

4541

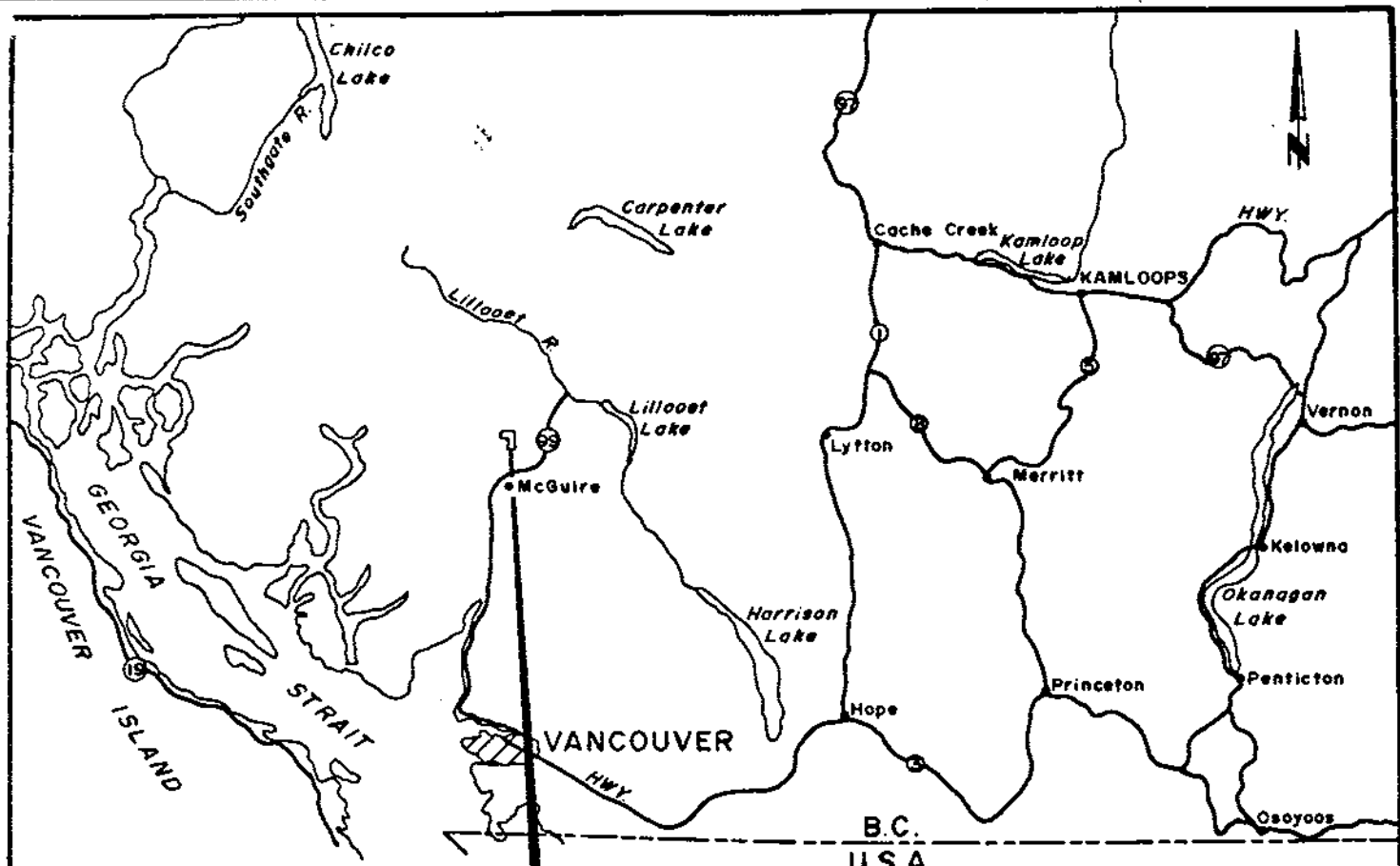
GEOCHEMICAL REPORT
NORTHAIR MINES LTD.

DOG mineral claims, Brandywine Falls area,
Vancouver Mining Division, B.C.
Lat. 50°07'N Long. 123°04'W N.T.S. 92 J/3

AUTHOR: Glen E. White, B.Sc.
P. ENG: E. Cruz
DATE OF WORK: July 11 - 16, 1973
DATE OF REPORT: August 20, 1973

92J/3E

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4541	MAP.....



54	52	49	50	65	66	
55	53	47	48	63	64	
				45	46	
				43	44	
				41	42	
				39	40	
				37	38	
				35	36	
				29	33	34
				30	31	32

AREA OF SURVEY

Department of
Mines and Technical Resources
No. 4541 #1

NORTHAIR MINES LTD.
DOG CLAIMS
LOCATION AND CLAIMS MAP

SCALE : LOCATION MAP 1" = 40 MILES APPROX.

CLAIMS MAP 1/4" = 1500 APPROX

Glen & White
geophysical consulting
&
mining ltd.

AUG. 17, 1973
FIG. 1

C O N T E N T S

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#1	Figure 1 - Location and Claims Map
#2	" 2 - Geochemistry Map - Copper
#3	" 3 - " " - Lead
#4	" 4 - " " - Silver
#5	" 5 - " " - Zinc

INTRODUCTION

During the period July 11 - 16, 1973, Glen E. White Geophysical Consulting and Services Ltd. conducted a program of geochemical soil sampling over a portion of the DOG mineral claims, Brandywine Falls area, Vancouver Mining Division, B.C., on behalf of Northair Mines Ltd.

The geochemical method was used successfully on the Northair Mines Ltd. gold, silver, copper, lead and zinc discovery on the Warman claims and thus has been applied on this claim group to search for minerals of economic significance.

PROPERTY

The property discussed in this report consists of mineral claims DOG 29 - 50, 52 - 54 and 63 - 66 as illustrated in Figure 1.

LOCATION AND ACCESS

The DOG mineral claims are located on the west side of Mount Sproatt along the crest of one of its westerly shoulders, near Callaghan Creek, Brandywine Falls area, Vancouver Mining Division, B.C. Lat. $50^{\circ}07'N$ Long. $123^{\circ}04'W$ N.T.S. 92 J/3.

Facile access to the claims is by helicopter in four minutes time, or by some one to two hours walk from the Northair Mine site.

PREVIOUS WORK

No previous work of record to the knowledge of the writer has been conducted on these mineral claims.

PHYSIOGRAPHY

The mineral claims lie along a ridge which reaches an elevation of 5400 - 5800 feet and forms a westerly shoulder to Mount Sproatt which rises to an elevation of 6051 feet and forms part of the inner Coast Range. The area of survey ranged from 4000 feet in elevation to 5800 feet.

The tree line varied but was largely around an elevation of 5300 feet. Thus, the lower elevations were in scrub timber while the areas above 5300 feet consisted of glaciated cliffs, talus slopes and some alpine meadow land.

Surface drainage was to the west down Callaghan Creek and northerly down Twenty-One Mile Creek.

GENERAL GEOLOGY

The very little geological information available for this region is shown on G.S.C. Maps 1711 and 42-1963. Essentially, the host rocks for the mineralization are sediments and volcanics of Triassic to Cretaceous age which have been enveloped by the Coast Range Cretaceous or earlier granodiorites and granites.

The sedimentary and volcanic rocks show variable degrees of metamorphism but are thought to form pendants or septas in the Coast Range batholith.

The mineral discovery made by Northair Mines Ltd. on their Warman claims shows veins of quartz and carbonate in metamorphosed rocks bearing lead, zinc and copper mineralization with economically significant values of gold and silver.

SURVEY SPECIFICATIONS

Survey Grid

The survey grid consists of flagged and chained reconnaissance soil sampling lines spaced 1000 feet apart.

The lines on the northern claims are orientated N8°E from a S82°E baseline and in the southern claims, vice versa. Some 11.5 line miles of survey grid was established.

Geochemical Survey

Geochemical soil samples of the upper "B" horizon were obtained with mattocks at 200 foot intervals along the grid lines. The sample was then placed in a soil envelope provided by Vangeochem Lab Ltd. of North Vancouver, B.C. The samples were delivered to the above lab where -80 mesh sieving, digestion by hot perchloric-nitric acid and analysis by atomic absorption was carried out under the supervision of professional geochemists. Some 295 soil samples were obtained and analysed for lead, zinc, copper and silver.

DATA PRESENTATION

The soil sample results accompanying this report are at a scale of 1" = 400 feet as follows:

Figure 2	-	Geochemical Map	-	copper
"	3	-	"	- lead
"	4	-	"	- silver
"	5	-	"	- zinc

DISCUSSION OF RESULTS

A study of the geochemical results surrounding the Northair Mines Ltd. discovery on the Warman claims indicated that the geochemical background and anomalous trends appear to be best illustrated by the following contour levels: copper - 40, 80 and 160 p.p.m.; lead - 30, 60 and 120 p.p.m.; silver - 1.8, 3.6 and 7.2 p.p.m.; and zinc - 75, 150 and 300 p.p.m. Thus, for continuity and anomaly evaluation, the same contour levels have been applied to the survey data discussed in this report.

The copper geochemical data (Figure 2) shows only scattered anomalous values with the highest being 177 p.p.m. located in the north west section of the survey area.

The lead map (Figure 3) shows two anomalous areas; one well-defined NW-SE trend in the southwestern section of the survey area and a number of high values in the northwestern four mineral claims.

The silver geochemical map (Figure 4) shows only a few values around 2 to 2.5 p.p.m. which are only just above background and could be caused by calcium interference in the emission spectrum.

The zinc geochemical results (Figure 5) show more evidence of geochemical activity with a few anomalous values occurring on the southernmost survey line, and a large area of moderately anomalous results located in the northwestern part of the survey grid. The highest zinc value on line 12S is coincident with a definitely anomalous value of lead, while a number of the anomalous values in the northwest are directly associated with geochemical values of lead and copper.

CONCLUSIONS AND RECOMMENDATIONS

During the middle of July 1973, a program of reconnaissance geochemical soil sampling was conducted over a number of the DOG mineral claims on behalf of Northair Mines Ltd.

The survey located a number of coincident anomalous values of copper, lead and zinc in the northwesternmost DOG claims. Since the geochemical survey was completed on a reconnaissance basis, this area can only be considered an area of interest and subsequently should be further investigated.

Respectfully submitted,
GLEN E. WHITE GEOPHYSICAL
CONSULTING & SERVICES LTD.

Glen E. White, President

STATEMENT OF QUALIFICATIONS

Name: WHITE, Glen E.

Profession: Geophysicist

Education: B.Sc. Geophysics - Geology
University of British Columbia

Professional Associations: Associate member of Society of Exploration Geophysicists.
Active member B.C. Society of Mining Geophysicists.

Experience: Pre-Graduate experience in Geology - Geochemistry - Geophysics with Anaconda American Brass.

Two years Mining Geophysicist with Sulmac Explorations Ltd. and Airborne Geophysics with Spartan Air Services Ltd.

One year Mining Geophysicist and Technical Sales Manager in the Pacific north-west for W. P. McGill and Associates.

Two years Mining Geophysicist and supervisor Airborne and Ground Geophysical Divisions, with Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd.

Two years Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

C E R T I F I C A T E

I, Ernesto D. Cruz, DO HEREBY CERTIFY AS FOLLOWS:

- (1) That I am a Consulting Mining Engineer and reside at 8596 Terrace Dr., Delta, B.C.
- (2) That I am a Graduate of Mapua Institute of Technology Phillipines (B.A.Sc.) and University of Washington (M.A.Sc.) in the Faculty of Mining Engineering.
- (3) That I am a registered P. ENG in the Association of Professional Engineers in the province of British Columbia.
- (4) That I have practised geological engineering for ten (10) years.
- (5) That I have reviewed a report dated August 20, 1973 based on work conducted by Glen E. White Geophysical Consulting and Services Ltd. under the supervision of Glen E. White B.Sc. Geophysicist, and concur with the findings therein.
- (6) That this report consists of 6 typewritten pages and four maps.
- (7) That I have no interest directly or indirectly in the DOG mineral claims or the securities of Northair Mines Ltd. nor do I expect to acquire or receive any.

DATED at Vancouver, British Columbia, this 20th day of August, 1973.

ERNESTO D. CRUZ, P. ENG



Ernesto D. Cruz, P. ENG

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of Geochemical Soil
Sampling, DOG Mineral Claims

I, Glen E. White

of Glen E. White Geophysical Consulting and Services Ltd.

in the Province of British Columbia, do solemnly declare that the costs for the above survey were as follows:

<u>PERSONNEL</u>	<u>PERIOD</u>	<u>WAGES</u>	<u>TOTAL</u>
C. Ashworth.....	July 11-16/73.....	\$65/day.....	\$390.00
P. MacKenzie.....	".....".....	\$40/day.....	\$240.00
T. MacKenzie.....	".....".....	\$40/day.....	\$240.00
C. Beach.....	".....".....	\$40/day.....	\$240.00
Meals and Accomodations.....			360.00
Materials.....			50.00
Sample Analysis - Ag, Pb, Cu and Zn.....			780.00
Interpretation Maps and Reports.....			400.00
Helicopter.....			300.00
Total.....			\$3000.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Langmuir, in the
Province of British Columbia, this 21st
day of August 1973, A.D.

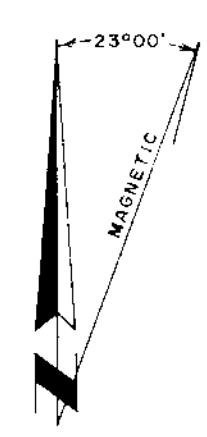
[Signature]

[Signature]

A Commissioner for taking Affidavits for British Columbia
A Notary Public in and for the Province of British Columbia. Sub-mining Recorder

Department of
Mines and Geophysical Resources
ASSESSMENT REPORT
NO. 4541 M.A.P.

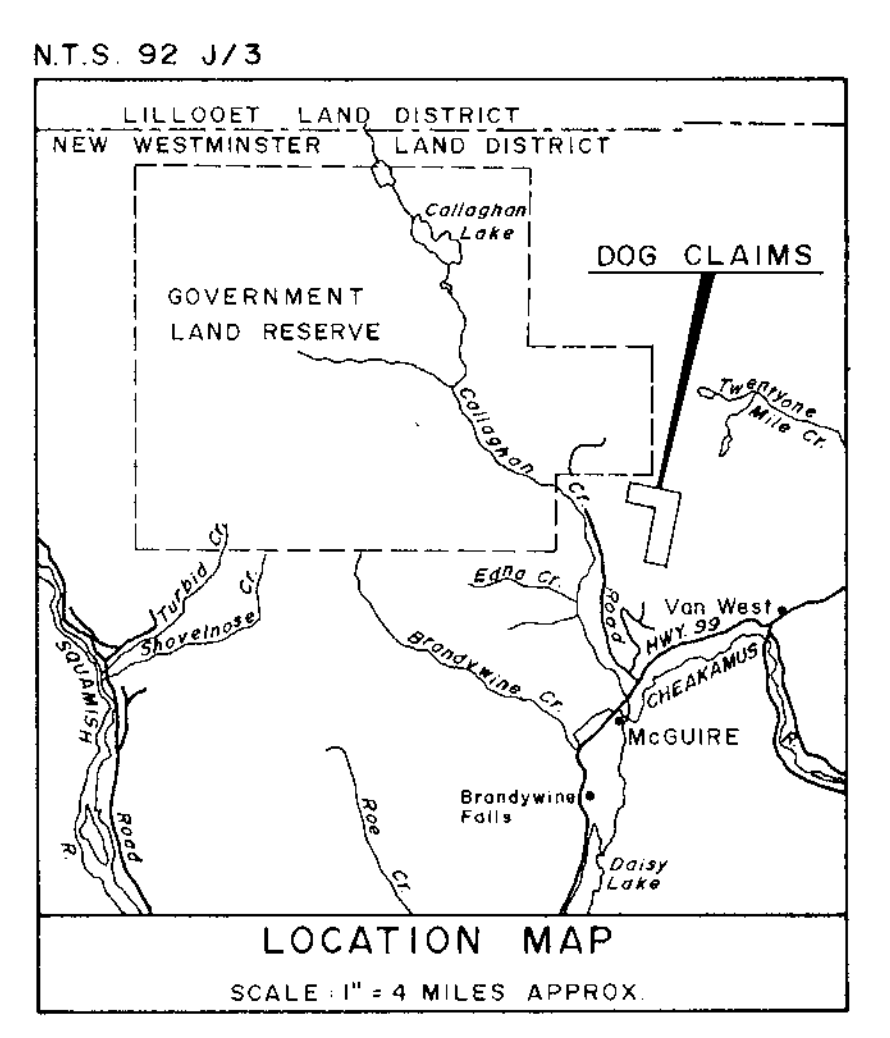
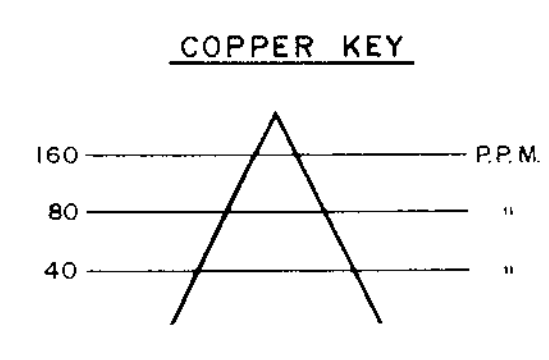
123°04'



LEGEND

- Contour Line (Elevation: 140, 80, 160 P.P.M.)
- Stationing
- Dog Claim Boundary
- Claim Point
- Important Road

50°07'



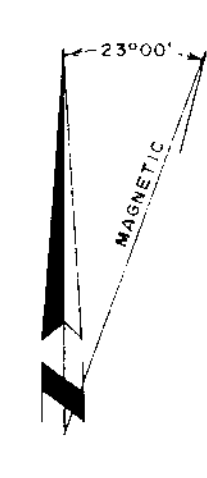
4541
M2

NORTH AIR MINES LTD.	
Department of MINE AND GEOPHYSICAL SURVEY	
Mines and Geophysical Survey Division - BRITISH COLUMBIA	
ASSESSMENT REPORT	GEOCHEMICAL MAP
NO. 4541	MAP #2
COPPER PPM	
INTERPRETED BY: G.E.W.	DRAWN BY: [Signature]
CHECKED BY: [Signature]	DATE: AUG. 17, 1973
FIG. NO. 2	

To Accompany Geochemical Report on THE DOG CLAIM GROUP
Date: August 24, 1973
By: GLEN E. WHITE - GEOCHEMIST

123°04'

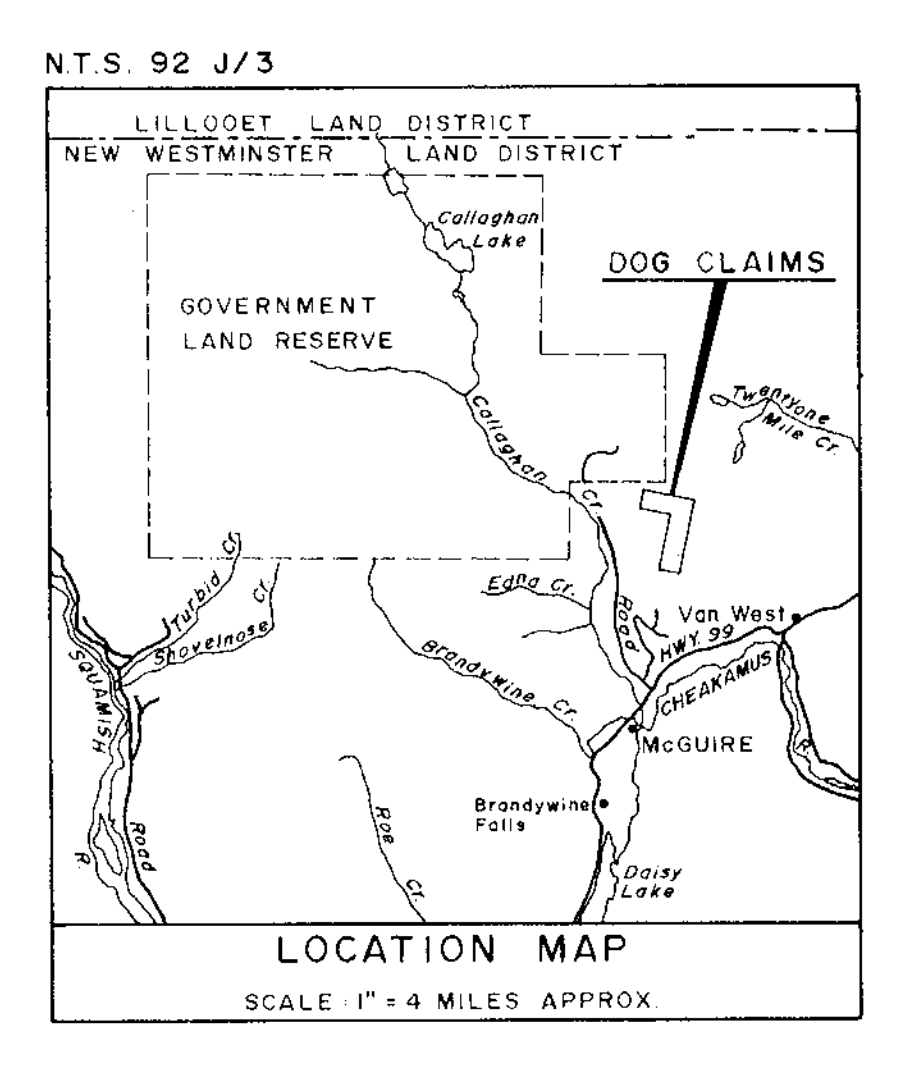
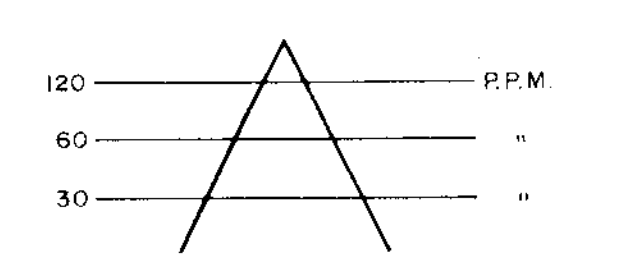
123°04'



LEGEND

- Contour interval 30, 60, 120 P.P.M.
- DOG CLAIMS
- Government Land Reserve
- DOG CLAIMS

LEAD KEY



4541
M3

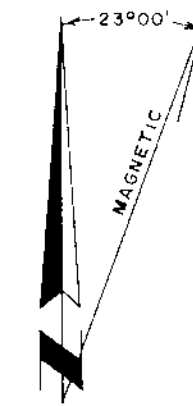
NORTH AIR MINES LTD.	
Department of	DOG CLAIMS
Geology and Petrology	DIVISION - BRITISH COLUMBIA
ASSESSMENT REPORT GEOCHEMICAL MAP	
NO. 4541	MAP #3 LEAD P.P.M.
Interpreted by: G.E.W.	Checked by: [Signature]
Drawn by: [Signature]	Date: AUG 17, 1972
FIG. No. 3	

To Accompany Geochemical Report on THE DOG CLAIM GROUP
Date: August 24, 1972
By: GLEN E. WHITE, G.S.P. GEOCHEMIST

123°04'

50°07'

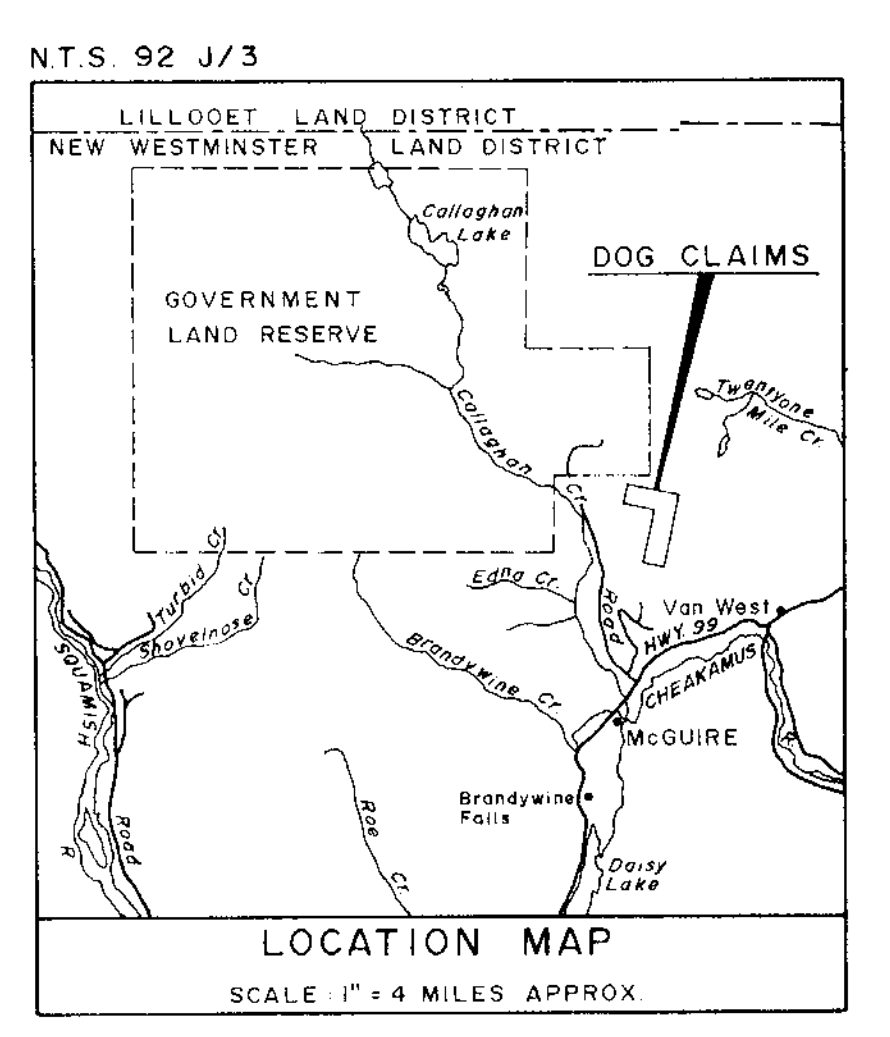
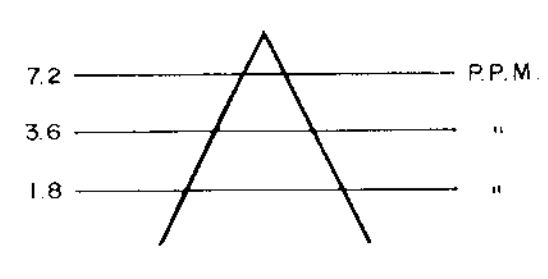
123°04'



LEGEND

- Contour Line Contour Interval 18, 36, 72 P.P.M.
- Streams
- Outline of Property
- Claim Point
- Unproved Road

SILVER KEY



4541
M4

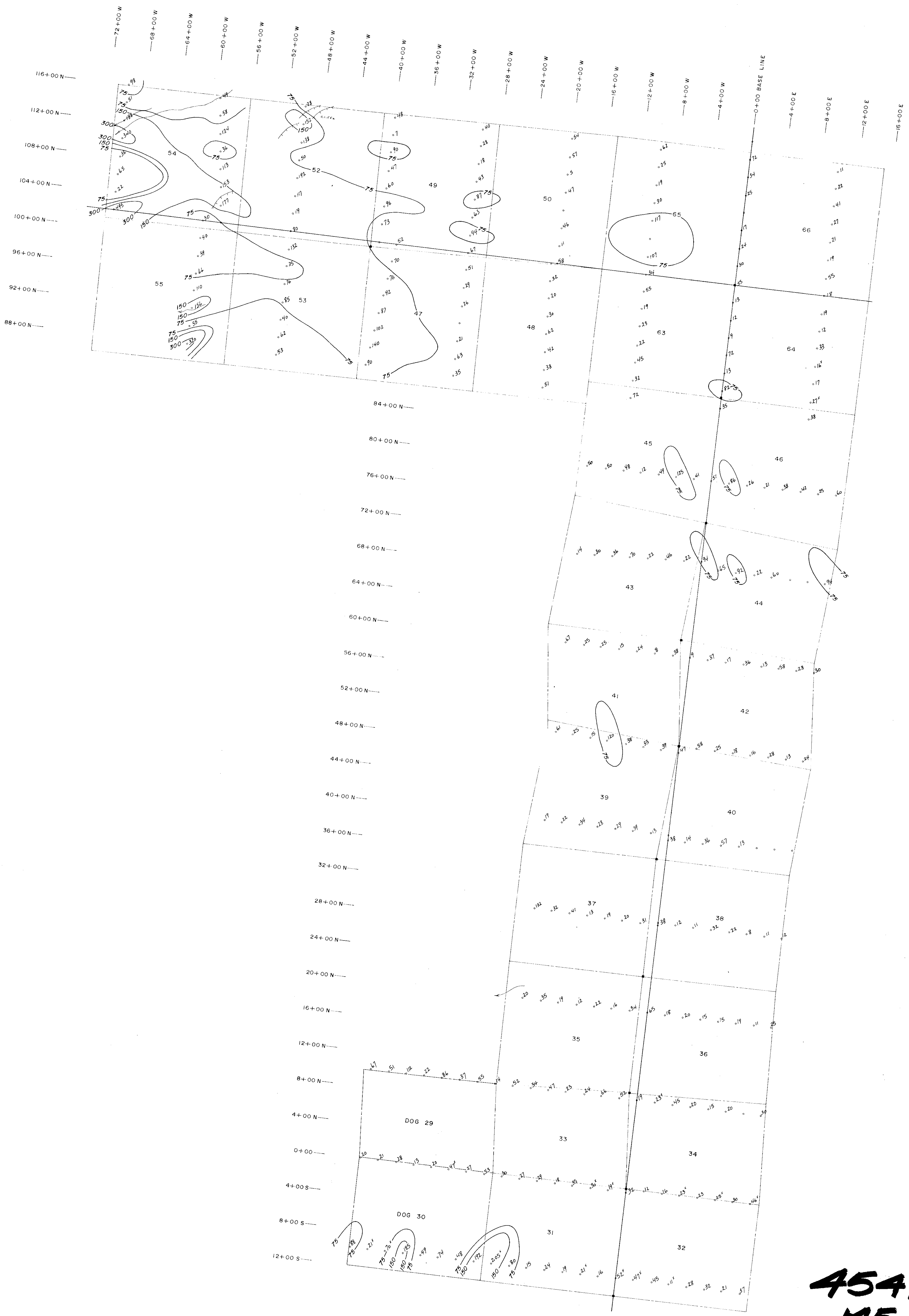
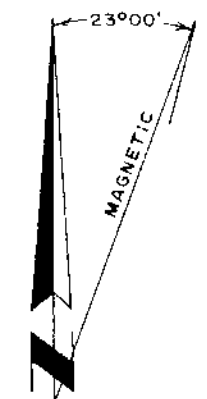
NORTH AIR MINES LTD.
 Department of
 Mines and Geology
 DIVISION - BRITISH COLUMBIA
 ASSESSMENT REPORT GEOCHEMICAL MAP
 NO. 4541 MAP #4 SILVER P.P.M.
 INTERPRETED BY: G.E.W.
 DRAWN BY:
 CHECKED BY:
 DATE: AUG. 17, 1973
 FIG. NO. 14

To Accompany Geophysical Report on
 THE DOG CLAIM GROUP
 Data - 184490, 20773
 by GLEN WHITE & S. J. [Signature]
 GEOCHEMIST

123°04'

50°07'

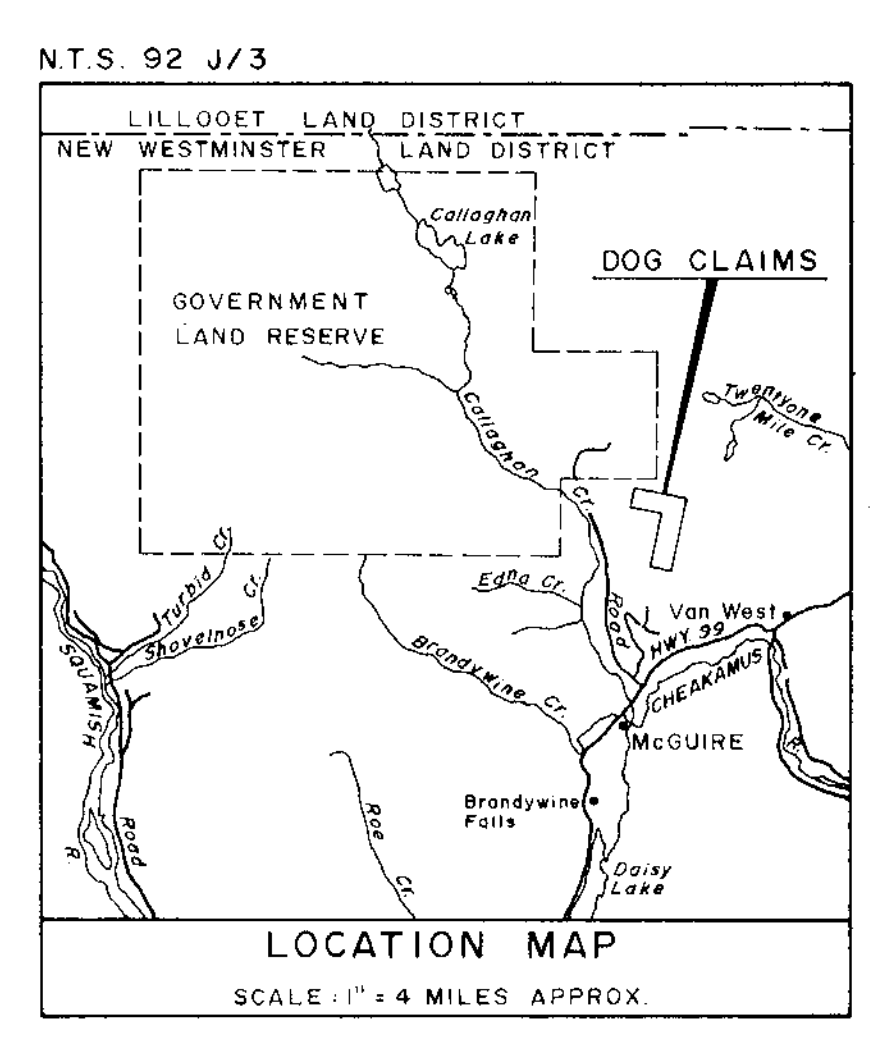
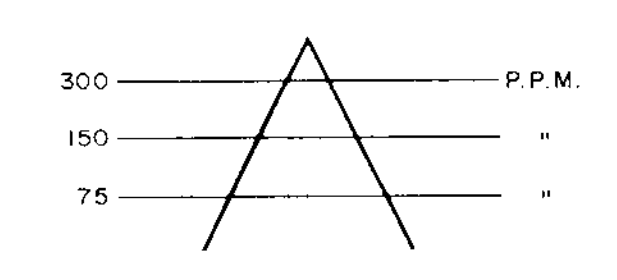
123°04'



LEGEND

- Contour Line (Zinc Concentration: 75, 150, 300 P.P.M.)
- Spacers
- Line of E. Dam
- Cross Plot
- Unpatented Bands

ZINC KEY



**4541
M5**

NORTHAR MINES LTD.
 Department of **DOG CLAIMS**
 Mines and Geology
 VANCOUVER MINING DIVISION - BRITISH COLUMBIA
 ASSESSMENT REPORT GEOCHEMICAL MAP
 NO. **4541** MAP #5 ZINC P.P.M.

To Accompany Geochemical Report on
 THE DOG CLAIM GROUP
 Date: August 28, 1973
 by GLEN E. WHITE & S. J. [Signature] GEOCHEMIST

Interpreted by: G.E.W.
 Drawn by: [Signature]
 Checked by: [Signature]
 Date: Aug. 17, 1973
 FIG No.: 5

123°04'