

0121-39560  
093433

GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT

ON THE

1st Base 1-44 MINERAL CLAIMS

YB 51866 - YB 51909 ,

LOCATED ON

NTS CLAIM SHEET 105G-7  
WATSON LAKE MINING DISTRICT

G. MACDONALD P. GEOL

16 AUGUST 1995



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SUMMARY

Blake Macdonald holds the 1st Base 1-44 mineral claims. These are unsurveyed mineral claims obtained by staking under the provisions of the Yukon Quartz Mining Act. The claims are located on NTS Claim Sheet 105G-7 and are administered by the District Mining Recorder in Watson Lake, Y.T.

A work program undertaken during 1995 included a preliminary soil geochemical survey and geological review. As a result of this exploration, several areas anomalous in zinc and lead content were located in a geological environment permissive to host massive sulphide mineralization in a "strata-bound" style.

Further work is warranted on the claim to evaluate the targets located to date.

## INTRODUCTION

The 1st Base 1-44 claims were located in 1994 by Blake Macdonald of Vancouver, B.C., to protect potential base metal targets following discovery of a high grade multi-element massive sulphide deposit by Cominco 25 km south of Finlayson Lake, Yukon, now known as the "ABM" deposit.

During 1995 a limited exploration program was conducted on the subject claims as a preliminary review of the property's mineral potential. Work performed during 1995 included contour geochemical soil sampling and geological mapping.

### CLAIM LOCATION AND ACCESS

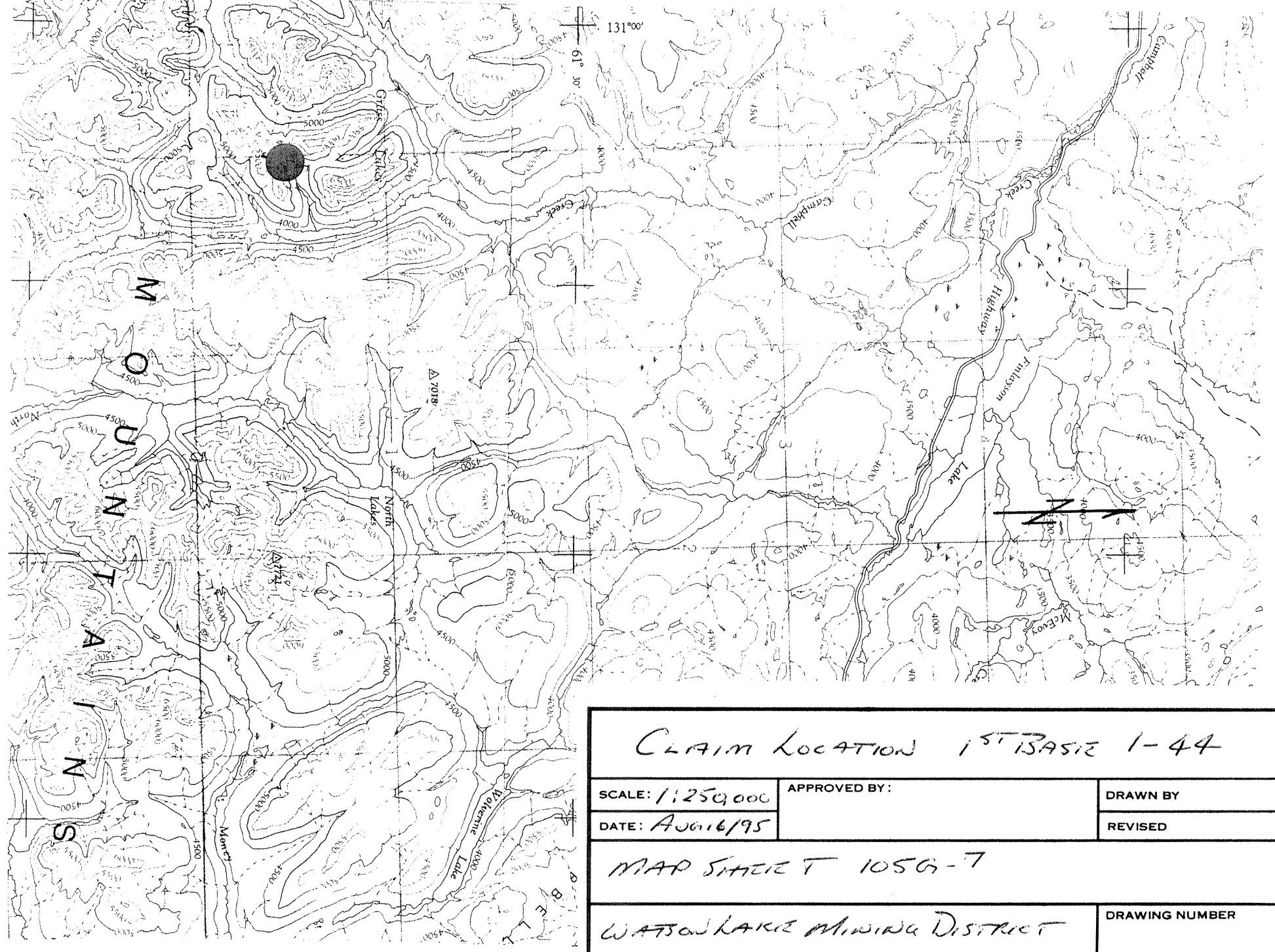
The 1st Base 1-44 claims are located on NTS Claim Sheet 105G-7 and are centred approximately at 61 23' N / 130 53' W some 70 km south east of Ross River, Y.T.

Figures 1 and 2 of this report demonstrate the claim locations and a claim summary is presented as Table 1 below.

TABLE 1 CLAIM SUMMARY

<u>Name</u>	<u>Grant No.</u>	<u>Current Expiry</u>
1st Base 1-44	YB 51866 - YB 51909	August 31, 1995

The property was accessible by helicopter chartered from Ross River, Y.T.



CLAIM LOCATION 1<sup>ST</sup> BASIC 1-44

SCALE: 1:250,000

APPROVED BY:

DRAWN BY

DATE: AUG 16/95

REVISED

MAP SHEET T 105G-7

WATSON LAKE MINING DISTRICT

DRAWING NUMBER



GEOLOGY AND MINERALIZATION

The 1st Base 1-44 mineral claims are underlain by a complex series of highly metamorphosed stratified rock lithologies. These units belong to a package of allochthonous rocks referred to as "Yukon-Tanana Terraine".

In the area local to the property, the rocks commonly are flat-lying schists with occasional interbedded meta-quartzite lithologies. Relationships between the various schist units are generally drift-covered and are complicated by both low-angle (thrust) faults and steeply-dipping normal faults. Since the property lies approximately 8 km north-east of the Tintina Fault, it is likely that some of the normal faulting is related to this major structure. A summary of local geology is presented as Table 2 of this report. These are units underlying or in the vicinity of the property.

Sulphide mineralization was located in two environments on the property. Minor pyrite and galena were observed in quartz veins (with occasional barite) on ridge tops. These veins occupy steeply-dipping fracture zones, are discontinuous and average less than 0.5 meters in width.

Pyrite was located in quartz-biotite schist float at several locations in talus slopes. The re-crystallized pyrite is apparently parallel to the schistosity and has a "strata"-bound appearance. Traces of chalcopyrite are present in the pyritic sulphide beds.

TABLE 2: TABLE OF FORMATIONS

Cretaceous	Vqm	Homogeneous, medium-grained biotite quartz monzonite
Mississippian(?)	P_Pk5	Metaquartzite; has schisty partings
	P_Pk4	Buff-weathering biotite-quartz schist; quartz-chlorite amphibole (?) schist. Unit is often pyritic.
Cambrian(?)	P_n	Quartz-biotite-feldspar gneiss.

note: unit symbols are those used by the G.S.C.

GEOCHEMICAL SURVEY

A program of contour soil sampling was undertaken at the 1st Base 1-44 claim during 1995. Sample sites were selected by compass bearings and topofil chain control to locate stations at approximately 100 meter intervals. Soil samples were obtained by digging with a mattock to the "b" horizon and placing a representative sample into a kraft sample bag. Samples were then sent to Cantech Laboratories Inc. in Calgary, Alberta, for analysis and tested for copper, lead and zinc content. Sample analysis results are presented as Figure 4 of this report and laboratory work sheets are included as Appendix 2.

DISCUSSION

The 1st Base 1-44 mineral claims have been explored with a preliminary geological review and soil geochemical survey. The geology underlying the claims is primarily a sequence of schists and gneisses of the Yukon-Tanana terraine, and includes occurrences of pyrite mineralization in an apparent strata bound environment.

Results of the soil geochemical survey indicate several areas with moderate to strongly anomalous content of zinc and lead. Often several contiguous sample sites are anomalous, with peak samples of 1170 ppm zinc and 295 ppm lead. Backgrounds for zinc and lead are considered to be 75 ppm and 18 ppm, respectively.

CONCLUSIONS AND RECOMMENDATIONS

The soil sampling and geological investigation of the 1st Base 1-44 mineral claims have located significantly anomalous areas of zinc and lead geochemistry in a geologic environment permissive to host massive sulphide mineralization in a "strata bound" setting. Further exploration work is warranted on the property and should include the detailed grid soil geochemical surveys to define the known anomalies, geological mapping and EM/magnetic geophysical surveys. An Induced Polarization ("IP") survey should be considered, based on the results of the first phase of exploration.

Respectfully submitted

*G. Macdonald*  
 G. Macdonald, P. Geol., P. Geol.





STATEMENT OF QUALIFICATIONS

I, GLEN C. MACDONALD, of 3789 West Island Highway, Qualicum Beach, B.C., hereby certify that:

1. I am a graduate of U.B.C. with degrees in Economics (B.A., 1971) and Geology (B.Sc., 1973);

2. I have practised my profession as Geologist since graduating;

3. I have worked as a Geologist for Whitehorse Copper Mine and acted as District Manager for Exploration for Yukon/Western N.W.T. for Noranda Exploration;

4. I have practised Geology as an Independent Consulting Geologist since 1983;

5. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (No. 36214);

6. I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 20464);

  
G. Macdonald, P. Geol., P. Geo.  
The seal is a diamond-shaped emblem with a double-line border. The text 'PROFESSIONAL' is at the top, 'PROVINCE' is below it, 'BRITISH COLUMBIA' is at the bottom, and 'GEOSCIENTIST' is at the very bottom. The name 'G. Macdonald' is written in cursive across the top half of the seal, and 'G. C. Macdonald' is printed in the center.

## APPENDIX 2

AUTHORITY:BLAKE MACDONALD

**KETZA MINES**  
 609, 475 HOWE ST.  
 VANCOUVER, B.C.

WORK ORDER: 9561D-95

\*\*\* FINAL REPORT \*\*\*

**GEOCHEMICAL LABORATORY REPORT**

SAMPLE TYPE: SOIL

SAMPLE NUMBER	TOTAL CU PPM	TOTAL PB PPM	TOTAL ZN PPM
A: 1	57.0	16.0	87.0
A: 2	14.0	25.0	85.0
A: 3	42.0	104.0	366.0
A: 4	37.0	153.0	283.0
A: 5	30.0	157.0	185.0
A: 6	49.0	44.0	154.0
A: 7	40.0	27.0	117.0
A: 8	99.0	55.0	360.0
A: 9	161.0	10.0	83.0
A: 10	98.0	43.0	502.0
A: 11	92.0	186.0	1170.0
A: 12	81.0	157.0	873.0
A: 13	46.0	11.0	111.0
A: 14	35.0	30.0	90.0
A: 15	54.0	18.0	59.0
A: 16	51.0	16.0	67.0
A: 17	29.0	9.0	186.0
A: 18	94.0	295.0	1040.0
A: 19	356.0	39.0	527.0
A: 20	27.0	12.0	83.0
B: 1	35.0	34.0	81.0
B: 2	104.0	37.0	120.0
B: 3	46.0	10.0	115.0
B: 4	53.0	23.0	92.0
B: 5	42.0	47.0	243.0
B: 6	25.0	12.0	87.0
B: 7	63.0	30.0	255.0
B: 8	93.0	5.0	158.0
B: 9	54.0	2.0	103.0
B: 10	18.0	5.0	31.0



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\*\*\* FINAL REPORT \*\*\*

**GEOCHEMICAL LABORATORY REPORT**

SAMPLE TYPE: SOIL

S A M P L E N U M B E R		TOTAL CU PPM	TOTAL PB PPM	TOTAL ZN PPM
B:	11	11.0	19.0	40.0
B:	12	10.0	<2.0	12.0
B:	13	253.0	11.0	361.0
B:	14	40.0	7.0	102.0
B:	15	27.0	2.0	47.0
B:	16	141.0	36.0	363.0
B:	17	23.0	3.0	75.0
B:	18	192.0	54.0	486.0
B:	19	151.0	44.0	367.0
B:	20	24.0	5.0	36.0
C:	1	29.0	12.0	112.0
C:	2	77.0	27.0	173.0
C:	3	14.0	14.0	57.0
C:	4	26.0	11.0	88.0
C:	5	29.0	25.0	136.0
C:	6	17.0	10.0	77.0
C:	7	22.0	12.0	84.0
C:	8	34.0	8.0	70.0
C:	9	26.0	9.0	87.0
C:	10	24.0	9.0	69.0
C:	11	7.0	5.0	18.0
C:	12	26.0	10.0	72.0
C:	13	47.0	8.0	115.0
C:	14	45.0	11.0	89.0
C:	15	29.0	12.0	78.0
C:	16	38.0	10.0	72.0
C:	17	37.0	16.0	97.0
C:	18	45.0	3.0	34.0
D:	1	39.0	37.0	108.0
D:	2	30.0	4.0	25.0



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VANCOUVER, B.C.

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\*\*\* FINAL REPORT \*\*\*

**GEOCHEMICAL LABORATORY REPORT**

SAMPLE TYPE: SOIL

SAMPLE NUMBER	TOTAL CU PPM	TOTAL PB PPM	TOTAL ZN PPM
D: 3	69.0	5.0	91.0
D: 4	67.0	<2.0	44.0
D: 5	52.0	5.0	53.0
D: 6	36.0	5.0	72.0
D: 7	31.0	4.0	46.0
D: 8	87.0	18.0	163.0
D: 9	46.0	37.0	144.0
D: 10	36.0	10.0	92.0
D: 11	21.0	9.0	43.0
D: 12	31.0	5.0	38.0
E: 1	26.0	3.0	41.0
E: 2	21.0	8.0	49.0
E: 3	34.0	6.0	85.0
E: 4	53.0	7.0	104.0
E: 5	52.0	11.0	97.0
E: 6	38.0	5.0	102.0
E: 7	29.0	12.0	54.0
E: 8	57.0	10.0	111.0
E: 9	20.0	18.0	103.0
E: 10	50.0	49.0	289.0
E: 11	72.0	77.0	455.0
E: 12	75.0	82.0	518.0
19 -SILT	293.0	38.0	530.0
20 -SILT	80.0	29.0	242.0



AUTHORITY: BLAKE MACDONALD

PAGE: 4 OF 5  
COPY: 1 OF 2

**KETZA MINES**  
609, 475 HOWE ST.  
VANCOUVER, B.C.

WORK ORDER: 9561D-95

\*\*\* FINAL REPORT \*\*\*

**GEOCHEMICAL LABORATORY REPORT**

**SAMPLE TYPE: ROCK**

SAMPLE NUMBER	TOTAL AU PPB	TOTAL AG PPM	TOTAL BA PPM	TOTAL PB PPM
48426	24.0	NA	NA	NA
48427	17.0	NA	NA	NA
48428	11.0	0.3	NA	7.0
48429	16.0	0.9	72.0	334.0
48430	85.0	NA	NA	NA
48431	32.0	NA	NA	NA

APPENDIX 3

Expenditures on 1st. Base 1-44  
July 1995

Accomodations and Meals	579.48	
Field Wages	1750.00	
Maps and Supplies	117.48	
Support Helicopter	2342.56	
Travel and Support	1140.92	
Geochem Analysis	475.93	
August 16,1995	Total	6406.37

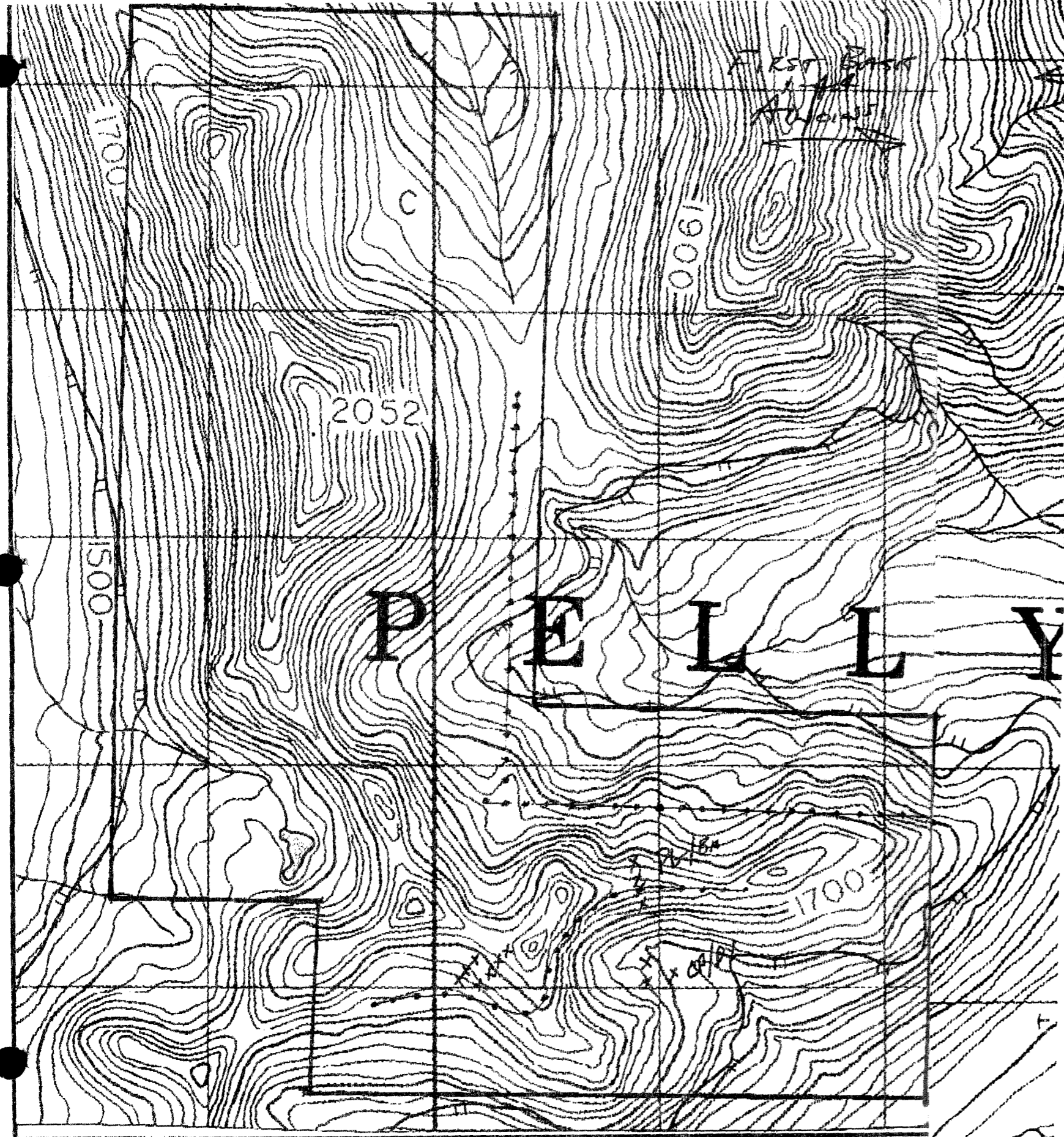
**APPENDIX IV**  
*FIRST BASE*  
*1-44*

**PERSONNEL SUMMARY: July 6 - 8, 1995**

**Glen Macdonald (Geologist) 2.5 days**  
303 - 1334 Cardero Street  
Vancouver, B.C. V6G 2J3

**Blake Macdonald (Assistant) 2.5 days**  
301 - 1645 West 12th Avenue  
Vancouver, B.C. V6J 2R3

**Ralf Hilebrande (Assistant) 2.5 days**  
1008 - Giroi Crescent  
Coquitlam, B.C. V3J 3T1



FIRST BASE 1-44  
ADJOINS

LEGEND.  
 XXXX VEIN  
 X FLOAT  
 PG - GALENA  
 Ba - BARITE  
 C, D - CALCOPYRITE  
 Py - PYRITE

45, 3, 34  
 37, 10, 97  
 38, 10, 72  
 29, 12, 78  
 45, 11, 89  
 47, 8, 115  
 26, 10, 72  
 7, 5, 18  
 24, 9, 69  
 20, 9, 87  
 34, 8, 70  
 22, 12, 84  
 17, 10, 77  
 29, 25, 136  
 26, 11, 88  
 14, 14, 57  
 77, 27, 173



29, 12, 112  
 46, 10, 115  
 53, 23, 92  
 42, 47, 243  
 25, 12, 87  
 63, 30, 255  
 97, 5, 158  
 54, 2, 103  
 11, 19, 40  
 10, -, 12  
 253, 11, 361  
 40, 7, 102  
 27, 2, 47  
 14, 36, 303  
 13, 3, 75  
 192, 54, 406  
 151, 44, 867  
 24, 5, 36

57, 16, 87  
 14, 25, 85  
 42, 104, 366  
 37, 153, 283  
 30, 157, 185  
 49, 44, 154  
 49, 27, 117  
 99, 55, 360  
 161, 10, 83  
 98, 43, 502  
 92, 186, 1170  
 81, 151, 873  
 46, 11, 90  
 35, 30, 9  
 54, 8, 59  
 51, 16, 67  
 29, 9, 186  
 94, 295, 1010  
 352, 59, 527  
 27, 12, 83

↓ Cu, Pb, Zn PPM  
 ○ SAMPLE LOCATION

FIRST BASE 1-44 105 G-7		
SCALE: 1:20,000	APPROVED BY:	DRAWN BY
DATE: AUG 16/95		REVISED
GEOCHEM SURVEY		
		DRAWING NUMBER

