DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE PEL 1 CLAIMS

OMINECA MINING DIVISION

LAT. 57°18', LONG. 127°06'

NTS: 94-E-6E

OWNER OF CLAIMS: Du Pont of Canada Exploration Limited

OPERATOR: Du Pont Of Canada Exploration Limited

G A Harron

Author: G.A. Harron

Date Submitted: 1981 June 10

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF MAPS

I INTRODUCTION

(a) Location

The PEL 1 claim is located 2.4 km northeast of the Baker Mine, or 10.4 km north of the Sturdee River airstrip. Elevations on the property range from 1508 m in the southeast corner of the claim to 1890 m in the northwestern corner. Low shrubs are common below 1555 m, whereas alpine flora and talus slopes prevail above this elevation.

(b) Access

Access to the claim is by helicopter, a distance of 10.4 km north from the Sturdee River airstrip.

(c) Claim Definition

The PEL 1 claim consists of 16 units with a record number of 3071, a tag number of 45833, and a record date of July 31, 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.

There has been no extensive previous exploration on the property, to the writer's knowledge. No mineralization of economic significance was located as a result of the present investigations.

(d) Summary of Work Performed

A total of 10 stream sediment samples were collected, and analyzed for gold. One rock sample was collected and geochemically analyzed for Cu, Pb, Zn, Au, Ag.

Reconnaissance geology mapping was completed at a scale of 1:10,000 utilizing the geochemical sampling control line.

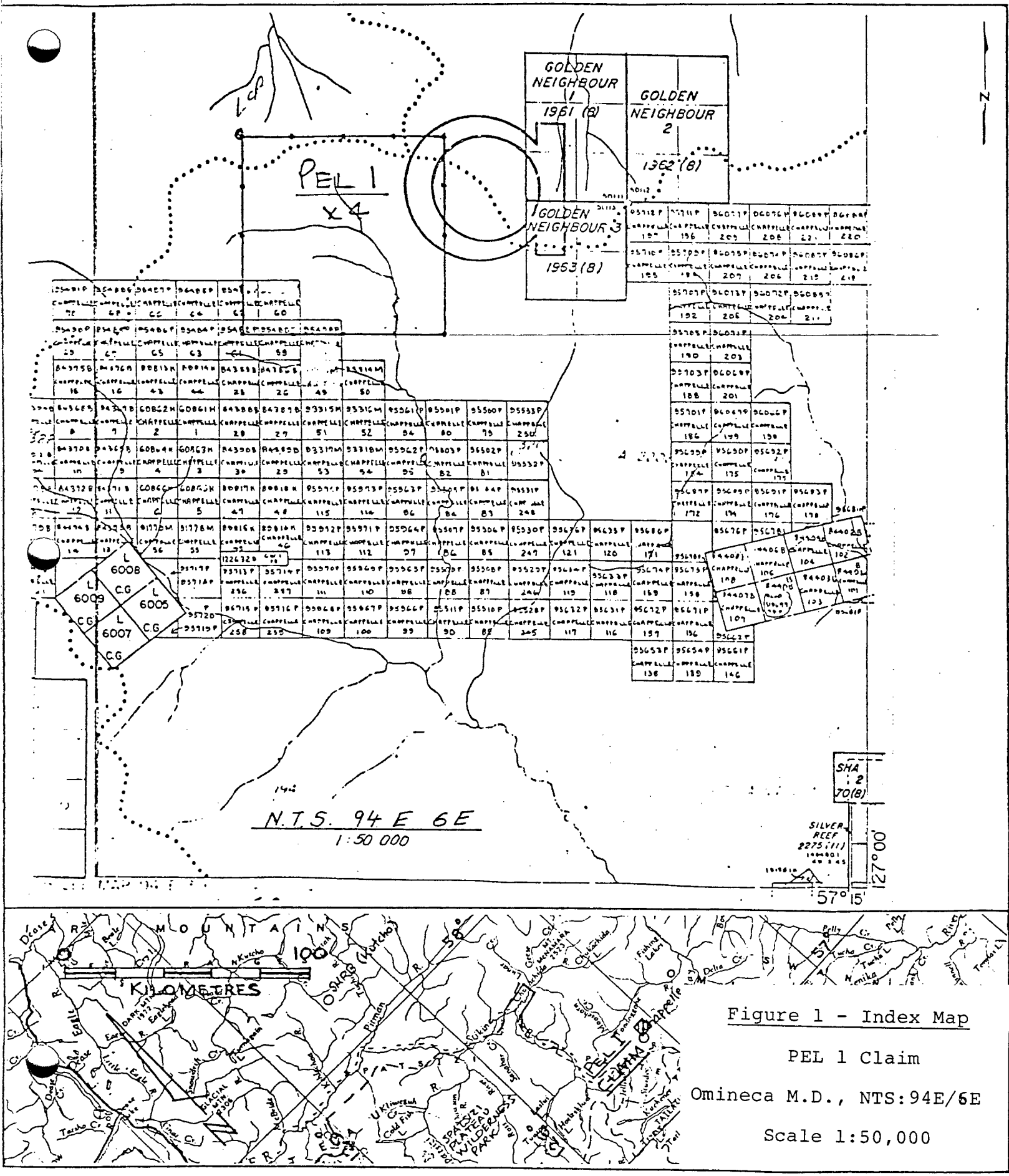

Figure 1 - Index Map

PEL 1 Claim

Omineca M.D., NTS:94E/6E

Scale 1:50,000

II GEOLOGY

(a) Introduction

The PEL 1 claim is located in the eastern part of the Intermontane Belt, which is composed of Mesozoic volcanic, sedimentary, and intrusive rocks and minor amounts of Paleozoic rocks. Formations generally trend NW, as do the prominent faults. Published geology maps indicate that the claim is underlain by the upper Triassic Toodoggone Volcanic Group. The outcrops mapped are shown on Drwg. AR. 80.- 237

(b) Lithology

(i) Rhyolite

This unit is white on the weathered surface and light grey on fresh surfaces. The rock is aphanitic, altered to about 25% clay minerals, 10% sericite, 40% quartz, 15% relict feldspar, and 10% pyrite. The surface texture of the outcrop is moderately fractured, but presumably represents a flow rather than a tuffuceous rock.

(c) Structure

The attitude of the rhyolite is $340^{\circ}/25^{\circ}$W. However, not enough bedrock exposures were examined to ascertain the presence or absence of folds.

A fault is postulated to trend in a 330° direction through the northeast corner of the claim, following the course of the creek.

(d) Mineralization

The only mineralization noted was 10% euhedral pyrite in the rhyolite. Geochemical analyses of 1 rock sample returned the following values in ppm for Cu, Pb, Zn, Ag, and ppb for Au.

Number	Cu	Pb	Zn	Ag	Au
4488	13	21	59	2.1	15

(e) Conclusions

The claim is underlain by the middle volcanic member of the Toodoggone Volcanic Group of rocks, and a fault is assumed to traverse the northeastern corner of the claim in a 330° direction. The rock sample analyzed indicated a moderate enrichment in silver.

III GEOCHEMICAL SURVEY

(a) Sample Collection, Preparation and Analyses

A total of 11 stream sediment samples were collected from the bed of the main creek which traverses the claim. Sample intervals of 200m were measured with a "hip-chain" and the sample line followed the course of the stream. The starting point for the sampling is 300m east of the western claim boundary. At each sample site a metal scoop was used to collect about 500 gms of silt-sand sized material from the stream bed and placed in a wet-strength soil sample envelope. The sample was numbered, and specific information describing the sample and the stream characteristics was recorded on a data card. A flag bearing the sample number was placed at the collection site.

The stream sediment samples were sent to Min-En Laboratories in North Vancouver for preparation and analyses. The samples were oven dried and seived to -80 mesh. The -80 mesh fraction was analyzed for Au according to the procedures outlined in Appendix A.

One rock sample submitted was pulverized and geochemically analyzed according to the procedures outlined in Appendix A.

(b) Results and Interpretation

Drawing AR.80-238 shows the sample numbers, locations, and the Au values obtained. Gold values range from 5 to 20 ppb and failed to extend the area of the anomalous 1100 pph value obtained in sample 2396. This indicates that further sampling should be conducted on the creek from which sample 2396 was collected.

IV COST STATEMENT

(a) Wages

	Rate/Day	Date	No. of Days	Cost
1 geologist	$172.00	Aug.19/80,Mar.25/81	2	$344.00
1 field asst.	46.58	Aug.19/80	1	46.58
1 field asst.	39.18	Feb. 4/81	1	39.18
				429.76

(b) Room and Board

Per diem rate of $49.56 applies to the 2 person days listed above for August 19, 1980 — 99.12

(c) Transporation

i) Transportation to the field area:
The total cost of transporting the field crew to the Sturdee River airstrip is $6170.63, and is prorated over 19 claim groups. The amount of $324.77 applies to this claim. — 324.77

ii) In support of field work:
Terr-Air Invoice #935, including:
0.6 hours @ $365/hr on August 19,1980
Fuel: 18 gallons @ $3/gal — 273.00

597.77

(d) Analytical Services

No.	Type	Elements	Unit Cost	
11	Stream sediments	Au	$ 4.25	46.75
11	Stream sediments	Preparation	0.60	6.60
1	Rock	Cu,Pb,Zn,Au,Ag	8.25	8.25
1	Rock	Preparation	4.00	4.00
				65.60

(e) Report Preparation

	Rate/Day	Date	No. of Days	
Drafting	$ 147.00	May 7/81	1	147.00
Typing	62.00	May 7/81	1	62.00
				209.00

GRAND TOTAL: $1401.25

QUALIFICATIONS

I, Gerald A. Harron, do hereby certify that:

1. I am a geologist residing at 2810 Sechelt Drive, North Vancouver, British Columbia and employed by Du Pont of Canada Exploration Limited.

2. I am graduate of the University of Western Ontario with a M.Sc. degree in geology.

3. I am a registered Professional Engineer in the Province of Ontario.

4. I have practised my profession in geology continuously for the past 11 years in various provincial jurisdictions in Canada.

5. Between 1980 August 19 and 1981 May 14, I supervised/directed a field programme on the PEL I claim on behalf of Du Pont of Canada Exploration Limited.

Gerald A. Harron

Gerald A. Harron
1981 May 14

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

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 1.2 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.

PHONE 980-5814

APPENDIX A

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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.

127° 05'

57° 19'

L.C.P.

RIDGE

SAUNDERS CREEK

25
4488D

LEGEND

1 RHYOLITE

SYMBOLS

OUTCROP

25 BEDDING, STRIKE & DIP

FAULT, ASSUMED

X-4488D ROCK SAMPLE LOCATION & No.

CLAIM BOUNDARY & LEGAL CORNER POST

ROCK GEOCHEMISTRY					
Tag No.	Au P.P.B.	Ag P.P.M.	Cu P.P.M.	Pb P.P.M.	Zn P.P.M.
4488 D	15	2.1	13	21	59

N

MINISTRY OF ENERGY, MINES & PETROLEUM RESOURCES
ASSESSMENT REPORT
9380

DUPONT CANADA EXPLORATION

ARGONAUT PROJECT
PEL 1 CLAIM
GEOLOGY

CHAPPELLE AREA, BRITISH COLUMBIA

S.A. Harrison

1:10000

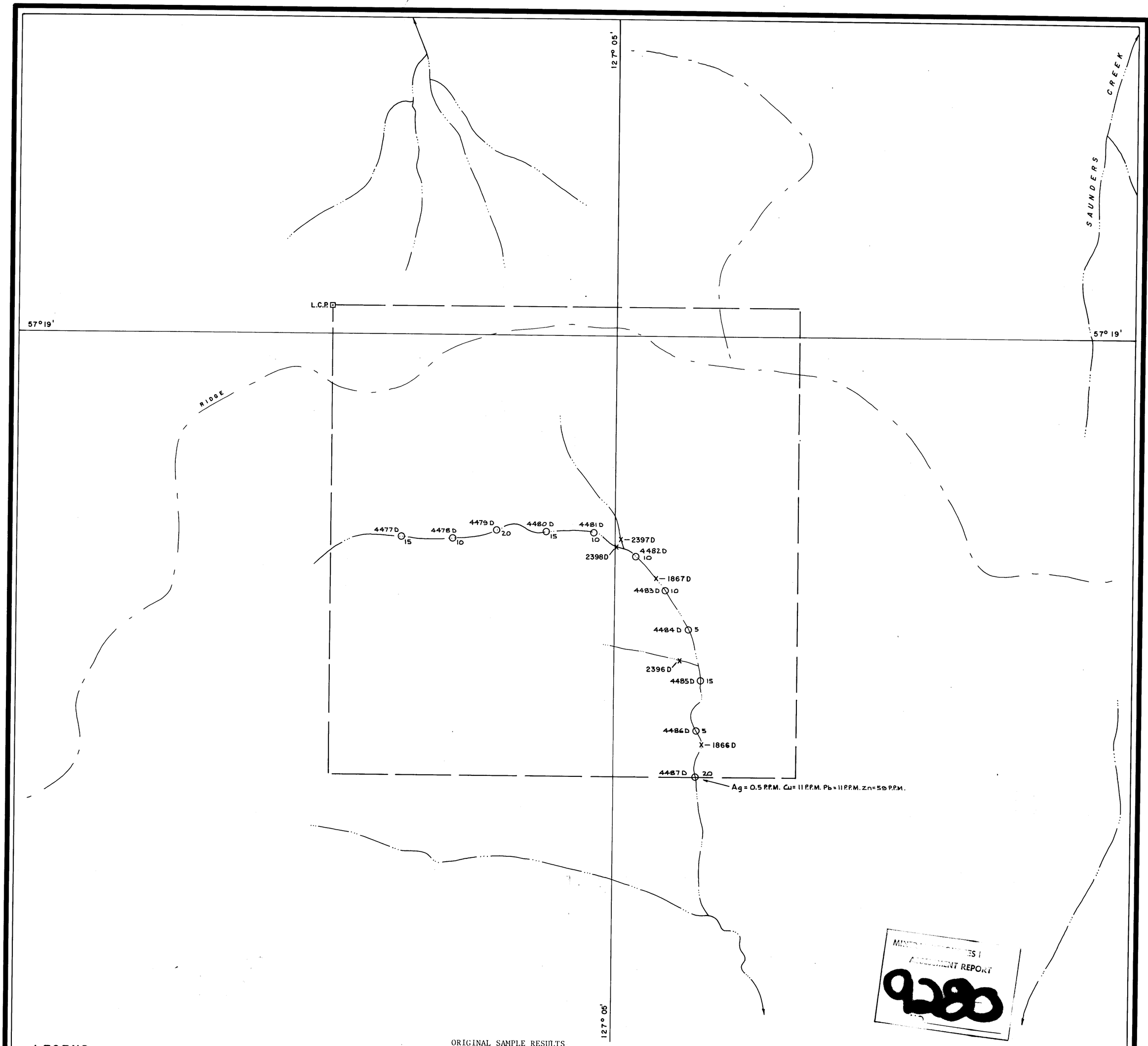
m 300 0 300 600 m

SCALE

ft. 1000 0 1000 2000 ft.

1 INCH = 833 FEET

MAPPED BY : S.A.H.	REVISED :		N.T.S. No.: 94 E 6E
DATE : 80 08 19			ACCT No.: 347-72
DRAWN BY : K.L.J.			DRWG. No.: AR.80-237
DATE : 81 05 04			



LEGEND

4484D○	STREAM SEDIMENT SAMPLE LOCATION & No.
○5	-80 MESH VALUE FOR Au IN P.P.B.
X-1866D	ORIGINAL STREAM SEDIMENT SAMPLE LOC. & No.

ORIGINAL SAMPLE RESULTS

Tag	Mesh	Au P.P.B.	As P.P.M.	Pb P.P.M.	Cu P.P.M.	Ag P.P.M.	%.H.M.
1866	- 20	35					0.56
	-100	110	9	26	37	0.9	
1867	- 20	5					3.23
	-100	35	14	5	13	0.3	
2396	- 20	100					20.82
	-100	1100	4	27	93	1.1	
2397	- 20	25					9.56
	-100	10	20	5	20	0.7	
2398	- 20	20					5.67
	-100	<5	10	7	15	0.6	

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.

DUPONT CANADA EXPLORATION

ARGONAUT PROJECT
PEL 1 CLAIM
GEOCHEMISTRY
Au IN P.P.B.
CHAPPELLE AREA, BRITISH COLUMBIA

1:10 000

m 300 0 300 600 m

SCALE

ft. 1000 0 1000 2000 ft.

1 INCH = 833 FEET

MAPPED BY : G.A.H.	REVISED :		N.T.S. No. : 94 E 6E
DATE : 80 08 19			
DRAWN BY : K.L.J.			ACCT No. : 347-72
DATE : 81 04 29			DRWG. No. : AR.80-238