

DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE EDO 1,2,3&4 CLAIMS

LIARD AND OMINECA MINING DIVISION

LAT. $57^{\circ}24'N$, LONG. $127^{\circ}27'W$

NTS: 94-E-6W

OWNER OF CLAIMS: Du Pont of Canada Exploration Limited

OPERATOR: Du Pont of Canada Exploration Limited

DA Harron

Author: G.A. Harron

Date Submitted: 1981 JUN. 10

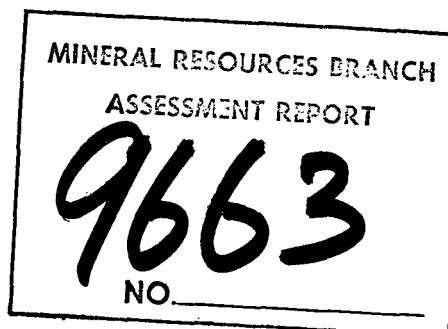


TABLE OF CONTENTS

	page no.
I. INTRODUCTION	1
II. GEOLOGY	3
III. GEOCHEMISTRY	5
IV. COST STATEMENT	6
V. QUALIFICATIONS	7

Appendix A - Geochemical Analytical Procedures

LIST OF FIGURES

	behind page
Fig. 1 Location Map	1
Fig. 2 Index Map	1
Dwg. AR. 80-239 EDO Claims: Geology	(in pocket)
Dwg. AR. 80-240 EDO Claims: Geochemistry	"

I INTRODUCTION(a) Location and Access

The EDO 1-4 claims are located in northcentral British Columbia within the Liard and Omineca Mining Divisions, NTS 94E-6W. The property is midway between Metsantan Lake and Edozadelly Mountain, eight kilometres east of the Stikine River. The group is centered by latitude 57°24'N and longitude 127°27'W.

At present access into the property is via helicopter from the Sturdee River airstrip which is located 27 kilometres to the southeast. The Baker Mine is located 21 kilometres southeast of the EDO property.

Smithers, which represents the major supply center in the region, is situated 260 kilometres south of the Sturdee River airstrip.

(b) Physiography

The EDO property is situated near the margin of the northwest trending Omineca Mountains and the Spatsizi Plateau to the west. The Omineca Mountains within the Toodoggone River Map Sheet encompasses a relatively rugged terrain with elevations in excess of 2500 metres. Broad U-shaped valleys are evident throughout the area. The Spatsizi Plateau consists of a relatively high, in excess of 1300 metres, undulating terrain.

The EDO claims are situated across the gently sloped north flank of Edozadelly Mountain, adjacent Metsantan Pass. Elevation across the property ranges from 1250 metres along the northern boundary near Metsantan Lake to 1705 metres in the extreme southwestern corner of the chain block. The terrain is gently inclined to the northeast and is approximately 95% covered with a spruce and pine forest.

(c) Claim Status

The EDO property consists of four adjoining mineral claims: EDO 1,2,3&4, which entail a total of 48 units. Pertinent data for each claim is outlined below:

EDO 1
(15 units)

Record No.: 2970
Tag No.: 45862
Date Recorded: July 25, 1980

EDO 2
(15 units)

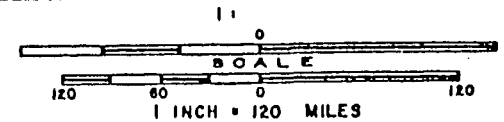
Record No.: 2971
Tag No.: 45863
Date Recorded: July 25, 1980

130° 135° 140° 145° 150° 155° 160° 165° 170° 175° 180° 185° 190° 195° 200° 205° 210° 215° 220° 225° 230° 235° 240° 245° 250° 255° 260° 265° 270°

DU PONT EXPLORATION
CANADA

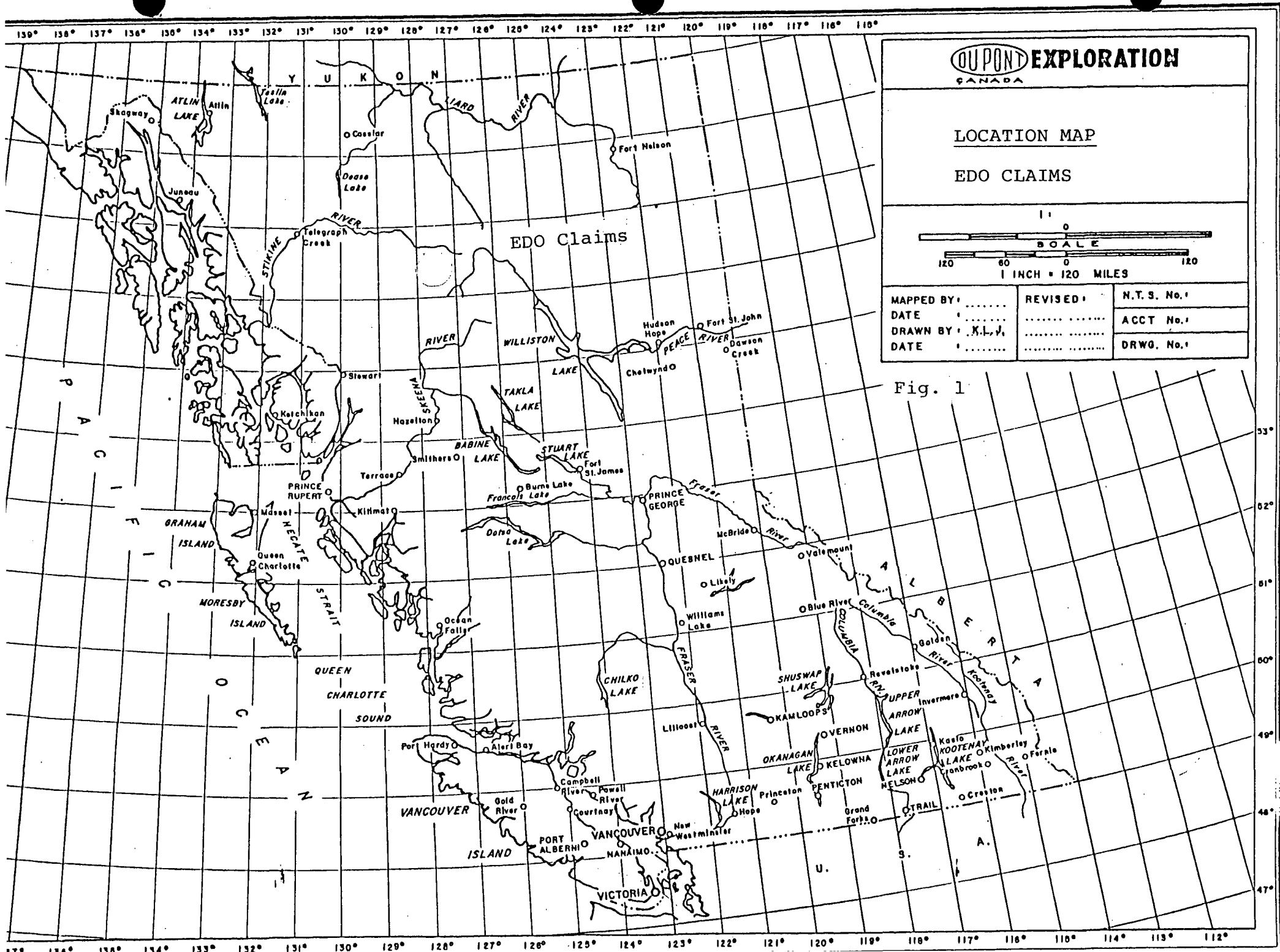
LOCATION MAP

EDO CLAIMS



MAPPED BY:	REVISED:	N.T.S. No. 1
DATE:	ACCT No. 1
DRAWN BY: K.L.V.	DRWG. No. 1
DATE:	

Fig. 1



130° 135° 140° 145° 150° 155° 160° 165° 170° 175° 180° 185° 190° 195° 200° 205° 210° 215° 220° 225° 230° 235° 240° 245° 250° 255° 260° 265° 270°

EDO 3
(9 units)

Record No.: 2972
Tag No.: 45864
Date Recorded: July 25, 1980

EDO 4
(9 units)

Record No.: 2973
Tag No.: 45865
Date Recorded: July 25, 1980

The claims are owned and operated by Du Pont of Canada Exploration Limited.

(d) History and Economic Assessment of Property

The claims were staked as a result of obtaining an auriferous heavy mineral concentrate anomaly within a creek near the eastern boundary of the property. This was derived during a regional stream sediment survey conducted in May-June 1980.

No evidence was found in the field to indicate that extensive exploration has taken place on the claims in the past. The 1980 exploration program did not result in the location of any significant economic mineralization.

(e) Summary of Work

On August 24th, 1980 a four-person crew conducted a preliminary investigation of the property. Work entailed geological mapping and stream sediment sampling of two creeks which drain the claims. A total of 31 stream sediment samples were obtained at 200 metre intervals and analysed for Au, Ag, Pb, Zn, Cr, Cu and Mo.

II GEOLOGY(a) Regional

The EDO claims lie within the eastern margin of the Intermontane Belt. This area is underlain by north-west striking Upper Palaeozoic to mid Mesozoic volcanics which are intruded by granitic rocks of Lower Jurassic age.

The plutonic rocks range in composition from medium grained quartz monzonite to fine to medium grained granodiorite.

Upper Triassic Takla Group volcanics occur to the north and consist of coarse bladed plagioclase porphyry, angite porphyry, tuff and agglomerate. Further to the south Lower Jurassic Hazelton Group encompasses volcanic conglomerate, breccia, lahar, and abundant pink feldspar porphyry dikes and sills.

Essentially occurring as a belt immediately west of the Takla and Hazelton Group volcanics and east of a line from the Sturdee River airstrip to the EDO claims are felsic tuffs, breccias, and flows of the Middle and Upper Jurassic Toodoggone volcanics.

West of the Toodoggone volcanics is a flat lying sequence of conglomerate, tuff, shale, sandstone, and siltstone of the Upper Cretaceous Tango Creek Formation and the Early Tertiary Brothers Peak Formation.

According to GSC Open. File #483, the EDO claims are situated near or on the contact of the Tango Creek Formation to the southwest, with the Toodoggone volcanics to the northeast. Most of the property is shown to be covered by glacial drift.

(b) Property Geology

Overburden masks and overlies most of the EDO property. Outcrop is restricted to the EDO #2 claim with extensive rubble/float occurrences also noted within EDO #1. (Drawing AR.80-239)

The southwest segment of the property is determined to be underlain by sandstone, chert, tuff, quartzite, and most commonly by a pebble conglomerate often interbedded with siltstone. According to Open. File #483, this sedimentary assemblage represents the Tango Creek Formation.

Although not observed as a result of the extensive overburden the contact between the Tango Creek sediments described above, with the Toodoggone volcanics is inferred to trend northwesterly across EDO #3.

(c) Mineralization

No mineralization was encountered on the EDO property during the 1980 program.

(d) Conclusions

The southwestern portion of the EDO property is underlain by sediments, predominantly conglomerate of the Cretaceous Tango Creek Formation. Although masked by overburden the Toodoggone volcanics are inferred to underlie the northeastern corner of the claims. As such, any significant mineralization associated with these volcanics would not be exposed.

III GEOCHEMISTRY

(a) Procedure

A total of 31 stream sediment samples were obtained from the EDO claims. These samples were collected along two creeks within EDO 2,3 & 4. Both streams drain easterly-northeasterly with the northern stream emptying into Metsantan Lake and the southern being a headwaters tributary of the Toodoggone River.

Samples were obtained at 200-metre intervals and placed in numbered wet strength sample envelopes and the various locations were flagged indicating their respective sample numbers.

The stream sediment samples were shipped to Min-En Laboratories in North Vancouver for preparation and analysis. All samples except #9494A were sieved to -80 mesh and analysed for Au (ppb), according to the procedure outlined in Appendix A. Sample #9494A was sieved to -20 mesh. Subsequent determinations through Riocanex Laboratory in North Vancouver were performed for Ag (ppm), Cr (ppm), Cu (ppm), Mo (ppm), Pb (ppm), and Zn (ppm).

(b) Results

Drawing Ar 80-240 denotes the various sample locations and their respective results.

Stream sediment samples were obtained from two streams draining the EDO property. This was undertaken in order to define the source of anomalous gold concentrations obtained during the regional survey. Within the north stream the -100 mesh fraction analysed 640 ppb Au (sample #1292) whereas within the south stream just east of the EDO claim boundary sample #1292 contained 600 ppb Au (0.33% H.M.) with respect to the -20 mesh fraction. In both cases the location of the anomalous samples correlates closely to the inferred location of the Tango Creek sediments -- Toodoggone volcanics contact.

Stream sediment follow-up along both creeks returned background values with respect to gold (5 to 15 ppb Au).

Determinations through Riocanex Laboratory were performed for Ag (ppm), Cr (ppm), Mo (ppm), Cu (ppm), Pb (ppm), and Zn (ppm). All results revealed background values.

In summary, the follow-up stream sediment survey failed to define the source of the anomalous regional survey samples. This may be the result of the low heavy mineral percentage of the samples and/or the different analytical procedures (heavy mineral separation on large, coarse samples) utilized for the regional survey rather than for the follow-up samples.

IV COST STATEMENT

(a)	<u>Wages</u>	<u>Rate</u>	<u>Dates</u>	<u>No. of Days</u>	<u>Cost</u>
	1 Geologist	\$172.00	Aug. 24, 1980	1	\$172.00
	1 Jr. Geologist	50.82	Aug. 24, 1980	1	50.82
	1 Field Technician	39.18	Aug. 24, 1980	1	39.18
	1 Field Assistant	46.58	Aug. 24, 1980	1	46.58
	1 Field Technician	39.18	Jan. 30, 1981	1	39.18
	1 Field Technician	39.18	Feb. 2, 1981	1	39.18
	1 Geologist	172.00	Apr. 10, 13, 1981	2	344.00
			Total Wages:		\$730.94
(b)	<u>Room and Board</u>				
	Per diem rate of \$49.56 based on 4 person days				\$198.24
			Total Room and Board		\$198.24
(c)	<u>Transportation</u>				
	General transportation (to/from area)				\$324.77
	Terr-Air Charter Ticket #930 (invoice #490)				
	1.0 hrs. @ \$366.00 per hr.				366.00
	Fuel: 30gal/hr @ \$3.00/ gallon				90.00
			Total Transportation		\$780.00
(d)	<u>Analytical Services</u>				
	Min-En invoice #7351:				
	31 stream sediments, preparation @ \$0.60 each				\$ 18.60
	31 stream sediments, Au @ \$4.20 each				131.75
	Riocanex Laboratory:				\$150.35
	31 stream sediments; Ag, Cr, Mo, Cu, Pb, Zn @ \$4.75 each				147.25
			Total Analytical Services		\$297.60
(e)	<u>Report Preparation</u>	<u>Rate</u>	<u>Dates</u>	<u>No. of Days</u>	<u>Cost</u>
	Drafting	\$127.00	May 5, 6, 1981	1.5	\$190.50
	Typing	64.80	May 5, 1981	1.0	\$ 64.80
			Total Report Preparation		\$255.30
			GRAND TOTAL		\$2262.85

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 July 25 and 1981 April 13, I supervised/directed a field programme on the EDO 1-4 claims on behalf of Du Pont of Canada Exploration Limited.

Gerald A. Harron
Gerald A. Harron
1981 April 13

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.

57° 25'

57° 25'

127° 25'

127° 25'

METSANTAN
LAKE

RIVER

LIARD M.D.
OMINECA M.D.

L.C.P.

LEGEND

- 6 SANDSTONE
- 5 QUARTZITE
- 4 CHERT
- 3 0 MASSIVE TUFF
o) CHERTY TUFF
- 2 SILTSTONE
- 1 PEBBLE CONGLOMERATE

SYMBOLS

- OUTCROP
- AREA OF FLOAT
- CLAIM BOUNDARY & LEGAL CORNER POST

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9663
NO.

DUPONT EXPLORATION
CANADA

ARGONAUT PROJECT
EDO CLAIMS
GEOLOGY

CHAPPELLE AREA, BRITISH COLUMBIA

MAPPED BY: G.A.H. DATE: 800824 DRAWN BY: K.L.J. DATE: 810507

REVISED: N.T.S. No.: 94 E 6W ACCT No.: 247-61 DRWG. No.: AR.80-239

SCALE: 1" = 833 FEET

0 1000 2000 FT.