
	to C.A.
112-115	Granodiorite as above
115-118	115-117.01 as above; 117.01-118.0 pale gy int. ppy, phyllic alteration
	associated with cross-cutting 5cm qt sphal-ser vein @ 20° to C.A.
118-121	118-118.16 ppy as above; 118.16-120.76 med pinkish grey potassic
	granodiorite; 120.76-121.0 pale gy pot int. ppy.
121-124	121-121.123 ppy as above; 121.12-121.68 granodiorite as above; 121.68-
	122.62 ppy as above; 122.62-124.0 granodiorite as above
124-127	124.0-124.93 as above; 124.93-125.82 med gy int. ppy; 125.82-127.0
	granodiorite, 10% ppy dikes
127-130	Potassic granodiorite, 10% ppy dikes
130-133	130-130.73 as above; 130.73-132.87 black lamprophyre, upper contact sub
	parallel to C.A. lower contact at 10°; 132.87-133 granodiorite as above
133-136	Med gy potassic granodiorite
136-139	136-137.03 as above; 137.03-138.55 black lamprophyre, upper contact at
	5° to C.A., lower contact at 28°; 138.55-139.0 med. gy.gn. chloritic grnd.
139-142	139-139.42 as above; 139.42-141.98 black lamprophyre with rusty calcite
	fractures at 30° to C.A., upper contact at 25°, lower contact variable
	from 30° to 00°; 141.98-142.0 contact zone.
142-145	142-142.30 contact zone, 50% lp, 50% gd; 142.30-142.76 creamy strong
	argillic granodiorite; 142.76-145 med gy potassic granodiorite.
145-148	145-145.12 as above; 145.12-145.19 med. gy.gn. chloritic granodiorite;
	145.19-145.41 med gy int ppy; 145.41-148.0 black lamprophyre, upper
	contact at 10° undulating to C.A.
148-151	148-150.45 black lamprophyre, lower contact at 25° to C.A.; 150.45-150.58
	med. gy int. ppy; 150.58-151.0 med. gy potassic granodiorite; abt
	aplite dikes make up 30% of section.
151-153.96	As above.
	END OF HOLE AT 153.96m

Bryan Fraser

AMAX OF CANADA LIMITED

DIAMOND DRILL LOGS

Hole No:	81-6	Logged By:	B. Fraser
Claim No:	M-160	Date Logged:	Jan.26-Feb.7
Easting:	13,349.92	Remarks:	
Northing:	11,248.06		
Elevation:	605.92m		
Azimuth:	Vertical		
Dip:	-90		
Length:	268.9m		
Core Size:	NQ		
Collared:	Oct. 23/81		
Completed:	Oct. 27/81		
Drilling Co:	Maitland Exploration Ltd., Vernon, B.C.		
Drillers:	V. Quesnel, K. Caldwell		

Hole survey data method: PAJARI

DEPTH	AZIMUTH	DIP
9.76m	318°30m	-89°
52.44m	327°30m	-89°
113.41m	302° 0m	-88°
174.39m	301°30m	-88°
235.37m	312° 0m	-88°
265.85m	314°40m	-88°

Bryan Fraser

HOLE Nº 81-6 PAGE 1A

DATE Jan. 26 - Feb. 7/82 LOGGED BY B. Fraser

DEPTH (M.)	PHYSICAL PROPERTIES: ROCK COMP	CORE Wt.	REC	RQD	ALTERATION: FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MINERALIZATION: MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	ROCK TYPE
3-6		6155	89	21								.077		.024			.001	1.37	18
6-9		5336	76	35								.053		.006			.002	1.53	2
9-12		6256	89	51								.083		.003			.001	1.50	2
12-15		5985	85	49								.053		.002			.001	1.45	18
15-18		6854	99	82								.050		.005			.002	1.70	5
18-21		5618	81	60								.055		.010			.004	1.51	5
21-24		4274	62	00								.023		.044			.002	1.65	5
24-27		5937	86	21								.093		.010			.002	1.75	5
27-30		6080	88	76								.150		.005			.002	1.53	5
30-33		5626	81	78								.127		.002			.001	1.16	5
33-36		6019	87	55								.113		.036			.002	1.34	5
36-39		5833	84	33								.102		.021			.003	1.52	5
39-42		4261	62	18								.075		.017			.002	1.44	5
42-45		5559	80	53								.133		.048			.002	1.35	5
45-48		6699	97	61								.027		.020			.003	1.43	5
48-51		5901	85	58								.025		.025			.014	1.51	5
51-54		6438	93	80								.037		.004			.003	1.45	5
54-57		6065	88	68								.078		.001			.002	1.29	5
57-60		7076	102	92								.053		.001			.002	1.35	5
60-63		6375	92	93								.050		.001			.002	1.44	5
63-66		6940	100	93								.038		.005			.002	1.10	5
66-69		6897	100	65								.205		.071			.003	1.01	5
69-72		6133	89	94								.037		.018			.001	1.14	10
72-75		7532	108	86								.032		.025			.002	0.91	55
75-78		7061	102	53								.048		.003			.002	1.71	5
78-81		5421	78	14								.059		.001			.002	1.33	10
81-84		5720	83	22								.025		.001			.002	1.45	10
84-87		5366	77	15								.043		.026			.001	1.37	10
87-90		4359	63	19								.043		.004			.001	1.57	10
90-93		6237	90	12								.024		.001			.001	1.36	5
93-96		4140	60	27								.057		.001			.002	1.63	5
96-99		6073	88	31								.033		.001			.001	1.38	10
9-102		5218	75	8								.022		.001			.001	1.40	5
102-105		6900	100	30								.020		.018			.002	1.45	5
105-108		5974	86	48								.032		.046			.002	4.20	5

Bryan Fraser

HOLE Nº 81-6 PAGE 2A

DATE Jan26-Feb7 LOGGED BY B. Fraser

DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROC TYPE
	ROCK COMP	CORE Wt.	REC	RQD	FeS_2	SIL	SER	ARG	CH.	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	
108-111		7085	102	83								.020		.013			.001	1.23	63
111-114		5080	73	27								.030		.048			.004	1.18	79
114-117		4819	70	56								.028		.067			.003	1.26	5
117-120		4167	60	22								.028		.007			.003	1.33	5
120-123		4796	69	4								.049		.001			.002	1.29	5
123-126		5130	74	29								.018		.001			.003	1.45	5
126-129		6747	98	73								.032		.001			.001	1.54	5
129-132		6082	88	86								.013		.004			.002	1.38	5
132-135		6680	97	97								.018		.001			.002	1.53	5
135-138		6907	100	95								.017		.001			.002	1.95	5
138-141		6521	94	97								.052		.006			.003	1.78	5
141-144		7044	102	98								.050		.001			.002	1.78	5
144-147		7252	105	89								.018		.008			.002	1.67	5
147-150		7285	105	98								.028		.002			.003	1.65	5
150-153		6327	91	73								.015		.001			.002	1.19	5
3-156		7473	108	82								.018		.006			.002	1.73	3(
156-159		7777	112	87								.037		.002			.001	1.18	5
159-162		6275	91	99								.017		.015			.001	1.37	5
162-165		6590	95	93								.062		.002			.001	1.63	5
165-168		5524	80	55								.012		.002			.002	1.87	5
168-171		6733	97	90								.090		.028			.002	1.54	5
171-174		7384	107	95								.053		.059			.002	1.53	5
174-177		6588	95	90								.022		.001			.001	1.33	5
177-180		5849	85	97								.013		.006			.002	1.37	5
180-183		8383	121	98								.013		.013			.001	1.21	5
183-186		6866	99	100								.010		.051			.002	1.75	5
186-189		6225	90	83								.038		.002			.001	1.59	5
189-192		6475	94	96								.020		.004			.001	1.79	5
192-195		6678	96	100								.017		.011			.001	1.44	10
195-198		7490	108	100								.022		.005			.001	1.48	10
198-201		6920	100	100								.027		.001			.001	1.32	3
201-204		7056	102	92								.027		.146			.046	1.26	10
4-207		5114	74	77								.038		.052			.007	0.80	1(
207-210		6746	97	74								.022		.027			.002	1.04	10
210-213		6242	90	79								.015		.021			.011	1.02	10

Bryan Fraser

HOLE Nº 81-6 PAGE 3A

DATE Jan26-Feb7 LOGGED BY B. Fraser

DEPTH (M)	PHYSICAL PROPERTIES				ALTERATION							MINERALIZATION							ROCK
	ROCK COMP	CORE Wt	REC	RQD	FeS_2	SIL	SER	ARG	CH	FELD	VEIN QTZ%	MoS_2	WO_3	Pb	Ag	Acces	Cu	Fe	TYPE
213-216		6841	98	88								.035		.009			.001	1.25	10
216-219		6462	93	93								.017		.013			.002	1.91	10
219-222		6375	92	94								.058		.004			.001	1.35	3
222-225		6129	88	92								.015		.004			.001	0.89	3
225-228		6784	98	100								.015		.011			.001	1.25	3
228-231		6199	89	95								.027		.010			.001	1.21	3
231-234		7767	112	100								.025		.016			.001	1.25	3
234-237		6185	89	94								.045		.005			.001	1.64	10
237-240		6571	95	97								.015		.003			.001	1.31	3
240-243		7935	114	100								.037		.001			.001	1.41	3
243-246		7164	103	96								.048		.003			.001	1.60	3
246-249		6149	88	96								.033		.002			.001	1.62	5
249-252		6662	96	100								.027		.014			.002	1.52	5
252-255		8898	128	96								.062		.006			.001	1.48	10
255-258		7042	101	100								.025		.009			.003	1.73	10
258-261		6487	93	95								.020		.008			.003	1.70	10
261-264		7740	111	100								.030		.018			.001	1.32	10
264-267		7615	110	98								.030		.043			.002	1.63	5
267-268.9		4117	94	100								.065		.002			.001	1.83	5
					END OF HOLE AT 268.9														

DATE Jan 26-Feb.7/82 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
0-3m	Surface rubble
3-6	3.0-3.5 as above; 3.5-4.45 lt gy inter.ppy, rusty, 25% xenoliths of potassic diorite; 4.45-5.10 quartz flooded zone, weak moly, py; 5.1-6.0 med gy argillic qtz diorite, very friable, grain size 1-2mm, pkg altered to chalky clay.
6-9	6.0-7.95 argillic qtz diorite as above; 7.97-8.17 int ppy; 8.17-9.0 med gy argillic qtz diorite as above.
9-12	qtz diorite as above, frizble, rusty throughout to 11.98; 11.98-12.0 med gy int ppy
12-15	12.0-12.51 med gy int ppy; 12.51-14.91 med gnd argillic qtz diorite, friable; 14.91-15.0 med gy int ppy biotite 3% as 1-3mm phenos, fspar 10% as anhedral to subhedral 2-4mm phenos occasionally to 8mm
15-18	Med gy int ppy as above, 2cm vuggy qtz-py-mo sub// to CA from 17.38-17.87m
18-21	Med gy ppy as above, *at least two phases of similar ppy present, dk gy more silicic less argillic ppy crosscuts pale gy argillic ppy at 18.13 and 18.59m, 28cm and 5cm wide (not true width but // to C.A.) are oriented at 25° and 30° to C.A., qtz veins are oxidized and rusty throughout, frags of hornfels and aplite make 15% of section, weakly argillic to 20.4; 20.4-21 med gy ppy ,numerous joints sub//to C.A. although rock is competent, 20% xenoliths of potassic gd and dio.
21-24	med gy int ppy as above
24-27	24-25.9 as above; 25.9-27.0 lt gy argillic int ppy biotite bleached to sericite, 1% unaltered biotite, feldspars chalky, 15% xenoliths, size of quartz veins increases to order of cm rather than mm in arg. zone
27-30	Lt gy gn argillic int ppy, similar to above, 4.3cm qt-mo-py vein @ 20° to C.A. at 28m shows folding of mo layering indicating movement during emplacement.
30-33	30-31.5 same as above, qt-mo veining sub// to C.A. from 30.36 to 31.43m 31.5-33.0 med gy inter ppy biotite 2% as 1-2mm phenos, fspar 10% as anhedral 2-4mm phenos
33-36	As above
36-39	Med gy gn int ppy, potassic phyllic alteration envelopes associated with qt-mo-py veining at 15°-25° to C.A., in these zones biotite has gone to sericite, otherwise biotite 3% as 1-2mm phenos, feldspar 10% anhedral and as clots, grain size 2-8mm, 10% of zone xenoliths of gd, dio and ap.
39-42	As above, chloritic shear sub// to C.A. from 39.85-40.25

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HOLE NO. 81-6 PAGE 2B

DATE Jan 26-Feb7/82 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
45-48	As above, patchy biotite in potassic zones marginal to veins
48-51	Med pale gy int. ppy, phyllic alteration increasing in relation to
	polymetallic veining, 20% xenoliths of gd, dio, ap.
51-54	Lt gy gn int ppy, rusty veining
54-57	As above
57-60	Med gy int ppy, occasional diorite frags
60-63	Med gy int ppy, 5% xenoliths
63-66	Lt pinkish gy int ppy, biotite bleached to sericite, unaltered biotite
	1%, increasing potassic alteration
66-69	As above
69-72	69-71.2 as above, patchy biotite along fractures in potassic clots,
	potassic frags and clots make up 40% of section; 71.2-72.0 lt pinkish
	grey argillic granodiorite, biotite 15%, pale yel-gn clay alteration of plag
72-75	72-72.8 as above; 72.8-73.32 aplite; 73.32-73.82 granodiorite as above,
	73.82-74.85 aplite, 74.85-75.0 shear zone, upper contact at 25° to
	C.A., 50% quartz frags, 50% strongly argillic ppy frags;
75-78	75-75.19 shear zone as above, lower contact at 30° to C.A.; 75.19-78
	pale gy gn argillic int. ppy.
78-81	78-80.13 med gy int. ppy, abt. fractures sub-parallel to C.A., 10%
	biotite as 104mm phenos; 80.13-80.9 creamy granodiorite, abt muscorite
	as 1mm phenos, abt weak qt-mo veins at shallow angles to C.A.; 80.9-81.0
	pale gy potassic granodiorite, weak sericite alteration.
81-84	81.0-81.95 as above; 81.95-84.0 pale gy gn int. ppy 5% xeno of pot gd.
84-87	84.0-84.83 as above; 84.83-87.0 mixed granodiorite and ppy, 60% gd,
	40% ppy, large (1 cm) g.v.'s at shallow (10°-15°) angles to C.A.
87-90	87.0-88.0 as above; 88.0-90.0 pale gy gn int. ppy, strong biotite margins on
	xenoliths.
90-93	As above.
93-96	pale gy int. ppy, potassic alteration increased.
96-99	96.0-97.84 lt gy int. ppy, scattered hornfels frags less than 1cm;
	97.84-99.0 xenolith righ pale gy int. ppy, 25% xenoliths of argillic
	potassic granodiorite.
99-102	med gy int ppy; occasional xenoliths of fine gnd biotite rich diorite,
	strong jointing at mod angles to C.A.
102-105	102-103.16 as above; 103.16-105.0 pale gy int. ppy, increased argillic,
	sericitic alteration, 13mm polymetallic g.v. sub// to C.A. from 104.02-104.86

Bryn Fraser

HOLE NO. 81-6 PAGE 3b

DATE Jan.26-Feb.7/82 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
105-108	Creamy argillic int. ppy, increasing polymetallic veining.
108-111	108.0-109.0 pinkish tan int. ppy, increasing argillic alteration
	apparently related to polymetallic veining; 109.0-109.44 aplit; 109.44-
	111.0 int. ppy as above, 25% aplite frags
111-114	111.0-111.19 int. ppy as above; 111.19-111.90 fault zone, broken
	foughly 40% of core lost, int. ppy frags, qtz frags; 111.90-112.45
	quartz vein, weak sphal; 112.45-114.0 fault zone, 60% phyllic int ppy frags
	dominated by polymetallic g.v.'s sub// to C.A. with sub// sericitic shears.
114-117	114.0-114.16 as above; 114.16-117.0 pale gy int ppy, strongly phyllic,
	dominated by 1cm polymetallic g.v.'s sub-parallel to C.A. with phyllic envel
117-120	117.0-118.27 as above; 118.27-120.0 med gy int ppy mottled texture due
	to 2-4mm kspar clots, this texture is present in all int. ppy from start
	of hole, occasional aplite frags.
120-123	med gy int ppy, 2% biotite phenos 1-3mm, 25% absorbed frags of aplite
	and potassic granodiorite.
123-126	As above.
126-129	As above.
129-132	As above, 15cm of bkn, quartz veined ppy at 131.06-131.21
132-135	As above, increasing phyllic alteration as 1-2cm envelopes on qt-kspar-py
	veins (< 1cm) sub-parallel to C.A.
135-138	As above, 5-20cm frags of aplite and potassic gd.
138-141	As above
141-144	As above, abt. xenoliths of potassic gd, occasional fire gnd. biotite
	rich dioritic xenoliths, weakly foliated at 143.3m @ 50° to C.A.
144-147	med gy gn int ppy, 2mm anhedral feldspar porphyroblasts overgrow
	fine gnd. biotite rich diorite xenoliths @ 144.2m, this indicates porphyritic
	texture of feldspar in ppy is an overgrowth after frags of country rock
	had spalled off, 2% porphyritic biotite as 1-3mm phenos, 15-20% porphyritic
	feldspar as anhedral 103mm phenos, groundmass of very find gnd chloritic
	biotite and quartzofeldspathic infilling, potassic alteration as veins
	and masses surrounding biotite-rich fractures.
147-150	Int ppy as above
150-153	150.0-150.03 as above; 150.03-153.0 tan argillic int ppy bleached zone
	associated with faulting at roughly 20° to C.A.
153-156	153.0-153.05 as above; 153.05-155.80 argillic potassic granodiorite,
	pale gn clay alteration of plagioclase, massive pyrite as discontinuous
	2-4mm lenses at 153.76; 155.80-156.0 med gy int. ppy

Bryan Fraser

HOLE NO. 81-6 PAGE 4B

DATE Jan 26-Feb 7/82 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
156-159	Med gy int ppy
159-162	As above
162-165	162.0-164.63 pale gy int ppy, rusty 1mm gypsum infilled fault @ 20° to
	C.A. @ 162.98m; 164.63-165.0 tan argillic int ppy
165-168	165.0-166.93 as above; 166.93-168.0 med gy int ppy
168-171	Med gy int. ppy, abot frags of ap and gd, phyllic envelopes on
	qtz-kspar veining sub-parallel to C.A.
171-174	As above
174-177	174-176.53 as above; 176.53-177.0 pale gy gn int ppy, increase in argillic
	and sericitic alteration related to fault slicks from sub-parallel to
	50° to C.A.
177-180	As above
180-183	180-182.34 as ABove, abt frags of ap and gd; 182.34-183.0 med gy gn
	int ppy, phyllic envelopes to 2cm on polymetallic veining sub-parallel
	to C.A., rare angular block hornfels xenoliths, abt xenoliths of ap and gd.
183-186	183.0-185.8 as above; 185.8-186.0 pale yel gn argillic int ppy, faulting
	with chloritic gouge at 15°-30° to C.A.'
186-189	186.0-187.19 as above; 187.19-189.0 med gy gn int ppy
189-192	As above
192-195	192.0-192.16 as above; 192.16-195.0 mixed zone large xenoliths (75cm) of
	potassic gd and aplite make up 70% of section, 30% of zone int ppy with
	strong potassic alteration, strong k-spar-sericite zone from 192.79-193.51
	with discontinuous qt-kspar-fluorite veining, dissem. moly and muscorite
	flakes to 2mm.
195-198	As above, xenoliths 50% of section.
198-201	198-198.21 as above; 198.21-201 quartz-flooded potassic granodiorite, *
	barren 8mm quartz vein @ 8° to C.A. changes to qtz-kspar-fluorite as it
	crosses aplite xenolith @ roughly 200m.
201-204	201-202.01 as above; 202.01-204.0 lt gy int ppy, 10% xenoliths.
204-207	204-204.47 as above, strong + 20mm poly met vein sub-parallel to C.A. from
	204.43-205.06; 204.47-206.40 quartz flooded potassic granodiorite, 50%
	quartz, undulating fault of 3-8mm width infilled with sparry gypsum
	sub-parallel to c.a. from 205.05-206.05; 206.4-207 mixed zone--50%
	int ppy, 50% potassic gd. frags
207-210	xenolith rich ppy as above
210-213	As above

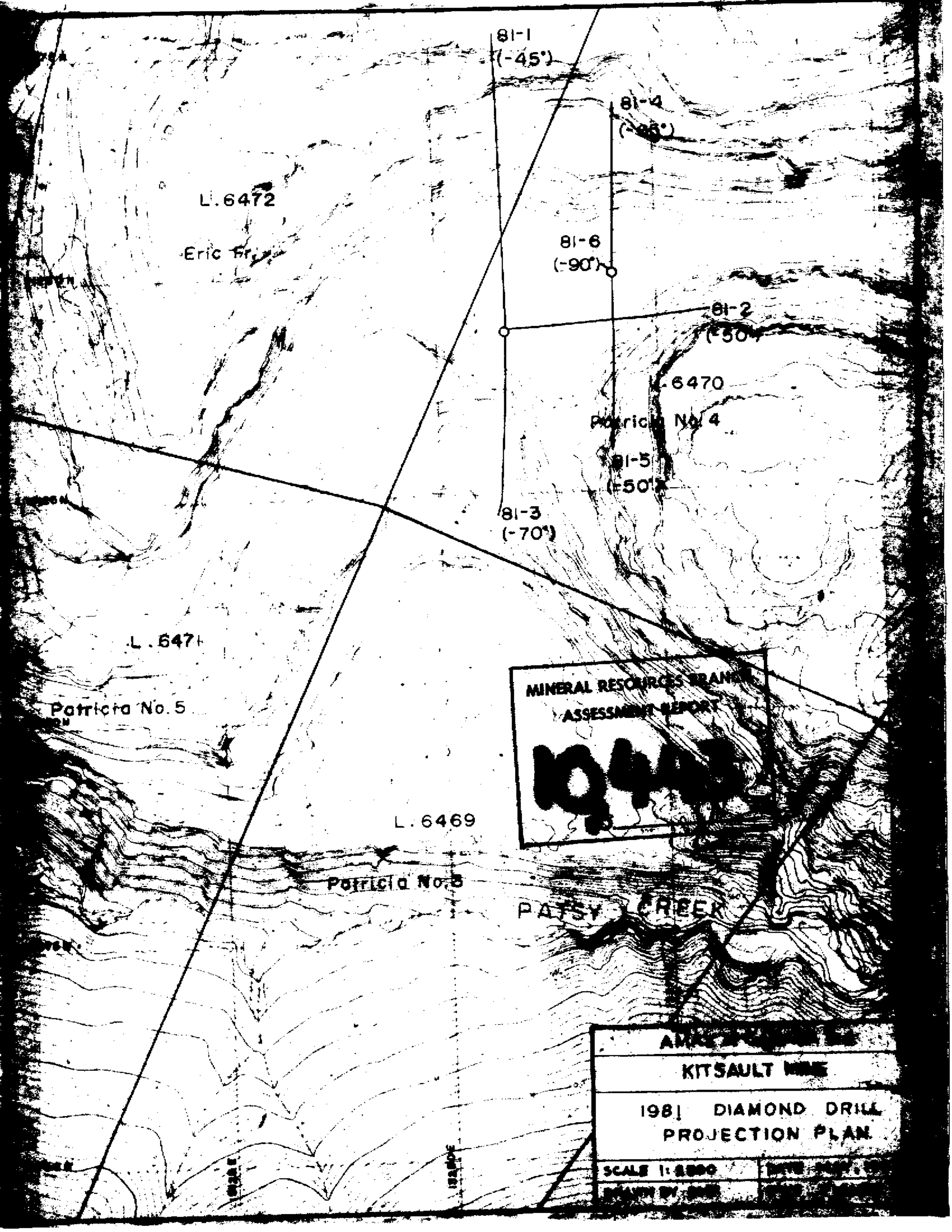
Byron Fraser

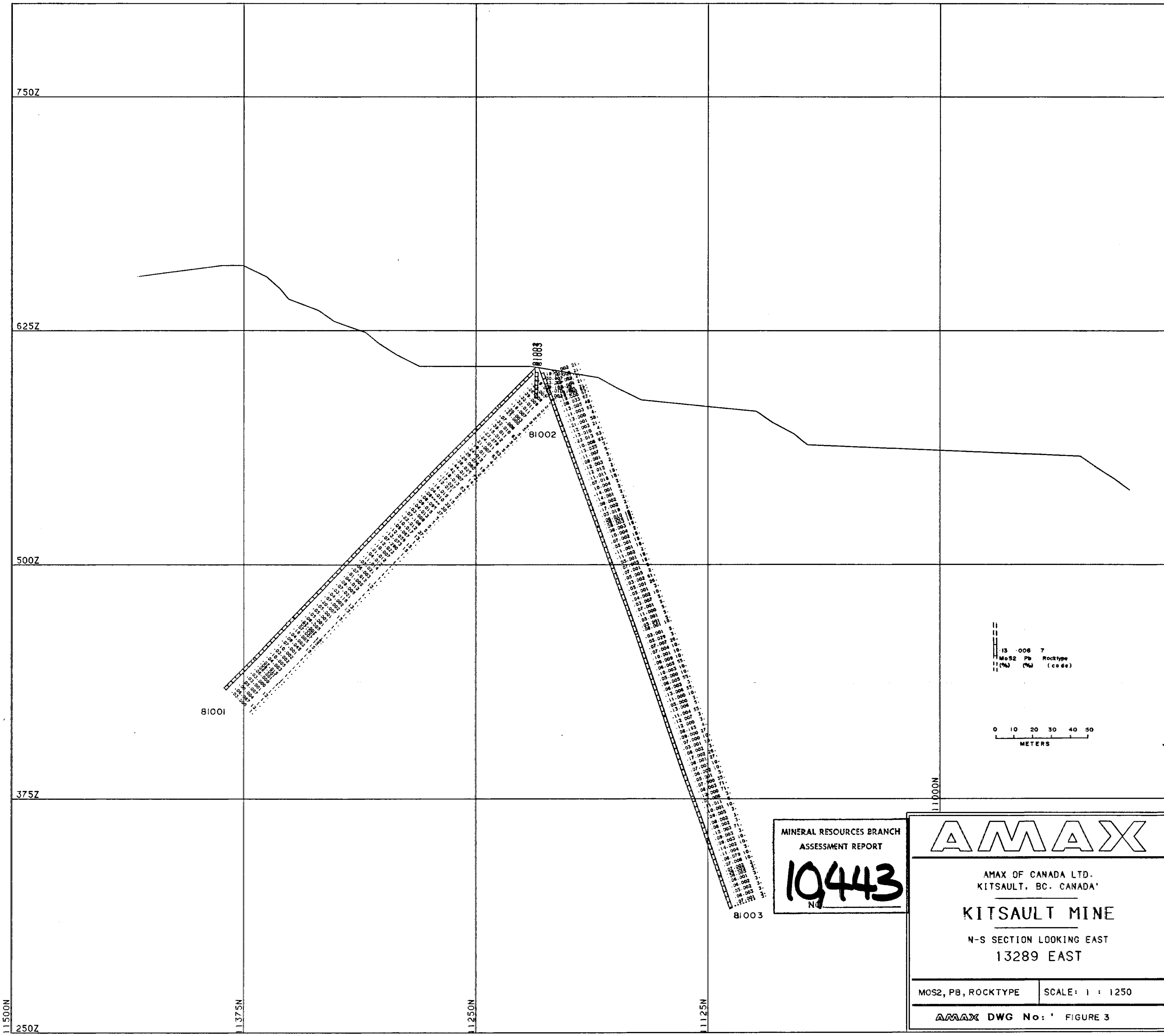
HOLE NO. 81-6 PAGE 5B

DATE Jan 26-Feb 7/82 LOGGED BY B. Fraser

DEPTH	ROCK DESCRIPTION
216-219	216.0-217.68 as above; 217.68-219.0 med pinkish grey potassic granodiorite
	abt fluorite veining.
219-222	As above
222-225	As above
225-228	As above
228-231	As above
231-234	As above
234-237	234.0-235.11 as above; 235.11 236.0 med gy int ppy; 236.0-237 med gy
	granodiorite as above.
237-240	As above
240-243	As above, scarce frags of bk hornfels to 4cm
243-246	243.0-245.61 as above; 245.61-246.0 med gy int ppy, 25% xenoliths of pot gra
246-249	As above
249-252	As above, 3-7mm qt-carb-sphal-py-moly vein sub-parallel to C.A. from
	249.15-250.10 with associated phyllic alteration.
252-255	252-254.39 As above; 254.39-255.0 pink strongly potassic sericitic granodior-
	ite, 8mm fault gouge @ 35° to C.A. @ 254.39m
255-258	255-256.6 as above; 256.6-258.0 xenolith rich int ppy,40% potassic
	granodiorite and rare hornfels frags (∠ 2cm).
258-261	As above
261-264	As above, *unusual 1mm gypsum vein @ 13° to C.A. at roughly 261.5m with
	15mm envelope either side of coarse chlorite.
264-267	264-266.6 lt gy int ppy fractures infilled with biotite and pyrite;
	266.6-267.0 dk gy biotite rich int ppy, abt xenoliths, biotite to 30%
	foliation @ 56° to C.A., abt. fluorite veining
267-268.9	As above
	END OF HOLE 81-6 AT 268.9M

Bryan Fraser


81-1
(-45°)
81-4
L.6472
Eric Fr.
81-6
(-90°)
81-2
(-50°)
L.6470
Patricia No.4
81-5
(-50°)
81-3
(-70°)
L.6471
Patricia No.5
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
L.6469
PATSY CREEK
KITSAULT MINE
1981 DIAMOND DRILL
PROJECTION PLAN



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10443
NO

AMAX

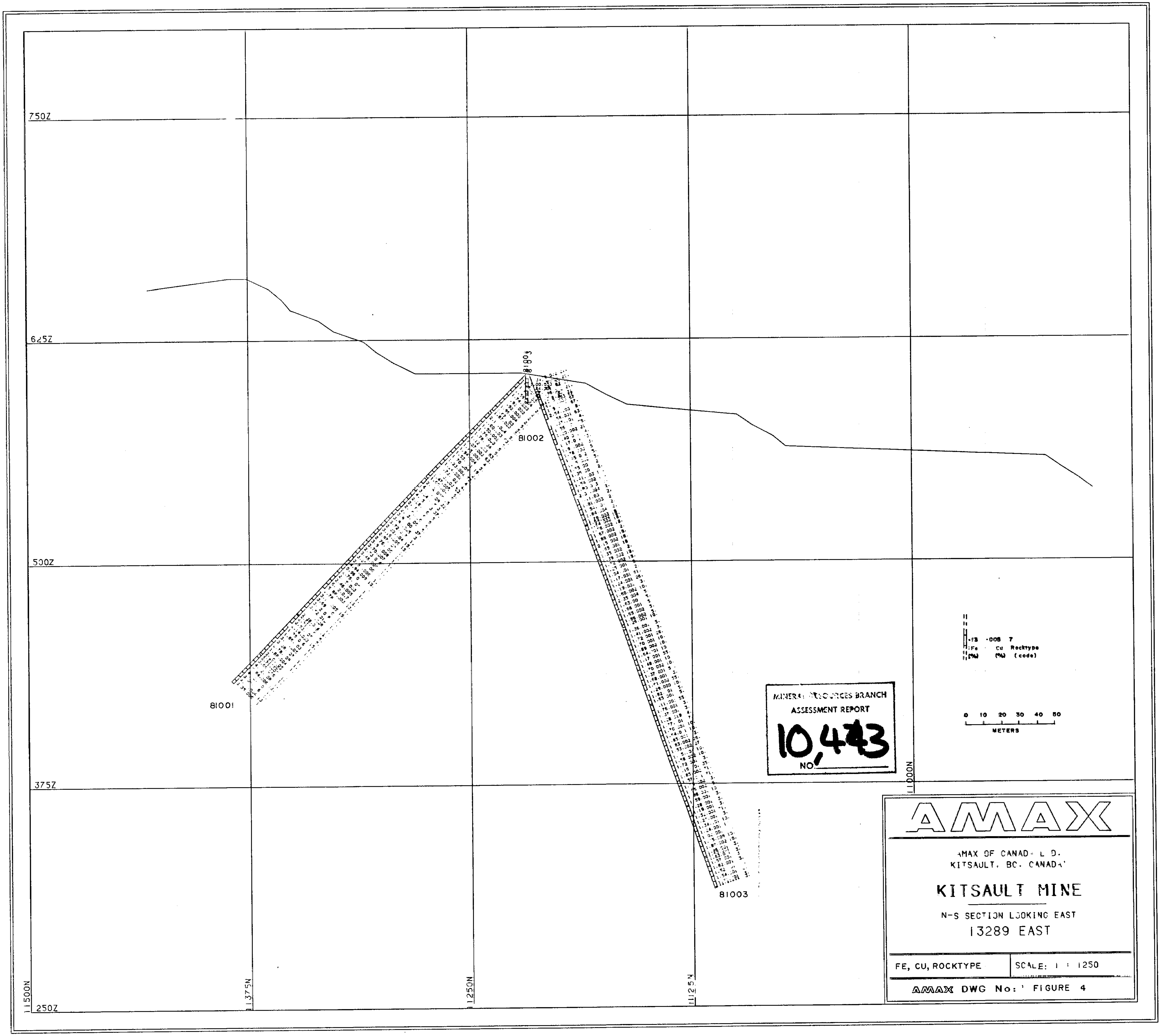
AMAX OF CANADA LTD.
KITSAULT, BC. CANADA'

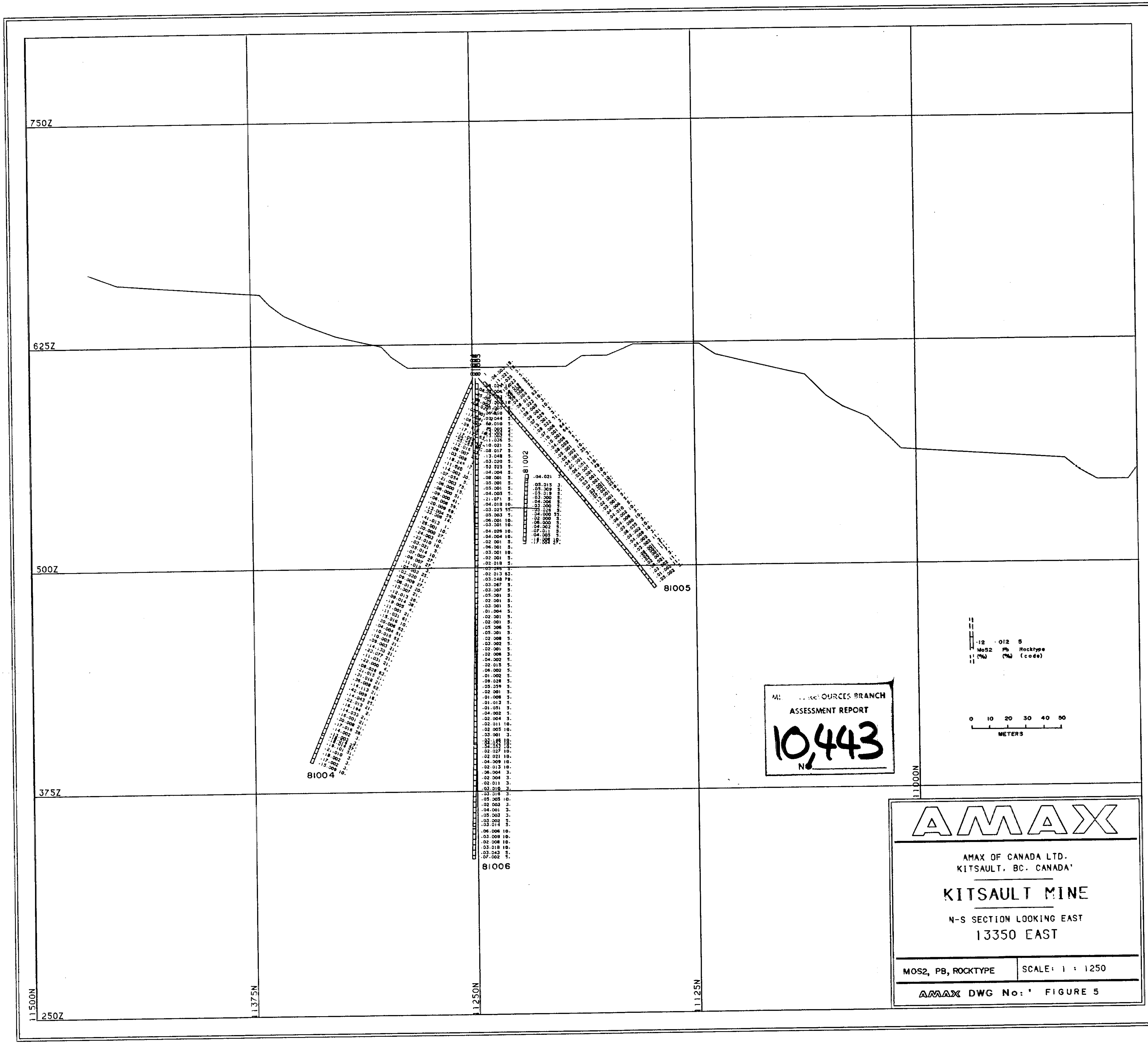
KITSAULT MINE

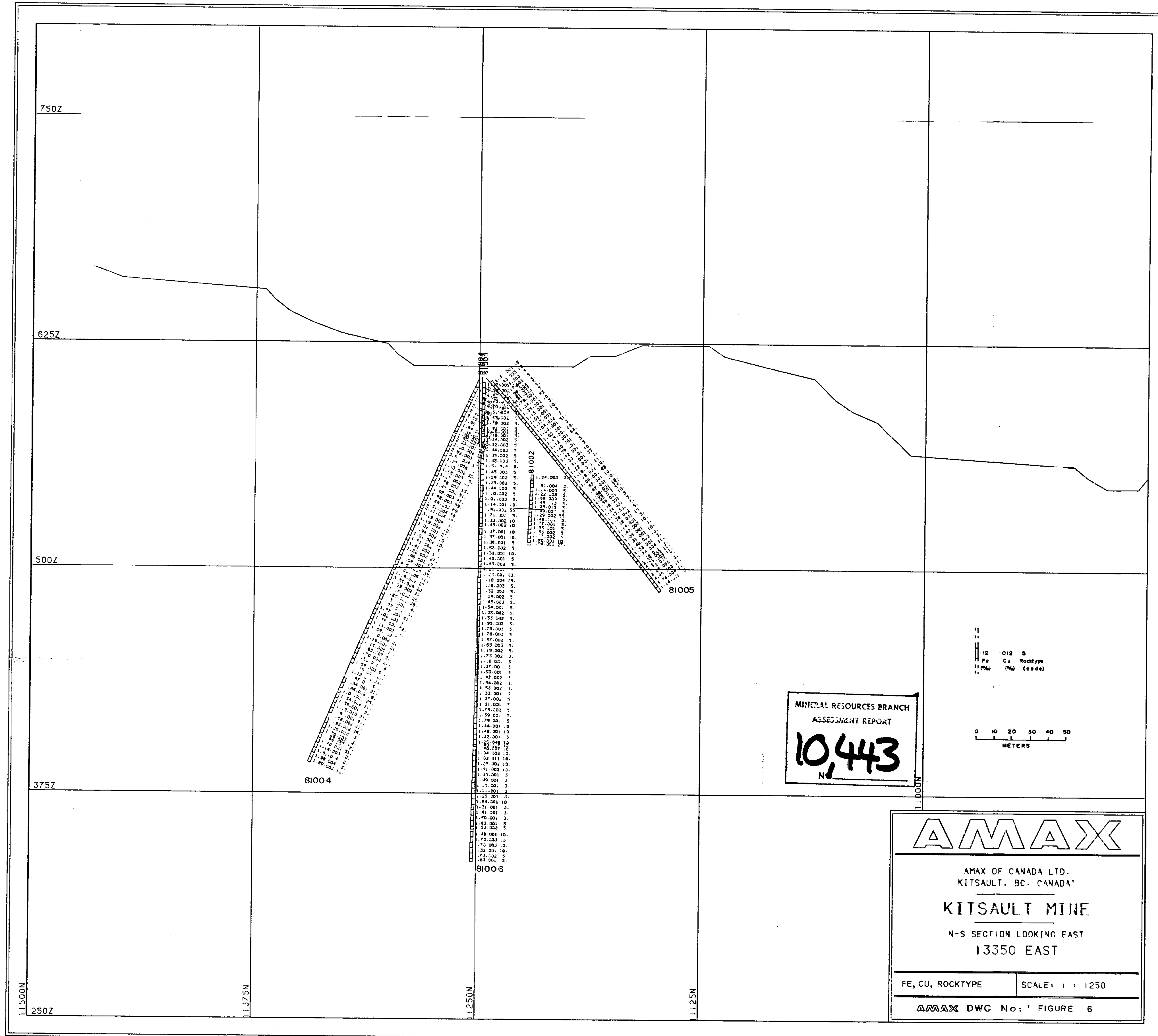
N-S SECTION LOOKING EAST
13289 EAST

MOS2, PB, ROCKTYPE	SCALE: 1 : 1250

AMAX DWG No: ' FIGURE 3


750Z
625Z
500Z
375Z
250Z
11500N
11375N
11250N
11125N
11000N
81001
81002
81003
Fe (%)
Cu (%)
Rocktype (code)
0 10 20 30 40 50
METERS
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 10,443
AMAX
AMAX OF CANADA LTD.
KITSAULT, BC. CANADA
KITSAULT MINE
N-S SECTION LOOKING EAST
13289 EAST
FE, CU, ROCKTYPE
SCALE: 1 : 1250
AMAX DWG No: FIGURE 4


750Z
625Z
500Z
375Z
250Z
11500N
11375N
11250N
11125N
11000N
81002
81004
81005
81006
.12 .012 5
MoS2 Pb Rocktype
(%) (%) (code)
0 10 20 30 40 50
METERS
ASSESSMENT REPORT
10,443
AMAX
AMAX OF CANADA LTD.
KITSAULT, BC. CANADA
KITSAULT MINE
N-S SECTION LOOKING EAST
13350 EAST
MOS2, PB, ROCKTYPE
SCALE: 1 : 1250
AMAX DWG No: FIGURE 5



750Z
625Z
500Z
375Z
250Z
11500N
11375N
11250N
11125N
11000N
81004
81005
81006
81002
.12 .012 5
Fe Cu Rocktype
(%) (%) (code)
0 10 20 30 40 50
METERS
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10,443
NO
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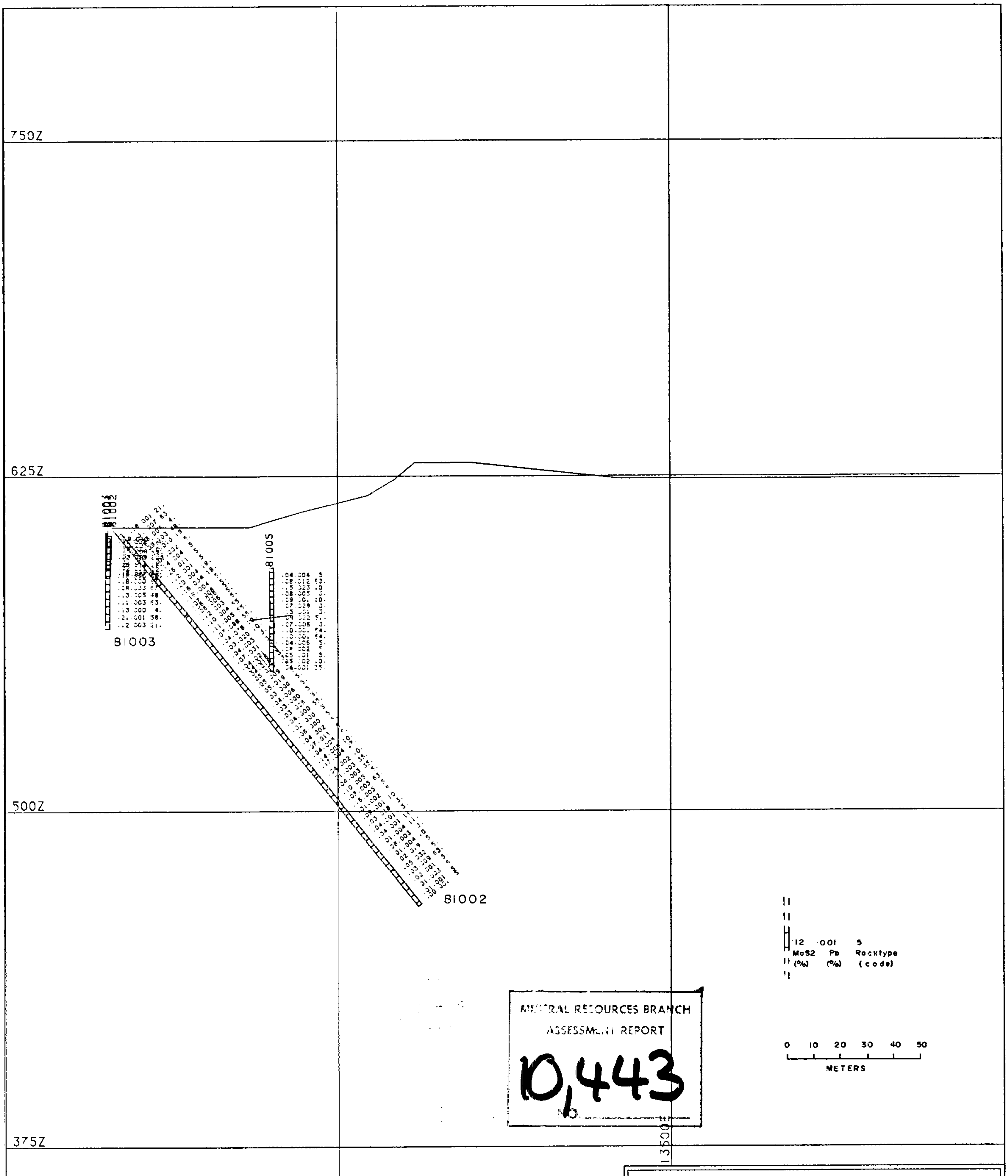
KITSAULT MINE
N-S SECTION LOOKING EAST
13350 EAST
FE, CU, ROCKTYPE
SCALE: 1 : 1250
AMAX DWG No: FIGURE 6



AMAX

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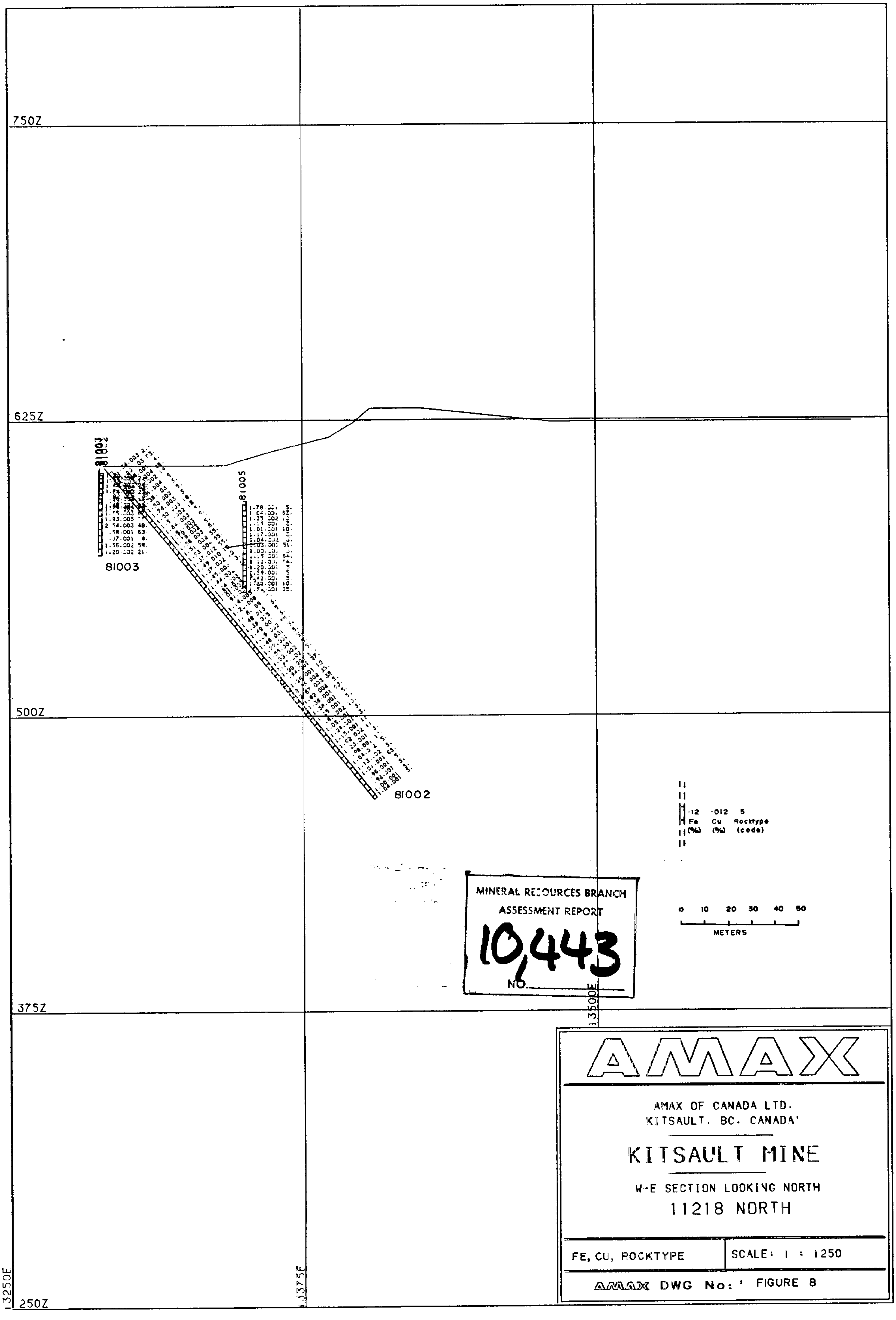
KITSAULT. BC. CANADA

KITSAULT MINE

W-E SECTION LOOKING NORTH
11218 NORTH

MOS2, PB, ROCKTYPE	SCALE: 1 : 1250

AMAX DWG No: FIGURE 7



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NO. 10,443

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KITSAULT, BC. CANADA

KITSAULT MINE

W-E SECTION LOOKING NORTH
11218 NORTH

FE, CU, ROCKTYPE	SCALE: 1 : 1250

AMAX DWG No: FIGURE 8