

83-376-#11331

REPORT ON  
GEOLOGY AND GEOCHEMISTRY  
OF THE HOODOO CLAIM GROUP

NTS 104B/14,  
Lat. 56°48'N Long. 131°18'E,  
LIARD MINING DIVISION

OWNED AND OPERATED BY  
KERR ADDISON MINES LTD.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,331**

Peter Holbek  
Oct, 1983

**PART 2 OF 2**

## TABLE OF CONTENTS

	Page
1. INTRODUCTION	
1.1 Location and Access	1
1.2 Claims and History	1
1.3 Physiography	4
1.4 Work Done	4
2. GEOLOGY	
2.1 Stratigraphy	5
2.1.1 Unit 1: Stikine Assemblage	5
2.1.2 Unit 2: PMps	6
2.1.3 Unit 3: pTsv	6
2.2 Structure	6
2.3 Mineralization and Alteration	7
2.3.1 Discovery Gossan	7
2.3.2 Plantation Zone	7
2.3.3 North Gossan	8
3. GEOCHEMISTRY	
3.1 Methods	8
3.2 Discussion of Results	9
4. SUMMARY AND CONCLUSIONS	10

## APPENDICES

	Page
I Itemized Cost Statement	11
II Statment of Qualifications	12
III Analytical Techniques	13
IV Table 2: Summary of Geochem Data	14
V Cumulative Frequency Plots, Histograms, Statistics and Correlation Matrixes	23

## LIST OF FIGURES

1. Location Map	2
2. Claim Map	3
3. Geology, Hoodoo Claims	In Pocket
4. Geology, Samples, Topography- Discovery Gossan	In Pocket
5. Geology, Geochemistry - Plantation Zone	In Pocket
6. Geology, Geochemistry - North Gossan	In Pocket
7. Geochemistry Sample Locations - Hoodoo Group	In Pocket
8. Geochemistry Results - Hoodoo Group	In Pocket

## 1. INTRODUCTION

### 1.1 Location and Access

The Hoodoo Claim group, located 125km northwest of Stewart, B.C.; is situated on a narrow spur of land immediately north of Hoodoo Mountain. The area lies within the Liard Mining Division, NTS mapsheet 104B/14W at latitude 56°48'N and longitude 131°18'E. The Iskut River flows 8km south of the property and is navigable, by small craft, up to the Twin River.

Property access is restricted to helicopter which may be chartered from Stewart, B.C. or from Wrangell, Alaska. Arrangements can be made to access the property by helicopter from gravel airstrips at Bob Quinn Lake, 70km to the east on the Stewart-Cassiar highway, or from Snippaker Creek, 45km to the southeast. Both airstrips are served by fixed wing aircraft of Trans Provincial Airways from Terrace, B.C.

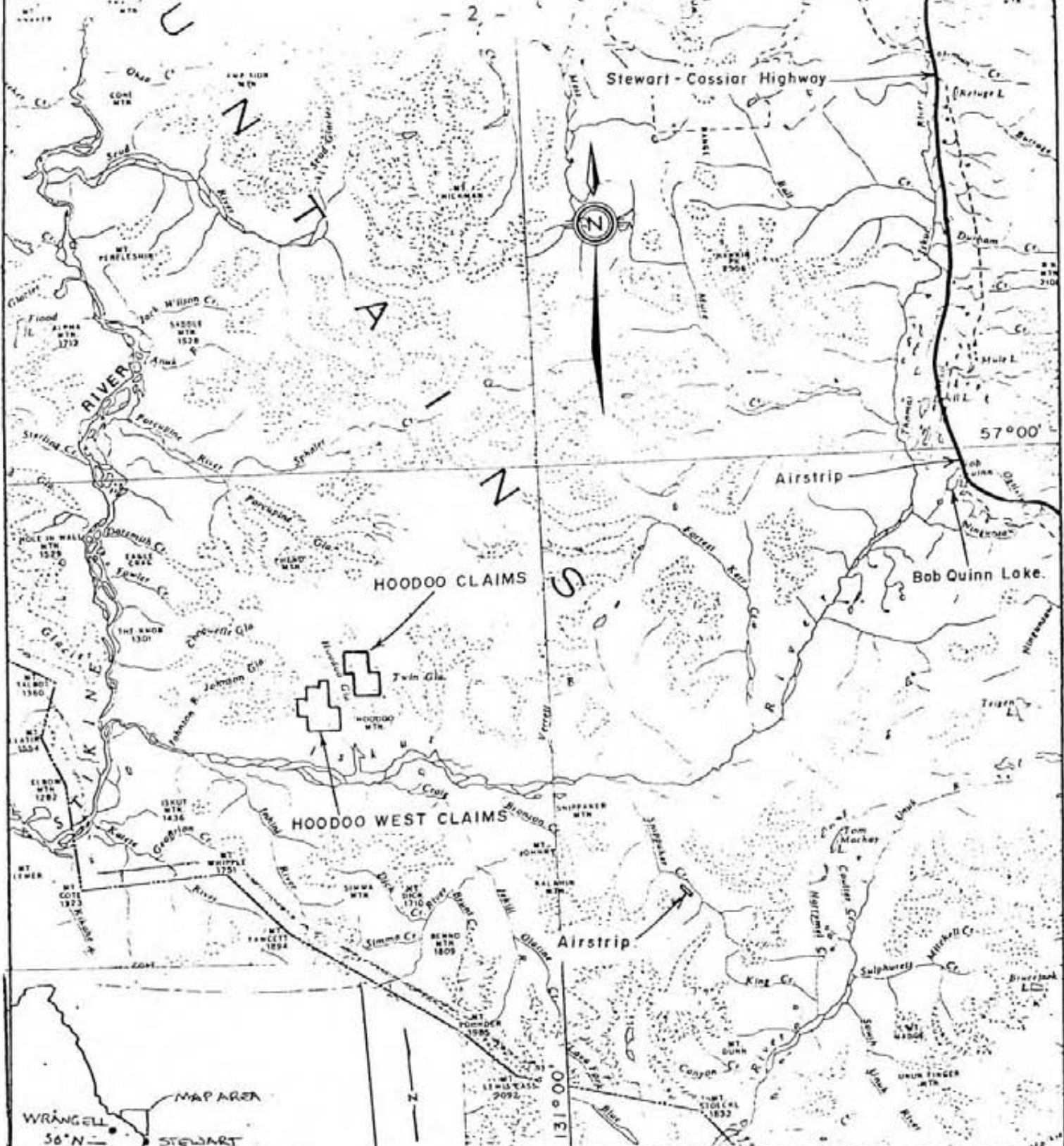
### 1.2 Claims and History

The Hoodoo group is comprised of 61 units in five claims and is owned by Kerr Addison Mines Ltd. Claim data are summarized below.

There is no record of work on the claim area previous to staking by Kerr Addison although considerable exploration has been conducted in the region for many years.

Table 1. Hoodoo Group Claim Data

CLAIM NAME	OWNER	UNITS	DATE LOCATED	DATE RECORDED	NO.
Hoodoo 1	Kerr Addison	10	Aug 15, 1982	Sept. 8, 1982	2447
" 2	" "	15	"	"	2448
" 3	" "	15	"	"	2449
" 4	" "	20	"	"	2450
" 5	" "	1	"	"	2451



KERR ADDISON MINES LTD	
<b>HOODOO &amp; HOODOO WEST CLAIM GROUPS</b>	
<b>LOCATION MAP</b>	
SCALE - 1: 600 000	DATE - OCTOBRE, 1983
NTS - 104 B 14	DATA - P. HOLBEK
FIG. No 1	

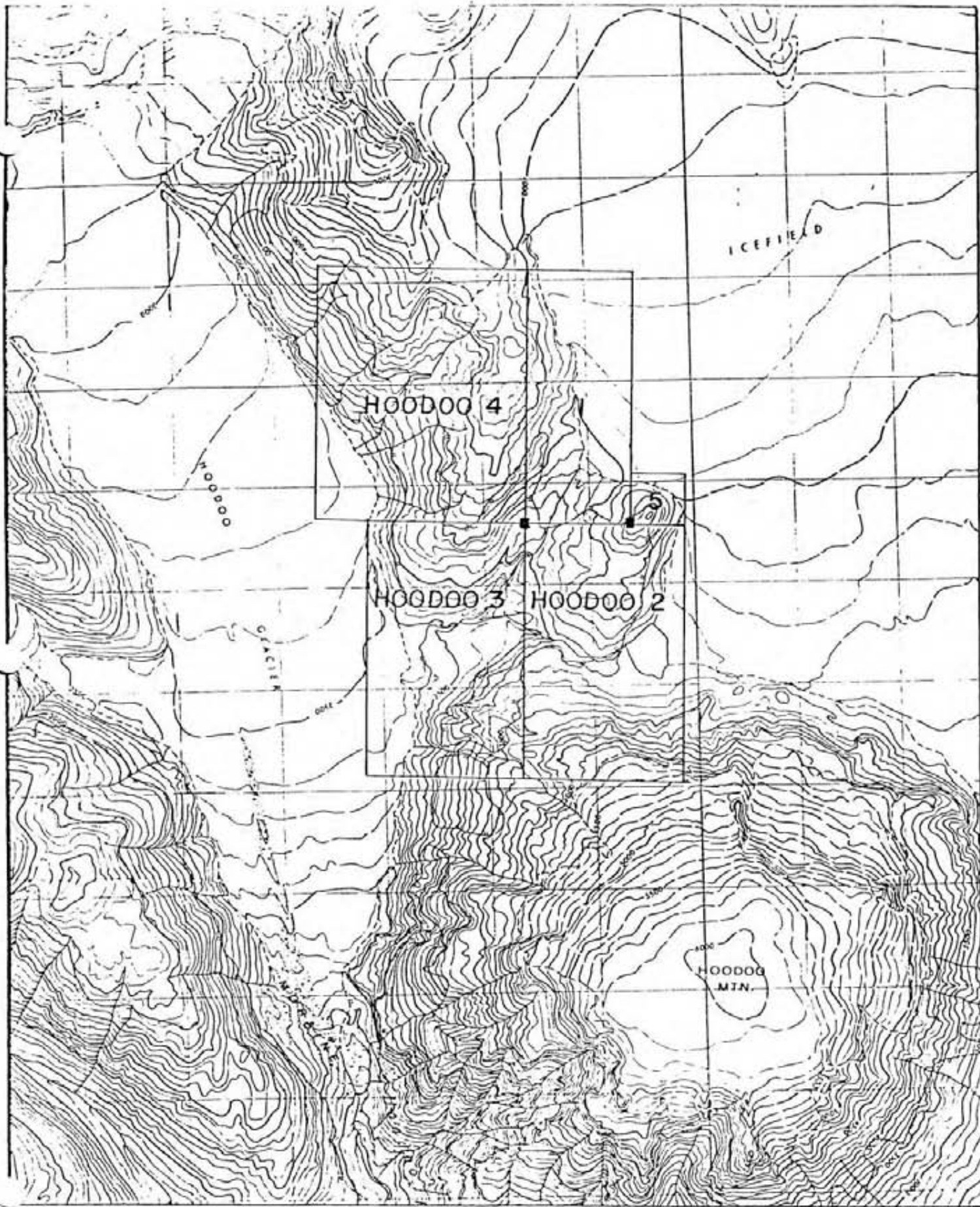


Figure 2: Claim Map, Hoodoo Claims; 56°48'N, 131°18'E, NTS 104 B/14W

### 1.3 Physiography

Located on a northerly trending ridge of land, on the southern margin of a large icefield, the property is virtually surrounded by ice. Elevations range from 700 to 1,400m and, with the exception of a few relatively mature stands of timber, the vegetation is alpine. Recent glacial retreat provides good bedrock exposure over much of the area.

Topography is very much controlled by bedrock. Steep foliation and extensive faulting in competent volcanics on the north end of the property has resulted in extremely hummocky terrain. Basalt flows on the south end of the claims form numerous cliffs and erosion of poorly consolidated young volcanics has produced deep canyons in stream beds.

### 1.4 Work Done

A total of 48 man days were spent on the property prospecting, sampling and mapping between July 10th and August 25th, 1983. Work was conducted from a fly camp, located on the north end of the claim group. Personnel and supplies were transported by helicopter from Snippaker airstrip. 131 rock samples and 65 soil samples were collected and analyzed for Au, Ag, Hg, As, Sb, and Ba. All geochemical silver analyses greater than 10 ppm were also assayed. Additionally, 45 "suspect" geochemical analyses were re analyzed using a different technique.

Mapping on the mineralized zones was done at 1:500, 1:1000 and 1:2000 scales whereas property mapping was done at the 1:12,500 scale. Prospecting and sampling covered a 7.5 km<sup>2</sup> area.

Geochemical and assay results are given in table 2 and figure 8. Sample locations are plotted on figure 7. Property geology is plotted on figure 3 and detailed maps of mineralized zones on figures 4, 5 and 6.

## 2. GEOLOGY

### 2.1 Stratigraphy

Mineralization is controlled more by structure than lithology and therefore detailed mapping was confined to zones of mineralization. For property scale mapping, rocks were sub divided into three groups: a strongly to moderately schistose package of volcanic flows, tuffs and derived sediments; a pelitic sedimentary package; and a collection of volcanic sediments with lesser tuffs, breccias, and flows. Where differences between the first two groups were obscured by metamorphism, faulting or overburden the rocks were mapped as undifferentiated. Unconformities between all of the groups are suspected but only fault contacts were observed. Tentative ages have been assigned to units based on regional correlations.

#### 2.1.1. Unit 1: Stikine Assemblage, CP sn

Located primarily on the north and south ends of the property, this unit consists of pale blue to green phyllites, chlorite and hematite schists, quartz muscovite schists and greenstones. Strong foliation and orange weathering of ferro-carbonates often makes this unit distinctive. Where only the more massive members are present it is difficult to distinguish from parts of unit 3.



### 2.1.2. Unit 2: P M ps

Argillites and meta-argillites with minor cherts, greywacks and sandstones make up this unit. The greatest thickness occurs on the north end of Hoodoo 1 claim where it displays a complexly faulted and interdigitated contact with volcanic rocks. The age of this unit relative to the others is unknown and no macro fossils were observed. Fault hosted argillaceous material elsewhere on the property is included within this unit.

### 2.1.3 Unit 3: pTsv

Occupying the east central claim area this unit includes chert pebble to chert boulder conglomerates, coarse grits, volcanic sandstones, limey greywacks, thinbedded tuffs, breccias and pillowed andesites. Rocks have been deformed into open to closed folds with weak foliation developed in the hinge areas.

The lack of plutonic material in the coarse sediments suggests that these rocks are pre-Upper Triassic and probably correlative with Permian rocks in the Telegraph Creek mapsheet to the north.

## 2.2 Structure

Possibly the most significant feature on the property, and the most pertinent to exploration, is the degree of faulting. All of the faults are steeply dipping and generally, vertical movement exceeds strike-slip motion. Many faults host narrow slivers of argillite and/or both trachybasalt and quartz-eye felsite dykes related to Hoodoo volcanism. Late faulting is indicated by offset on Hoodoo dykes.

### 2.3 Mineralization and Alteration

Two distinctive, but possibly related; types of alteration and mineralization occur on the property. The first and most significant type consists of variable sized, fault related, lenticular zones of intense silicification and pyritization. Generally, these zones are accompanied by enrichments of Ag, As, Sb, Hg, Ba and Au. The second type consists of quartz and carbonate veining with variably sized alteration haloes of carbonatized, silicified and frequently oxidized host rocks. Sulphide content is usually less than 5%. Slight enrichments of As and Sb are common. Enrichments of other metals is sporadic.

Three zones of alteration and mineralization are discussed in more detail below.

#### 2.3.1 Discovery Gossan

Located in the central claim area the gossan forms a conspicuous ridge crest just over 300 m long. (see figs 3 and 4). The south and east margin of the gossan is composed of muscovite, quartz, pyrite schists which grade laterally into unaltered tuffs and volcanic sediments. The central part is composed of quartz micro stockwork within intensely silicified material. Pyrite is disseminated throughout while argentite, pyrargyrite and cinnabar form localized microfracture fillings. A late argentiferous, silica, barite, pyrite vein cuts across the gossan on the western end. The gossan area is fault bounded but mineralization is not always in contact with faults.

#### 2.3.2 Plantation Zone

The Plantation zone is located on the western edge of Hoodoo 4 claim between a thick bench of glacial outwash and Hoodoo glacier. The zone covers an area approximately 100 by 200 m and consists of a series of small veins and related alteration within a Hoodoo dyke swarm in extensively broken rock.

Veins are banded and brecciated quartz and carbonate with minor sulphides. Although the veins seldom exceed 20 cm in width, they may be accompanied by clay (gouge?) alteration zones up to 4 m wide. Veins were often emplaced along dyke margins causing variable alteration and mineralization within the dykes. Only weak As, Sb and Au anomalies occur in this zone.

### 3.2.3 North Gossan

Recently exposed by glacial retreat, the north gossan is located in the northeast corner of the Hoodoo 2 claim. The zone has a total strike length of over 600 m and is about 30 m thick. Textures vary from a quartz vein stockwork to massive, intense silicification with disseminated to semi-massive pyrite. In some areas the rock appears to be a highly pyritiferous lithic tuff with numerous quartz lined vugs. The zone is sharply bounded to the south by an argillite band and grades into tuffs to the north. Numerous satellite zones occur that may be fault displaced parts of the main zone or hosted by separate structures. This zone is enriched in all the elements analyzed.

## 3. GEOCHEMISTRY

### 3.1 Methods

Rock samples were collected as chips, either in a systematic fashion from 3m by 3m panels and variable length channels, or as random grab samples from at least a 1m by 1m area. Soil samples were taken from the 'B' horizon at a depth of approximately 15 cms where possible. Soil samples were collected in standard kraft bags. All samples were analyzed for Au, Ag, As, Sb, Hg and Ba by atomic absorption techniques. Details of sample preparation and analytical techniques can be found in Appendix 3. Sample locations and results are plotted on figures 7 and 8. All samples greater than 10 ppm Ag were re analyzed by fire assay. Additionally 44 samples were re analyzed geochemically, utilizing a different digestion for comparison.

### 3.2 Discussion of Results

Results of both rock and soil geochemistry are plotted on figure 8 and listed in Table 2. Statistics, histograms, and cumulative frequency plots for 106 of the rock samples can be found in Appendix 2. Correlation matrixes for 5 elements have been produced for 35 rock samples from the Discovery Gossan zone and 106 rock samples from all over the property. (also in Appendix 2).

Histograms and cumulative plots provide an efficient means of classifying sample populations and selecting threshold or significant values (Sinclair, 1974). The silver population is distinctly bimodal with the upper population totalling about 30% with threshold at 2.0 ppm. This appears quite reasonable as nearly 30% of the rock samples were collected from known or suspected mineralization. The antimony histogram is close to lognormal but the frequency plot gives three distinctive trends: background at < 2.0 ppm; mildly anomalous from 2.0 ppm to 40.0 ppm; and highly anomalous > 40.0 ppm. The 30th percentile occurs at approximately 7.0 ppm. Arsenic has a bimodal population with about 80% of samples in the upper population at > 6.0 ppm. Anomalous samples occur above the break in slope on the frequency plot which corresponds to the 30th percentile at about 125 ppm. Barium has a lognormal distribution which is attenuated on the upper end by geochemical detection limits. The straight line on the frequency plot indicates a single population typical of a major element. Values in excess of 3000 ppm are deemed significant. Mercury has a bimodal population which is attenuated on both ends by detection limits. Roughly half of the samples occur in each population with nearly 40% having significant values in excess of 1000 ppb.

All of the elements show significant levels of correlation with each other. Barium and mercury are the best indicators for silver mineralization although arsenic and antimony have greater dispersion patterns.

High barium and pyrite contents played havoc with geochemical analyses using a nitric perchloric digestion. An aqua regia digestion gives analytical results that correspond much better to values obtained by assay techniques.

#### 4. SUMMARY AND CONCLUSIONS

Mineralization on the Hoodoo Claims is hosted by fault zones in volcanics and volcanic sediments of probable late Paleozoic age. Local concentration of barite, argenitite, pyrargerite/proustite, and cinnabar occur in quartz micro stockworks within zones of intense silicification and pyritization. All of the elements geochemically analyzed, with the exception of gold, (Ag, As, Sb, Hg, Ba) have undergone the same level of enrichment (50-150 x background) within the mineralized zones. Gold enrichment is considerably less than the other metals. Mineralization took place at shallow depths in Pliocene to recent times and is possibly related to Hoodoo volcanism.

Appendix I

ITEMIZED COST STATEMENT

Prospecting, Sampling and Mapping July 10-23; August 20-24, 1983.

P. Holbek	Project Geologist	16 days @\$150/day	\$2400
A. Chevalier	Geologist	8 days @\$140/day	\$1120
B. Helgason	Geologist	16 days @\$120/day	\$1920
T. Fitzmaurice	Geologist	8 days @\$120/day	\$ 960
			<hr/>
			\$6400
Transportation			
½ of 4 return airfares Vancouver-Terrace,			
Terrace - Snippaker Strip			\$1000
1 day travel time for four			\$ 530
Freight			\$ 680
Helicopter Frontier's Bell 206BII			
9.1 Hrs @\$600/Hr includes fuel & oil			\$5460
			<hr/>
			\$7670
Supplies			
Food 48 man days @ \$20/day			\$ 960
Radio and equipment rental			\$1120
			<hr/>
			\$2080
Geochemistry			
65 soils for <sup>6</sup> elements @ \$22.65/sample			\$1472
Sample prep @ \$1.00/sample			65
131 rocks for 6 elements @ \$22.65/sample			\$2967
Sample prep @ \$2.50/sample			327
27 silver by FA & AA @ \$7.50			202
44 silver by AA @ \$2.25			99
			<hr/>
			\$5132
Drafting, Printing Report Preparations			\$2200

TOTAL \$23,482.

Appendix II

STATEMENT OF QUALIFICATIONS

I, Peter Holbek, with a business address of 703-1112 West Pender Street, Vancouver, B.C.

Hereby certify that:

1. I graduated from the University of B.C. in 1980 with a B.Sc. (Hons) Degree in Geological Sciences.
2. I have completed three years of post graduate research at the University of B.C.
3. I have worked as a Geologist or Assistant in B.C. for the past eight field seasons.
4. The work described herein is based on personal examination and supervision of field work carried out between July 10 and August 25, 1983.



Peter Holbek, B.Sc.

Appendix III

ANALYTICAL TECHNIQUES

All samples were prepared and analyzed by Chemex Labs Ltd. in North Vancouver.

Soils were dried, sieved to -80 mesh prior to digestion. Rocks were crushed and split, with a 200 gm subsample ring ground to -100 mesh. Prepared sample splits (10-20 gm) were digested in nitric perchloric acid and analyzed by atomic absorption.

Silver assays were performed by fire assay with atomic absorption finish. Forty-four geochemical silver analyses were rerun using an aqua regia digestion with improved results.



APPENDIX IV

Table 2: Summary of Geochem Data

## Summary of HO samples

client : KERR ADDISON MINES LTD.  
 (ATTN: RAY DUJARDIN)  
 703-1112 WEST PENDER ST.  
 VANCOUVER, B.C.  
 V6E 2S1

REF  
 KERR  
 PER

Sample description	Cu PPM	Pb PPM	Zn PPM	As PPM	AS PPM	Hg PPB	Sb PPM	Ba PPM	Au PPB	Ag oz/t	Au oz/t
R83 HOA 01				0.2	50	10	3.0	680	5		
R83 HOA 02				0.3	51	30	3.3	420	80		
R83 HOA 03				0.1	5	10	0.7	360	<5		
R83 HOA 04				0.1	17	20	0.4	580	10		
R83 HOA 05				0.1	14	10	1.6	520	<5		
R83 HOA 06				0.1	3	10	0.7	1400	<5		
R83 HOA 07				0.1	4	50	0.4	220	5		
R83 HOA 08				0.2	27	30	9.8	200	<5		
R83 HOA- 10				22.0	295	4900	57.0	>10000	15		
R83 HOA- 11				0.8	155	820	10.0	2200	<5		
R83 HOA- 12				0.2	83	1200	7.2	2400	5		
R83 HOA- 13				0.1	77	440	9.2	2900	<5		
R83 HOA- 14				31.0	88	3500	29.0	4600	<5		
R83 HOA- 15				12.3	220	2700	23.0	5450	<5		
R83 HOA- 16				2.4	100	1900	13.8	7000	<5		
R83 HOA- 17				0.1	59	1100	6.0	1040	<5		
R83 HOA 18				0.1	2	10	0.1	140	<5		
R83 HOA 19				0.1	3	10	0.1	80	<5		
D83 HOA 20				0.1	9	40	0.8	1700	<5		
D83 HOA 21				0.1	14	50	0.6	750	10		
R83 HOA 22				0.1	1	10	0.2	>10000	120		
R83 HOA 23				2.4	4	20	0.4	>10000	1400		
R83 HOA 24				0.1	4	20	0.6	4200	<5		
R83 HOA 25				0.1	1	10	0.1	1260	<5		
D83 HOA 26				0.1	14	70	0.4	170	5		
D83 HOA 27				0.1	14	50	1.0	580	<5		
D83 HOA 28				0.2	23	60	1.0	340	<5		
D83 HOA 29				0.1	19	40	0.6	220	5		
D83 HOA 30				0.1	12	60	0.2	90	5		
D83 HOA 31				0.1	12	60	0.4	130	5		
D83 HOA 32				0.1	14	70	0.6	120	10		
R83 HOA 33				0.1	1	10	0.2	320	<5		
D83 HOA 34				0.1	11	30	0.1	130	<5		
D83 HOA 35				0.1	15	30	0.8	110	10		
D83 HOA 36				0.1	20	50	0.6	120	<5		
R83 HOA 37				0.1	4	310	7.2	520	<5		
R83 HOA 38				0.1	2	30	0.2	360	<5		
R83 HOA 39				0.2	7	140	0.6	2000	<5		
R83 HOA 40				0.1	1	10	0.1	200	<5		

## Summary of HO samples

Sample description	Cu PPM	Pb PPM	Zn PPM	Ag PPM	AS PPM	Hg PPB	Sb PPM	Ba PPM	Au PPB	As oz/t	Au oz/t
R83 HDA 41				0.1	32	10	0.1	580	<5		
R83 HDA 42				4.7	14	4900	1.4	840	50		
R83 HDA 43				3.4	24	250	1.6	1140	50		
R83 HDA 44				0.2	6	60	1.8	70	<5		
D83 HDA 45				0.2	17	60	0.4	220	<5		
R83 HDA 46				0.1	6	90	1.4	1680	<5		
R83 HDA 47				0.1	3	10	0.4	920	<5		
D83 HDA 48				0.2	14	140	0.1	380	<5		
R83 HDA 49				3.4	275	270	2.6	2500	20		
R83 HDA 50				6.7	1350	6900	13.8	3300	85		
R83 HOB 08				1.8	170	8400	22.0	1000	25		
R83 HOB 09				5.5	110	2600	19.0	2900	75		
R83 HOB 10				4.4	480	>10000	130.0	1700	80		
R83 HOB 11				3.7	39	1400	8.2	2600	30	1.36	
R83 HOB 12				4.3	230	4200	19.0	6000	60		
R83 HOB 13				12.5	>1000	>10000	160.0	4500	170		
R83 HOB 14				10.7	410	7800	60.0	4700	80		
R83 HOB- 17				0.1	3	30	0.3	80	<5		
R83 HOB- 18				4.8	130	1000	10.0	6000	55		
R83 HOB- 19				6.8	510	>10000	73.0	3200	85		
R83 HOB- 20				3.2	760	1500	26.0	840	5		
R83 HOB- 21				0.1	9	130	1.6	500	<5		
R83 HOB 22				0.3	35	490	1.8	960	<5		
R83 HOB 23				0.1	14	50	0.8	2600	<5		
R83 HOB 24				0.2	5	300	0.6	3100	10		
D83 HOB 25				0.1	14	90	0.1	80	<5		
D83 HOB 26				0.1	9	30	0.4	760	<5		
D83 HOB 27				0.1	11	80	0.1	320	<5		
D83 HOB 28				0.1	20	90	0.1	240	<5		
R83 HOB 29				0.1	6	20	0.5	1160	<5		
D83 HOB 30				0.1	16	50	0.4	240	<5		
D83 HOB 31				0.1	12	20	0.1	440	5		
R83 HOB 32				0.1	4	40	9.6	610	<5		
D83 HOB 33				0.1	17	70	0.1	60	<5		
D83 HOB 34				0.1	9	80	0.1	410	5		
D83 HOB 35				0.7	29	50	0.4	430	<5		

## Summary of HO samples

Sample description	Cu PPM	Pb PPM	Zn PPM	Ag PPM	AS PPM	Hg PPB	Sb PPM	Ba PPM	Au PPB	Ag oz/t	Au oz/t
D83 HOB 36				0.1	16	210	0.2	360	5		
D83 HOB 37				0.1	11	90	0.1	560	10		
D83 HOB 38				0.2	14	70	0.1	520	<5		
R83 HOB 39				0.1	4	10	1.2	500	<5		
D83 HOB 40				0.1	90	60	1.6	280	<5		
R83 HOF- 1				0.1	11	90	1.0	2000	<5		
R83 HOF- 2				5.8	140	140	8.4	5000	70		
R83 HOF- 3				11.2	510	6500	28.0	4400	70		
R83 HOF- 4				0.2	100	2200	9.6	1080	<5		
R83 HOF- 5				4.2	94	1700	5.3	2550	20		
R83 HOF- 6				0.1	38	50	8.8	68	<5		
R83 HOF- 7				0.1	23	140	1.0	1160	<5		
R83 HOF- 8				5.0	140	1100	13.2	>10000	5		
R83 HOF- 9				0.1	640	1700	75.0	7800	<5		
R83 HOF- 10				0.1	48	1200	7.0	1920	<5		
R83 HOF- 11				6.0	170	4500	36.0	>10000	5		
R83 HOF- 12				2.1	165	1700	9.0	8500	<5		
R83 HOF- 13				0.7	107	1700	8.7	7000	<5		
R83 HOF- 14				41.0	220	4700	32.0	>10000	<5		
R83 HOF- 15				0.2	81	430	6.3	2400	10		
R83 HOF- 16				0.1	27	170	3.0	1780	<5		
R83 HOF- 17				0.3	36	180	2.3	2250	<5		
R83 HOF- 18				0.1	101	260	4.0	2450	<5		
R83 HOF- 19				0.4	180	2200	3.1	6800	<5		
R83 HOF 20				0.1	7	50	1.0	1380	<5		
R83 HOF 21				0.1	7	60	0.8	240	<5		
D83 HOF 22				0.1	20	40	0.8	150	<5		
D83 HOF 23				0.1	12	60	0.4	60	<5		
R83 HOF 24				0.1	3	20	1.2	520	<5		
R83 HOF 25				0.1	1	10	0.8	70	<5		
R83 HOF 26				0.1	2	10	0.6	260	<5		
D83 HOF 27				0.1	17	80	0.1	50	<5		
D83 HOF 28				0.1	10	60	0.4	40	5		
D83 HOF 29				0.1	12	40	0.1	250	<5		
D83 HOF 30				0.1	15	60	0.1	170	<5		
R83 HOF 31				0.1	2	10	0.7	1620	<5		
D83 HOF 32				0.1	9	40	0.1	120	<5		
D83 HOF 33				0.1	20	10	0.1	460	<5		
D83 HOF 34				0.1	5	20	0.1	150	<5		
D83 HOF 35				0.2	15	30	0.1	110	<5		
D83 HOF 36				0.1	15	30	0.2	140	<5		
D83 HOF 37				0.1	19	60	0.1	60	5		
D83 HOF 38				0.1	15	30	0.2	160	<5		
D83 HOF 39				0.1	5	100	0.1	480	<5		
D83 HOF 40				0.1	17	110	0.2	120	<5		

## Summary of HO samples

Sample description	Cu PPM	Pb PPM	Zn PPM	As PPM	AS PPM	Hg PPM	Sb PPM	Ba PPM	Au PPM	Ag oz/t	Au oz/t
D83 HOF 41				0.1	14	100	0.2	90	5		
R83 HOF 42				0.1	3	10	0.6	900	<5		
R83 HOF 43				4.4	135	4800	10.0	>10000	<5		
D83 HOF 44				0.1	38	190	1.3	600	<5		
D83 HOF 45				0.6	39	320	2.0	540	5		
D83 HOF 46				0.1	16	80	0.4	160	10		
D83 HOF 47				0.1	10	80	0.1	520	<5		
D83 HOF 48				0.1	6	80	0.2	420	5		
D83 HOF 49				0.1	16	140	0.1	640	<5		
S82 HOF 50				0.1	17	30	0.1	740	<5		
D83 HOF 51				0.1	17	60	0.1	140	<5		
D83 HOF 52				0.1	12	60	0.1	410	<5		
D83 HOF 53				0.1	16	70	0.3	60	<5		
R83 HOF 54				0.1	6	140	1.0	2000	<5		
R83 HOF 55				0.1	3	70	0.7	440	<5		
R83 HOF 56				0.1	3	20	0.8	1700	<5		
R83 HOF 57				0.1	3	20	0.5	1150	<5		
R83 HOF 58				0.1	2	20	0.3	180	<5		
D83 HOF 59				0.1	9	60	0.1		<5		
D83 HOP 61				0.4	83	80	4.4	1340	5		
D83 HOP 71				0.1	720	>10000	41.0	1460	<5		
D83 HOP 72				0.1	32	230	1.4	400	<5		
D83 HOP 74				0.1	33	200	2.3	280	<5		
D93 HOP 79				0.2	88	100	3.6	1280	<5		
D83 HOP 81				0.1	220	50	4.6	420	<5		
D83 HOP 15				0.3	11	370	1.8	250	5		
R83 HOP 16				9.3	890	>10000	250.0	1100	130		
R83 HOP 16				0.1	55	200	5.4	2950	<5		
R83 HOP 17				4.6	270	4000	31.0	2200	125		
R83 HOP 18				3.8	50	730	6.0	620	35		
R83 HOP 19				6.1	17	420	4.0	1100	100		
R83 HOP 20				2.7	22	600	4.5	2200	65		

## Summary of HO samples

Sample description	Cu PPM	Pb PPM	Zn PPM	Ag PPM	AS PPM	Hg PPB	Sb PPM	Ba PPM	Au PPB	Ag oz/t	Au oz/t
D83 HOP 21				0.2	30	150	0.8	260	5		
R83 HOP 22				0.2	14	30	0.8	760	5		
D83 HOP 23				0.1	14	30	1.6	800	<5		
D83 HOP 24				0.1	5	90	0.7	200	5		
D83 HOP 25				0.1	10	70	0.5	280	5		
R83 HOP 26				0.1	4	30	0.6	2600	<5		
R83 HOP 27				2.4	>1000	>10000	60.0	520	<5		
D83 HOP 28				0.1	6	30	0.1	720	<5		
R83 HOP 29				0.1	97	150	0.9	240	<5		
K83 HOP 30				0.1	6	60	2.6	260	10		
R83 HOP 31				0.1	16	30	1.6	760	5		
R83 HOP 32				0.1	275	60	5.2	540	10		
R83 HOP 33				0.2	65	20	1.6	180	5		
R83 HOP 34				0.1	33	80	4.4	240	5		
R83 HOP 35				0.3	10	50	1.6	1000	5		
D83 HOP 36				0.1	61	40	6.4	860	20		
R83 HOP 37				0.2	7	20	1.0	820	<5		
K83 HOP 38				0.2	73	20	2.6	240	<5		
R83 HOP 39				0.3	9	10	0.9	560	5		
R83 HOP- 40				0.1	14	100	0.9	1000	<5		
R83 HOP- 41				3.4	135	1200	15.0	>10000	<5		
R83 HOP- 42				0.1	53	1200	7.9	1760	<5		
R83 HOP- 43				3.5	175	3100	16.3	>10000	5		
R83 HOP- 44				4.4	190	1800	13.6	8400	<5		
R83 HOP- 45				0.1	69	550	4.3	1760	<5		
R83 HOP- 46				0.1	500	3200	67.0	7500	<5		
R83 HOP- 47				12.5	440	7000	86.0	>10000	5		
R83 HOP- 48				0.8	75	850	8.7	4000	5		
K83 HOP- 49				0.1	88	1800	6.6	2600	5		
R83 HOP- 50				0.9	25	200	1.7	2500	<5		
K83 HOP- 51				0.1	310	3600	30.0	9000	<5		
R83 HOP 52				0.1	12	10	1.0	460	<5		
R83 HOP 53				0.1	36	10	3.4	780	<5		
D83 HOP 54				0.1	12	20	0.4	140	5		
R83 HOP 55				0.2	3	10	0.8	420	<5		
R83 HOP 56				7.9	570	1000	17.0	2600	35		
R83 HOP 57				5.6	200	990	6.6	3000	50		
R83 HOP 58				0.1	5	30	1.2	460	<5		
K83 HOP 59				6.9	17	330	2.2	6300	55		
R83 HOP 66				0.1	4	210	0.9	1950	5		
R83 HOP 67				0.3	9	650	1.1	4000	<5		
R83 HOP 68				3.8	130	1000	8.6	4600	<5		

## Summary of HD samples

Sample description	Cu PPM	Pb PPM	Zn PPM	Ag PPM	AS PPM	Hg PPM	Sb PPM	Ba PPM	Au PPM	Ag oz/t	Au oz/t
R83 HOP 69				4.1	27	120	2.8	2150	35		
R83 HOP 70				0.2	11	110	1.4	360	<5		
R83 HOP 73				0.3	45	390	7.8	1050	<5		
R83 HOP 75				0.1	10	50	1.1	1100	5		
R83 HOP 76				9.6	435	5500	28.0	840	5		
R83 HOP 77				0.1	435	560	5.6	1820	5		
R83 HOP 78				0.1	340	180	7.2	400	<5		
R83 HOP 80				0.2	465	440	28.0	320	5		
R83 HOP 82				0.1	29	40	1.2	240	<5		
R83 HOP 83					530		5.2	860		0.10	<0.003
R83 HOP 84					45		4.2	1980		0.20	<0.003
R83 HOP 85					355		15.0	600		0.18	<0.003
R83 HOP 86					51		3.8	2100		0.16	<0.003

Sample description	Prep code	Ag AA oz/T			
R83 HOB 06	214	0.34	--	--	--
R83 HOB 13	214	0.71	--	--	--
R83 HCB 14	214	0.52	--	--	--
R83 HCP C4	214	0.45	--	--	--
R83 HOP 11	214	1.03	--	--	--
R83 HOP 16	214	0.31	--	--	--
R83 HCA 10	214	1.29	--	--	--
R83 HOA 14	214	1.38	--	--	--
R83 HCA 15	214	0.50	--	--	--
R83 HOB 19	214	0.57	--	--	--
R83 HCF 02	214	0.25	--	--	--
R83 HOF 03	214	0.54	--	--	--
R83 HCF 11	214	0.29	--	--	--
R83 HOF 14	214	1.54	--	--	--
R83 HOF 19	214	0.02	--	--	--
R83 HCP 41	214	0.11	--	--	--
R83 HOP 43	214	0.13	--	--	--
R83 HCP 44	214	0.15	--	--	--
R83 HCP 47	214	0.71	--	--	--
R83 HOF 43	214	0.10	--	--	--

Sample description	Prep code	Ag FA oz/T			
R83 HOA-10	207	1.50	--	--	--
R83 HOA-14	207	1.52	--	--	--
R83 HOA-15	207	0.38	--	--	--
R83 HOB-19	207	0.54	--	--	--
R83 HOF-3	207	0.54	--	--	--
R83 HOF-14	207	1.34	--	--	--
R83 HOP-47	207	0.72	--	--	--



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• GEOCHEMISTS

• REGISTERED ASSAYERS

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(ATTN: RAY DUJARDIN)  
703-1112 WEST PENDER ST.  
VANCOUVER, B.C.  
V6E 2S1

AUG - 8 1983

KERR ADDISON MINES LTD.

CERT. #  
INVOICE #  
DATE  
P.O. #  
BC13

PER \_\_\_\_\_

Sample description	Prep code	Ag-Aqua regia digestion ppr			
R83 HOA-10	205	45.0	--	--	--
R83 HOA-11	205	1.0	--	--	--
R83 HOA-12	205	0.2	--	--	--
R83 HOA-13	205	0.3	--	--	--
R83 HOA-14	205	53.0	--	--	--
R83 HOA-15	205	18.8	--	--	--
R83 HOA-16	205	3.1	--	--	--
R83 HOA-17	205	0.3	--	--	--
R83 HOB-17	205	0.2	--	--	--
R83 HOB-18	205	6.8	--	--	--
R83 HOB-19	205	21.0	--	--	--
R83 HOB-20	205	4.7	--	--	--
R83 HOB-21	205	0.2	--	--	--
R83 HOF-1	205	0.3	--	--	--
R83 HOF-2	205	11.0	--	--	--
R83 HOF-3	205	20.0	--	--	--
R83 HOF-4	205	0.2	--	--	--
R83 HOF-5	205	7.1	--	--	--
R83 HOF-6	205	0.3	--	--	--
R83 HOF-7	205	0.1	--	--	--
R83 HOF-8	205	7.4	--	--	--
R83 HOF-9	205	0.3	--	--	--
R83 HOF-10	205	0.4	--	--	--
R83 HOF-11	205	12.4	--	--	--
R83 HOF-12	205	5.5	--	--	--
R83 HOF-13	205	0.9	--	--	--
R83 HOF-14	205	59.0	--	--	--
R83 HOF-15	205	0.4	--	--	--
R83 HOF-16	205	0.6	--	--	--
R83 HOF-17	205	0.5	--	--	--
R83 HOF-18	205	0.1	--	--	--
R83 HOF-19	205	1.0	--	--	--
R83 HOP-40	205	0.8	--	--	--
R83 HOP-41	205	4.8	--	--	--
R83 HOP-42	205	0.1	--	--	--
R83 HOP-43	205	4.7	--	--	--
R83 HOP-44	205	5.8	--	--	--
R83 HOP-45	205	0.4	--	--	--
R83 HOP-46	205	0.4	--	--	--
R83 HOP-47	205	29.0	--	--	--
R83 HOP-48	205	0.9	--	--	--
R83 HOP-49	205	0.3	--	--	--
R83 HOP-50	205	1.0	--	--	--
R83 HOP-51	205	0.3	--	--	--



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 4/1983

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**CERTIFICATE OF ANALYSIS**

PCR

TO : KERR ADDISON MINES LTD.  
 (ATTN: RAY DUJARDIN)  
 703-1112 WEST PENDER ST.  
 VANCOUVER, B.C.  
 V6E 2S1

CERT. # : A8314959-001-A  
 INVOICE # : I8314959  
 DATE : 3-OCT-83  
 P.O. # : NONE  
 BC-7

Sample description	Prep code	AS ppm	Hg ppb	Sb ppm	Ba ppm	Ag FA oz/T	Au FA oz/T
R83-HWP-31	207	750	90	29.0	320	0.07	0.008
R83-HWP-32	207	51	460	250.0	120	0.42	0.070
R83-HWP-33	207	39	6200	30.0	360	0.12	0.036
R83-HOB-43	207	210	6600	29.0	>10000	0.44	0.003
R83-HOB-44	207	1200	>10000	43.0	3900	1.22	<0.003
R83-HOB-45	207	140	>10000	320.0	>10000	19.00	0.006
R83-HOB-46	207	980	>10000	84.0	1000	2.02	0.018
R83-HOB-47	207	3600	>10000	85.0	3200	0.94	0.018
R83-HOB-48	207	4200	>10000	45.0	660	0.22	<0.003
R83-HOB-91	207	145	1300	14.4	760	0.06	<0.003

Sample description	Prep code	Ag ppm	AS ppm	Hg ppb	Sb ppm	Ba ppm	Au ppb FA+AA
R83-HOB-41	205	0.1	22	120	1.2	1240	5
R83-HOB-42	205	0.1	20	300	0.8	880	5

APPENDIX V

Cumulative Frequency Plots, Statistics,  
Histograms and Correlation Matrixes

## CORRELATION MATRIX

	AG	SB	AS	BA	HG
AG	1.0000				
SB	0.4322	1.0000			
AS	0.1897	0.6718	1.0000		
BA	0.4334	0.4767	0.5446	1.0000	
HG	0.6852	0.6369	0.5245	0.7339	1.0000

NAME	MEAN	STANDARD DEVIATION
AG	9.08485	15.8279
SB	25.4152	26.5729
AS	163.485	139.780
BA	6037.88	3353.18
HG	2159.70	1742.39

33 OBSERVATIONS TOTAL  
 33 OBSERVATIONS ARE COMPLETE  
 32 DEGREES OF FREEDOM

## CORRELATION MATRIX

	AG	SB	AS	BA	HG
AG	1.0000				
SB	0.4245	1.0000			
AS	0.2469	0.6485	1.0000		
BA	0.4957	0.3754	0.2534	1.0000	
HG	0.4469	0.7723	0.7242	0.3736	1.0000

NAME	MEAN	STANDARD DEVIATION
AG	4.09340	9.67121
SB	15.5528	27.3643
AS	135.604	226.216
BA	3141.21	3267.73
HG	1661.42	2570.67

106 OBSERVATIONS TOTAL  
 106 OBSERVATIONS ARE COMPLETE  
 105 DEGREES OF FREEDOM

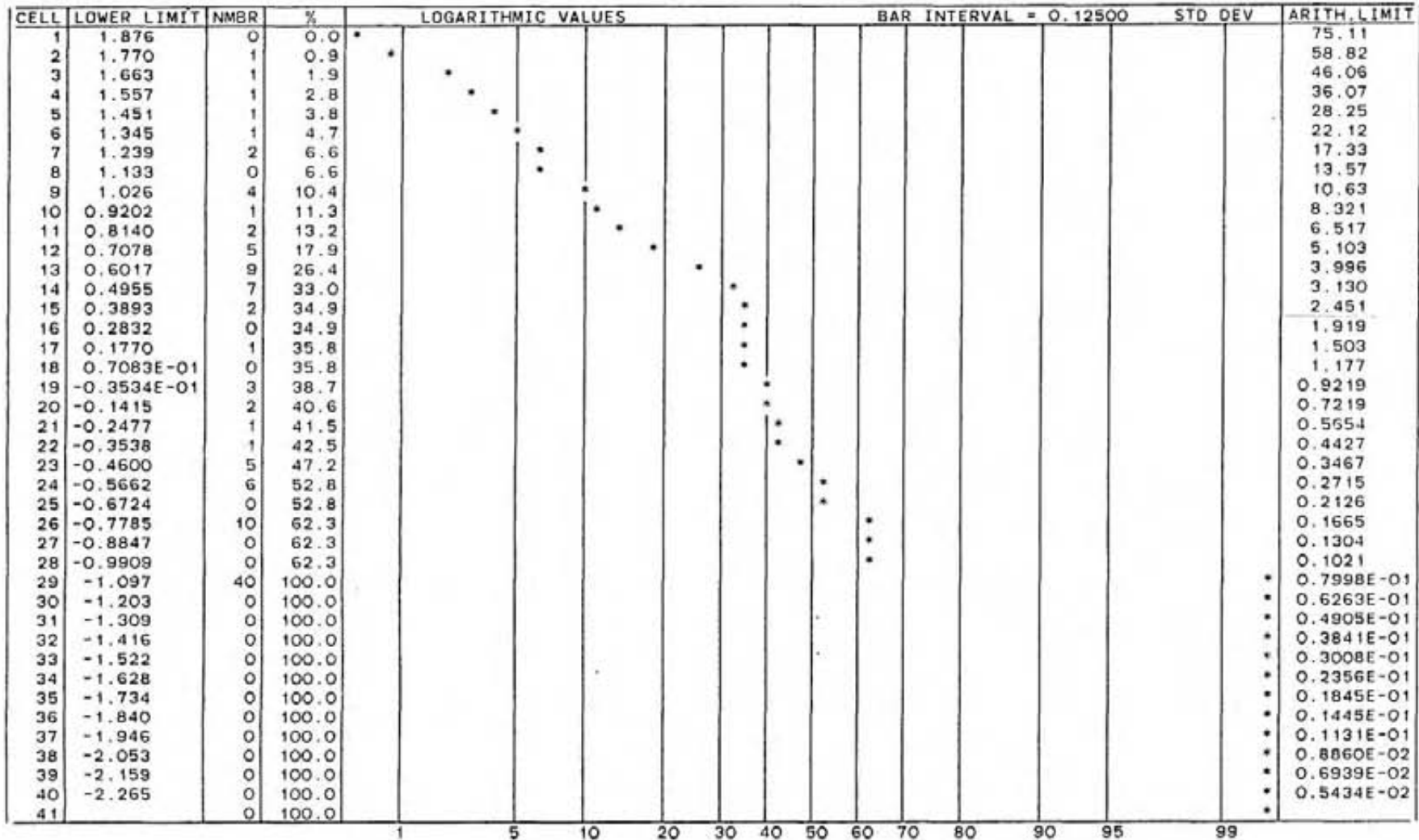
T I T L E S	PROGRAM: PERCENTAGE HISTOGRAMS
	DATA: GOSSAN
	RUN: H00000
	TIME: 18/09/83 22:41:03

NAME	AG
N	106
X BAR	-0.19460
STD DEV	0.84935

CELL	LOWER LIMIT	NMBR	%	LOGARITHMIC VALUES	BAR INTERVAL = 0.25000	STD DEV	ARITH.LIMIT
1		0	0.0				0.4622E-04
2	-4.335	0	0.0				0.7536E-04
3	-4.123	0	0.0				0.1229E-03
4	-3.911	0	0.0				0.2004E-03
5	-3.698	0	0.0				0.3267E-03
6	-3.486	0	0.0				0.5327E-03
7	-3.274	0	0.0				0.8686E-03
8	-3.061	0	0.0				0.1416E-02
9	-2.849	0	0.0				0.2309E-02
10	-2.636	0	0.0				0.3766E-02
11	-2.424	0	0.0				0.6140E-02
12	-2.212	0	0.0				0.1001E-01
13	-1.999	0	0.0				0.1633E-01
14	-1.787	0	0.0				0.2662E-01
15	-1.575	0	0.0				0.4341E-01
16	-1.362	0	0.0				0.7078E-01
17	-1.150	40	37.7	*****			0.1154
18	-0.9378	0	0.0				0.1882
19	-0.7254	16	15.1	*****			0.3068
20	-0.5131	6	5.7	*****			0.5003
21	-0.3008	1	0.9	*			0.8158
22	-0.8842E-01	5	4.7	*****			1.330
23	0.1239	1	0.9	*			2.169
24	0.3363	7	6.6	*****			3.537
25	0.5486	13	12.3	*****			5.767
26	0.7609	6	5.7	*****			9.403
27	0.9733	4	3.8	****			15.33
28	1.186	3	2.8	***			25.00
29	1.398	1	0.9	*			40.77
30	1.610	3	2.8	***			66.47
31	1.823	0	0.0				108.4
32	2.035	0	0.0				176.7
33	2.247	0	0.0				288.2
34	2.460	0	0.0				469.9
35	2.672	0	0.0				766.2
36	2.884	0	0.0				1249.
37	3.097	0	0.0				2037.
38	3.309	0	0.0				3322.
39	3.521	0	0.0				5416.
40	3.734	0	0.0				8831.
41	3.946	0	0.0				

T I T L E S	PROGRAM: PERCENTAGE CUMULATIVE FREQUENCY PLOTS
	DATA: GOSSAN
	RUN: H00000
	TIME: 18/09/83 22:41:03

NAME	AG
N	106
X BAR	-0.19460
STD DEV	0.84935



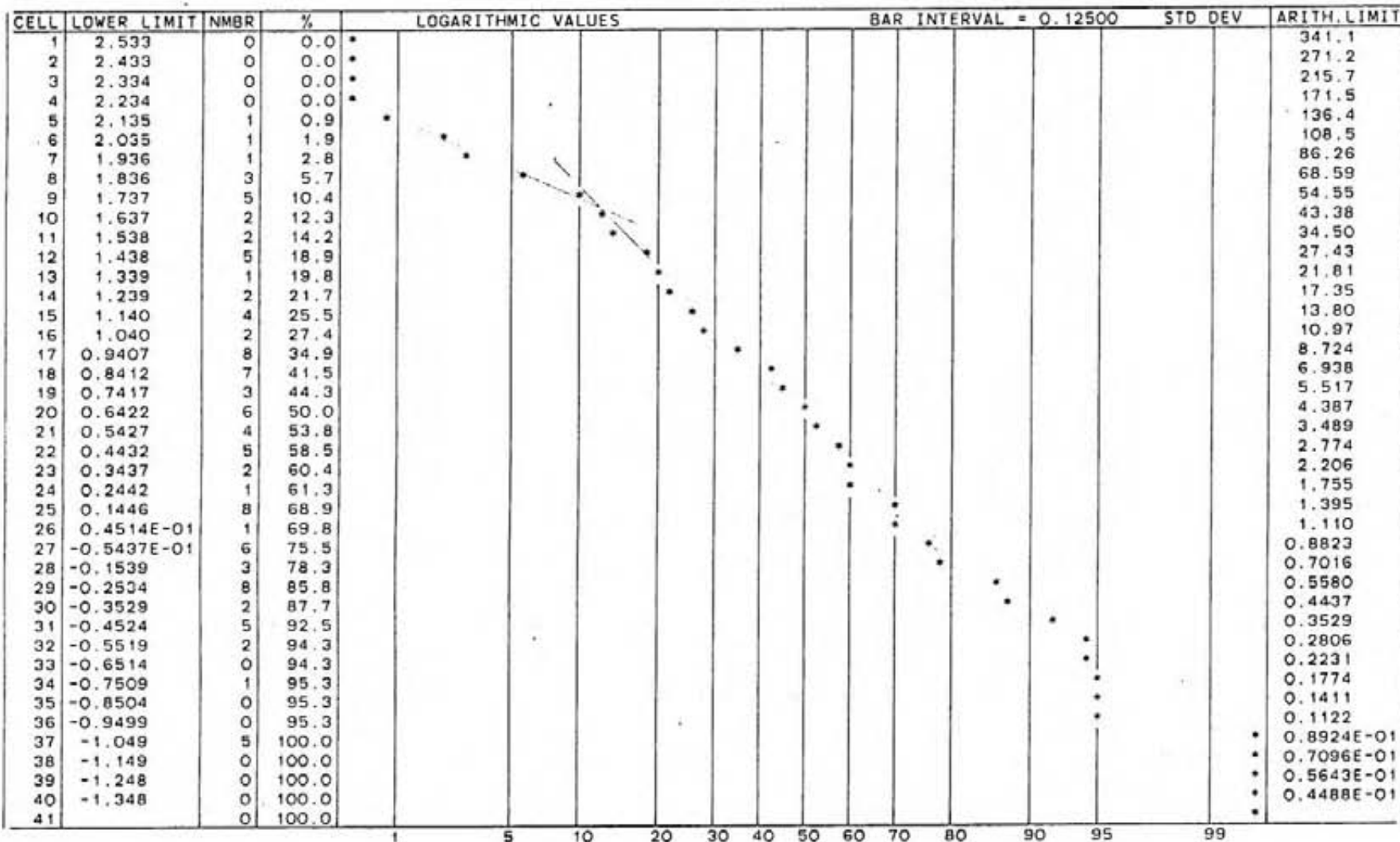
T I T L E S	PROGRAM: PERCENTAGE HISTOGRAMS
	DATA: GOSSAN
	RUN: HOODOO
	TIME: 18/09/83 22:41:03

NAME	SB
N	106
X BAR	0.59243
STD DEV	0.79607

CELL	LOWER LIMIT	NMBR	%	LOGARITHMIC VALUES	BAR INTERVAL = 0.25000	STD DEV	ARITH.LIMIT
1		0	0.0				0.5148E-03
2	-3.288	0	0.0				0.8140E-03
3	-3.089	0	0.0				0.1287E-02
4	-2.890	0	0.0				0.2035E-02
5	-2.691	0	0.0				0.3219E-02
6	-2.492	0	0.0				0.5090E-02
7	-2.293	0	0.0				0.8048E-02
8	-2.094	0	0.0				0.1273E-01
9	-1.895	0	0.0				0.2013E-01
10	-1.696	0	0.0				0.3182E-01
11	-1.497	0	0.0				0.5032E-01
12	-1.298	0	0.0				0.7958E-01
13	-1.099	5	4.7	*****			0.1258
14	-0.9002	0	0.0				0.1990
15	-0.7012	3	2.8	***			0.3147
16	-0.5022	5	4.7	*****			0.4976
17	-0.3031	10	9.4	*****			0.7868
18	-0.1041	10	9.4	*****			1.244
19	0.9490E-01	9	8.5	*****			1.967
20	0.2939	5	4.7	*****			3.111
21	0.4929	9	8.5	*****			4.920
22	0.6919	8	7.5	*****			7.780
23	0.8910	13	12.3	*****			12.30
24	1.090	8	7.5	*****			19.45
25	1.289	3	2.8	***			30.76
26	1.488	5	4.7	*****			48.64
27	1.687	9	8.5	*****			76.92
28	1.886	2	1.9	**			121.6
29	2.085	2	1.9	**			192.3
30	2.284	0	0.0				304.2
31	2.483	0	0.0				481.0
32	2.682	0	0.0				760.6
33	2.881	0	0.0				1203.
34	3.080	0	0.0				1902.
35	3.279	0	0.0				3007.
36	3.478	0	0.0				4755.
37	3.677	0	0.0				7520.
38	3.876	0	0.0				0.1189E+05
39	4.075	0	0.0				0.1880E+05
40	4.274	0	0.0				0.2973E+05
41	4.473	0	0.0				

T	PROGRAM: PERCENTAGE CUMULATIVE FREQUENCY PLOTS	
I		
T		
L	DATA: GOSSAN	
E	RUN: H00000	
S	TIME: 18/09/83 22:41:03	

NAME	SB
N	106
X BAR	0.59243
STD DEV	0.79607



T	PROGRAM:	PERCENTAGE HISTOGRAMS
I		
T		
L	DATA:	GOSSAN
E	RUN:	H00000
S	TIME:	18/09/83 22:41:03

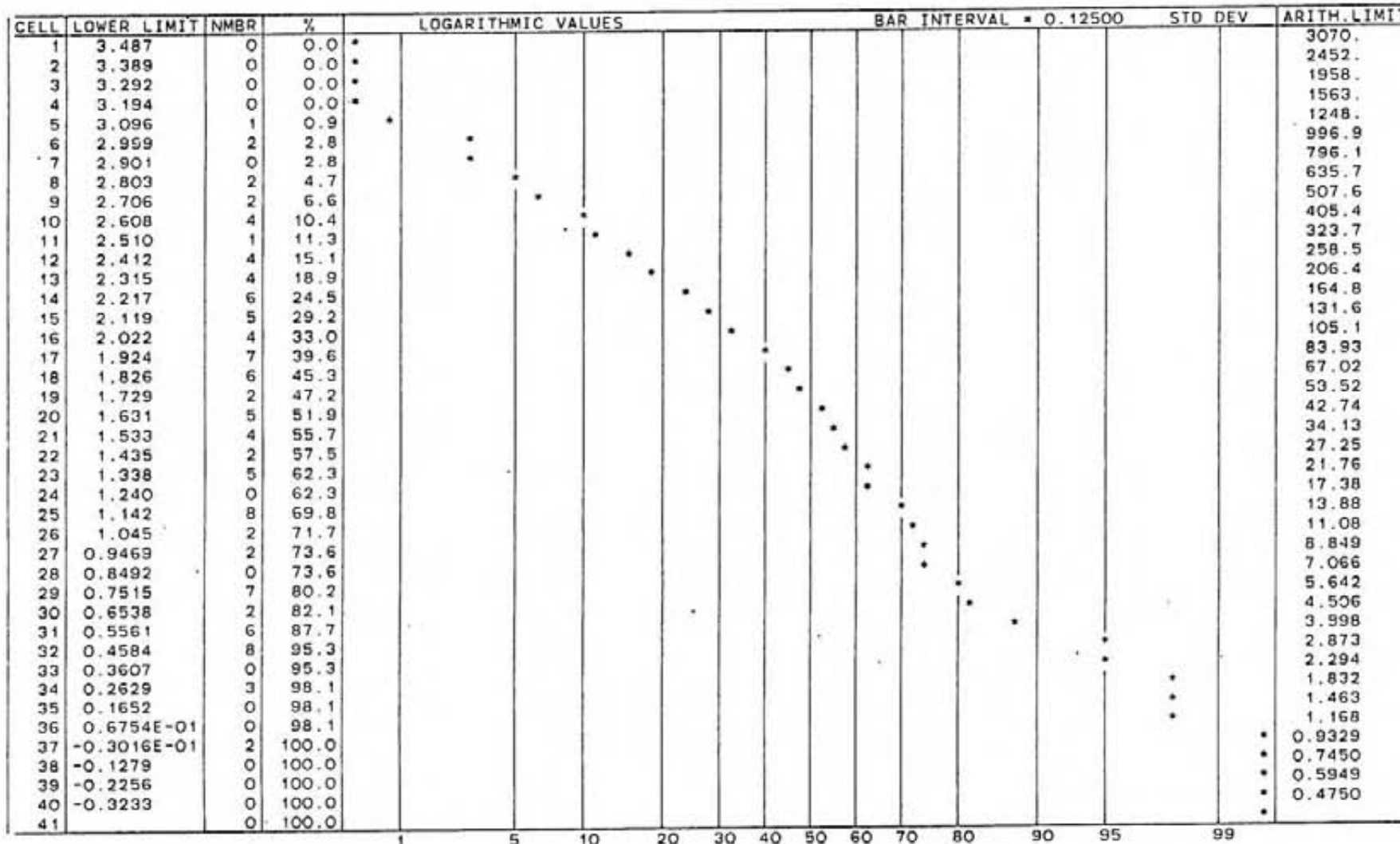
NAME	AS
N	106
X BAR	1.5820
STD DEV	0.78163

CELL	LOWER LIMIT	NMBR	%	LOGARITHMIC VALUES	BAR INTERVAL = 0.25000	STD DEV	ARITH. LIMIT
1		0	0.0				0.5909E-02
2	-2.229	0	0.0				0.9266E-02
3	-2.033	0	0.0				0.1453E-01
4	-1.838	0	0.0				0.2279E-01
5	-1.642	0	0.0				0.3574E-01
6	-1.447	0	0.0				0.5604E-01
7	-1.251	0	0.0				0.8789E-01
8	-1.056	0	0.0				0.1378
9	-0.8606	0	0.0				0.2162
10	-0.6652	0	0.0				0.3390
11	-0.4698	0	0.0				0.5316
12	-0.2744	0	0.0				0.8337
13	-0.7901E-01	2	1.9	**			1.307
14	0.1164	3	2.8	***			2.050
15	0.3118	8	7.5	*****			3.215
16	0.5072	8	7.5	*****			5.042
17	0.7026	7	6.6	*****			7.907
18	0.8980	4	3.8	****			12.40
19	1.093	8	7.5	*****			19.45
20	1.289	5	4.7	*****			30.50
21	1.484	6	5.7	*****			47.83
22	1.680	9	8.5	*****			75.00
23	1.875	14	13.2	*****			117.6
24	2.070	11	10.4	*****			184.5
25	2.266	7	6.6	*****			289.3
26	2.461	5	4.7	*****			453.6
27	2.657	5	4.7	*****			711.4
28	2.852	3	2.8	***			1116.
29	3.048	1	0.9	*			1750.
30	3.243	0	0.0				2744.
31	3.438	0	0.0				4303.
32	3.634	0	0.0				6748.
33	3.829	0	0.0				0.1058E+05
34	4.025	0	0.0				0.1659E+05
35	4.220	0	0.0				0.2602E+05
36	4.415	0	0.0				0.4081E+05
37	4.611	0	0.0				0.6400E+05
38	4.806	0	0.0				0.1004E+06
39	5.002	0	0.0				0.1574E+06
40	5.197	0	0.0				0.2468E+06
41	5.392	0	0.0				



T	PROGRAM:	PERCENTAGE CUMULATIVE FREQUENCY PLOTS
I		
T		
L	DATA:	GOSSAN
E	RUN:	HO000
S	TIME:	18/09/83 22:41:03

NAME	AS
N	106
X BAR	1.5820
STD DEV	0.78163



T	PROGRAM:	PERCENTAGE HISTOGRAMS
I		
T		
L	DATA:	GOSSAN
E	RUN:	HO0000
S	TIME:	18/09/83 22:41:03

NAME	BA
N	106
X BAR	3.2009
STD DEV	0.57572

CELL	LOWER LIMIT	NMBR	%	LOGARITHMIC VALUES	BAR INTERVAL = 0.25000	STD DEV	ARITH. LIMIT
1		0	0.0				
2	0.3943	0	0.0				2.479
3	0.5383	0	0.0				3.453
4	0.6822	0	0.0				4.810
5	0.8261	0	0.0				6.701
6	0.9700	0	0.0				9.333
7	1.114	0	0.0				13.00
8	1.258	0	0.0				18.11
9	1.402	0	0.0				25.22
10	1.546	0	0.0				35.14
11	1.690	1	0.9	*			48.94
12	1.834	3	2.8	***			68.17
13	1.978	0	0.0				94.96
14	2.121	3	2.8	***			132.3
15	2.265	6	5.7	*****			184.2
16	2.409	1	0.9	*			256.6
17	2.553	6	5.7	*****			357.5
18	2.697	9	8.5	*****			497.9
19	2.841	7	6.6	*****			693.6
20	2.985	9	8.5	*****			966.1
21	3.129	9	8.5	*****			1346.
22	3.273	14	13.2	*****			1875.
23	3.417	7	6.6	*****			2611.
24	3.561	7	6.6	*****			3637.
25	3.705	7	6.6	*****			5066.
26	3.849	5	4.7	*****			7057.
27	3.993	12	11.3	*****			9830.
28	4.136	0	0.0				0.1369E+05
29	4.280	0	0.0				0.1907E+05
30	4.424	0	0.0				0.2657E+05
31	4.568	0	0.0				0.3700E+05
32	4.712	0	0.0				0.5154E+05
33	4.856	0	0.0				0.7180E+05
34	5.000	0	0.0				0.1000E+06
35	5.144	0	0.0				0.1393E+06
36	5.288	0	0.0				0.1940E+06
37	5.432	0	0.0				0.2703E+06
38	5.576	0	0.0				0.3765E+06
39	5.720	0	0.0				0.5244E+06
40	5.864	0	0.0				0.7305E+06
41	6.008	0	0.0				0.1018E+07

T I T L E S	PROGRAM: PERCENTAGE CUMULATIVE FREQUENCY PLOTS
	DATA: GOSSAN
	RUN: H0000
	TIME: 18/09/83 22:41:03

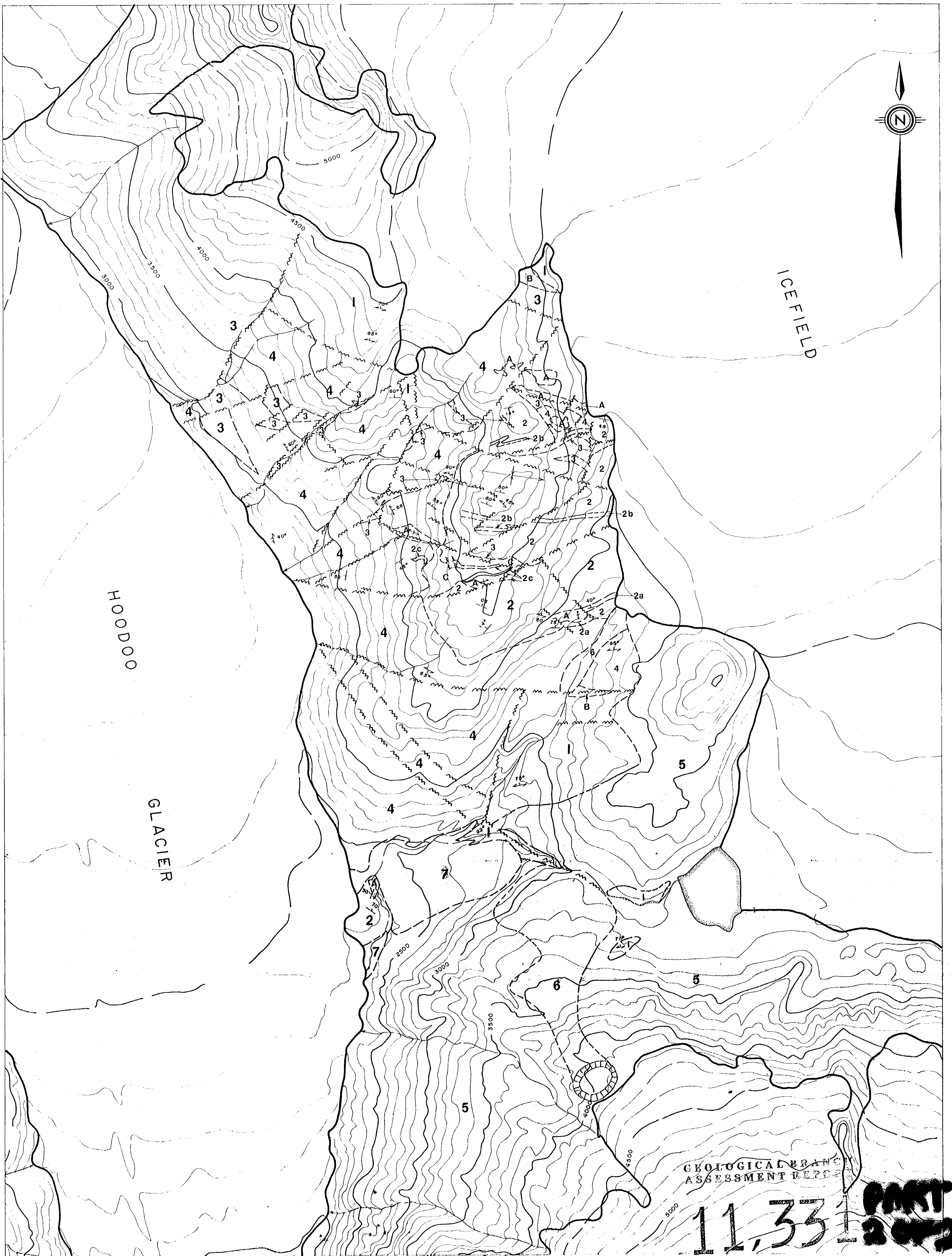
NAME	BA
N	106
X BAR	3.2009
STD DEV	0.57572

CELL	LOWER LIMIT	NMBR	%	LOGARITHMIC VALUES	BAR INTERVAL = 0.12500	STD DEV	ARITH. LIMIT
1	4.604	0	0.0	*			0.4020E+05
2	4.532	0	0.0	*			0.3406E+05
3	4.460	0	0.0	*			0.2886E+05
4	4.388	0	0.0	*			0.2445E+05
5	4.316	0	0.0	*			0.2072E+05
6	4.244	0	0.0	*			0.1756E+05
7	4.172	0	0.0	*			0.1487E+05
8	4.100	0	0.0	*			0.1260E+05
9	4.029	0	0.0	*			0.1068E+05
10	3.957	12	11.3	*			9048.
11	3.885	4	15.1	*			7666.
12	3.813	5	19.8	*			6496.
13	3.741	2	21.7	*			5504.
14	3.669	3	24.5	*			4663.
15	3.597	5	29.2	*			3951.
16	3.525	0	29.2	*			3348.
17	3.453	6	34.9	*			2837.
18	3.381	8	42.5	*			2404.
19	3.309	4	46.2	*			2036.
20	3.237	6	51.9	*			1726.
21	3.165	4	55.7	*			1462.
22	3.093	3	58.5	*			1239.
23	3.021	5	63.2	*			1050.
24	2.949	5	67.9	*			889.3
25	2.877	5	72.6	*			753.5
26	2.805	1	73.6	*			638.5
27	2.733	4	77.4	*			541.0
28	2.661	5	82.1	*			458.4
29	2.589	2	84.0	*			388.4
30	2.517	3	86.8	*			329.1
31	2.445	1	87.7	*			278.8
32	2.373	3	90.6	*			236.2
33	2.301	2	92.5	*			200.2
34	2.229	3	95.3	*			169.6
35	2.157	0	95.3	*			143.7
36	2.085	1	96.2	*			121.8
37	2.014	0	96.2	*			103.2
38	1.942	0	96.2	*			87.41
39	1.870	2	98.1	*			74.06
40	1.798	2	100.0	*			62.75
41		0	100.0	*			

T	PROGRAM: PERCENTAGE HISTOGRAMS		NAME	HG
I				
T				
L	DATA:	GOSSAN	N	106
E	RUN:	HOODDO	X BAR	2.4231
S	TIME:	18/09/83 22:41:03	STD DEV	1.0058

CELL	LOWER LIMIT	NMBR	%	LOGARITHMIC VALUES	BAR INTERVAL = 0.25000	STD DEV	ARITH. LIMIT
1		0	0.0				
2	-2.480	0	0.0				0.3309E-02
3	-2.229	0	0.0				0.5905E-02
4	-1.977	0	0.0				0.1054E-01
5	-1.726	0	0.0				0.1880E-01
6	-1.474	0	0.0				0.3354E-01
7	-1.223	0	0.0				0.5985E-01
8	-0.9715	0	0.0				0.1068
9	-0.7201	0	0.0				0.1905
10	-0.4686	0	0.0				0.3399
11	-0.2172	0	0.0				0.6065
12	0.3430E-01	0	0.0				1.082
13	0.2858	0	0.0				1.931
14	0.5372	0	0.0				3.445
15	0.7887	15	14.2	*****			6.147
16	1.040	0	0.0				10.97
17	1.292	14	13.2	*****			19.57
18	1.543	10	9.4	*****			34.92
19	1.794	6	5.7	*****			62.30
20	2.046	6	5.7	*****			111.2
21	2.297	6	5.7	*****			198.3
22	2.549	4	3.8	****			353.9
23	2.800	5	4.7	*****			631.4
24	3.052	14	13.2	*****			1127.
25	3.303	6	5.7	*****			2010.
26	3.555	11	10.4	*****			3586.
27	3.806	9	8.5	*****			6399.
28	4.058	0	0.0				0.1142E+05
29	4.309	0	0.0				0.2037E+05
30	4.560	0	0.0				0.3635E+05
31	4.812	0	0.0				0.6485E+05
32	5.063	0	0.0				0.1157E+06
33	5.315	0	0.0				0.2065E+06
34	5.566	0	0.0				0.3684E+06
35	5.818	0	0.0				0.6572E+06
36	6.069	0	0.0				0.1173E+07
37	6.321	0	0.0				0.2092E+07
38	6.572	0	0.0				0.3733E+07
39	6.824	0	0.0				0.6661E+07
40	7.075	0	0.0				0.1188E+08
41	7.326	0	0.0				0.2121E+08





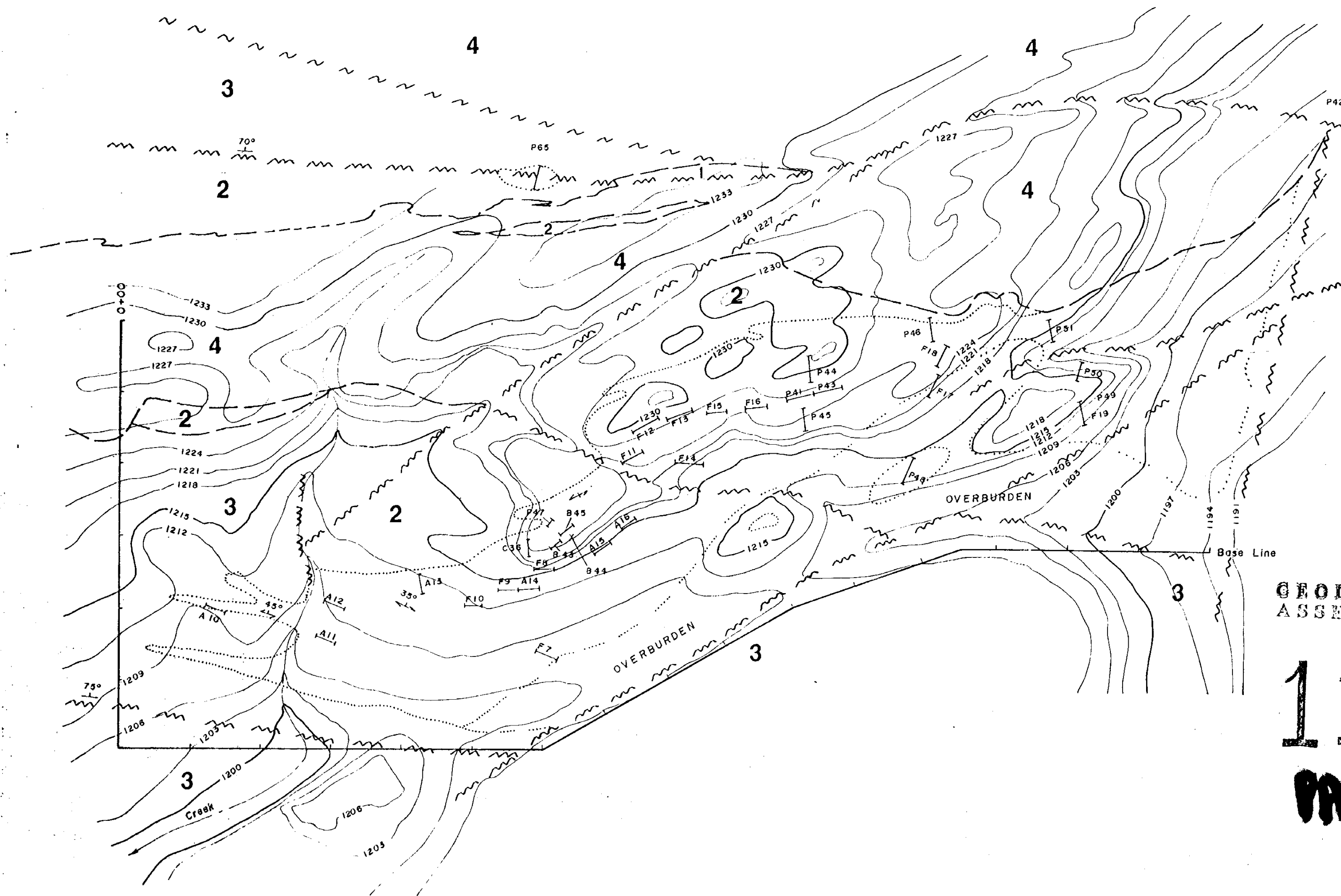
- |  |   |  |
|--|---|--|
| Recent   | 7 | GLACIAL OUTWASH, SAND, GRAVEL.   |
| Pliocene & Younger                                 | 6 | HOODOO VOLCANICS - AH-AH flow, yellow olivine basalt.  |
|  | 5 | " - Undifferentiated: Columnar basalt, coarse trisphyte feldspar porphyry; debris flows, ash, obsidian and scoria.             |
| Permian? Pre - Upper Triassic, Post Mississippian. | 4 | UNDIFFERENTIATED VOLCANIC AND SEDIMENTARY ROCKS (units 1 to 3 inclusive).  |
|  | 3 | ARGILLITE, META-ARGILLITE, MINOR SANDSTONE AND GREYWACKE.  |
|  | 2 | TUFFS, GREYWACKE, VOLCANIC SANDSTONE, GRITS, CHERT, MINOR ANDESITE FLOWS AND BRECCIAS - 2a: chert pebble/boulder conglomerate. |
|  |   | 2b: thin bedded, sharp banded tuffs, volcanic sandstone.   |
|  |   | 2c: thin bedded chert.   |

- |                             |   |   |
|-----------------------------|---|---|
| Mississippian, Pre-Permian. | 1 | STIKINE ASSEMBLAGE - PHYLLITES, CHLORITE AND HEMATITE SCHISTS, QUARTZ MUSCOVITE SCHISTS, GREENSTONES, MINOR ARGILLACEOUS SCHISTS. |
|                             | A | SILICIFIED AND PYRITIZED ZONES OF MINERALIZATION.   |
|                             | B | ZONES OF INTENSE QUARTZ CARBONATE ALTERATION.   |
|                             | C | INTRUSIVE GABBRO (Age unknown)  |

FIG. 3

0 100 200 300 400 500 600 700 800 METRES

KERR ADDISON MINES LTD	
HOODOO CLAIM GROUP	
GEOLOGY	
SCALE - 1:12,500	DATE -
DRAWN BY -	DATA -
NTS -	MAP No

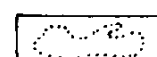
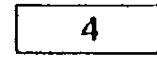
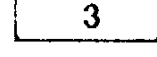
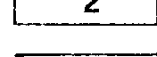
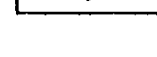



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

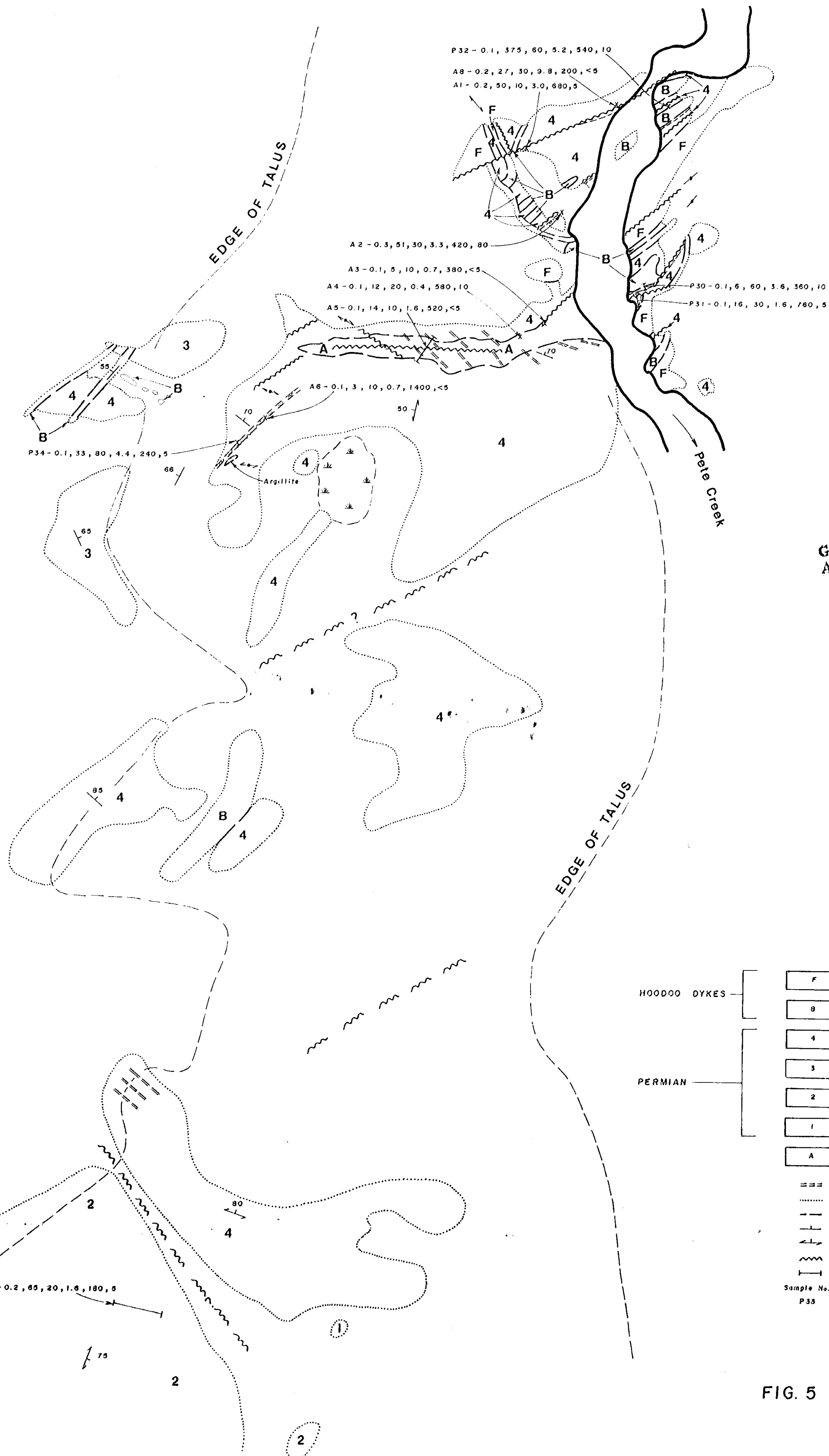
11,331  
PART 2 OF 2

FIG. 4

0 5 10 20 30 40 50  
METRES

-  LIMIT OF MINERALIZATION (GOSSAN)
-  GABBRO
-  TUFFS & BRECCIA
-  CHERT
-  ARGILLITE
-  FAULT - INFERRED

KERR ADDISON MINES LTD	
HOODOO CLAIM GROUP	
DISCOVERY GOSSAN	
GEOLOGY SAMPLE LOCATIONS	
SCALE - 1:1000	DATE - AUGUST, 1983
DRAWN BY - P.Hobbeck, P.Halliot	DATA - P.Hobbeck, A.Chevalier
NTS - 104 B 14	FIG. No.



**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

**11,331**  
**118T 2072**

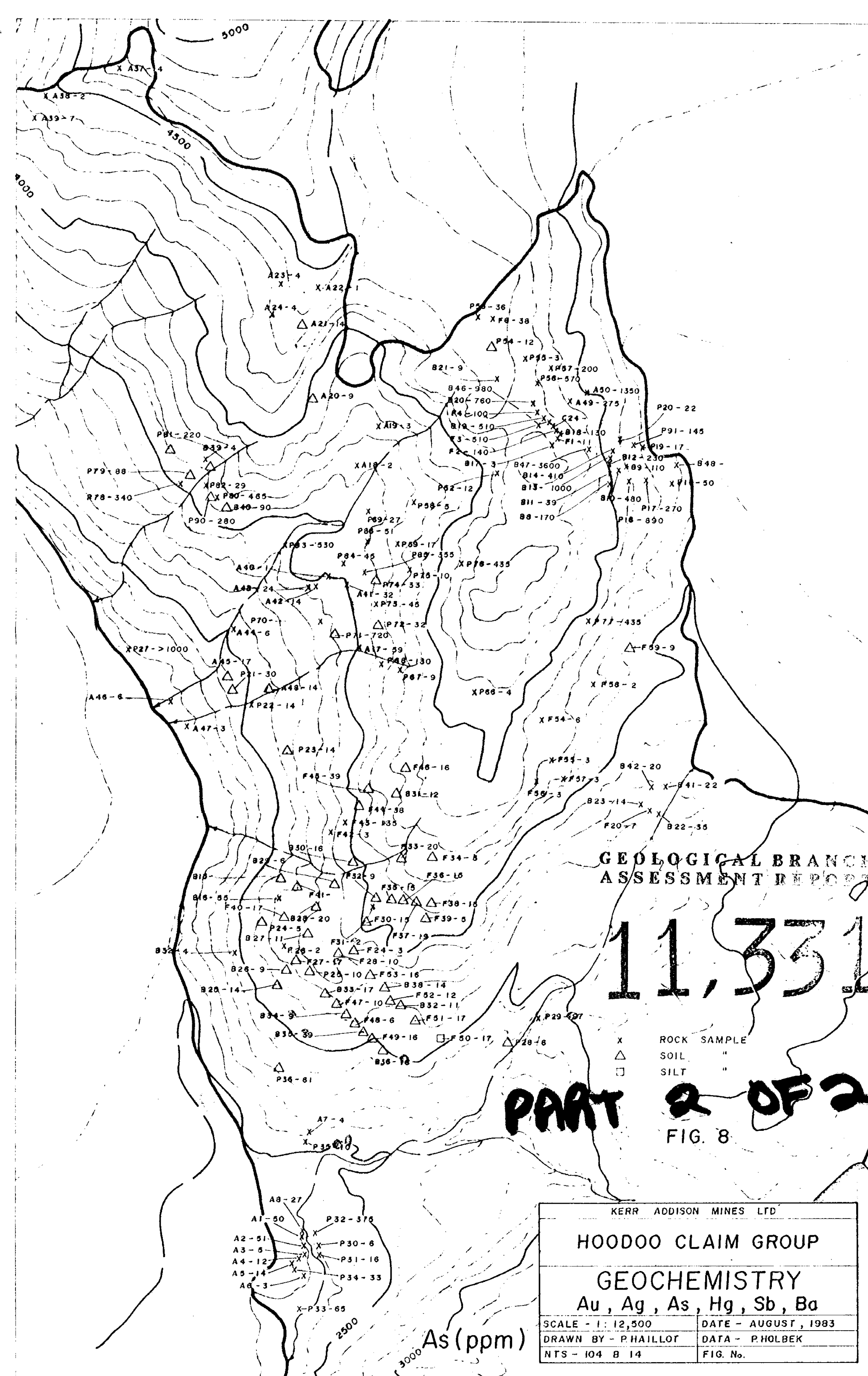
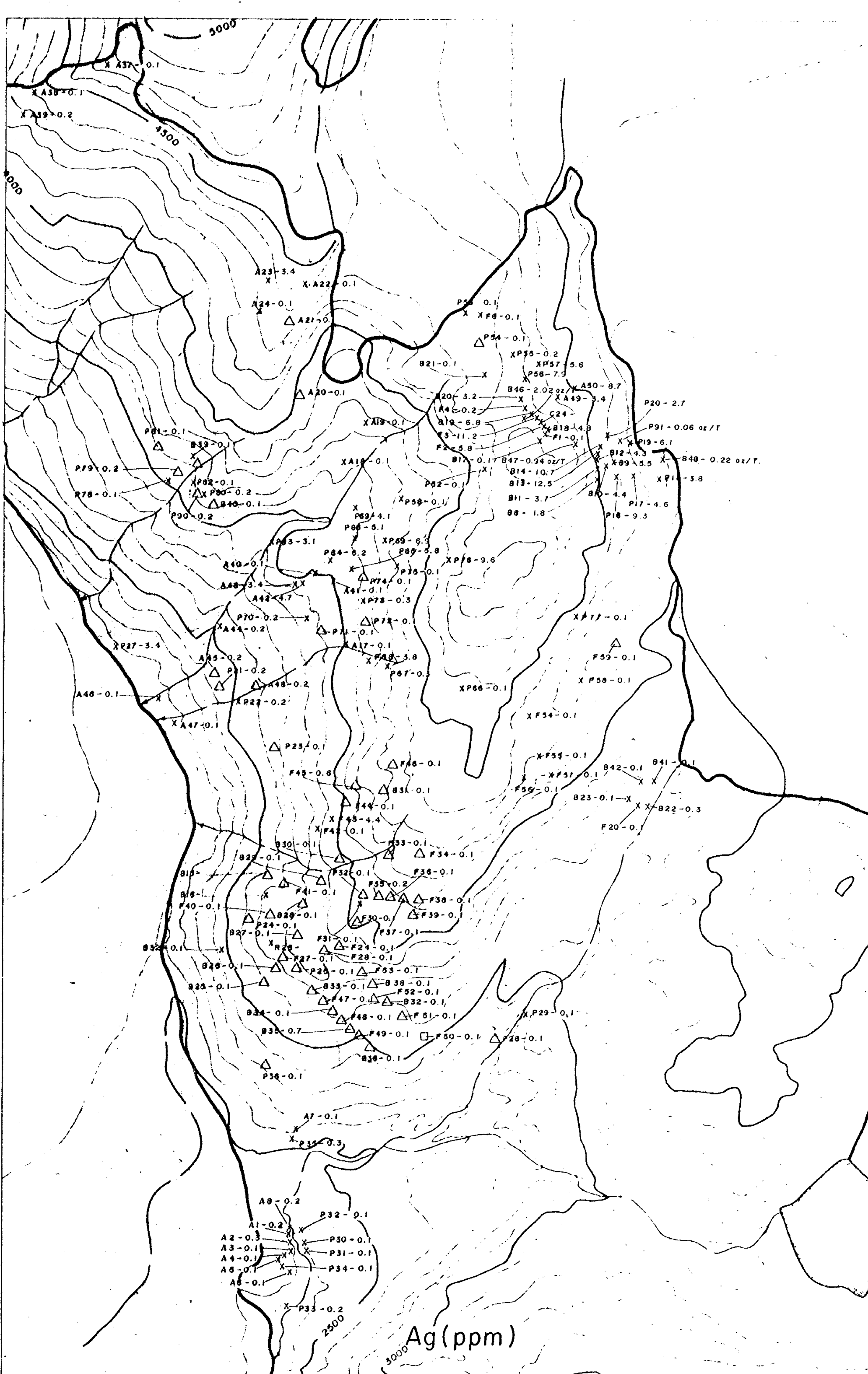
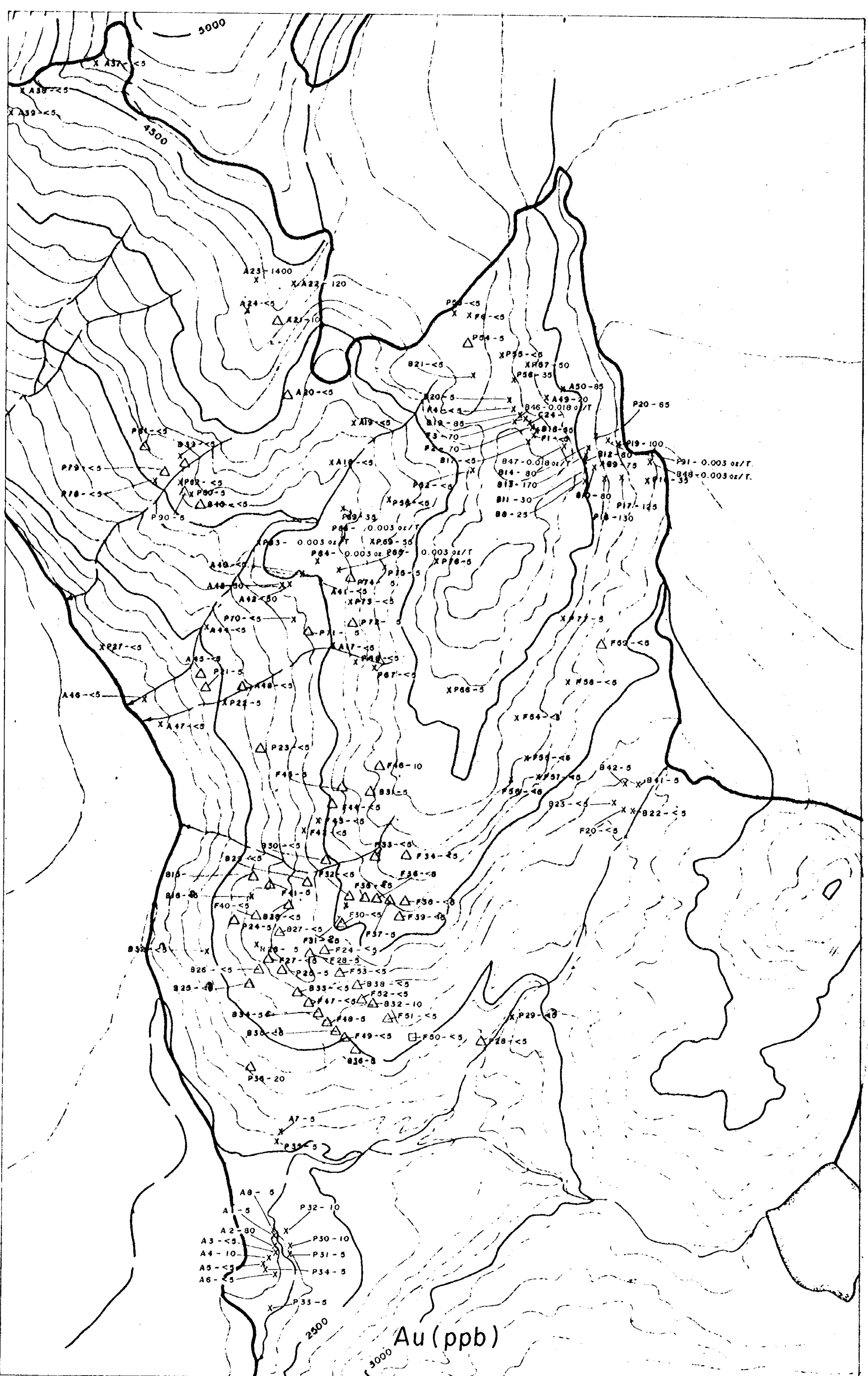
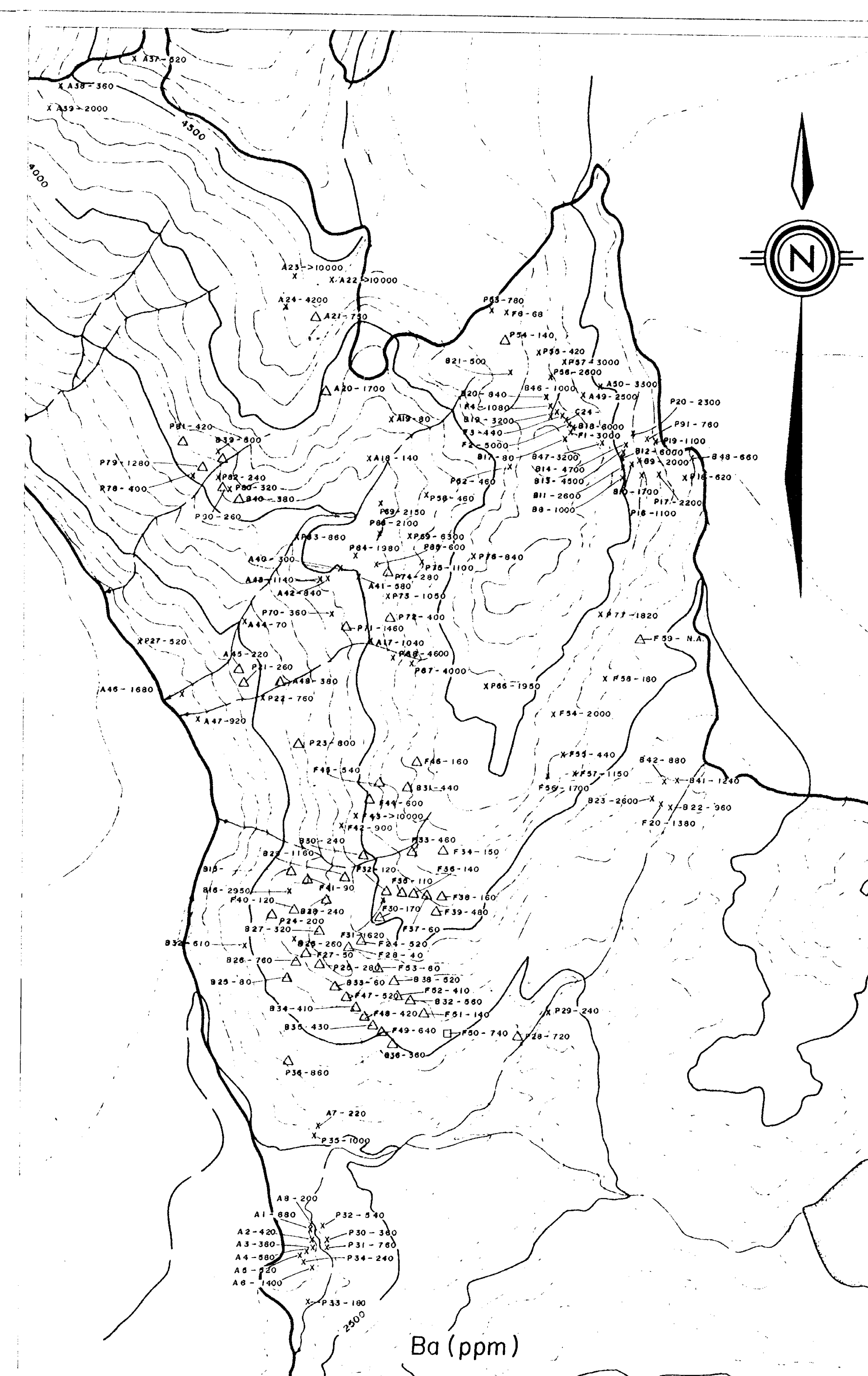
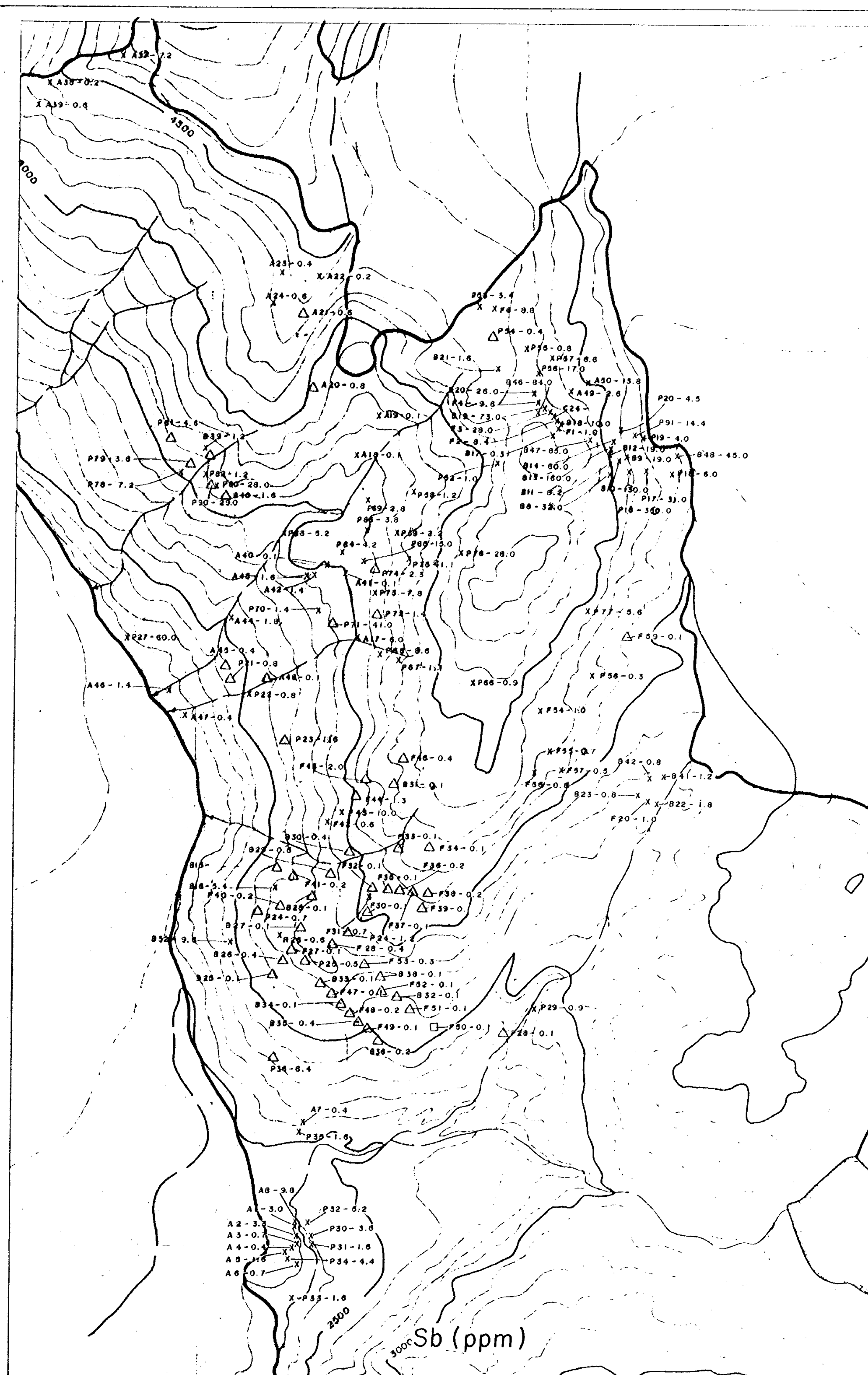
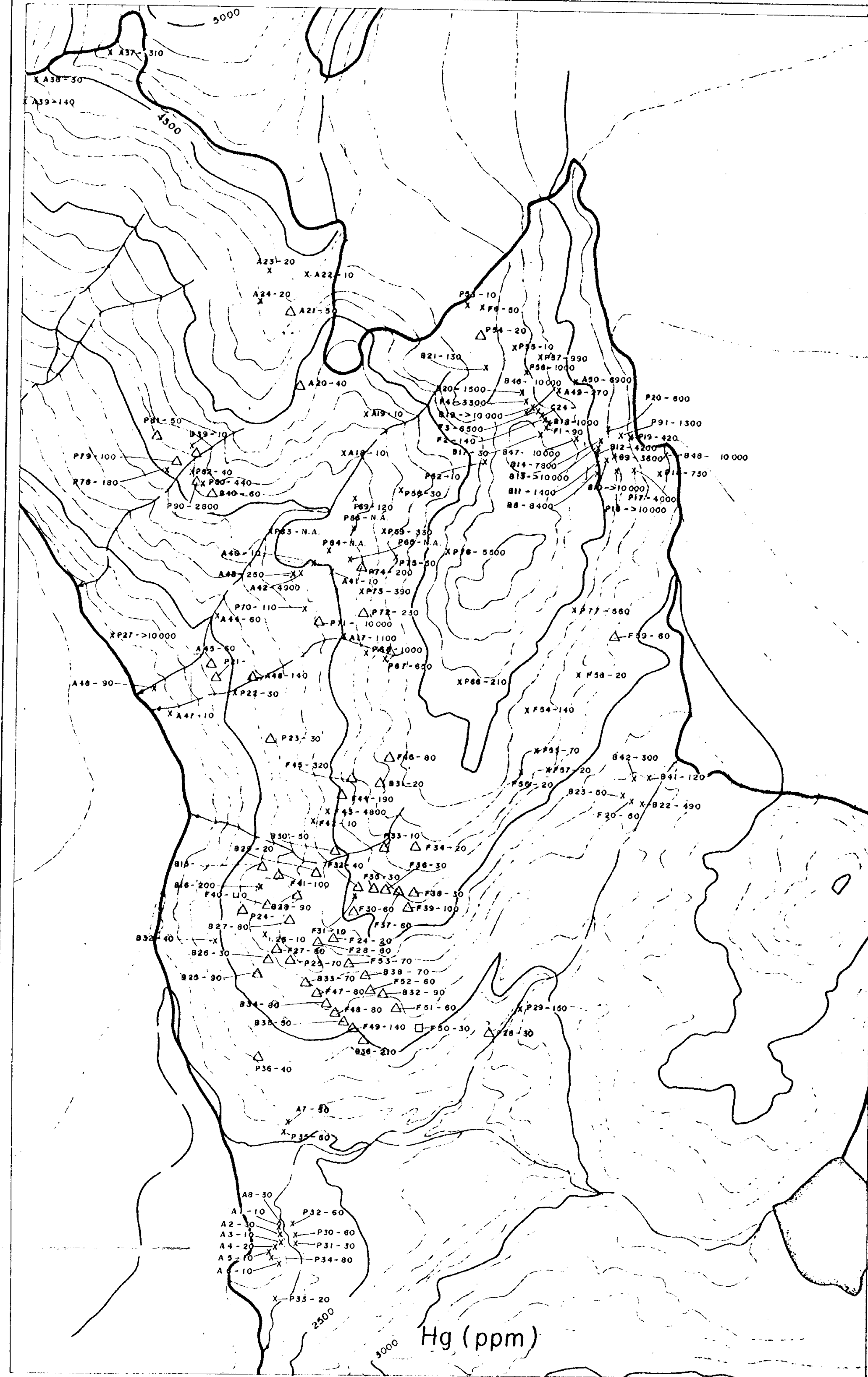
**LEGEND**

- |              |   |  |
|--------------|---|--|
| HOODOO DYKES | F | Quartz feldspar porphyry                       |
|              | B | Trachybasalt                                   |
|              | 4 | Andesite to dacite tuffs, tuff breccia.        |
|              | 3 | Volcanic conglomerate/breccia                  |
|              | 2 | Rhyolite breccia.                              |
| PERMIAN      | 1 | Andesite                                       |
|              | A | Zone of quartz, carbonate and clay alteration. |
- 
- |       |  |
|-------|--|
| ====  | Quartz, quartz carbonate veins and alteration zones. |
| ..... | Limit of outcrop                                     |
| ---   | Geological contact (approximate, defined).           |
| — —   | Bedding, strike and dip.                             |
| ↖     | Foliation, " " " " " "                               |
| —— —— | Fault (inferred, defined, assumed)                   |
| ⊥     | Sampling site  |
- Sample No. Ag(ppm), As(ppm), Hg(ppb), Sb(ppm), Ga(ppm), Au(ppb).  
 P33 - 0.2, 65, 20, 1.6, 180, 5

FIG. 5

KERR ADDISON MINES LTD	
HOODOO CLAIM GROUP	
PLANTATION GOSSAN	
GEOLOGY GEOCHEMISTRY	
SCALE - 1 : 500	DATE - OCTOBER, 1983
DRAWN BY - P.HAILLOT	DATA - P.HOLBEK, A.CH.
NTS - 104 B 14	FIG. No.





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

11,331

**PART 2 OF 2**  
FIG. 8

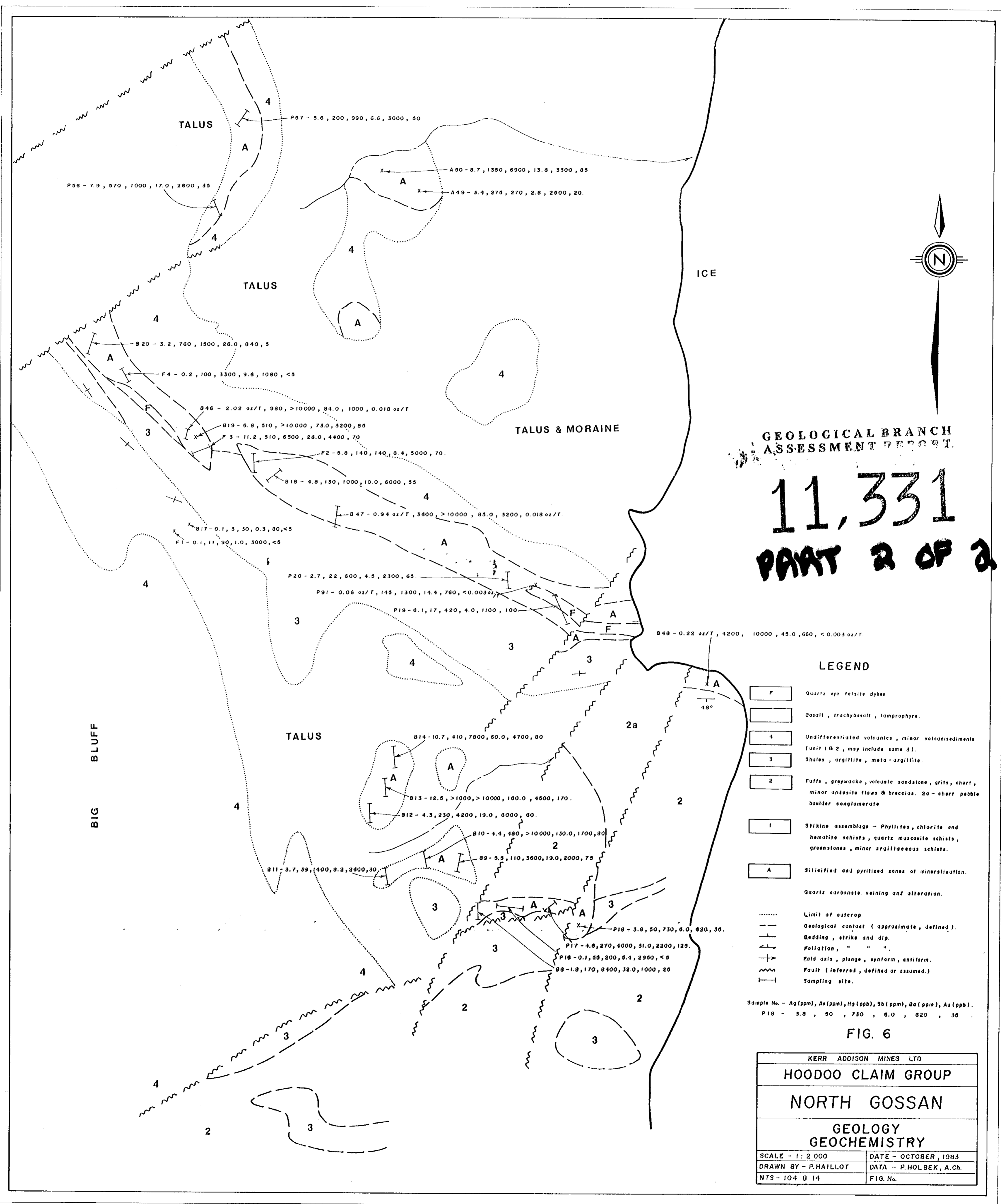
KERR ADDISON MINES LTD	
HOODOO CLAIM GROUP	
GEOCHEMISTRY	
Au, Ag, As, Hg, Sb, Ba	
SCALE - 1:12,500	DATE - AUGUST, 1983
DRAWN BY - PHAILLOF	DATA - PHOLBEK
NFS - 104 B 14	FIG. No.



FIG. 7

0 100 200 300 400 500 600 700 800  
METRES

KERR ADDISON MINES LTD	
HOODOO CLAIM GROUP	
SAMPLE LOCATIONS	
SCALE - 1:12,500	DATE - AUGUST, 1983
DRAWN BY - PHAILLOT	DATA - PHOLBECK
NTS - 104 B 14	MAP No.



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**11,331**  
**PART 2 OF 2**

LEGEND

- F Quartz eye felsite dykes
- Basalt, trachybasalt, lamprophyre.
- 4 Undifferentiated volcanics, minor volcanosediments (unit 1 & 2, may include some 3).
- 3 Shales, argillite, meta-argillite.
- 2 Tuffs, greywacke, volcanic sandstone, grits, chert, minor andesite flows & breccias. 2a - chert pebble boulder conglomerate
- 1 Stikine assemblage - Phyllites, chlorite and hematite schists, quartz muscovite schists, greenstones, minor argillaceous schists.
- A Silicified and pyritized zones of mineralization.
- Quartz carbonate veining and alteration.
- ..... Limit of outcrop
- - - Geological contact (approximate, defined).
- Bedding, strike and dip.
- Foliation, " " "
- Fold axis, plunge, synform, antiform.
- Fault (inferred, defined or assumed).
- Sampling site.

Sample No. - Ag (ppm), As (ppm), Hg (ppb), Sb (ppm), Ba (ppm), Au (ppb).  
P18 - 3.8, 50, 730, 6.0, 620, 30

FIG. 6

KERR ADDISON MINES LTD	
HOODOO CLAIM GROUP	
NORTH GOSSAN	
GEOLOGY GEOCHEMISTRY	
SCALE - 1:2 000	DATE - OCTOBER, 1983
DRAWN BY - P.HAILLOT	DATA - P.HOLBEK, A.Ch.
NTS - 104 B 14	FIG. No.