

DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

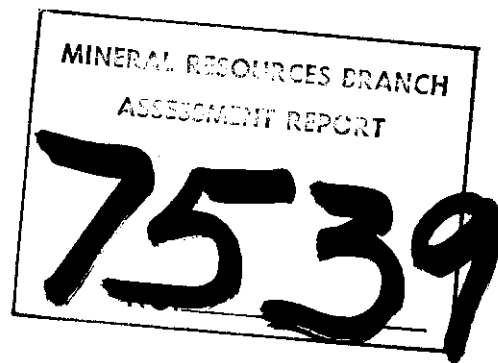
BEAR, BEAR 2, BLUE, BLUE 2, CUB, COL, TM, JM, RW, BP,  
MAL, DS1, DS2, AND ROX CLAIMS

LIARD MINING DIVISION

BRITISH COLUMBIA

104-O-15E & 16W

59°53'N/130°25'W



L. K. Eccles  
Geologist, B.Sc.

October, 1979

QUALIFICATIONS

I, Louise K. Eccles, do hereby certify that:

1. I am a geologist residing at 782 W. 22 Avenue, Vancouver, British Columbia and am employed by Du Pont of Canada Exploration Limited.
2. I am a graduate of the University of British Columbia with a B.Sc. degree in geology.
3. I have practised my profession in geology continuously for the past 3 years in British Columbia, Ontario and the Yukon and Northwest Territories.
4. Between August 1 and 16, 1979, I directed a field programme on the BEAR, BEAR 2, BLUE, BLUE 2, TM, JM, RW, BP, COL, MAL, CUB, ROX, DS1 and DS2 claims on behalf of Du Pont of Canada Exploration Limited.



Louise K. Eccles  
1979 10 18

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## INTRODUCTION

### Location and Access

The BLUE CUB Property is located approximately 112 kilometers west-south-west of Watson Lake, Yukon Territory and its southern extent borders on the north-east tip of Tootsie Lake in northern British Columbia.

Access can be gained either by road from the Alaska Highway or by air from Watson Lake.

A 40 kilometer, 4-wheel-drive road starting at kilometer 1122 of the Alaska Highway leads directly to the claim. Road access is only possible when the water level is low, usually mid-August onwards, as the road fords the river in several places.

Float planes can land on Tootsie Lake in early June after the ice melts. A 5 kilometer pack trail runs between the lake and the claim.

Helicopters can also be chartered from Watson Lake.

### Physiography and Vegetation

The claims lie between 1200 m and 2000 m in elevation and are bounded on the south by Tootsie Lake and follow along the valley of a northern tributary to the Tootsie River.

Vegetation varies between alpine mosses, grasses and low shrubs at the higher elevations and well timbered areas of Black Spruce in the valleys. 15% to 20% of the claims lie above timberline.

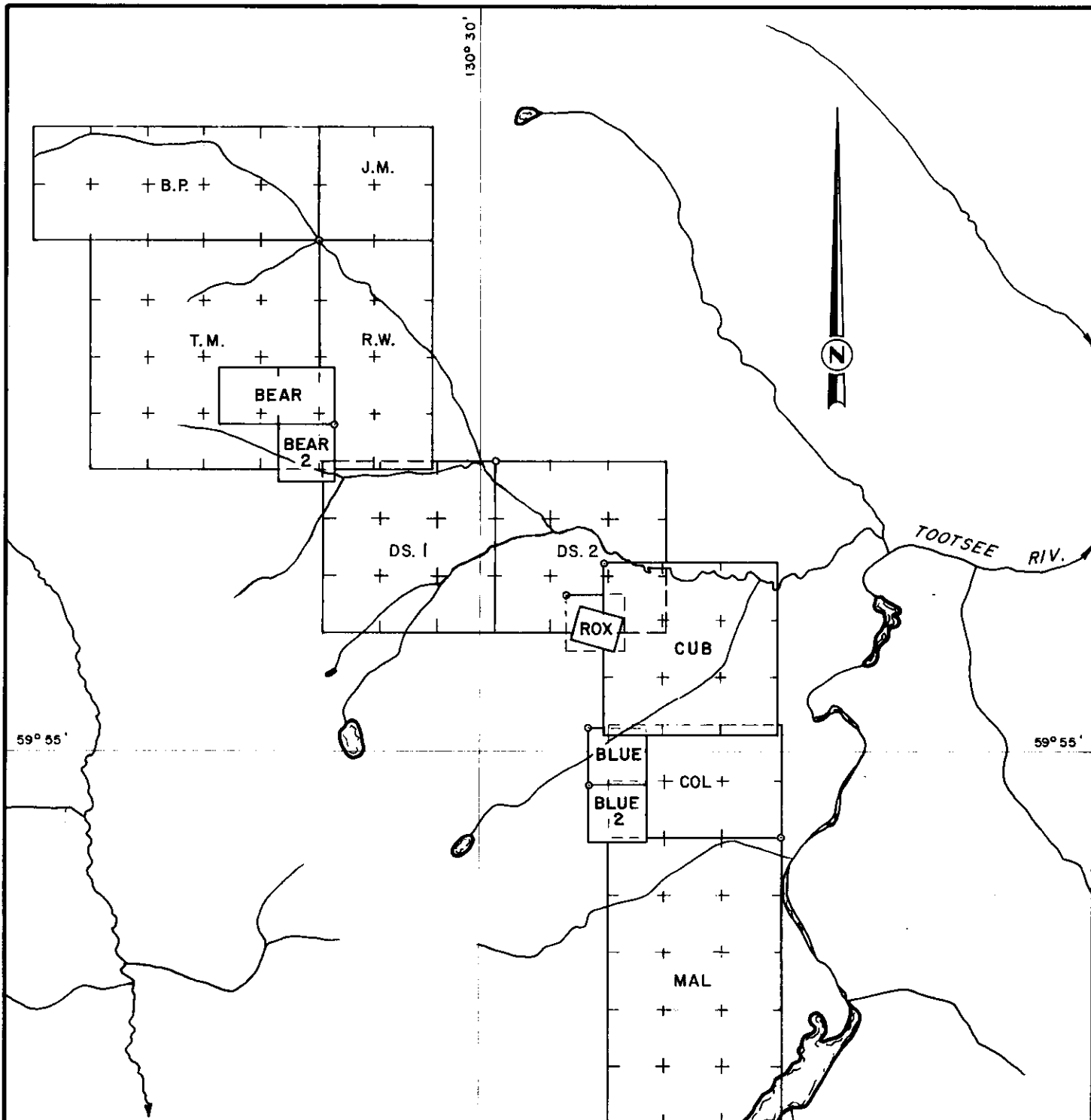
### Property Definition

#### 1. History

The claims within the BLUE CUB property cover a mineralized zone first discovered by Hudson's Bay Exploration and Development Company in 1948.

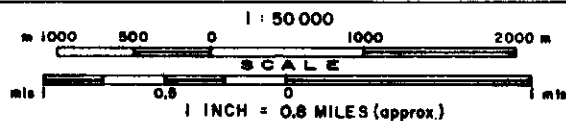
A summary of the work and claim history of the ground is listed below:

1948      Ag-bearing Pb-Zn mineralization discovered on surface by Hudson's Bay Mining and Smelting Co. prospectors.



**BLUE - CUB PROJECT  
CLAIM LOCATION MAP**

TOOTSEE LAKE AREA, BRITISH COLUMBIA



DATA BY : F.M.S.	REVISED : 79 0606	N.T.S. No.: 104 0 16
DATE : MAY 79		ACCT No.: 340-00
DRAWN BY : K.L.J.		DRWG. No.: BU.79-1
DATE : MAY 79		

- 1949 Hudson's Bay Mining and Smelting Co. drilled 8 holes (DDHs #1-8; 895 m); 4 holes intersected mineralization; claims (GEM: 38 claims) allowed to lapse.
- 1962 W. Kennedy "grubstaked" the ground as AMY.
- 1963-4 Kennedy et al., staked additional ground; surface and underground work on 4450' level.
- 1964 Rancheria Mining Co. Ltd. acquired the ground as AMY and CRISCO claims (159 claims); surface grid for geological mapping, geochemical and magnetic surveys was established; 117 m underground work completed on 4450' level, 24 m on mineralized zone; drifting stopped when an active solution cave was encountered at the west end.
- 1965 24 diamond drill holes (DDHs #9-32; 3200 m) indicated down-dip extension of mineralized zone in east drift; geochemical and geophysical surveys over grid area; provisional regional map of area by J.H. Shepherd; 79 AMY claims located and surveyed by M. Macklin (survey results not registered).
- 1966 Work completed to date: 254 m underground, 91,440 m line cutting and survey work, 878 m<sup>3</sup> trenching.
- 1967 Chapman, Wood and Griswald Ltd. (Vancouver, BC) conducted metallurgical studies to determine the nature of the ore material.
- 1968 Irwin Engineering (Edmonton, Alberta) drilled 11 holes on geochemical anomalies (inconclusive) and attempted a S.P. survey (unsuccessful).
- 1969 Irwin Engineering concluded 73,000 T of 20-30 oz/T Ag, 4.45% Pb and 7.51% Zn mineralization property and possible reserves of 130,000 T; underground work recommended because drilling unreliable; claims allowed to lapse.
- 1970-1 Ground re-staked as FLO and LEO (6 claims) by J.F. Irwin for Fosco Mining Ltd. (formerly AMY 3,5, 6,7,8,9).
- 1973 Three additional fractional claims staked; 4200-level adit successfully completed below old workings; re-sampling by Fosco Mining Ltd. of anomalous geochem zones of Rancheria's 1965 survey confirmed the anomalous nature of the zones.

- 1974 Chapman, Wood and Griswold Ltd. reported estimations of measured and indicated reserves at about 80,000 T of 10 oz/T ag, 2-3 T Pb, 5.5-6% Zn, with about 60,000 additional tons of inferred mineralization of unknown grade.
- 1976 CUB claims staked by D. Schellenberg, covering one of the Ag-anomalous zones from the 1965 geochem survey.
- 1977 Geochemical spot-check survey over the strongest portions of the CUB anomaly by D. Schellenberg.
- 1978 Work by D. Schellenberg included detailed geochemical survey on CUB anomaly, discovery of tungsten mineralization and subsequent staking of BLUE and BEAR claims.
- 1979 Acquisition of CUB, ROX, BEAR and BLUE claims and staking of JP, MAL, COL, BP, JM, RW and TM by Du Pont of Canada Exploration Limited. JP claims abandoned and restaked as DS1 & DS2 by Du Pont of Canada Exploration Limited.

2. List of Claims

<u>Claims Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Date of Record</u>
BEAR	668	2	1978 09 15
BEAR 2	669	1	1978 09 15
BLUE	573	1	1978 07 06
BLUE 2	670	1	1978 09 15
CUB	440	9	1976 07 07
DS 1	932	9	1979 08 21
DS 2	933	9	1979 08 21
MAL	763	15	1979 05 07
COL	767	6	1979 05 07
BP	761	10	1979 05 07
JM	764	4	1979 05 07
RW	766	10	1979 05 07
TM	762	16	1979 05 07
ROX	572	1	1979 07 06

3. Owner

The property is currently owned and operated by Du Pont of Canada Exploration Limited.



#### 4. Economic Assessment of the Property

Two observed narrow beds of scheelite and molybdenite mineralized skarn suggests there could possibly be more mineralized skarn downslope from the observed skarns where outcrop is no longer visible because of scree accumulated lower on the hillside.

Underground development and diamond drilling on an adjoining property have confirmed a deposit of about 80,000 tons with 10.7 oz ton Ag, 2.87% Pb and 6.03% Zn, with about 60,000 additional tons of inferred mineralization of unknown grade. This suggests there could possibly be similar mineralization in other areas of the property.

### SUMMARY OF WORK DONE

#### Geochemical Survey

##### 1. Geochemical Sample Collection and Preparation

Both regional and detailed geochem sampling were undertaken on the property. Refer to maps in the pockets for the results of the geochem sampling programme.

Regional sidehill soil samples were collected along three different elevations on each hillside. The "mechanical" break in slope, where heavy minerals tend to accumulate, was the lowest elevation where samples were collected. Usually at least two other samplers would space themselves evenly between the lower sampler and the upper "break in slope" so as to get the best possible coverage of the hillside.

These topographically controlled sample lines had sample stations 100 m apart, controlled by map, altimeter and hip chain.

A total of 585 regional soil samples were collected and sent to Min-En Laboratories in North Vancouver to be analyzed for Mo, W, Pb, Zn. The PH of all regional samples was also determined.

Detailed soil sampling was carried out on three grids covering the BEAR, BEAR 2, BLUE, BLUE 2 and the CUB claims. Lines were run by the samplers using compasses, hip chains and cut baselines for control. These grids were well flagged so as to be used as control in the detailed geological mapping which was undertaken in the same areas.

Line spacing of the detailed grids was 200 m and samples collected along those lines were taken at 25 m intervals. A total of 710 samples were collected over an area of 3.53 sq. km.

The PH of every 5th sample was determined and all samples were sent to Min-En Laboratories to be analyzed for Mo, W, Pb, and Zn.

All soil samples were collected from a depth of about 20-30 cm using a "mattock" with an 8 cm x 13 cm (5" x 3") blade to dig through the LH and Ao horizon to the B or C detritus or rock grit.

Regional stream sampling was carried out along the main tributary to the Tootsie River and samples were collected at the confluence of every stream entering that creek and at every 400 m along it. Fifty-one stream samples were all panned in the field to recover heavy mineral concentrate.

All soil and stream sediment samples were collected in pre-numbered, high, wet-strength soil sample envelopes with special information tags stapled to them. At each station the specific information about that particular sample was recorded on the tag which was then removed before oven drying the samples.

After oven drying, the samples were each ground to approximately -120 mesh using a 20.5 cm diameter disc pulverizer. Samples were split using a special aluminium sample splitter so that two representative "pulp" of each sample were obtained. One pulp from each sample was then sent to Min-En Laboratories in North Vancouver for analysis. The other was stored by Du Pont in case further analysis is desired.

## 2. Procedures for Geochemical Analysis and Assaying

The oven dried, pulverized and split pulps were analyzed in the following manner by Min-En Laboratories in North Vancouver:

- a. Molybdenum geochem samples were analyzed by Atomic absorption after a six hour digestion of a 1.0 gram sample, using an 85:15  $\text{HClO}_4\text{-HNO}_3$  acid mixture.
- b. Tungsten geochem was done by fusion and acid digestion of a 1.0 gram sample and then colorimetric analysis.
- c. Lead and zinc geochem, using 1.0 gram samples, was done by acid digestion and Atomic Absorption.

Assays of Lead, Zinc and Silver were done using the standard, wet chemical acid digestion analysis.

### 3. Interpretation

- a. Molybdenum: Background values for molybdenum were considered to be less than 5 ppm and anomalous values were +50 ppm in an acid environment with PH's 6.5 or less. For an alkaline environment with PH's 7.5 or higher, anomalous molybdenum values are +15 ppm with threshold values of Mo being 5 ppm.

Virtually all molybdenum values are background with weak anomalies found on the BEAR claims in the areas where scheelite and molybdenite mineralization was observed in skarn.

A couple of "single sample highs" of molybdenum were found in the regional geochem programme. One occurred on the MAL claim and the other occurred just north of the DS2 claim. No molybdenite was seen in either of these areas in the regional mapping and prospecting programme.

- b. Tungsten: Background for tungsten was considered less than 15 ppm with anomalies of +50 ppm.

Several anomalies showed up on the BEAR and BLUE claims over areas of known scheelite mineralization. On the BEAR claims, several anomalous values occurred in an area other than over the known skarns with scheelite and molybdenite. The anomaly was found downslope from the known skarn zone so it could reflect downslope movement of the scheelite or it could reflect another skarn zone, lower on the hillside, covered by scree and so not seen in the geology.

On the BLUE 2 claim, the high tungsten values occur where some visible scheelite was observed in the limey siltstones near the contact with the Cassiar Intrusive.

The only other anomalous tungsten value showed up in one stream sediment sample. This single anomalous value occurs in the main tributary to the Tootsie River, up stream from the confluence of the creek draining the area of known scheelite mineralization on the BEAR claims. The high value could possibly reflect some glacially transported tungsten bearing rock as it occurs in an area covered by glacial drift.

- c. Lead: A small but very high lead anomaly showed up in the Northeast corner of the TM claim on part of the area covered by the "BEAR" detailed grid. The threshold value for lead was considered to be about 30 ppm and values of +50 ppm were considered anomalous. This anomaly, with values as high as 4800 ppm turned out to be a small, high grade zone of galena with what is believed to be ruby-silver and sphalerite. Silver and zinc values were very high over the area. High lead values also showed up over the old LEO mine area on the DS2 claims.

The only other area which showed up weakly anomalous lead values was on the BLUE and BLUE 2 claims. These values showed up in an area of trenching where some pieces of massive galena have been reported to be seen. No galena was seen when this area was visited by the author.

- d. Zinc: Anomalous zinc values (those over 600 ppm) were found in the same areas as the anomalous lead. Visible sphalerite was seen with galena in all these areas.

As well, there were several "single sample highs" in areas covered by the regional sampling, within the sedimentary rock units. These "spot highs" could be due to small sphalerite veinlets occurring in the rocks.

- e. Silver: Only a small proportion of the samples were analyzed for silver. Significant silver results were found in the same area as the very high lead and zinc values in the Northeast quadrant of the TM claim group. Crystals of what is believed to be ruby-silver were observed embedded in the galena at this location.

### Linecutting

Most of the line cutting that was done consisted of brushing out old cut lines, however, some crosslines were freshly cut and base lines were extended into areas of new staking. Total kilometerage of lines cut (including recut, old lines), was 24.2 km. In addition to being recut and blazed, old lines were also re-chained and flagged at 50 m stations.

Lines were cut at wide intervals over the entire claimed area and were used as control for both regional and detailed geology and geochemistry.

## Geological Field Work

Detailed geological mapping was done on a scale of 1:5,000 in the areas where the detailed geochem surveys were undertaken on the BEAR, BEAR 2, BLUE and BLUE 2 claims. A total area of 1.28 sq km was mapped in detail.

A total of 6.5 sq km of regional geological mapping and prospecting was done by walking ridges and/or areas of outcrop not otherwise mapped in detail. Very little outcrop exists at the lower elevations except in a few creeks.

In three of the areas where molybdenite/scheelite skarns or other mineralization was observed, trenches were dug and blasted. The rocks in the trenches in turn were chip sampled.

A total of 14 rock and chip samples were taken on the BEAR and BLUE claims. These were sent for Mo, W, Pb and Zn analysis. Results are recorded on maps BU 79-2 and 79-3 in the back pocket. An additional 10 rock samples from the northeast quadrant of the TM claim and from a location just north of the DS2 claim were sent to Min-En Labs to be assayed for Pb, Zn and Ag. See Appendix "A" for the results.

### 1. Lithology and Structure

The BLUE CUB property is located within and around a prominent embayment of the eastern contact of the Cassiar Batholith.

The granitic rocks of the Cassiar Batholith are mid-Cretaceous in age and are described as "predominantly quartz monzonite, massive, homogeneous and medium to coarse grained." The rocks of this batholith were the only granitic rocks observed on this property.

In contact with the granitoid rocks are Cambrian and/or Devonian-Mississippian sediments. The sedimentary package is composed of medium to coarsely crystalline, grey limestone with minor dolomitic and argillaceous beds; black argillites, brown-grey bedded limey siltstones, greywackes and brown to white quartzites.

The thickest sedimentary unit mapped in detail was the crystalline grey limestone.

A dark coloured rock of either igneous or volcanic source, five meters thick, was observed in the northeast corner of the TM claim, within the thick limestone unit. The rock is conformable to the bedding in the limestone on the BEAR and BEAR 2 claims. It is not known whether this rock has anything to do with the skarn mineralization or the zone of galena, sphalerite and possible ruby-silver on the BEAR claim.

All the sediments on the property are generally dipping steeply ( $\sim 70^\circ$ ) to the south.

## 2. Mineralization

The skarns observed on the BEAR claims occupy 2 zones (maximum 3 m wide) about 20 m apart, conformable to and enclosed within the steeply south dipping limestone. Although the skarn can only be seen outcropping in about 4 places on the hillside, a line drawn connecting each skarn is parallel to the strike of the limestone beds.

The skarned rocks on this hillside vary from coarse grained garnet-diopside skarn to a very fine grained version of the same. The rocks are characterized by a red and/or green colour. Scheelite, molybdenite, powellite and minor galena occur in the skarn.

A small zone of galena with crystals of what is believed to be ruby-silver was found in the northeast quadrant of the TM claims. It occurs within the crystalline limestone on the opposite side of the "BEAR" ridge to the skarns. The zone is in close proximity to a dark coloured igneous or volcanic source rock which exists within the limestone unit.

On the BLUE claims, other sediments beside the thick crystalline limestone unit were brown-grey limey siltstones and black argillites. The limey siltstones near the granitic contact were found to contain some coarse grained crystals of scheelite. Skarned rocks were only seen as float.

## CONCLUSIONS

The purpose of the geochem survey was to define anomalous Mo, W, Pb, Zn and/or Ag in either a molybdenite-scheelite environment or a Pb, Zn, Ag setting. Detailed geological mapping located and determined the extent of the mineralized zones.

At least two narrow beds of skarn, mineralized with scheelite and molybdenite were located on the BEAR claims. Small amounts of coarse disseminated scheelite was observed in the sediments near the granitic contact on the BLUE claims. There is no mineralization within these claims known by the author to have economic significance, however, due to large amounts of scree and talus in the areas of interest, more interesting zones may be covered.

A small high grade zone of galena and sphalerite with what is believed to be ruby-silver was observed in the northeast quadrant

of the TM claims but it is believed that it is too small to be of further interest. This mineralized zone was first located during the follow-up of the detailed geochem survey.

There are no other geochemical anomalies or mineralized areas known within the claim group to be worthy of further work. At present metal prices, there is no significant economic mineralization on the property.

BLUE-CUB CLAIMS  
COST STATEMENT - 1979

GEOCHEMICAL SURVEYS

1. Wages (Geochemical Surveys)

<u>Name</u>	<u>Per Diem Rate</u>	<u>Specific Dates</u>	<u>No. Days</u>	<u>Total</u>
Caira, N.	\$ 41.18	July 30-31; Aug 1-12	14	\$ 576.52
Carlson, D.	42.21	Aug 7-9	3	126.63
Connolly, L.	32.62	Aug 6-8	3	97.86
Eccles, L.	67.75	July 30-31	2	135.50
Janusson, P.	41.18	July 30-31; Aug 1-2	4	164.72
Jones, M.	41.18	Aug 7-8	2	82.36
Michell, C.	38.08	Aug 7	1	38.08
Raven, W.	38.08	July 30-31; Aug 1-14	16	609.28
Shaw, I.	42.21	July 30-31; Aug 1-12	14	590.94
Whiticar, D.	41.18	Aug 5	1	<u>41.18</u>
				<u>\$2,463.07</u>

2. Food & Accommodation

<u>Name</u>	<u>Specific Dates</u>	<u>No. Days</u>	<u>Total</u>
Caira, N.	July 30-31; Aug 1-12	14	\$ 470.50
Carlson, D.	Aug 7-9	3	66.50
Connolly, L.	Aug 6-8	3	70.47
Eccles, L.	July 30-31	2	96.60
Janusson, P.	July 30-31; Aug 1-2	4	76.35
Jones, M.	Aug 7-8	2	44.44
Michell, C.	Aug 7	1	22.11
Raven, W.	July 30-31; Aug 1-14	16	406.70
Shaw, I.	July 30-31; Aug 1-12	14	377.25
Whiticar, D.	Aug 5	1	<u>27.55</u>
			<u>\$1,658.47</u>



3.	<u>Transporation</u>	<u>Company</u>	<u>Invoice No.</u>	<u>Amount</u>
	July 20	Trans North Turbo Air	34200	\$ 199.60
	24	Terr Air	5390	801.50
	25	Terr Air	5391	127.75
	28	Trans North Turbo Air	35191	998.00
	28	Norcrown Airlines Ltd	25	946.00
	31	Terr Air	5398	217.80
	Aug 1	Terr Air	5401	548.10
	2	Terr Air	5408	584.00
	4	Terr Air	5406	803.00
	5	Terr Air	5410	766.50
	6	Terr Air	5411	523.16
	7	Terr Air	5287	621.60
	8	Terr Air	5290	331.82
	9	Terr Air	5293	454.40
	10	Terr Air	5952	237.13
	12	Terr Air	5069	203.70
	13	Terr Air	5071	346.25
				<u>\$8,710.31</u>

#### 4. Geochemical Assay Costs

1029 soil and stream sediment samples - analyzed for Mo, Pb, Zn, W  
@ \$6.55 per sample.

<u>Date Invoice</u>	<u>Invoice No.</u>	<u>Amount</u>
September 4/79	5443	\$ 2,102.55
September 4/79	5467	2,567.60
September 7/79	5502	<u>2,069.80</u>
		<u>\$ 6,739.95</u>

#### Distribution:

BEAR claim group	386 samples
CUB claim group	474 samples
BLUE claim group	<u>169 samples</u>
	<u>1029 samples</u>

5. Line-cutting costs

Line-cutting totalling 20,697 m by McCrory Holdings (Yukon) Ltd., 72-12th Avenue, Whitehorse, YT, Y1A 4K1.

<u>Date</u>	<u>No. men</u>	<u>Rate/manday</u>	<u>Total</u>
July 23	4	\$150.00	\$600.00
24	4	"	600.00
25	4	"	600.00
26	4	"	600.00
27	4	"	600.00
28	4	"	600.00
29	4	"	600.00
30	4	"	600.00
31	2	"	300.00
Aug 1	2	"	300.00
2	2	"	300.00
3	2	"	300.00
4	2	"	300.00
5	2	"	300.00
6	4	"	600.00
7	4	"	600.00
8	4	"	600.00
9	4	"	600.00
10	1	"	150.00
			<hr/>
			\$9,150.00
			<hr/>

## Distribution:

BEAR claim group	5670 m
CUB claim group	9510 m
BLUE claim group	<u>5517 m</u>
	<u>20697 m</u>

DISTRIBUTION OF WORK TO CLAIM GROUPSGeochemical Surveys

N.B. Costs pro-rated on basis of samples collected, where direct cost distribution not available.

	<u>Claim Group</u>			<u>Total</u>
	<u>BEAR</u>	<u>CUB</u>	<u>BLUE</u>	
1. Wages	\$ 923.95	\$1,134.59	\$ 404.53	\$ 2,463.07
2. Accommodation and Meals	622.13	763.96	272.38	1,658.47
3. Transportation	3,267.42	4,012.33	1,430.56	8,710.31
4. Geochemical Assays	2,528.30	3,104.70	1,106.95	6,739.95
5. Line-cutting	2,506.67	4,204.30	2,439.03	9,150.00
	<u>\$9,848.47</u>	<u>\$13,219.88</u>	<u>\$5,653.45</u>	<u>\$28,721.80</u>

Trenching

1. Wages (contract - McCrory)	\$1,260.00	-	\$ 840.00	\$ 2,100.00
2. Transportation (Terr-Air)	508.17	-	90.53	598.70
	<u>\$1,768.17</u>	<u>-</u>	<u>\$ 930.53</u>	<u>\$ 2,698.70</u>

*D. J. Eng.*  
1979 09 13

ATTESTATION

I, F. Marshall Smith do hereby certify that;

1. I am a geologist residing at 6580 Mayflower Drive, Richmond, British Columbia and am employed by Du Pont of Canada Exploration Limited.
2. I am a graduate of the University of Toronto with a B.Sc. (Hon.) degree in geology.
3. I am a registered Professional Engineer in the province of British Columbia.
4. I have practised my profession in geology continuously in Canada for the past 12 years.
5. I have supervised the work and training of Louise K. Eccles (author of the attached report) for the last five consecutive field seasons and can attest to the described work as being carried out in the described manner and to Louise K. Eccles being a competent and responsible geologist.



F. Marshall Smith  
1979 10 23

APPENDIX "A"

MIN-EN LABORATORIES LTD.

705 WEST 15TH STREET  
NORTH VANCOUVER, B.C.  
Phone: 980-5814

OCT 15 1979

*Blue lab data*

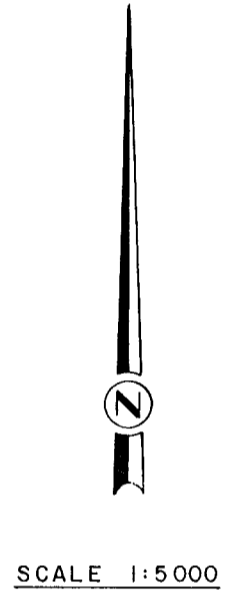
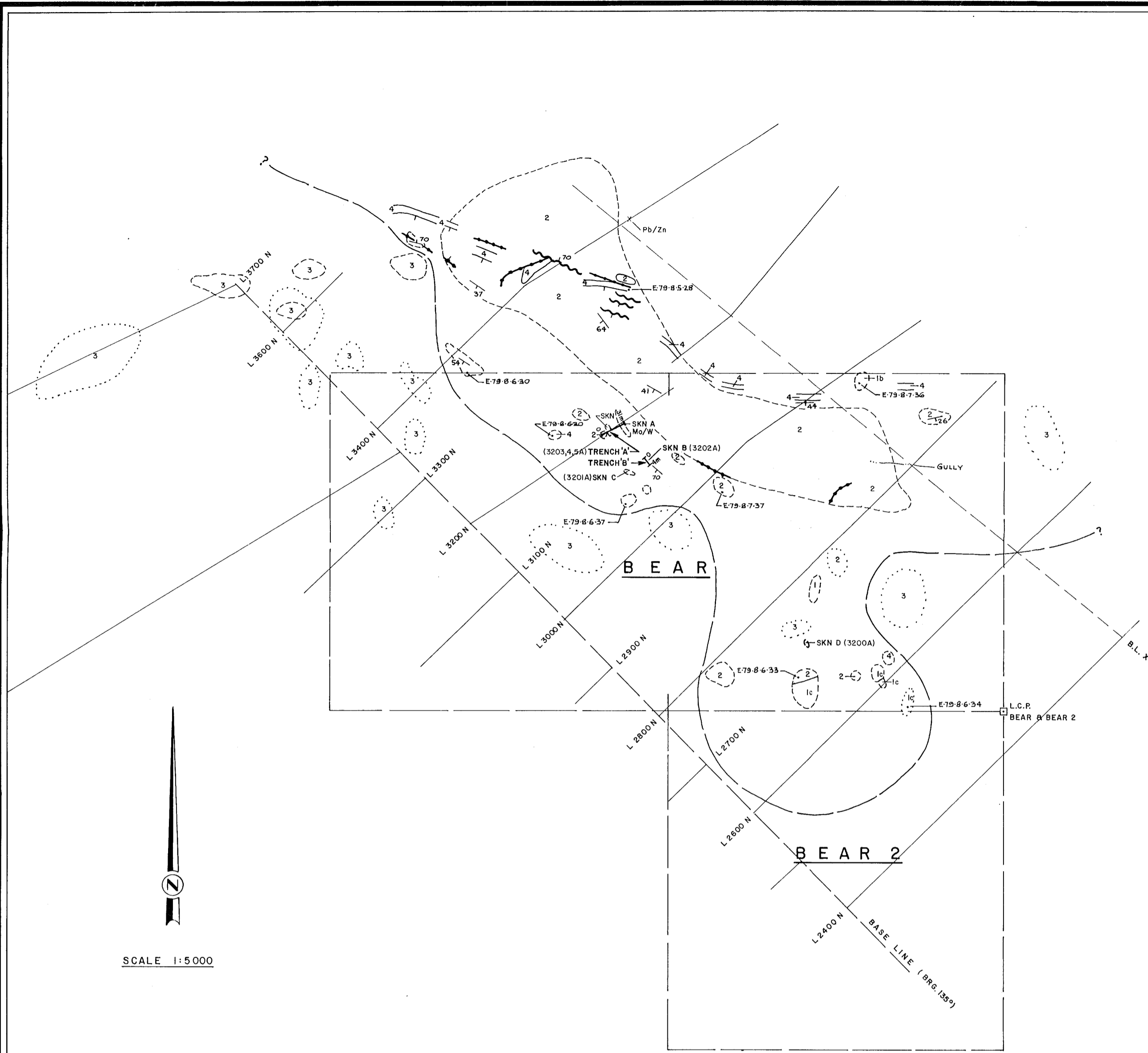
**Certificate of Assay T.M. CLAIM**  
(detailed BEAR GRID)

TO: DuPont of Canada Expl.,  
102-1550 Alberni St.,  
Vancouver, B.C.

PROJECT No. 340  
DATE Oct. 12/79.  
File No. 9-714

SAMPLE No.	Pb %	Zn %	Ag oz/ton	LOCATION
2076	.06	.03	.18	- SAME AREA AS GEOCHEM SAMPLE #3900 - ON SIDHILL ON N.E. SIDE OF MAIN TRIBUTARY TO TOOTHE RIV. - JUST NORTH OF D52 CLAIMS
77	.02	.08	.14	0-20m upslope from Geochem sample #3900
78	.01	.02	.10	NEAR GEOCHEM SAMPLE #3737 ON L32+00N 5+25E (N.E. QUADRANT T.M. CLAIM)
79	.01	.18	.11	NEAR GEOCHEM SAMPLE #3722 L34+00N 5+25E (N.E. QUADRANT T.M. CLAIM)
80	.53	27.50	3.81	NEAR GEOCHEM SAMPLE #3722 L34+00N 5+25E (N.E. QUADRANT T.M. CLAIM)
81	56.00	3.18	28.00	NEAR GEOCHEM SAMPLE #3722 L34+00N 5+25E (N.E. QUADRANT T.M. CLAIM)
2082	19.95	7.15	11.30	NEAR GEOCHEM SAMPLE #3722 L34+00N 5+25E (N.E. QUADRANT T.M. CLAIM)
6825	.40	.28	.36	N.E. QUADRANT T.M. CLAIM } SKARN ZONE 33+50N/4+30E
6826	.02	.06	.12	N.E. QUADRANT T.M. CLAIM } SKARN ZONE 33+50N/4+40E
6827	4.12	4.92	2.70	N.E. QUADRANT T.M. CLAIM } SKARN ZONE 33+00N 4+75E

MIN-EN Laboratories Ltd.  
CERTIFIED BY *[Signature]*



SCALE 1:5000

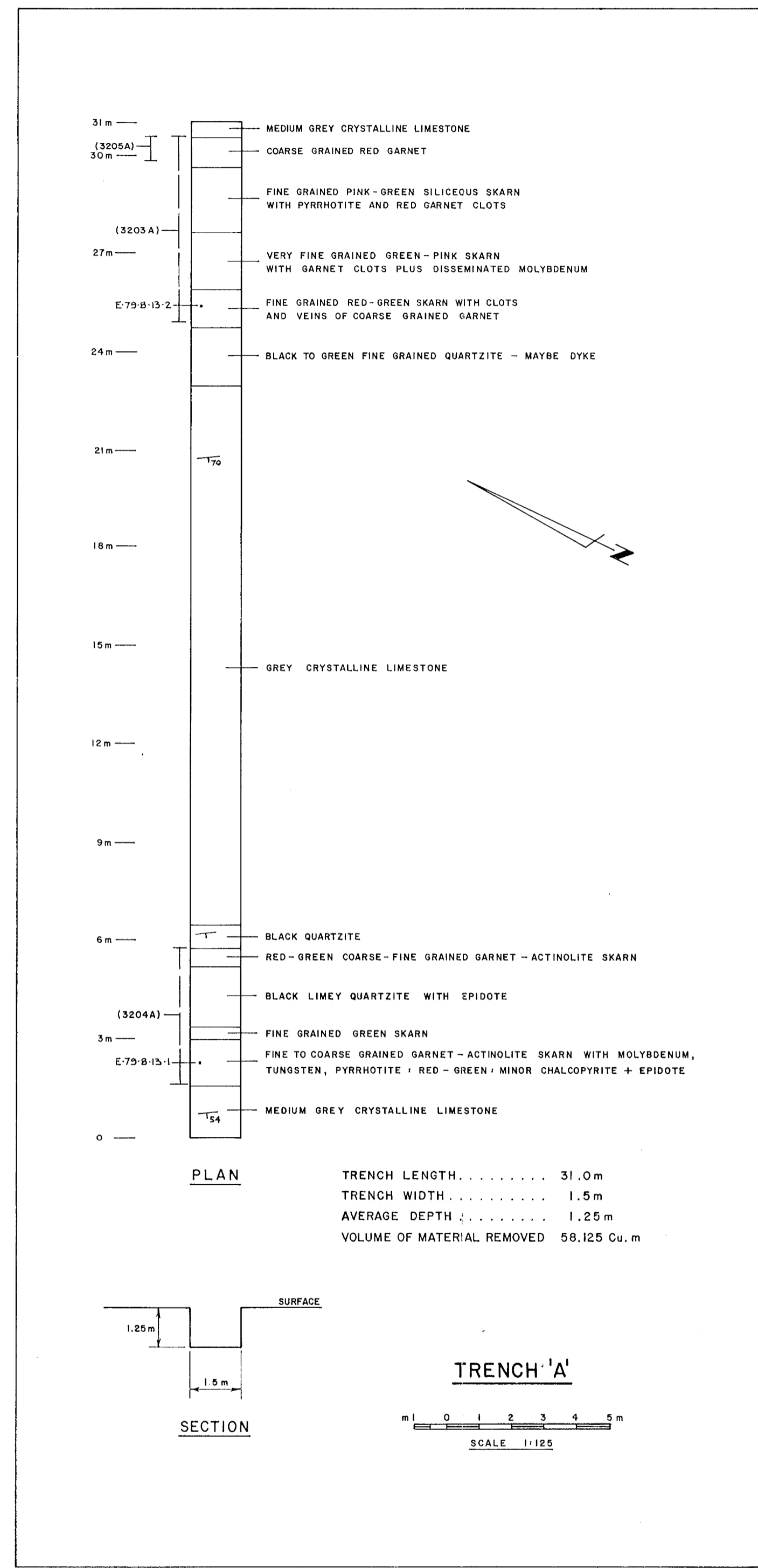
**LEGEND**

- 4 GABBROIC DYKE OR VOLCANICLASTICS
- 3 BIOTITE GRANITE (Cassiar Intrusive)
- 2 LIMESTONE
- 1a) LIMY SILTSTONE
- 1b) ARGILLACEOUS BLACK SEDIMENTS
- 1c) PHYLLITE

**SYMBOLS**

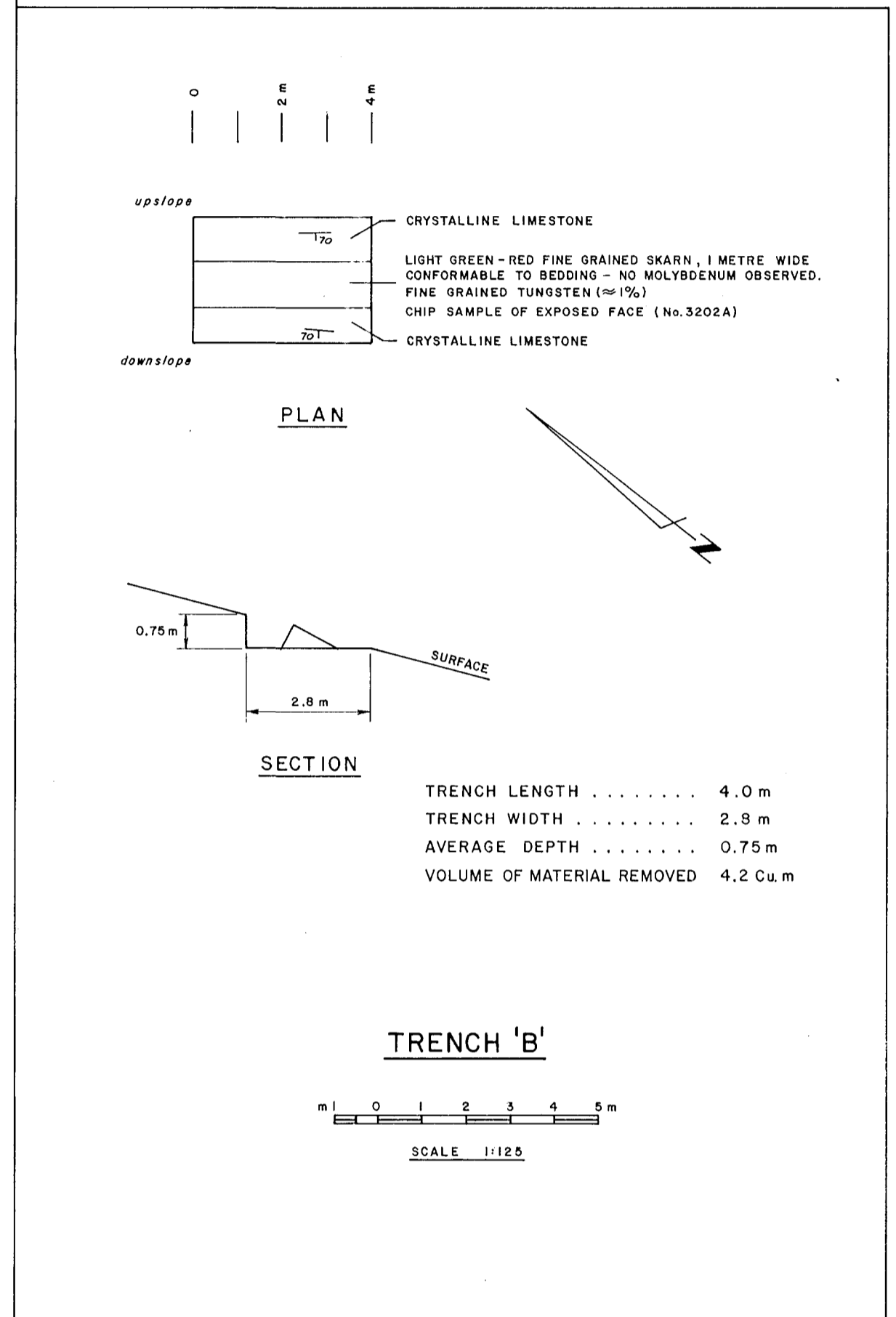
- RUBBLE
- OUTCROP
- CONTACT
- CALCITE VEIN
- FAULT
- TRENCH
- SKN SKARN
- CHIP SAMPLE
- BEDDING
- CLAIM POST

ROCK GEOCHEMISTRY IN P.P.M.					
SAMPLE No.	Mo	Pb	Zn	W	LOCATION
3200A	335	25	82	3850	BEAR
3201A	9	2.0	67	21	"
3202A	7	2.2	3.0	1.1	"
3203A	128	1.8	81	950	"
3204A	350	19	76	60	"
3205A	55	2.6	41	12	"



**TRENCH 'A'**  
 TRENCH LENGTH . . . . . 31.0m  
 TRENCH WIDTH . . . . . 1.5m  
 AVERAGE DEPTH . . . . . 1.25m  
 VOLUME OF MATERIAL REMOVED 58.125 Cu. m

**TRENCH 'B'**  
 TRENCH LENGTH . . . . . 4.0m  
 TRENCH WIDTH . . . . . 2.8m  
 AVERAGE DEPTH . . . . . 0.75m  
 VOLUME OF MATERIAL REMOVED 4.2 Cu. m



MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**7539**

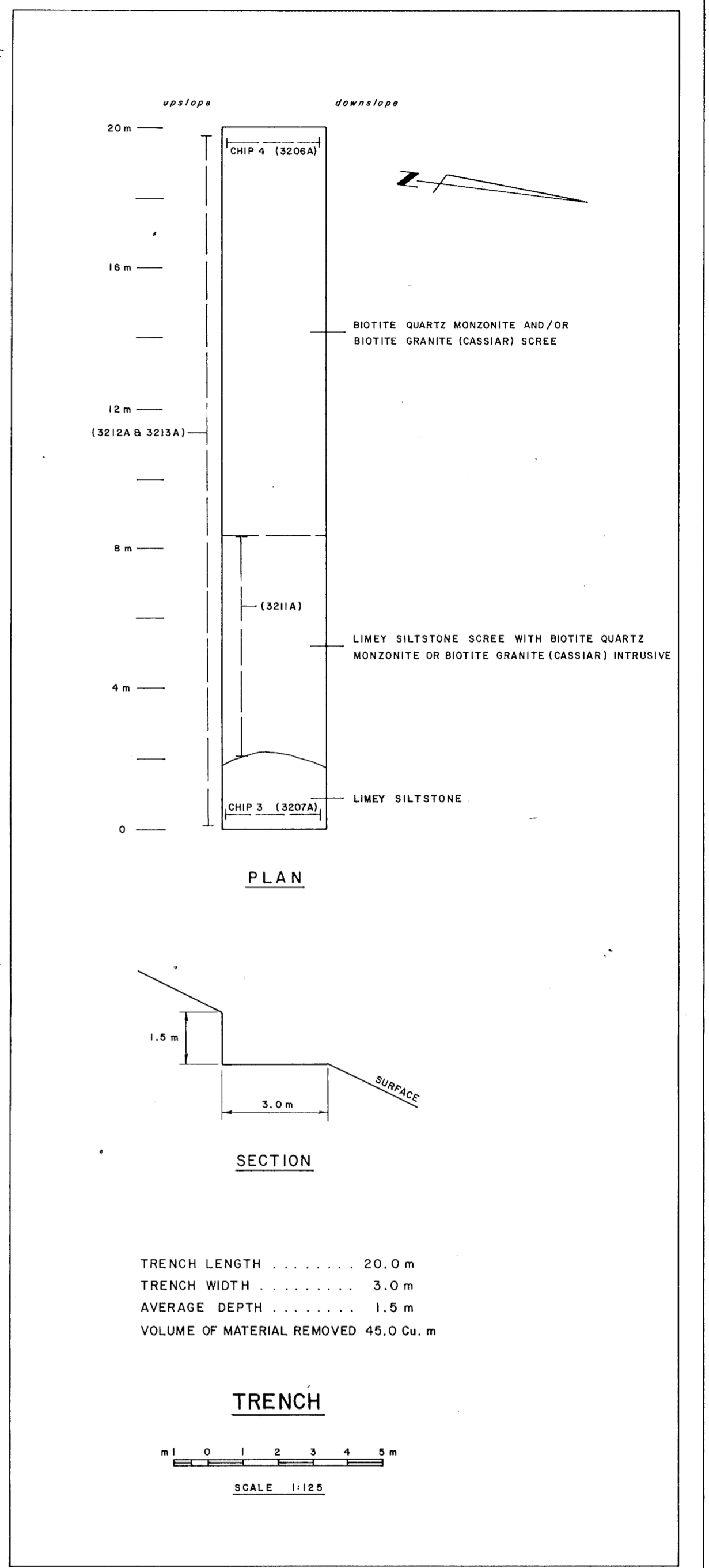
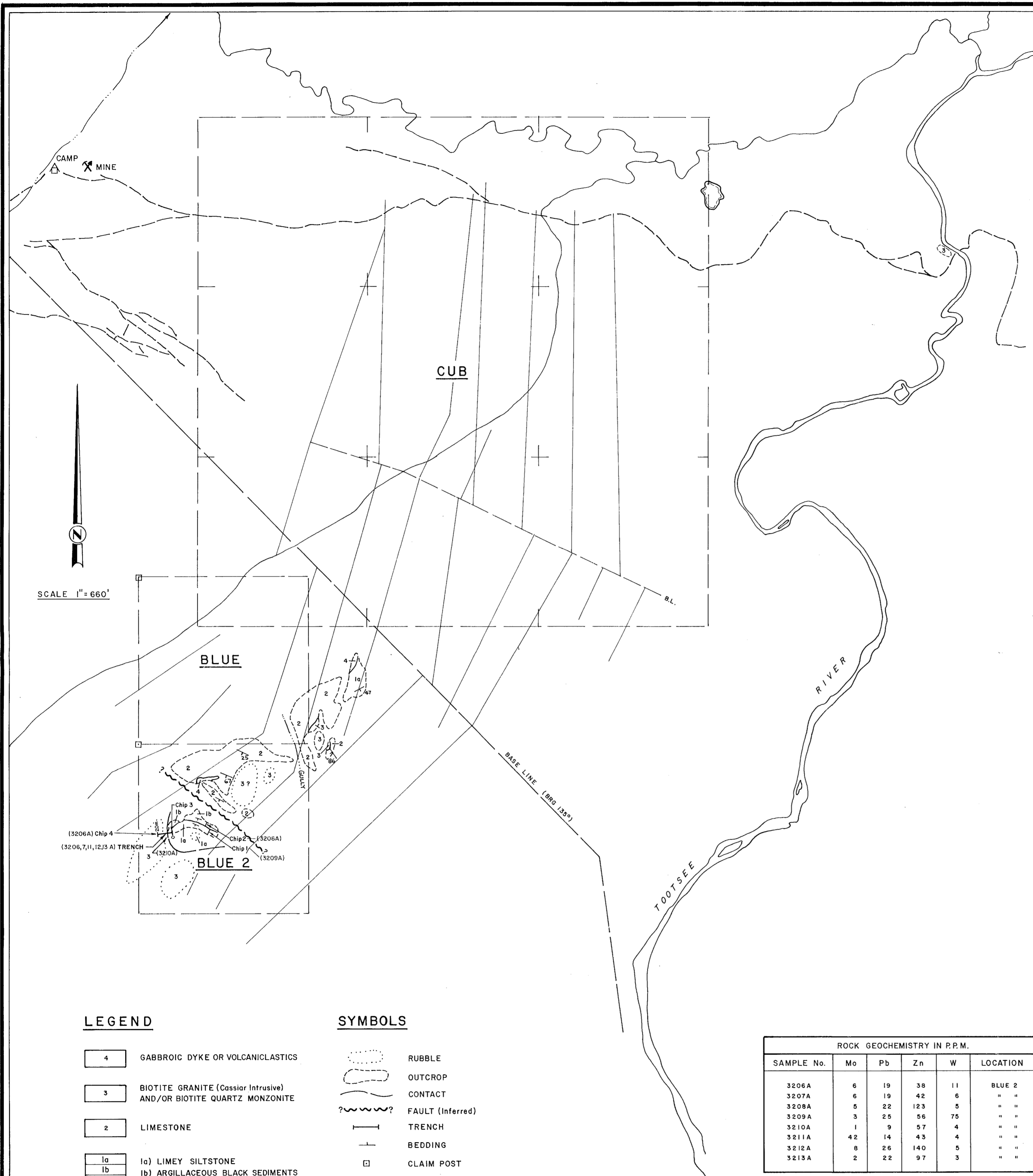
**DUPONT EXPLORATION**  
 CANADA

**BLUE - CUB PROJECT  
 GEOLOGY & TRENCHING  
 BEAR CLAIMS  
 TOOTSEE LAKE AREA, BRITISH COLUMBIA**

1:5000  
 SCALE  
 0 50 100 150 200 300  
 METERS

0 1 2 3 4 5  
 INCH = FEET

MAPPED BY: L.K.E. REVISOR: N.T.S. No.: 104 0 16  
 DATE: 79 09 05 ACCT No.: 340-00  
 DRAWN BY: K.L.J. DATE: 79 09 05 ORWG. No.: BU. 79-2



TRENCH LENGTH . . . . . 20.0 m  
 TRENCH WIDTH . . . . . 3.0 m  
 AVERAGE DEPTH . . . . . 1.5 m  
 VOLUME OF MATERIAL REMOVED 45.0 Cu. m

**LEGEND**

- 4 GABBROIC DYKE OR VOLCANICLASTICS
- 3 BIOTITE GRANITE (Cassiar Intrusive) AND/OR BIOTITE QUARTZ MONZONITE
- 2 LIMESTONE
- 1a) LIMY SILTSTONE
- 1b) ARGILLACEOUS BLACK SEDIMENTS
- 1c) PHYLLITE

**SYMBOLS**

- RUBBLE
- OUTCROP
- CONTACT
- FAULT (Inferred)
- TRENCH
- BEDDING
- CLAIM POST

ROCK GEOCHEMISTRY IN P.P.M.					
SAMPLE No.	Mo	Pb	Zn	W	LOCATION
3206A	6	19	38	11	BLUE 2
3207A	6	19	42	6	" "
3208A	5	22	123	5	" "
3209A	3	25	56	75	" "
3210A	1	9	57	4	" "
3211A	42	14	43	4	" "
3212A	8	26	140	5	" "
3213A	2	22	97	3	" "

7539

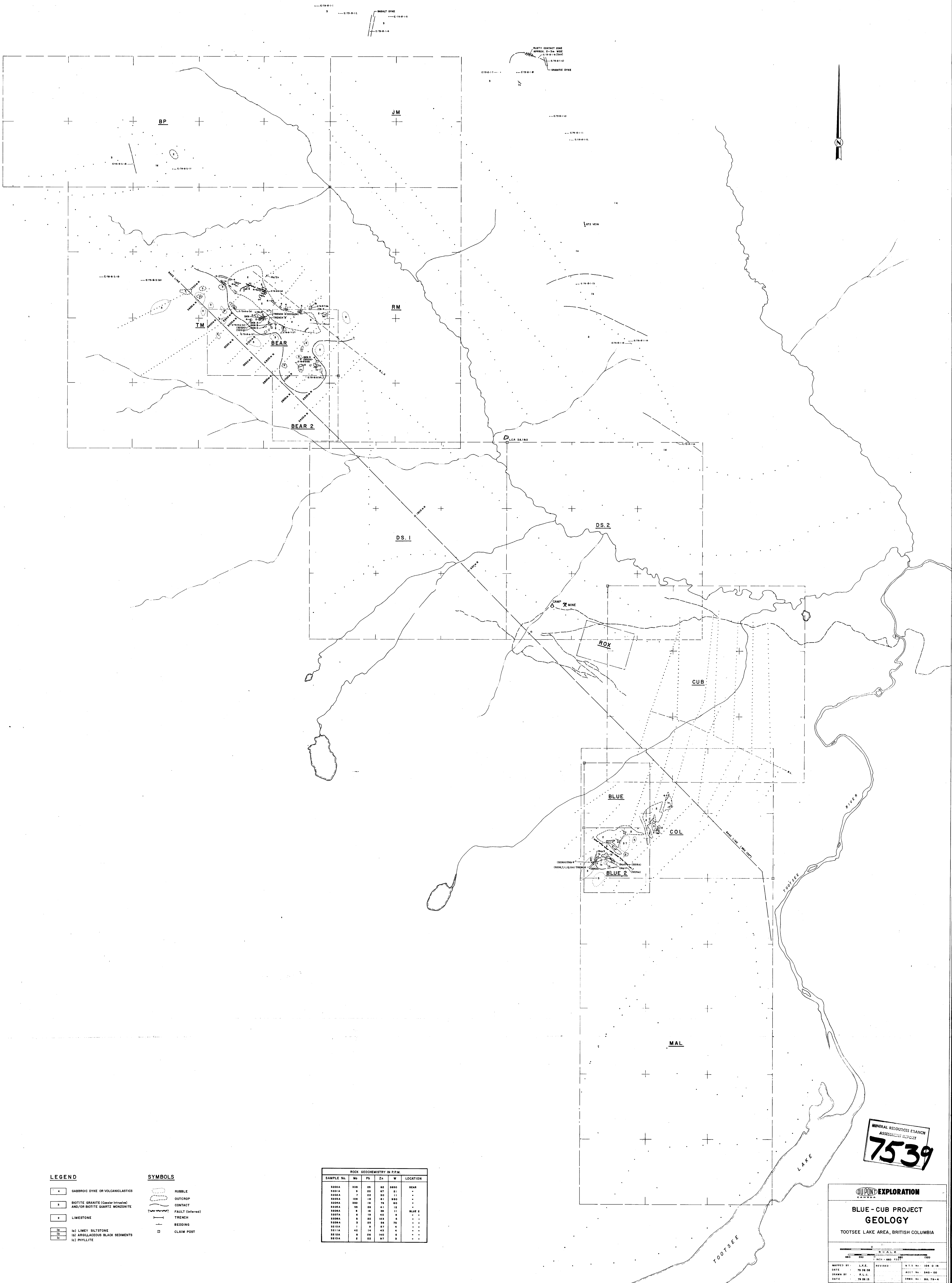
**DUPONT EXPLORATION**  
CANADA

**BLUE - CUB PROJECT**  
**GEOLOGY & TRENCHING**  
**BLUE & CUB CLAIMS**  
TOOTSEE LAKE AREA, BRITISH COLUMBIA

SCALE  
1 INCH = 660 FEET

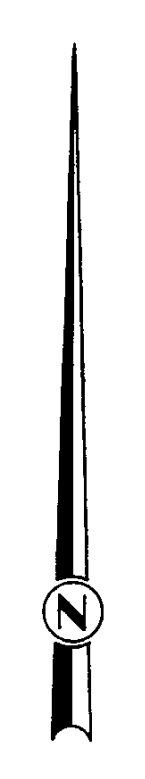
MAPPED BY: L.K.E.	REVISED:	N.T.S. No.: 104 0 16
DATE: 79.08.06		ACCT No.: 340-00
DRAWN BY: K.L.J.		DRWG. No.: BU. 79-3
DATE: 79.09.10		





MALTY DYKE  
 GRANITIC DYKE

MALTY CONTACT DYE  
 GRANITIC DYKE



**LEGEND**

4	GABBROIC DYKE OR VOLCANICLASTICS
5	BIOTITE GRANITE (Cassiterite) AND/OR BIOTITE QUARTZ MONZONITE
2	LIMESTONE
10	1a) LIMY SILTSTONE
11	1b) ARGILLACEOUS BLACK SEDIMENTS
12	1c) PHYLLITE

**SYMBOLS**

(Dotted pattern)	RUBBLE
(Dashed line)	OUTCROP
(Solid line)	CONTACT
(Wavy line)	Fault (Inferred)
(Dashed line with ticks)	TRENCH
(Solid line with ticks)	BEDDING
(Square)	CLAIM POST

**ROCK GEOCHEMISTRY IN P.P.M.**

SAMPLE No.	Mo	Pb	Zn	W	LOCATION
3200A	338	88	82	3880	BEAR
3201A	9	80	87	211	"
3202A	7	22	30	11	"
3203A	188	18	81	890	"
3204A	300	19	76	60	"
3205A	50	26	41	18	"
3206A	9	18	88	11	"
3207A	9	19	42	6	"
3208A	9	22	123	6	"
3209A	9	25	58	76	"
3210A	7	9	87	6	"
3211A	42	14	42	6	"
3212A	8	26	140	6	"
3213A	8	22	87	6	"

MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**7539**

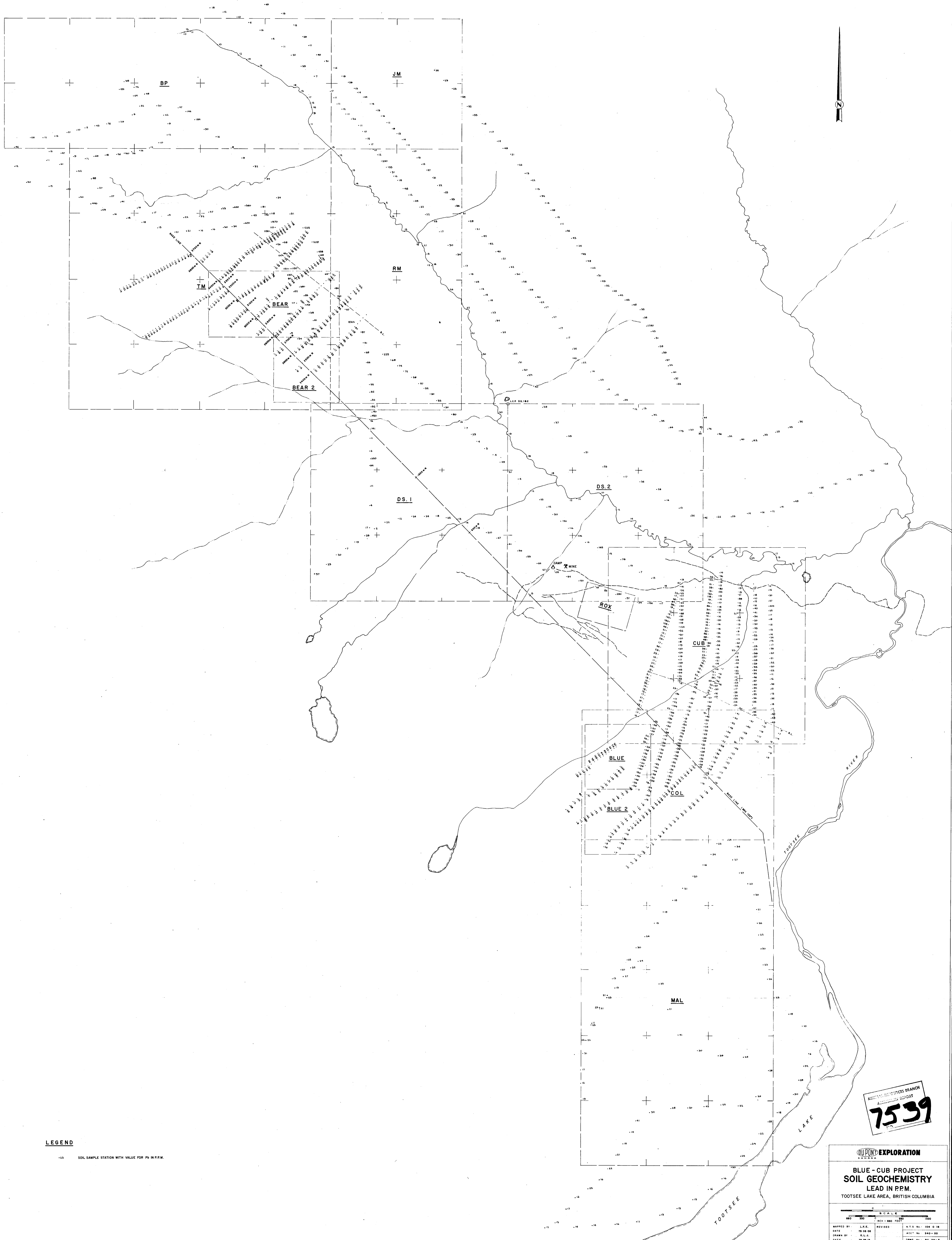
**ORION EXPLORATION**  
 CANADA

**BLUE-CUB PROJECT  
 GEOLOGY**

TOOTSEE LAKE AREA, BRITISH COLUMBIA

SCALE  
 1" = 400 FEET

MAPPED BY: L.K.E. REVISION: N.F.S. No. 104-0-18  
 DATE: 79-08-08 ACCT No. 840-00  
 DRAWN BY: R.L.V. DATE: 79-08-13 ENR No. 82-78-6



**LEGEND**

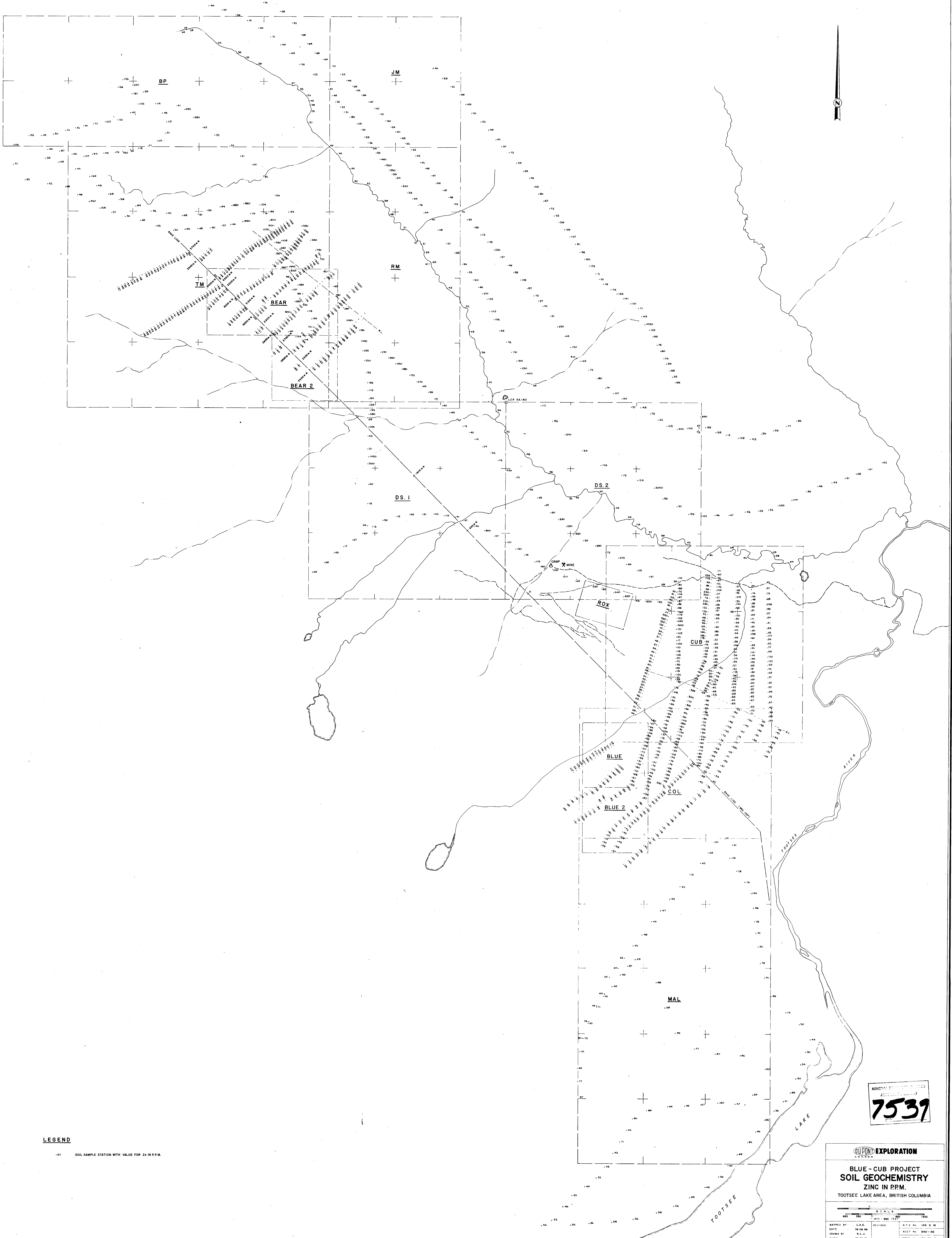
-15 SOIL SAMPLE STATION WITH VALUE FOR Pb IN PPM.

MINERAL RESOURCES BRANCH  
 GEOLOGICAL REPORT  
**7539**

**CUPON EXPLORATION**  
 BLUE-CUB PROJECT  
 SOIL GEOCHEMISTRY  
 LEAD IN PPM.  
 TOOTSEE LAKE AREA, BRITISH COLUMBIA

SCALE  
 1:5000  
 1" = 500 FEET

MAPPED BY	L.K.E.	REVISED	A.T.S. No. 104-D-18
DATE	78-08-05		ACT. No. 840-00
DRAWN BY	K.L.P.		DRWS. No. 80-75-5
DATE	78-08-15		



**LEGEND**

47 SOIL SAMPLE STATION WITH VALUE FOR ZN IN P.P.M.

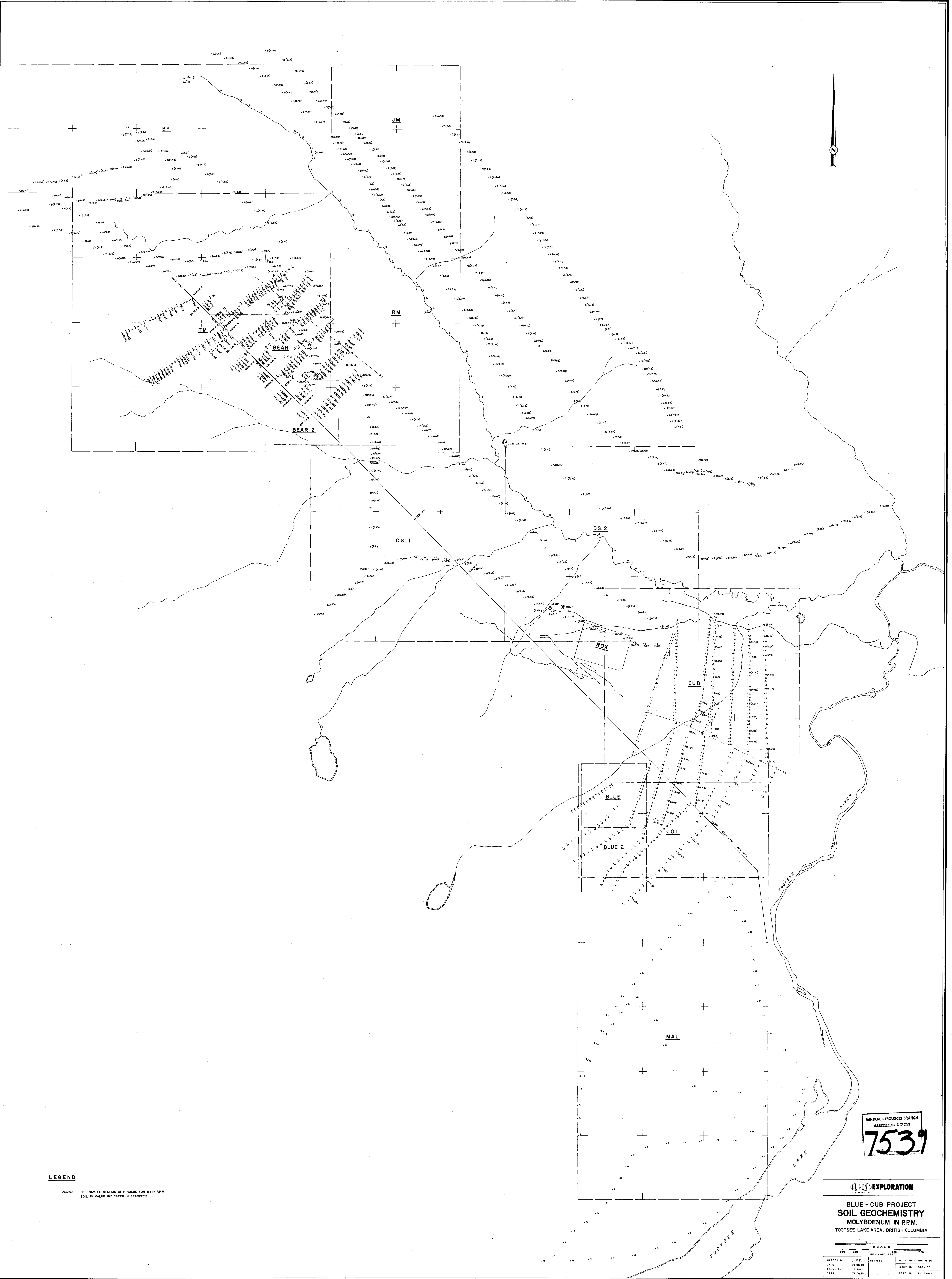
MINERAL PROCESSING  
**7539**

**EXPLO**  
**EXPLORATION**

**BLUE - CUB PROJECT**  
**SOIL GEOCHEMISTRY**  
**ZINC IN P.P.M.**  
 TOOTSEE LAKE AREA, BRITISH COLUMBIA

SCALE  
 800 300 100 0 100 200  
 INCH = 800 FEET

MAPPED BY	L.K.E.	REVISED	N.T.S. NO. 104-G-18
DATE	78 08 08		ACCT. NO. 840-00
DRAWN BY	R.L.P.		
DATE	78 08 13		COMP. NO. 80-78-8



**LEGEND**

(-0.72) SOIL SAMPLE STATION WITH VALUE FOR Mo IN PPM.  
SOIL PH VALUE INDICATED IN BRACKETS.

MINERAL RESOURCES BRANCH  
ASSESSMENT DIVISION  
**7539**

**CUPON EXPLORATION**  
CANADA

**BLUE - CUB PROJECT  
SOIL GEOCHEMISTRY  
MOLYBDENUM IN PPM.  
TOOTSEE LAKE AREA, BRITISH COLUMBIA**

SCALE  
0 400 800 1200  
1:50,000  
1" = 660 FEET

DRAWN BY	L.S.E.	REVISED	N.T.S. No.
DATE	79 08 06		104 0 16
DATE	79 08 13		ACCT No. 342-00
DATE	79 08 13		DRWG No. 88-79-7



**LEGEND**

• SOIL SAMPLE STATION WITH VALUE FOR W IN PPM.

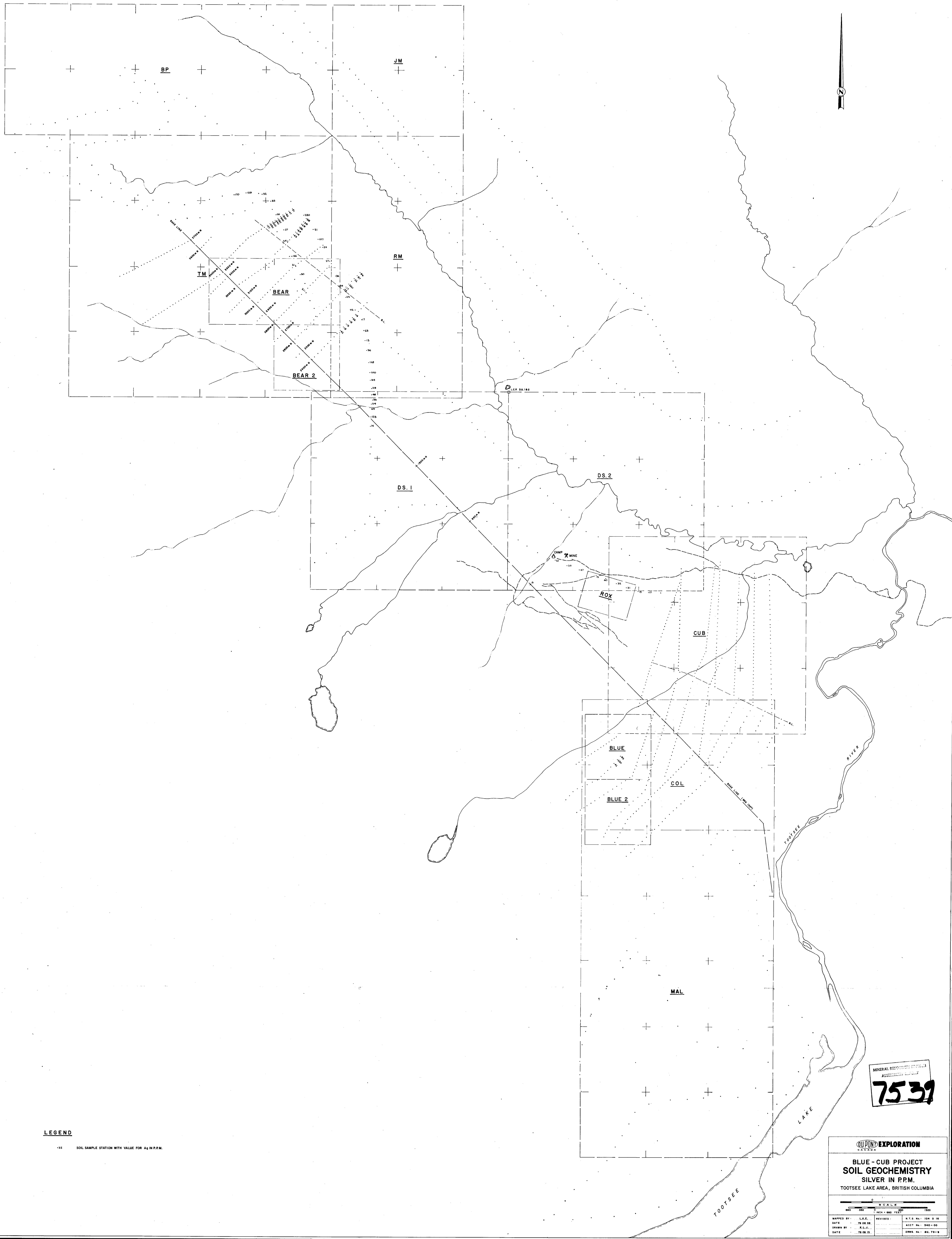
MINERAL RESOURCES COUNCIL  
ASSESSMENT REPORT  
**7539**

**COUPON EXPLORATION**  
CANADA

**BLUE-CUB PROJECT  
SOIL GEOCHEMISTRY  
TUNGSTEN IN PPM.  
TOOTSEE LAKE AREA, BRITISH COLUMBIA**

SCALE  
0 400 800 1200  
INCH = 800 FEET

MAPPED BY: S.L.E.	REVISED:	N.T.S. No: 104-0-16
DATE: 79-08-06		ACT No: 340-00
DRAWN BY: R.L.C.		ENR No: 80-79-8
DATE: 79-08-15		



**LEGEND**

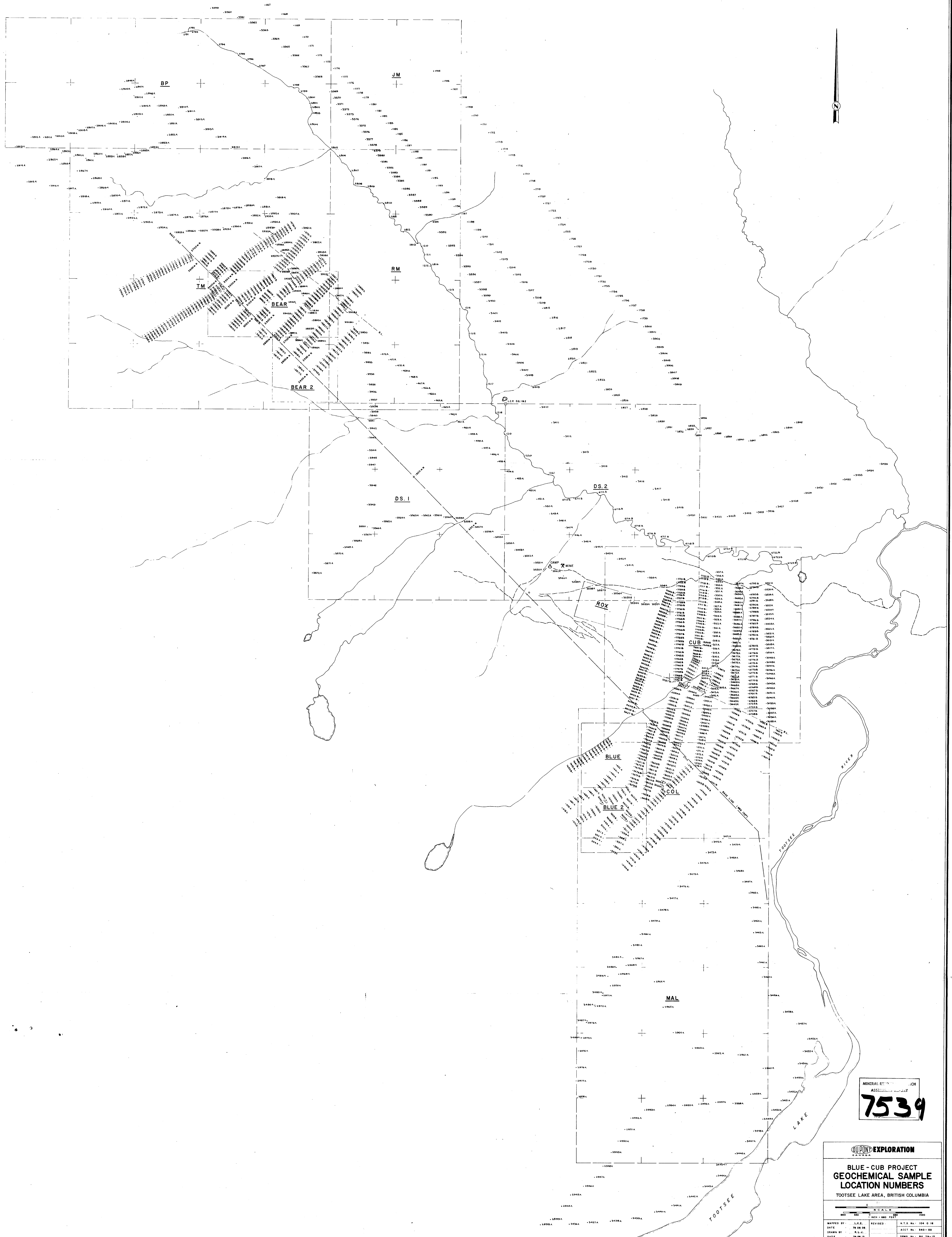
125 SOIL SAMPLE STATION WITH VALUE FOR Ag IN P.P.M.

MINERAL RECONSTRUCTION  
ASSOCIATES LTD.  
**7539**

**CUPON EXPLORATION**  
**BLUE - CUB PROJECT**  
**SOIL GEOCHEMISTRY**  
**SILVER IN P.P.M.**  
 TOOTSEE LAKE AREA, BRITISH COLUMBIA

SCALE  
 0 100 200 300 400 500 600 700 800 900 1000  
 INCH = 660 FEET

MAPPED BY: L.S.E.	REVISED:	N.T.S. No: 104 0 18
DATE: 79 08 08		ACCT No: 840-00
DRAWN BY: K.L.L.		DRW No: 82 75-B
DATE: 79 08 15		



MINERAL RIGHTS IN CHARGE  
**7539**

**QUAD EXPLORATION**  
 CANADA

**BLUE - CUB PROJECT  
 GEOCHEMICAL SAMPLE  
 LOCATION NUMBERS**

TOOTSEE LAKE AREA, BRITISH COLUMBIA

SCALE  
 1" = 400 FEET

MAPPED BY: L.E.E.	REVISED: N.T.S. NO. 104-D-18
DATE: 78.08.08	ASCT. NO. 340-00
DRAWN BY: E.L.A.	DATE: 78.08.13
	DRWG. NO. 80.79-10