

DU PONT OF CANADA EXPLORATION LIMITED

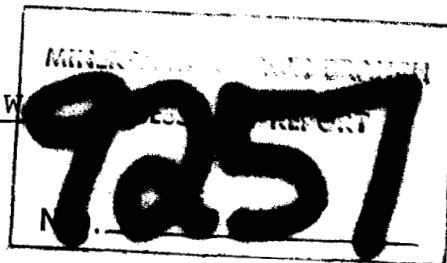
GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE PASS CLAIM

LILLOOET MINING DIVISION

LAT. 50°40'N, LONG. 122°32'W

NTS: 92-J-10E



OWNER OF CLAIM: Du Pont of Canada Exploration Limited

OPERATOR: Du Pont of Canada Exploration Limited

Author: F. M. Smith

Date Submitted: 1981 June 8

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Appendix A - Geochemical Analytical Procedure

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Dwg. AR 80-229 Geology Map	In pocket
Dwg. AR 80-230 Geochemistry Map	"

I INTRODUCTION(a) Location

The PASS claim is located on the south side of McGillivray Pass approximately 15 km up McGillivray Creek from its mouth at Anderson Lake.

(b) Access

Access to the claim is most convenient by rotary wing aircraft from Goldbridge, approximately 30 km to the northwest.

(c) Claim Definition

The PASS claim represents 16 contiguous units with record number, tag number and record date as listed below:

<u>Claim(units)</u>	<u>Record No.</u>	<u>Tag No.</u>	<u>Record Date</u>
PASS (16)	1372	62597	June 11, 1980

The current owner and operator of the claim is Du Pont of Canada Exploration Limited. The claim was staked to facilitate work on an auriferous geochemical anomaly.

(d) Economic Assessment of the Property

There has been no extensive previous exploration on the property, to the writers knowledge. No significant economic mineralization was noted during the course of the present investigation.

(e) Summary of Work Performed

A total of 16 soil samples, 25 stream sediment samples and 9 rock samples were collected on the claim.

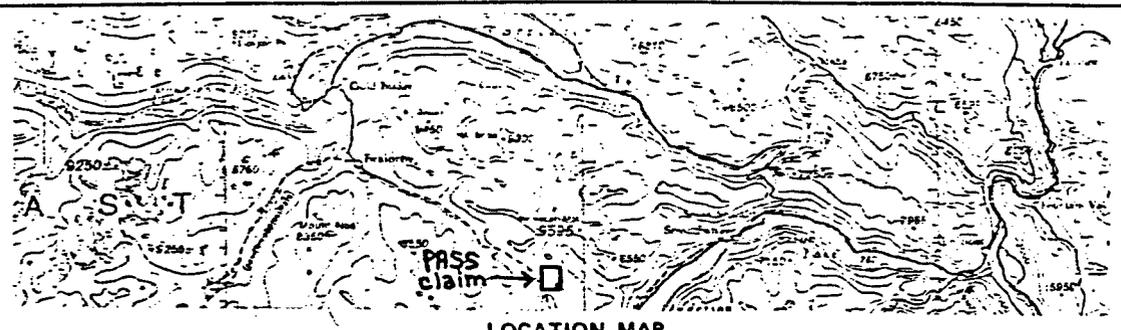
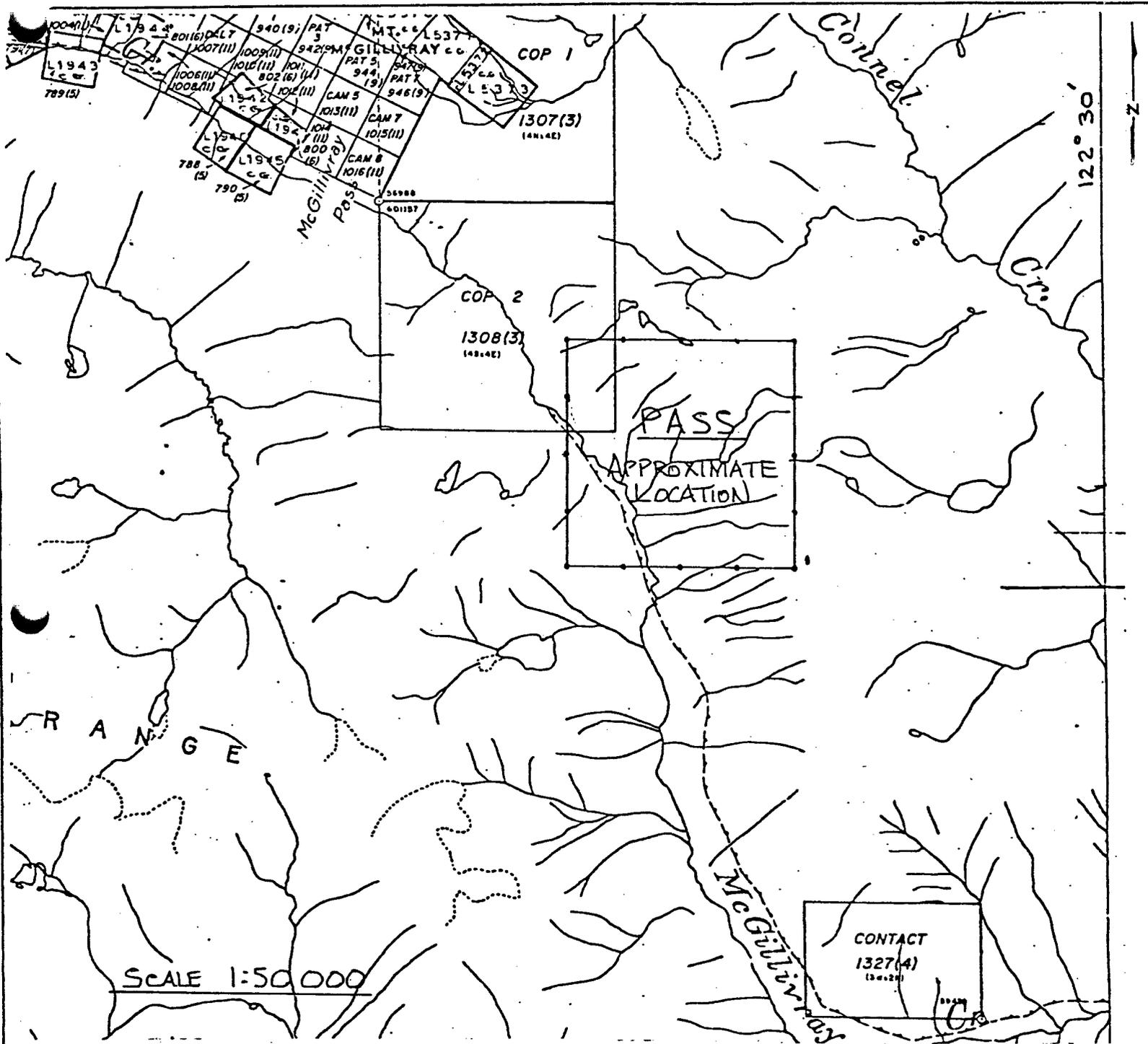
Geological mapping was done using aerial photographs and topographic maps for control. Mapping was done at a scale of 1:10 000.

FIGURE 1 - Index Map

PASS CLAIM

Lillooet, M.D.

NTS: 92-J-10E



II GEOLOGY(a) Introduction

The claim is located in the southwestern portion of the Intermontane Belt, fringing the Coast Crystalline Belt. According to published maps the claim is underlain by the Triassic, Bridge River Group meta-sediments and metavolcanics and Jurassic-Cretaceous quartz diorite of the Bendor Pluton. The distribution of rock types is shown on Dwg. AR 80-229.

(b) Lithologyi) Plagioclase Porphyry

This rock unit is grey-green with medium to coarse grained white plagioclase phenocrysts in a fine grained dark grey-green groundmass. The rock was located only in the northwest area of the claim. Its occurrence suggests a dyke of probable intrusive origin.

ii) Metavolcanics (greenstone)

This unit consists of variably metamorphosed andesite, basalt and lesser rhyolite. Rocks are typically dark green, fine grained and frequently serpentized particularly along faults and fractures. Abundant calcite veining and less frequent quartz veining occur where serpentization is more intense.

iii) Metasediments

This unit is composed of shattered and partially metamorphosed conglomerate, sandstone, siltstone, argillite and chert. Conglomerate and sandstone units are most common and exhibit secondary biotite which has been further distorted by metamorphism. Volcanic clasts in the conglomerate show weak serpentization.

(c) Structure

From the limited data available, structural relationships of faults and rock units could not be ascertained. Aerial photographs suggest several northeast and east trending faults although these were not encountered in the field.

(d) Mineralization

Apart from minor calcite and quartz veining in the metavolcanics there were no other indications to suggest the presence of economic precious metal mineralization.

(e) Conclusions

The claim is underlain by variably metamorphosed sedimentary and volcanic rocks containing secondary calcite, quartz and biotite alteration and serpentinization of more mafic rock units. Minor plagioclase porphyry of probable intrusive origin occurs in the northwest portion of the claim.

No mineralization of economic significance was noted during the course of the present investigation.

III GEOCHEMISTRY(a) Sample Collection, Preparation and Analysis

A total of 16 soil samples were collected from depths of 10 to 20 cm using a mattock with an 8 cm x 13 cm blade to dig to the B or C horizon. All samples were placed in labelled wet-strength Kraft paper envelopes and a plastic flag was fixed at the site bearing the identical number as the sample envelope. Descriptive data about the sample was recorded on prepared data sheets and filed.

A total of 25 stream sediment samples were collected at 100 m intervals. Samples were placed in numbered wet-strength sample envelopes. Collection sites were marked with a plastic flag bearing the identical number as on the sample envelope. Specific data pertaining to the sample was recorded on special information tags.

A total of 9 rock samples were taken at random localities. Rocks were placed in plastic sample bags. Sample sites were identified with plastic flags bearing the identical number as the sample bag.

Soil, stream sediment and rock samples were sent to Min-En Laboratories in North Vancouver for preparation and analysis. Soil and stream sediment samples were oven dried and sieved to -100 or -80 mesh. The -100 or -80 mesh fraction was analyzed for Au, Cu, Pb, Zn, Cu and Ag according to the procedures outlined in Appendix A. Rock samples were crushed, split, pulverized and sieved to -80 mesh. The -80 mesh fraction was then analyzed for Au, Cu, Pb, Zn, Ag, or only Au and Ag according to the procedures outlined in Appendix A.

(b) Results and Interpretation

Drawing AR 80-230 shows the sample locations, sample number and results of the soil and stream samples.

Soil samples report values of 5 ppb to 150 ppb Au with values over 30 ppb considered anomalous. Sample nos. 6772A and 6773A report values of 150 ppb and 35 ppb respectively. Lead values range from 14 ppm to 38 ppm, all within background levels. Zinc values range from 35 ppm to 155 ppm with values about 70 ppm considered anomalous. Sample nos. 6758A, 6769A, 6770A, 6771A, 6772A, 6773A and 6774A report anomalous values of 91, 155, 80, 119, 78, 87 and 81 ppm Zn respectively. Copper values range from 16 ppm to 157 ppm with values above 45 ppm considered anomalous. Sample nos. 6769A, 6770A, 6771A and 6772A report anomalous values of 157, 55 and 50 ppm Cu respectively. Silver values range from 0.5 ppm to 1.0 ppm all within background levels.

Stream sediment samples report values for Au ranging from 5 ppb to 345 ppb with values above 30 ppb considered anomalous. Sample nos. 7158A, 7166A and 7168A report values of 35, 40 and 345 ppb respectively. Lead values range from 14 to 23 ppm all within background levels. Zinc values range from 65 to 134 ppm with values above 90 ppm considered anomalous. Sample nos.

7159A, 7160A, 7162A and 7163A report anomalous values of 95, 110, 134 and 103 ppm Zn respectively. Copper values range from 34 ppm to 85 ppm with values above 50 ppm considered anomalous. Sample nos. 7161A, 7162A, 7163A, 7165A and 7167A report values 72 ppm, 85 ppm, 62 ppm, 52 ppm and 53 ppm respectively. Silver values range from 0.6 ppm to 1.3 ppm all within background levels.

Rock samples report values ranging from 5 to 35 ppb, all more or less within background levels. Silver values range from 0.1 to 3.6 ppm with values above 1.4 ppm considered anomalous. Sample nos. 2724B and 2806B report values of 3.6 and 3.2 ppm respectively. Copper, Pb and Zn were run on only 4 of the 9 samples. Lead values range from 3 to 12 ppm all within background levels. Zinc values range from 12 to 57 ppm, all within background levels. Copper values range 8 to 126 ppm. Sample no. 2809B reports a moderately anomalous value of 126 ppm Cu.

In conclusion, geochemical sampling indicates the presence of precious metals mineralization in trace amounts just north of the centre of the claim. This area appears therefore to be the target area for future exploration.

IV COST STATEMENT

(a) Wages

	<u>Rate/ day</u>	<u>Spec. dates</u>	<u>No. days</u>	<u>Cost</u>
1 field samp.	\$ 39.18	Aug.26/80	1	\$ 39.18
1 jr. field asst.	43.42	Aug.26/80	1	43.42
1 sr. field tech.	57.18	Aug.26/80	1	57.18
1 geol.tech.	50.82	Aug.26/80	1	50.82
				<hr/>
				\$ 190.60

(b) Room and Board

Per diem rate of \$38.15 - based on 4 person days: \$ 152.60

(c) Transportation

Costs to and from the project area during August, pertinent to the PASS claim, are split amongst claims that had work conducted upon.

Truck rental and fuel, \$1336.57 split amongst 13 claims: \$ 102.81

Helicopter:

Terr-Air charter ticket #1145 (1.0 hrs @ \$426/hr) 426.00
(Billed on invoice #513) 426.00
\$ 528.81

(d) Analytical Services

Min-En Laboratories Invoice #7471 and 7318

41 stream sed. & soil - prep. (@ \$0.60 each)	\$	24.60
41 stream sed. & soil - Cu,Pb,Zn,Au,Ag (@ \$8.25)		338.25
9 rock - prep. (@ \$2.00 each)		18.00
9 rock - Au,Ag (@ \$6.00 each)		54.00
4 rock - Cu,Pb,Zn (@ \$2.25 each)		9.00
		<u>443.85</u>
	\$	443.85

(e) Report Preparation

	<u>Rate/ day</u>	<u>Spec. dates</u>	<u>No. days</u>	
Drafting	\$127.00	Apr.16/81	1	\$ 127.00
Typing	64.80	Apr.16/81	1	64.80
Compilation	141.04	Apr.16,20/81	2	282.08
				<u>473.88</u>
				\$ 473.88

GRAND TOTAL \$1,637.14

V. QUALIFICATIONS

I, Murray I. Jones, do hereby certify:

1. I am residing at 350 Belgo Road, Kelowna, BC and am employed on a temporary-summer basis by Du Pont of Canada Exploration Limited.
2. I have completed three and a half years of study towards a B.Sc. in Geology at the University of British Columbia.
3. I have worked in geology the past two summers in British Columbia and the Yukon.
4. On 1980 August 26, I assisted with a field programme on the PASS claims on behalf of Du Pont of Canada Exploration Limited.

Murray Jones
Murray I. Jones

V. STATEMENT OF QUALIFICATIONS

I, F. Marshall Smith, do hereby certify that:

1. I am a geologist residing at 6580 Mayflower Drive, Richmond, BC and employed by Du Pont of Canada Exploration Limited.
2. I am a graduate of University of Toronto with a B.Sc. in geology.
3. I am a registered Professional Engineer of the Province of British Columbia, Member of the Association of Exploration Geochemists and Fellow of the Geological Association of Canada.
4. I have practised my profession continuously for the last 13 years in Canada.
5. Between 1980 August 23 and 1981 January 30, I supervised/directed a field programme on the Pass Claim on behalf of Du Pont of Canada Exploration Limited.



F. Marshall Smith

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with HNO_3 and HClO_4 mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

*MIN-EN Laboratories Ltd.**Specialists in Mineral Environments*Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADAANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORKPROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer.

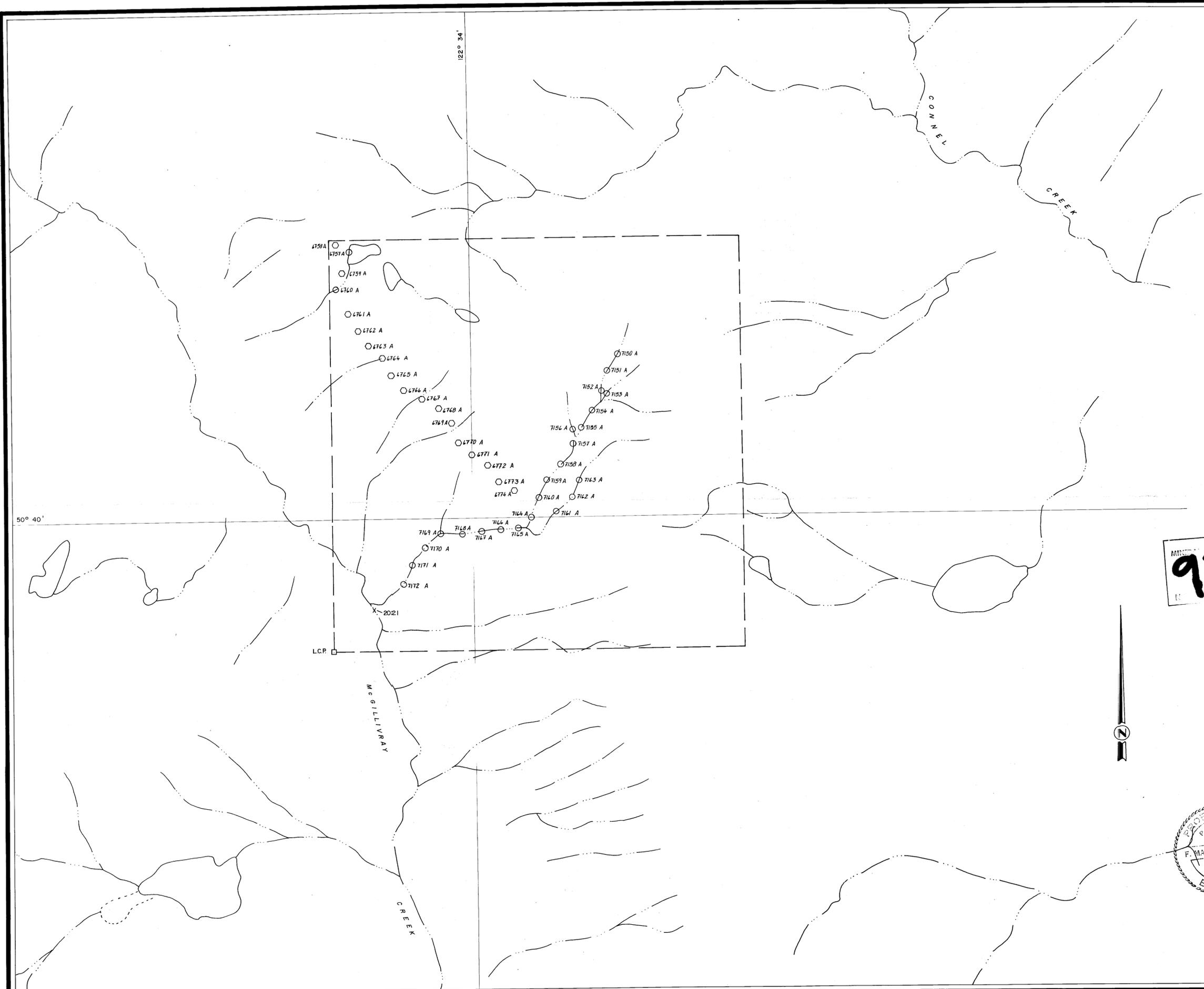
1.0 gram of the samples are digested for 6 hours with HNO_3 and HClO_4 mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH_2H_2 -Air flame combination but the Molybdenum determination is carried out by C_2H_2 - N_2O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzeit method using $\text{Ag CS}_2\text{N} (\text{C}_2\text{H}_5)_2$ as a reagent. The detection limit obtained is 1.2 ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is 10 ppm F.



LEGEND

- 6774 A SOIL SAMPLE LOCATION AND NUMBER
- 7152 A STREAM SEDIMENT LOCATION AND NUMBER
- X-2021 ORIGINAL STREAM SEDIMENT LOCATION AND NUMBER

ORIGINAL STREAM SEDIMENT SAMPLE RESULTS

Tag	Mesh	Au P.P.B.	As P.P.M.	Sb P.P.M.	Pb P.P.M.	Cu P.P.M.	Ag P.P.M.	%H.M.
2021	-20	60			11	44	0.8	19.38
	-100	1700	50	35		30	0.7	

Note Regarding Original Sample Results:
The results of the analysis of the heavy mineral concentrate from the -20(-20 +100 mesh) fraction are not weighted.

SOIL SAMPLE RESULTS

Tag	Mesh	Au P.P.B.	Pb P.P.M.	Zn P.P.M.	Cu P.P.M.	Ag P.P.M.
6757A	-100	5	27	70	28	0.5
6758A	"	10	26	91	43	0.5
6759A	"	15	29	60	22	0.8
6760A	"	10	32	69	25	0.7
6761A	-100	15	28	57	28	0.6
6762A	"	10	26	35	25	0.9
6763A	"	15	30	38	16	0.7
6764A	"	5	38	43	22	0.6
6765A	-100	15	22	58	19	0.6
6766A	"	10	38	45	23	0.7
6767A	"	20	30	53	30	0.6
6768A	-80	5	14	65	38	0.5
6769A	"	15	26	155	157	0.8
6770A	"	10	23	80	90	1.0
6771A	"	5	19	119	55	0.8
6772A	-80	150	20	78	50	0.8
6773A	"	35	17	87	37	0.8
6774A	"	10	18	81	38	0.9

STREAM SEDIMENT SAMPLE RESULTS -80 MESH

Tag	Au P.P.B.	Pb P.P.M.	Zn P.P.M.	Cu P.P.M.	Ag P.P.M.
7150A	10	16	66	42	0.8
7151A	25	15	65	43	0.8
7152A	15	14	69	49	0.6
7153A	10	15	73	45	0.9
7154A	15	15	70	47	0.6
7155A	25	20	69	43	0.9
7156A	20	17	70	34	0.8
7157A	30	18	67	42	0.8
7158A	35	20	70	38	1.0
7159A	5	18	95	48	0.9
7160A	15	16	82	45	1.1
7161A	10	19	110	72	1.2
7162A	10	22	134	85	1.3
7163A	5	18	103	62	0.8
7164A	10	17	79	45	0.6
7165A	5	16	81	52	0.8
7166A	40	23	86	50	0.8
7167A	15	21	80	53	0.7
7168A	34.5	19	77	48	0.8
7169A	5	20	74	43	0.7
7170A	5	21	73	48	0.6
7171A	5	20	74	47	0.6
7172A	20	19	67	45	0.7

MINING
9257



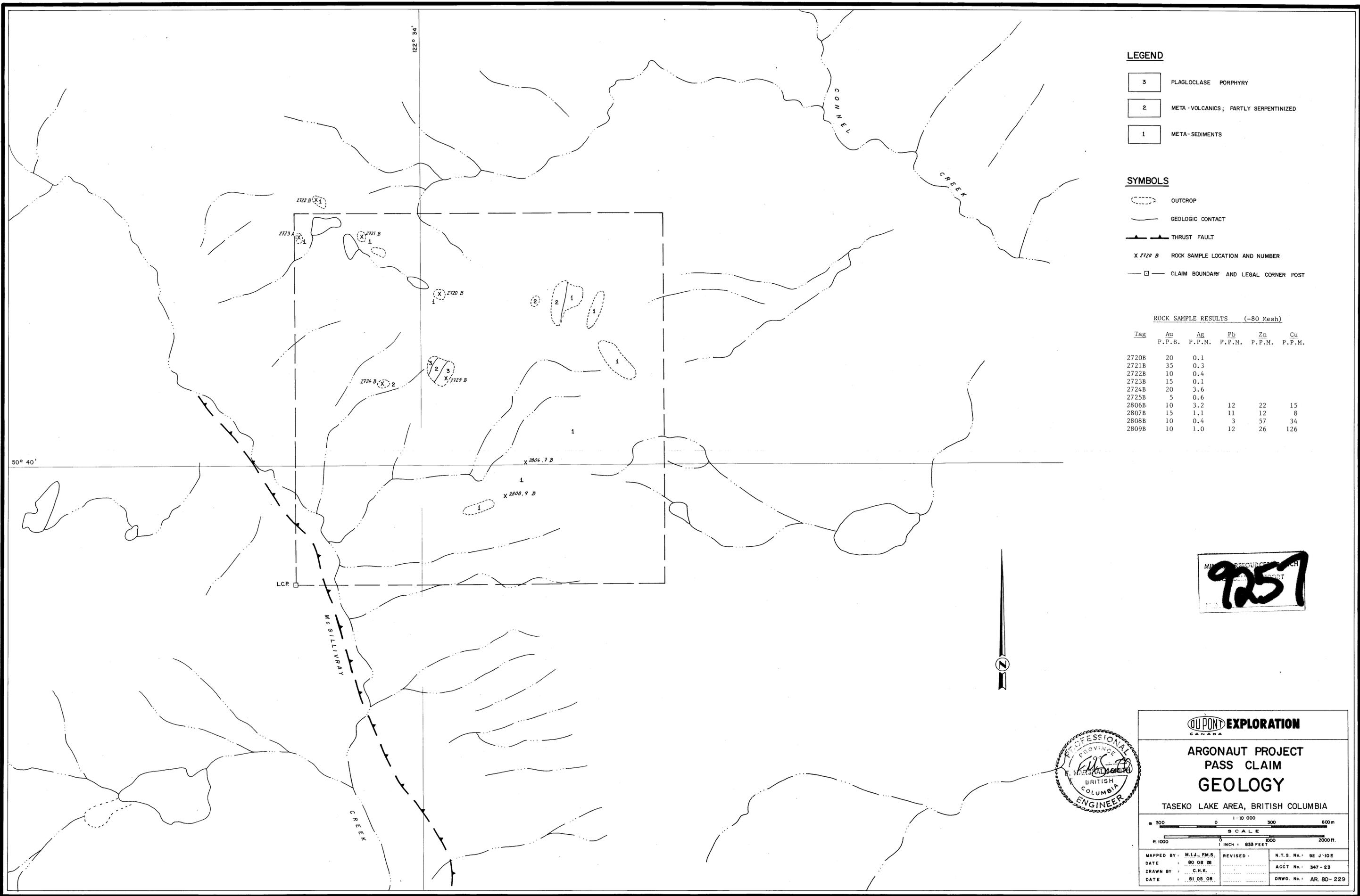
DU PONT EXPLORATION CANADA

**ARGONAUT PROJECT
PASS CLAIM
GEOCHEMISTRY**

Au IN P.P.B & Pb, Zn, Cu, Ag IN P.P.M.
TASEKO LAKE AREA, BRITISH COLUMBIA

SCALE: 1:10,000
1 INCH = 833 FEET

MAPPED BY: M.I.J., F.M.S. N.T.S. No.: 92 J-10E
DATE: 80.08.28 ACCT No.: 347-23
DRAWN BY: C.H.K.
DATE: 81.05.08 DRWG. No.: AR. 80-230



- LEGEND**
- 3 PLAGIOCLASE PORPHYRY
 - 2 META-VOLCANICS; PARTLY SERPENTINIZED
 - 1 META-SEDIMENTS

- SYMBOLS**
- OUTCROP
 - GEOLOGIC CONTACT
 - ▲— THRUST FAULT
 - X 2720 B ROCK SAMPLE LOCATION AND NUMBER
 - CLAIM BOUNDARY AND LEGAL CORNER POST

ROCK SAMPLE RESULTS (-80 Mesh)

Tag	Au P.P.B.	Ag P.P.M.	Pb P.P.M.	Zn P.P.M.	Cu P.P.M.
2720B	20	0.1			
2721B	35	0.3			
2722B	10	0.4			
2723B	15	0.1			
2724B	20	3.6			
2725B	5	0.6			
2806B	10	3.2	12	22	15
2807B	15	1.1	11	12	8
2808B	10	0.4	3	57	34
2809B	10	1.0	12	26	126

MIN. RESOURCES BRANCH
 9257



OU POND EXPLORATION
 CANADA

**ARGONAUT PROJECT
 PASS CLAIM
 GEOLOGY**

TASEKO LAKE AREA, BRITISH COLUMBIA

m 300 0 10 000 300 600 m
 SCALE
 1 INCH = 833 FEET

MAPPED BY: M.L.J., F.M.S. REVISIONS: N.T.S. No.: 92 J-10E
 DATE: 80.08.28 ACCT No.: 347-23
 DRAWN BY: C.H.K. DRWG. No.: AR-80-229
 DATE: 81.05.08