DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE KAZ CLAIM

CLINTON MINING DIVISION

LAT. 51°08'N, LONG. 123°44'W

NTS: 92-O-4E

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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I INTRODUCTION

(a) Location

The KAZ claim is located at the south end of the Tchaikazan River at approximately 51°08'N latitude and 123°44'W longitude. The claim covers the north facing slope of the drainage immediately south of RCAF Peak, approximately 75 km northwest of Goldbridge.

(b) Access

Access to the claim is most convenient by a 35 minute rotary wing aircraft trip from Goldbridge, B.C.

(c) Claim Definition

The KAZ claim represents 20 contiguous units with record numbers, tag numbers and record dates as listed below:

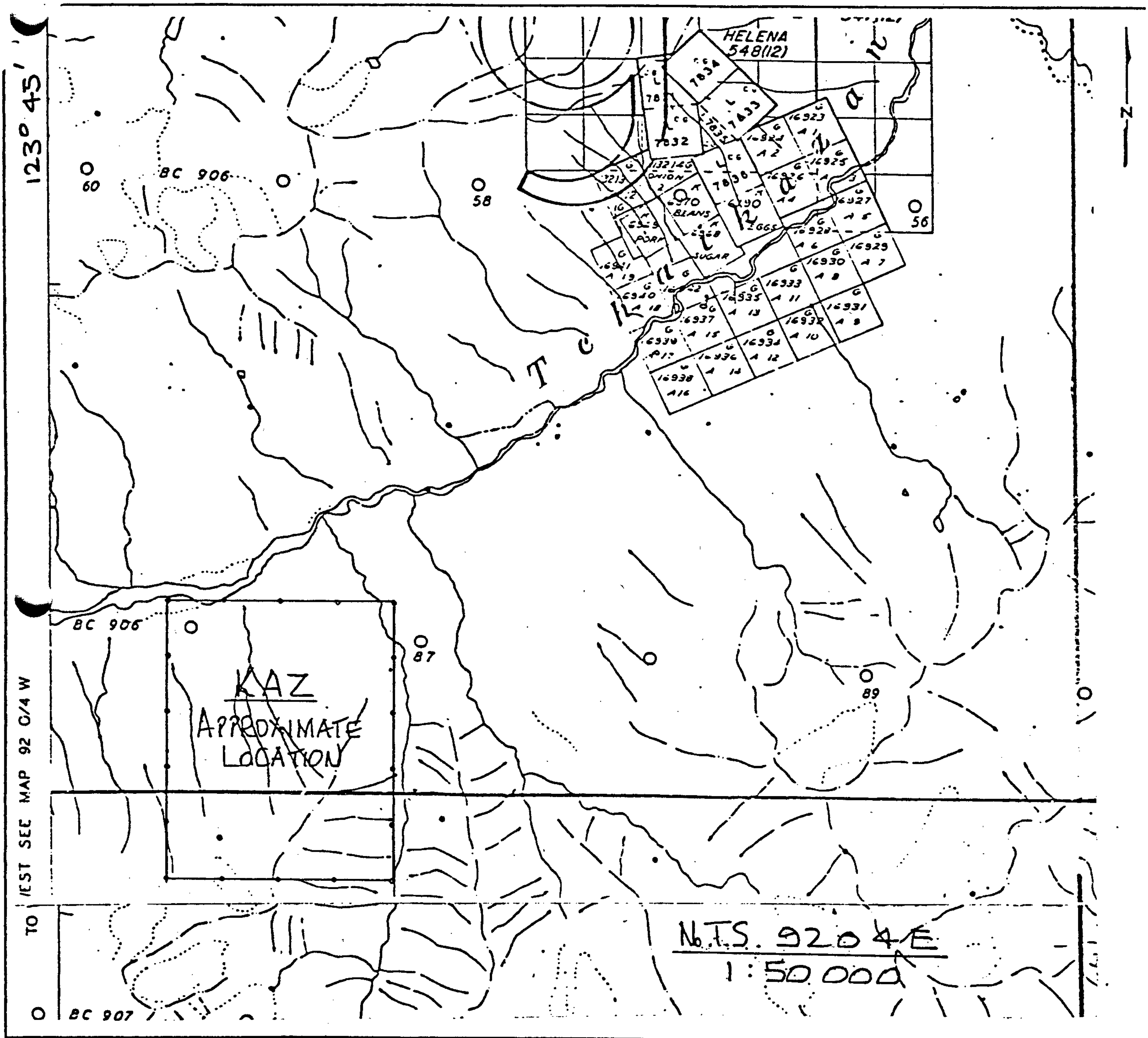
Claim(units)	Record No.	Tag No.	Record Date
KAZ (20)	728	62592	June 11/80

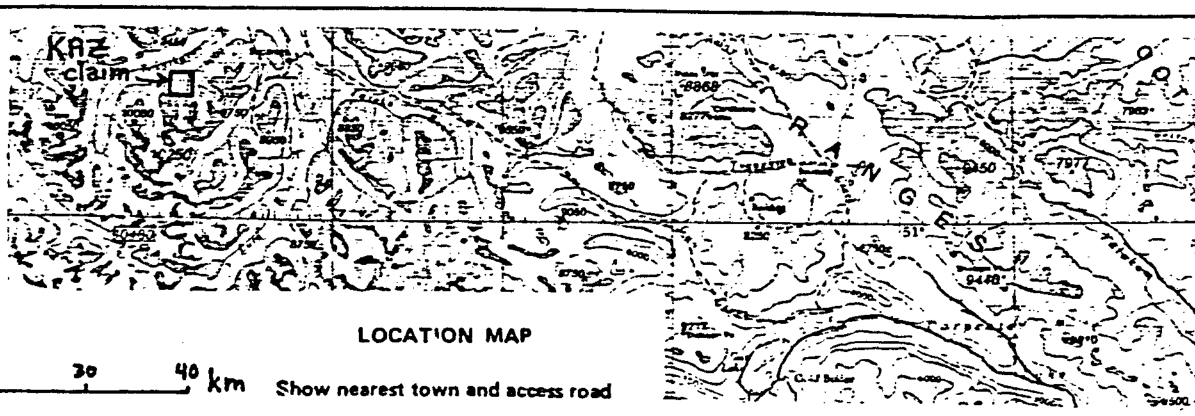
The current owner and operator of the claim is Du Pont of Canada Exploration Limited. The claims were staked to facilitate work on an auriferous geochemical anomaly.

(d) Economic Assessment of the Property

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

Figure 1 - Index Map
KAZ Claim
Clinton M.D.
NTS: 92-O-4E





LOCATION MAP

10 0 10 20 30 40 km

Show nearest town and access road

(e) Summary of Work Performed

A total of 28 soil samples, 4 stream sediment samples and 3 rock samples were collected during the course of the investigation.

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 southwestern part of the Intermontane Belt, fringing the Coast Crystalline Belt. According to published maps the claim is underlain by volcanic rocks of the Lower Cretaceous, Taylor Creek Group and granodiorite of the Eocene, Bendor Stock.

(b) Lithology

i) Andesite

This rock unit is a medium green to red, amygdaloidal, fine grained, crystalline to tuffaceous rock, frequently exhibiting rhyolitic and/or dacitic bands. Sphalerite, pyrite and pyrrhotite are common in small amounts, particularly along shears. A few scattered boulders of volcanic breccia were located carrying up to 10% disseminated and stringer pyrite. The andesite is commonly interbedded with argillite, siltstone and chert.

ii) Granodiorite-Diorite

This unit is a fresh, medium grained, salt and pepper coloured rock. It intrudes Taylor Creek Group rocks in the southwest and southeast areas of the claim. In the southeast it is more potassic suggesting a granodiorite composition. The southeast area exhibits rusty weathering of the volcanics indicating some hydrothermal alteration.

iii) Shale-Siltstone

This unit is black, fine grained, rusty weathering and usually interbedded with andesite. Shales and siltstone generally strike 80^{o} and dip 20^{o} to 60^{o} south. Most shales exhibit 10-15% fine grained pyrite and in some cases fine grained pyrrhotite and sphalerite. Minor carbonate alteration imparts a white powdery stain to weathered surfaces. Shale beds frequently range up to 10 m thick but are generally less than 5 m.

iv) Argillite-Chert

This unit is medium grey to black, thinly bedded with frequent iron staining. Argillite and chert are less common than shale-siltstone and generally occur in the eastern portion of the claim. Argillite-chert alternates with beds of andesite in several places in the western portion of the claim. Alteration of the argillite consists of minor quartz, carbonate and finely disseminated pyrite.

(c) Structure

From data available it was noted that the andesites generally trend at 020^{o} with a 20^{o} to 40^{o} easterly dip. The shale-siltstone unit appears to strike at 080^{o} with variable dip from 20^{o} to 60^{o} southerly. One minor fault was located containing up to 2 m of gouge and sheared rock. The fault attitude is 020^{o} with near vertical dip. Deformation of country rock near intrusives is minimal.

(d) Mineralization

Disseminated pyrite, minor carbonate alteration and minor silicification occurs throughout the volcanic and sedimentary rocks. No alteration of the diorite-granodiorite was noted. Several rock samples containing pyrite and carbonate alteration were analyzed for Au, Ag, Cu, Pb and Zn and showed mostly background values.

(e) Conclusions

The KAZ claim is underlain by volcanic and sedimentary rock assemblages which have been intruded by a granodiorite to diorite stock. Minor carbonate, pyrite and silicification occur as alteration products in the volcanic and sedimentary rocks. 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 28 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 and the sample 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 4 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 3 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, Cu, Pb, Zn, Ag according to the procedures outlined in Appendix A.

(b) Results and Interpretation

Drawing AR 80-210 shows the sample locations, sample number and results of the soil and stream sediment samples.

Soil samples generally report background values for Au. Values range from <5 ppb to 35 ppb with values below 20 ppb considered to be background. Sample nos. 3543A, 3544A, 3545A, 3546A report values of 35, 20, 20 and 20 ppb Au respectively. These are considered weakly anomalous in Au. Copper values range from 18 ppm to 92 ppm with values greater than 65 ppm considered anomalous. Lead values range from 11 ppm to 103 ppm. Values greater than 40 ppm are considered anomalous. Zinc values range from 28 ppm to 261 ppm with values greater than 100 considered anomalous. Silver values range from 0.5 ppm to 2.1 ppm with values over 1.4 ppm considered anomalous. Sample nos. 4664A and 9298B had anomalous values in Pb, Zn and Ag. Sample nos. 3543A and 3546A report anomalous values in Au and Ag.

The values for stream sediment samples cannot readily be identified as background or anomalous as only 4 samples were collected. Regionally however, precious and base metal values are within background levels. Sample no. 3542A reported an anomalous Zn value. Sample nos. 9474A and 9475A report weakly anomalous Au values of 20 ppb each in -100 mesh fractions of the sample.

Rock samples appear to carry only background values for Au, Cu, Pb and Zn. Values for Ag range from 1.3 ppm to 2.0 ppm. Sample nos. 2704B and 2707B report anomalous Ag values of 1.4 ppm and 1.6 ppm respectively, although only weakly anomalous. Several rock samples collected east of the claim report anomalous values for Au, Pb, Zn, Cu and Ag.

In conclusion geochemical sampling does not definitely collaborate the presence of precious and/or base metal mineralization on the KAZ claim, although reconnaissance geochemical results were more or less substantiated.

IV COST STATEMENT

(a) Wages

	Rate/ day	Spec. dates	No. days	Cost
1 field samp.	$ 39.18	Aug.15/80	1	$ 39.18
1 jr. field asst.	43.42	Aug.15/80	1	43.42
1 sr. field tech.	57.18	Aug.15/80	1	57.18
1 sr. geol.	180.44	Aug.15/80	1	180.44
1 field tech.	39.18	February/81	0.5	19.59
				$ 339.81

(b) Room and Board

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

(c) Transportation

Helicopter:

Terr-Air charter ticket #1129 (2 hrs @ $426/hr) Billed on invoice no.490	$ 852.00
Truck rental and fuel to and from property area $1,339 split amongst 13 claims =	$ 100.00
	$ 962.00

(d) Analytical Services

Min-En Laboratories Inv. no. 7471

32 soil & stream sed. - prep. (@ $0.60 each)	$ 19.20
32 soil & stream sed. - Au,Ag,Cu,Pb,Zn (@ $8.25)	264.00
3 rock - prep. (@ $2.00 each)	6.00
3 rock - Au,Ag,Cu,Pb,Zn (@ $8.25 each)	24.75
	$ 313.95

(e) Report Preparation

	Rate/ day	Spec. dates	No. days	Cost
Drafting	$127.00	Apr.8,9/81	2	$ 254.00
Typing	64.80	Apr.9/81	1	64.80
Compilation	141.04	Apr.8/81	1	141.04
				$ 773.79

(f) Miscellaneous

Room and board - pilot Per diem rate of $38.15 based on 1 person day	$ 38.15
Supplies, sample bags, flagging, freight	15.00
	$ 53.15

GRAND TOTAL $2,595.30

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

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
F. MARSHALL SMITH

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

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.

PHONE 980-5814

APPENDIX A

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Corner 15th Street and Bewicke
705 WEST 15th STREET
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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.

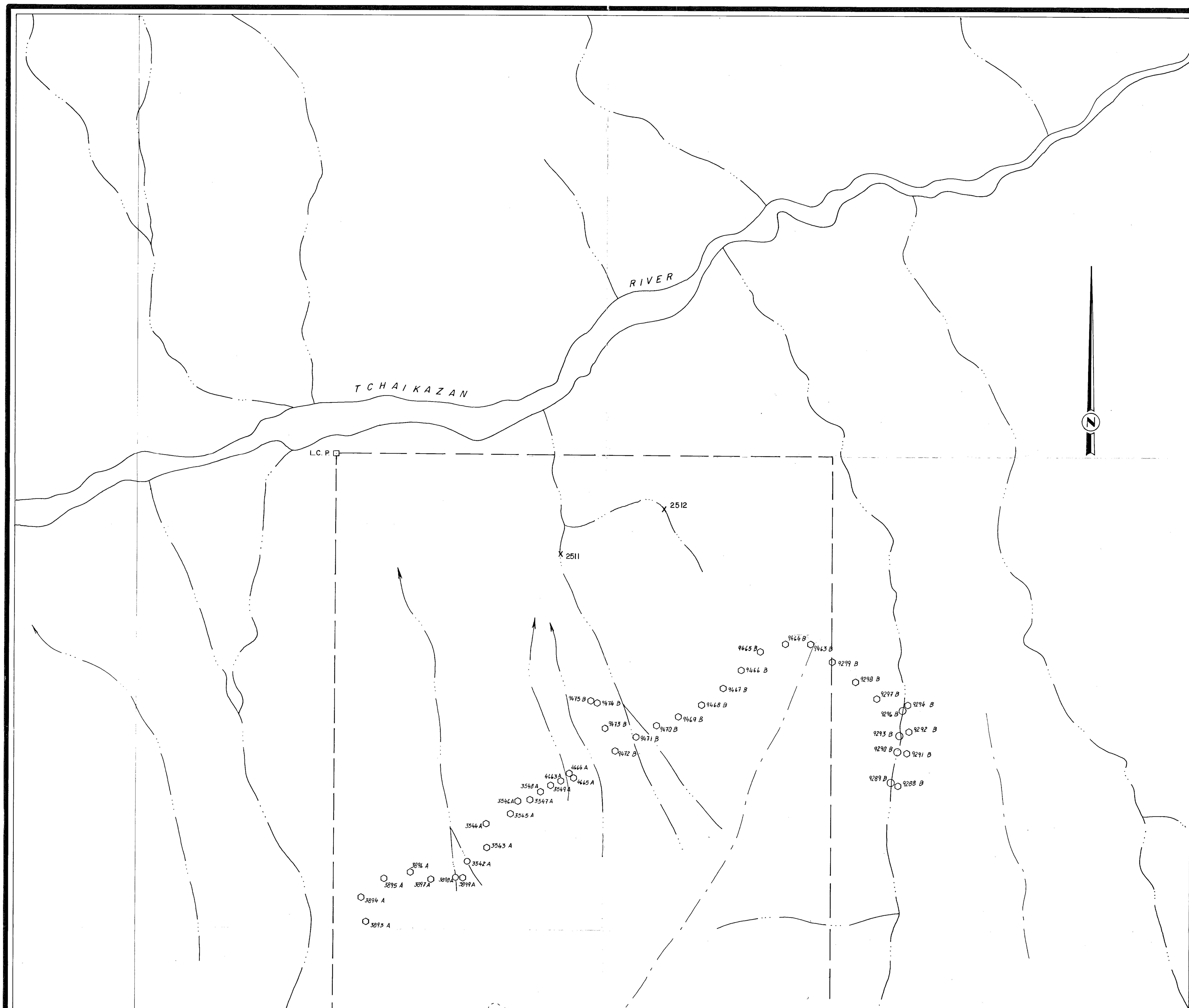
A suitable sample weight 5.0 or 10.0 grams are pre-treated with HNO_3 and $HClO_4$ mixture.

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.



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.
3893A	- 80	5	16	60	31	1.0
3894A	"	5	14	61	19	0.6
3895A	"	5	34	83	35	1.2
3896A	"	5	26	86	33	1.3
3897A	- 80	5	23	82	27	1.2
3898A*	"	5	11	64	29	0.8
3899A	- 20	5	35	120	50	0.5
3542A*	- 80	10	29	115	33	1.5
3543A	"	35	55	135	65	1.5
3544A	"	20	26	80	18	1.3
3545A	"	20	35	117	32	1.4
3546A	- 80	20	36	174	37	1.7
3547A	"	5	41	123	34	1.4
3548A	"	5	35	145	53	1.6
3549A	"	5	25	80	24	1.1
4663A	- 80	<5	28	136	39	0.9
4664A	"	5	103	261	35	1.9
4665A	"	5	24	95	23	0.9
9288B	"	10	15	44	33	0.7
9289B	- 80	5	6	13	10	0.6
9290B	"	10	6	22	13	0.3
9291B	"	5	18	50	68	0.5
9292B	"	<5	15	76	39	0.5
9293B	- 80	<5	4	11	12	0.3
9294B	"	<5	14	59	40	0.5
9296B	"	5	7	17	10	0.3
9297B	"	<5	16	81	63	1.0
9298B	- 80	5	68	239	92	2.1
9299B	"	10	34	130	76	1.2
9463B	"	5	23	90	49	1.0
9464B	"	5	16	70	45	1.0
9465B	- 80		NO RESULTS			
9466B	"	10	18	65	36	0.9
9467B	"	<5	11	28	39	0.5
9468B	"	5	23	59	38	1.1
9469B	- 80		NO RESULTS			
9470B	"	10	18	42	38	0.5
9471B	"		NO RESULTS			
9472B	"	5	21	51	38	0.9
9473B	- 80	10	24	48	53	1.0
9474B*	- 20	5	9		52	0.5
9474B*	-100	20	8		28	0.9
9475B*	- 20	10	19		27	0.8
9475B*	-100	20	9		32	1.0

NOTE: *) indicates stream sediment sample

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.
2511	- 20	80			3400	600	9.4	0.47
	-100	35	35	10		42	3.1	
2512	- 20	45			1000	52	2.2	1.28
	-100	25	18	5		45	1.0	

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.

LEGEND

- ○ 3542 A STREAM SEDIMENT SAMPLE LOCATION AND NUMBER
- ○ 3893 A SOIL SAMPLE LOCATION AND NUMBER
- X 2511 ORIGINAL STREAM SEDIMENT SAMPLE LOCATION AND NUMBER

DU PONT EXPLORATION
CANADA

ARGONAUT PROJECT
KAZ CLAIM
GEOCHEMISTRY

Au IN P.P.B. & Pb, Zn, Cu, Ag IN P.P.M.

TASEKO LAKE AREA, BRITISH COLUMBIA

1 : 10 000

SCALE

m 300 | 0 | 300 | 600m

ft. 1000 | 0 | 1000 | 2000 ft.

1 INCH = 833 FEET

MAPPED BY : F.M.S.	REVISED :	N.T.S. No. : 92 O 4E
DATE : 80 08 15		ACCT No. : 347 - 13
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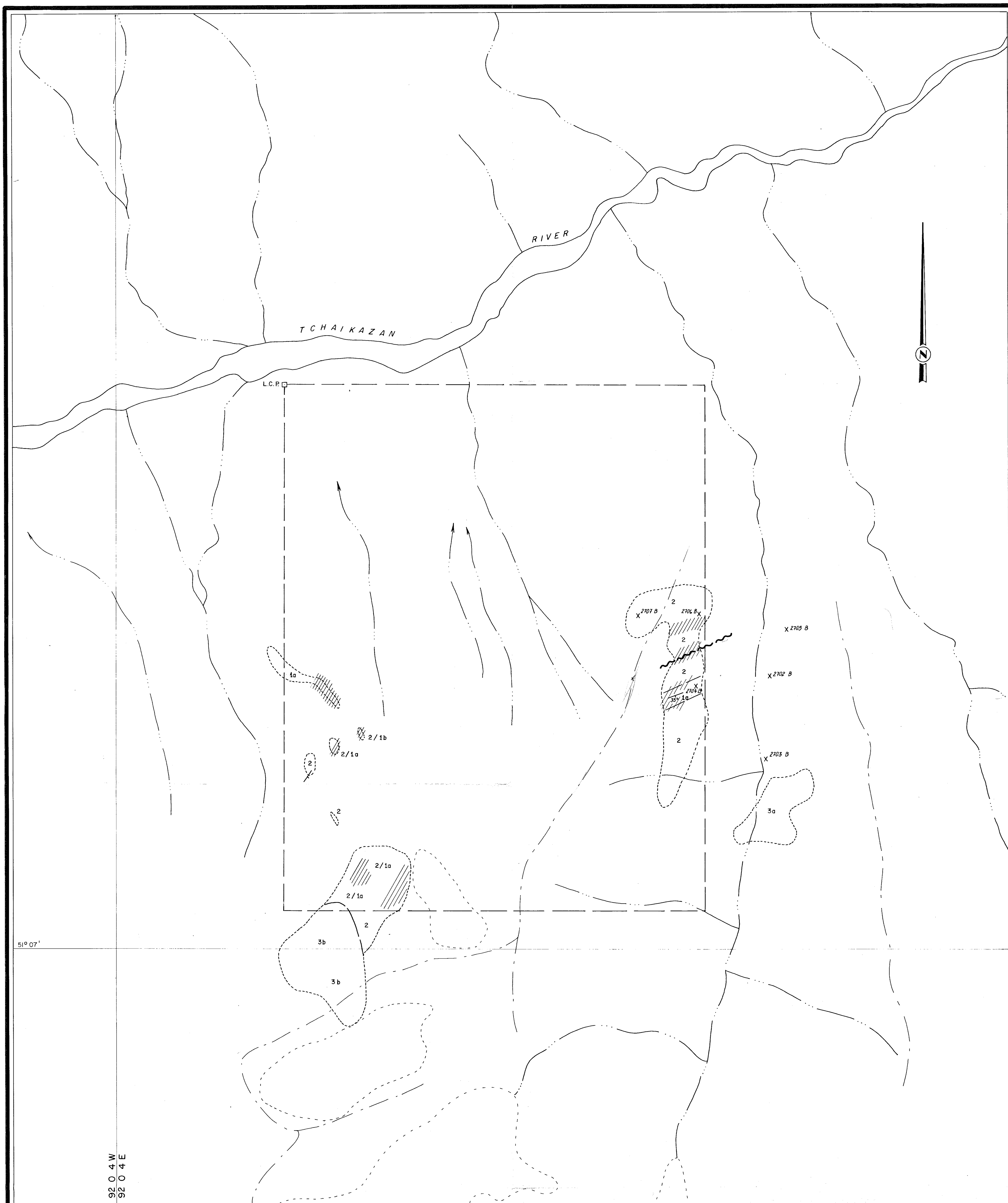

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9227

LEGEND

3a | 3b	a. GRANODIORITE b. DIORITE
2	ANDESITE, TUFFS - partly siliceous to rhyolitic
1a | 1b	a. SHALE, SILTSTONE b. ARGILLITE, CHERT
(hatched)	PYRITIC ZONE

SYMBOLS

- OUTCROP
- GEOLOGIC CONTACT
- FAULT
- 35° STRIKE AND DIP OF BEDDING
- X 2703 B ROCK SAMPLE LOCATION AND NUMBER
- CLAIM BOUNDARY AND LEGAL CORNER POST

ROCK SAMPLES RESULTS - 80 MESH

Tag	Au P.P.B.	Pb P.P.M.	Zn P.P.M.	Cu P.P.M.	Ag P.P.M.
2702B	150	45	25	23	2.0
2703B	5	190	93	278	2.3
2704B	10	29	57	50	1.4
2705B	10	59	255	30	2.0
2706B	5	40	88	52	1.3
2707B	5	20	68	8	1.6

PROFESSIONAL PROVINCE OF BRITISH COLUMBIA ENGINEER
F. MARSHALL SMITH

DU PONT EXPLORATION
CANADA

ARGONAUT PROJECT
KAZ CLAIM
GEOLOGY

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 : F.M.S.	REVISED :	N.T.S. No. : 92 O 4E
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DATE : 81 04 09		