DU PONT OF CANADA EXPLORATION LIMITED

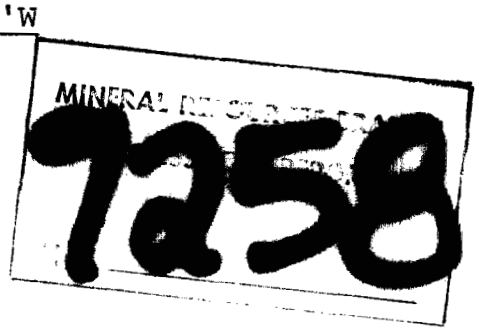
GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE ICE CLAIM

LILLOOET MINING DIVISION

LAT. 50°38'N, LONG. 122°37'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

TABLE OF CONTENTS

LIST OF FIGURES

I INTRODUCTION

(a) Location

The ICE claim is located west of Anderson Lake at the headwaters of Cadwallader Creek at approximately 50°38'N latitude and 122°37'W longitude. About 90% of the claims is above tree line with sparse alpine heather and wild-flowers. Lower elevations contain sparse ground birch and spruce.

(b) Access

Access to the claim is most convenient by rotary wing aircraft from Goldbridge, approximately 28 km to the northwest.

(c) Claim Definition

The ICE claim represents 16 contiguous units with record numbers, tag numbers and record dates as listed below:

Claim(units)	Record No.	Tag No.	Record Date
ICE (16)	1373	62598	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 present investigation.

(e) Summary of Work Performed

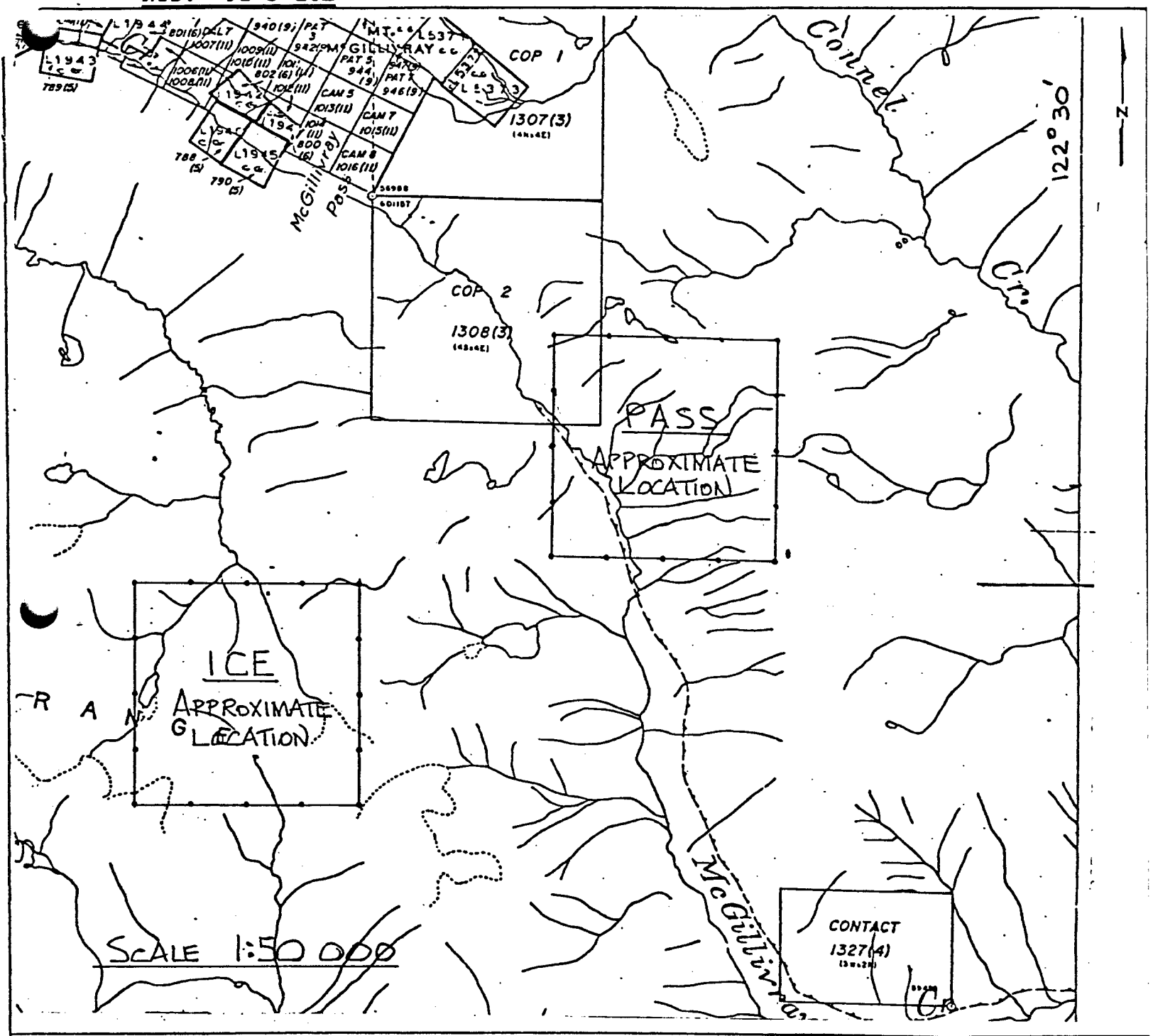
A total of 30 soil samples, 20 stream sediment samples and 12 rock samples were collected from the claim during August 26, 1980.

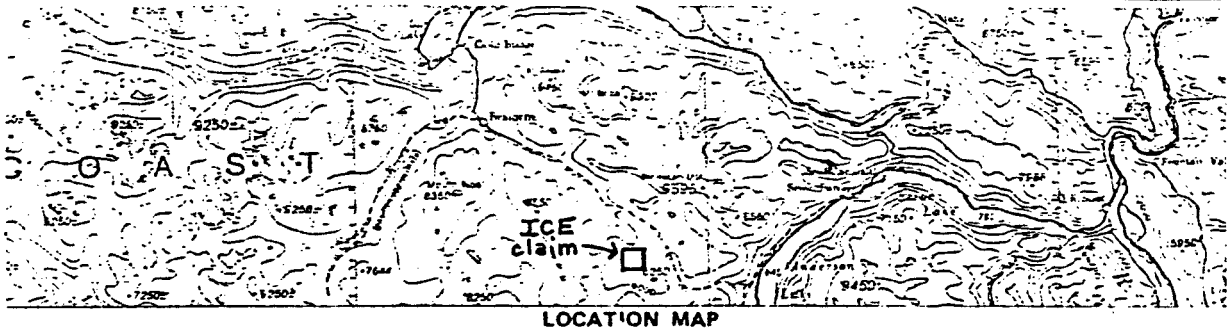
FIGURE 1 - Index Map

ICE CLAIM

Lillooet M.D.

NTS: 92-J-10E





LOCATION MAP

Show nearest town and access road

10 0 10 20 30 40 km

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

II GEOLOGY

(a) Introduction

The claim is located in the southwest portion of the Intermontane Belt, fringing the Coast Crystalline Belt. According to published geological maps the claim is underlain by the Upper Triassic Pioneer Formation consisting of greenstone and the Upper Triassic Hurley Formation consisting of argillite, limestone and conglomerate. The distribution of rock types is shown on Dwg. AR 80-231.

(b) Lithology

i) Quartz Diorite

This rock is buff to grey with fine to medium grained feldspar, hornblende and quartz. The rock is generally equigranular although aplitic in some instances. Veins and patches of quartz and siderite alteration frequently occur. Quartz veins range up to 5 cm wide with siderite/sericite/pyrite alteration zones up to 0.5 m wide.

ii) Granodiorite

This rock is grey to black and white speckled with fine to medium feldspar, biotite and quartz in a finer grained crystalline matrix. Quartz veining and siderite alteration occurs in much the same abundance as in the quartz diorite.

iii) Pendent Rocks

This unit consists of variably metamorphosed sandstones, argillite and cherts. The rocks are typically dark brown to black, fine grained and frequently iron stained. Up to 50% biotite is common, frequently with 20% pyrite. Metamorphism varies from greenschist to lower amphibolite grade. Granodiorite dykes frequently cut the pendent at various attitudes.

iv) Serpentinite

This rock is dark green to black, fine grained, massive and cut by numerous quartz-carbonate veins. The rock is highly sheared with original textures obliterated. These rocks occur in the northeast portion of the claim. Original composition of the rock cannot be estimated due to intense shearing and serpentinization.

v) Gneiss-Schist

This unit consists of intimately mixed grey, quartz-feldspar-biotite gneiss and green, quartz-chlorite-feldspar schist. Aplite and granodiorite dykes are common up to 10 cm wide. Pyrite patches occur with up to 20% pyrite in the greenschist. Zones with up to 50% biotite are common in the gneiss.

(c) Structure

From the data available it was noted that several faults cut the property at approximately 100°, 130° and 20° azimuths with steep dips.

(d) Mineralization

Disseminated pyrite is common in metamorphic rocks, with up to 20% occurring in patches. Quartz-carbonate alteration of serpentinite, granodiorite and quartz diorite is common. Zones vary in size from a few centimetres to 0.5 m wide. Siderite and pyrite frequently occur in these zones importing a reddish-brown colour.

(e) Conclusions

The claim is underlain by granodiorite, quartz diorite, gneiss, schist, amphibolite and serpentinite. Quartz-carbonate alteration occurs sporadically in granodiorite, quartz diorite and serpentinite. Pyrite alteration occurs in amphibolite and greenschist rocks of the pendent. Narrow quartz veins and aplite dykes cut the intrusive rocks and granodiorite dykes cut the metamorphic rocks.

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

III GEOCHEMISTRY

(a) Sample Collection, Preparation and Analysis

A total of 30 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 20 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 on the sample envelope. Specific data pertaining to the sample was recorded on special information tags.

A total of 12 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 -80 mesh. The -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, Ag and/or Cu, Pb, and Zn according to the procedures outlined in Appendix A.

(b) Results and Interpretation

Drawing AR 80-232 shows the sample locations, sample number and results of the soil and stream sediment samples.

Soil samples report only background values for Au, ranging from 5 ppb to 20 ppb. Lead values range from 6 ppm to 20 ppm all within background limits. Zinc values range from 13 ppm to 54 ppm, all within background limits. Copper values range from 3 ppm to 215 ppm with values greater than 60 ppm considered anomalous. Sample nos. 7827A, 7828A and 4883A report significant anomalous values of 215 ppm, 172 ppm and 106 ppm respectively. Silver values range from 0.2 ppm to 1.6 ppm with values greater than 1.4 ppm considered anomalous. Sample no. 7824A reported 1.6 ppm Ag.

Stream sediment samples report only background values for Au, Pb and Ag. Zinc values range from 22 ppm to 93 ppm, with values above 60 ppm considered anomalous. Sample nos. 4893A and 4894A report weakly anomalous values of 81 ppm and 93 ppm respectively. Copper values range from 16 ppm to 108 ppm with values above 60 ppm considered anomalous. Sample nos. 4893A, 4894A and 4896A report weak to moderate anomalies of 77 ppm, 108 ppm and 67 ppm Cu respectively.

Rock samples range from 5 ppb Au to 45 ppb within the claim. Sample no. 2860B reports 120 ppb Au from weakly altered intrusive rock just west of the claim. Sample no. 2861B reports 45 ppb Au from a quartz-siderite veined zone of intrusive rock. Silver values range from 0.2 ppm to 4.3 ppm with values greater than 1.4 ppm considered anomalous. Sample nos. 2853B and 2860B report anomalous values of 1.7 ppm and 4.6 ppm respectively. Three rock samples were also analyzed for Cu, Pb and Zn. Sample no. 2941B reports 1070 ppm Cu from a pyrite-pyrrhotite bearing gneiss. Sample no. 2942B reports values of 91 ppm Zn and 88 ppm Cu, both weakly anomalous values.

In conclusion, with the exception of Cu, the stream sediment and soil geochemistry fails to collaborate the presence of base or precious metals mineralization on the property. Rock geochemistry suggests weak precious metal mineralization just west of the claim within altered intrusive rock.

IV COST STATEMENT

(a) Wages

	Rate/ day	Spec. dates	No. days	Cost
1 sampler	$ 38.11	Aug.26/80	1	$ 38.11
1 jr. field asst.	46.58	Aug.26/80	1	46.58
1 sr. geol.	180.44	Aug.26/80	1	180.44
1 sr. field asst.	76.24	Aug.26/80	1	76.24
				$ 341.37

(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 ICE 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 (0.8 hours @ $426/hour): $ 340.80

$ 443.61

(d) Analytical Services

Min-En Laboratories Invoice #7471, 7318

50 soil & stream sed. - prep. (@ $0.60 each)	$ 30.00
50 soil & stream sed. - Au,Ag,Cu,Pb,Zn (@ $8.25)	412.50
12 rock - prep. (@ $2.00 each)	24.00
8 rock - Au,Ag (@ $4.25 each)	34.00
4 rock - Au,Ag,Cu,Pb,Zn (@ $8.25 each)	33.00
	$ 533.50

(e) Report Preparation

	Rate/ day	Spec. dates	No. days	
Drafting	$127.00	Apr.15/81	1	$ 127.00
Typing	64.80	Apr.16/81	1	64.80
Compilation	141.04	Apr.14,16/81	1.5	211.56
				$ 403.36

(f) Miscellaneous

Room and board - pilot - Aug.26/80 (based on per diem rate of $38.15)	$ 38.15

GRAND TOTAL $1,912.59

V. STATEMENT OF QUALIFICATIONS

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

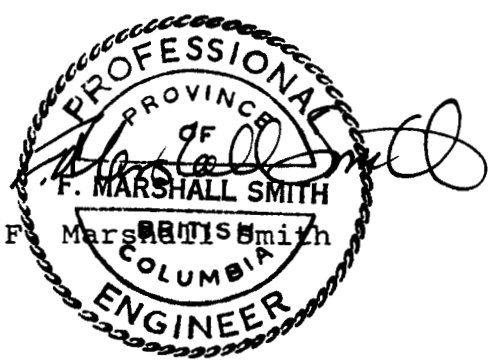
1. I am a geologist residing at 6580 Mayflower Drive, Richmond, BC and employed by Du Pont of Canada Exploration Limited.

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 26 and 1981 January 30, I supervised/directed a field programme on the Ice Claim on behalf of Du Pont of Canada Exploration Limited.



F. Marshall Smith

PHONE 980-5814

APPENDIX A

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.

PHONE 980-5814

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CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES 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 Gutzit method using Ag $CS_2N(C_2H_5)_2$ as a reagent. The detection limit obtained is 1. 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

- ○ 4881 A — SOIL SAMPLE LOCATION & NUMBER
- ○ 4890 A — STREAM SEDIMENT SAMPLE LOCATION & NUMBER
- X – 1523 — ORIGINAL STREAM SEDIMENT SAMPLE LOCATION & NUMBER

SOIL 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.
7819A	5	17	36	48	1.0
7820A	10	18	54	98	1.2
7821A	5	11	44	85	0.6
7822A	5	5	13	3	0.2
7823A	10	12	24	39	0.6
7824A	10	16	33	42	1.6
7825A	5	10	40	61	0.9
7826A	10	16	42	30	1.0
7827A	5	20	45	215	0.9
7828A	5	14	47	172	0.8
7829A	<5	6	25	25	0.2
7830A	10	15	52	49	0.8
7831A	5	18	53	44	0.8
7832A	5	14	44	38	0.6
7833A	5	13	33	13	0.4
7834A	10	11	28	10	0.5
7835A	5	16	37	12	0.7
7836A	<5	16	70	101	0.8
7837A	5	12	18	9	0.5
7838A	10	12	36	16	0.7
7839A	10	14	48	41	1.0
7840A	5	11	41	23	0.7
7841A	15	12	44	14	0.5
7842A	5	10	49	45	0.7
7843A	10	4	14	41	0.2
4879A	10	8	44	78	0.7
4880A	20	10	27	26	0.7
4881A	5	9	42	58	0.6
4882A	15	15	40	68	0.6
4883A	10	11	42	106	0.8
4884A	5	10	48	82	0.8
4885A	10	11	32	64	0.6
4886A	15	10	22	42	0.9
4887A*	10	14	41	65	0.4
4888A	20	16	48	63	0.5

Note: * = -100 Mesh

STREAM SEDIMENT SAMPLE RESULTS

Tag	Mesh	Au P.P.B.	Pb P.P.M.	Zn P.P.M.	Cu P.P.M.	Ag P.P.M.
4889A	-100	5	15	34	52	0.4
4890A	"	10	12	33	51	0.2
4891A	"	20	13	35	45	0.2
4892A	"	5	10	34	44	0.3
4893A	-100	5	20	81	77	0.4
4894A	"	<5	28	93	108	0.8
4895A	"	5	12	39	50	0.5
4896A	"	5	22	69	67	0.5
4897A	-100	20	17	48	54	0.6
7844A	- 80	5	14	43	23	0.5
7845A	"	10	11	43	36	0.6
7846A	"	10	9	30	24	0.5
7847A	"	5	17	41	23	0.4
7848A	- 80	5	8	26	16	0.4
7849A	"	5	12	33	30	0.6
7850A	"	10	13	40	36	0.7
7851A	"	10	13	37	32	0.7
7852A	- 80	5	7	31	23	0.3
7853A	"	<5	12	35	28	0.6
7854A	"	5	14	41	34	0.7
7855A	"	5	17	62	49	0.6
7856A	- 80	5	17	65	52	0.9

9258

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.
1523	- 20	10			3	17	0.2	21.48
	-100	110	2	20		21	0.9	

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.

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — F. MARSHALL SMITH

DU PONT CANADA EXPLORATION

ARGONAUT PROJECT
ICE CLAIM
GEOCHEMISTRY
Au IN P.P.B. & Pb, Zn, Cu, Ag IN P.P.M.
TASEKO LAKE AREA, BRITISH COLUMBIA

1 : 10 000

m 300 0 300 600m

SCALE

ft. 1000 0 1000 2000 ft.

1 INCH = 833 FEET

MAPPED BY	G.M.D., F.M.S.	REVISED	N.T.S. No. 92 J 10 E
DATE	80 08 26		
DRAWN BY	C.H.K.		ACCT No. 347 - 24
DATE	81 05 13		DRWG. No. AR. 80- 232

122° 35'

50° 39'

CADWALLADER CREEK

L.C.P.

PASS CLAIM

L.C.P.

McGILLIVRAY CREEK

2940 B pyrr.

2941, 2 B py, pyrr.

2939 B QV Float

2852 B

2860 B

2861 B

2858 B

2859 B

2857 B

2854, 5 B

2856 B

2853 B

4b

4a

3

2

1

LEGEND

4a | 4b	a. GRANODIORITE b. QUARTZ DIORITE
3	META - SEDIMENTS
2	SERPENTINITE
1	GNEISS - SCHIST - CHERT
	SIDERITE - PYRITE ALTERATION

SYMBOLS

	OUTCROP
	GEOLOGIC CONTACT
	FAULT
X 2940 B	ROCK SAMPLE LOCATION & NUMBER
	SULPHIDE OCCURRENCE
py.	Pyrite
pyrr.	Pyrrhotite
—□—	CLAIM BOUNDARY & 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.
2852B	15	1.0			
2853B	5	1.7			
2854B	10	0.2			
2855B	10	0.7			
2856B	5	0.7			
2857B	25	1.2			
2858B	5	0.6			
2859B	20	1.0			
2860B	120	4.3			
2861B	45	1.3			
2939B	5	0.2			
2940B	20	0.9	14	44	44
2941B	15	1.0	9	9	1070
2942B	10	1.0	16	91	88

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
E. MARSHALL SMITH

DUPONT CANADA EXPLORATION

ARGONAUT PROJECT
ICE CLAIM
GEOLOGY

TASEKO LAKE AREA, BRITISH COLUMBIA

m 300 0 300 600 m
1 : 10 000
SCALE
ft. 1000 0 1000 2000 ft.
1 INCH = 833 FEET

MAPPED BY	G.M.D., F.M.S.	REVISED	N.T.S. No. 92 J 10 E
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DRAWN BY	C.H.K.		ACCT No. 347 - 24
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