

Geochemical Report on the Max
Group of claims, held by Inter-
provincial Silver Mines Ltd.
written by Associated Geological
Services Ltd. under the super-
vision of Mr. J.E. Wallis P.Eng.,
General Manager

July 3rd - July 11th 1969
12 miles N.E. of Atlin B.C.
59N - 133W



2203

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<i>Map Nos.</i> #1	FIGURE 1	Geochemical Map of Silver Values (Grid I) (<i>Pocket</i>)
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#3	FIGURE 3	Geochemical Map of Silver Values (Grid II) (<i>Pocket</i>)
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	FIGURE 6	Histogram of Arsenic Distribution - Grid I
	FIGURE 7	Histogram of Silver Distribution - Grid II
	FIGURE 8	Histogram of Arsenic Distribution - Grid II

INTRODUCTION

During the period July 3 to July 11, 1969 a geochemical soil survey was carried out in the Atlin area of British Columbia for Interprovincial Silver Mines Limited. Samples were collected over 10.32 line miles on two separate grids and were assayed for parts per million silver and arsenic.

LOCATION AND ACCESS (59° 133° NE)

The property is located in the headwaters of Vulcan Creek 12 1/2 miles N40° E of Atlin, B. C. Access is by 16 miles of all-weather gravel road to the Interprovincial Silver Mines Camp, thence by four-wheel drive vehicle approximately two miles to the headwaters of Vulcan Creek.

GEOGRAPHY

Vulcan Creek is a north-westerly flowing tributary of Crater Creek which meets Fourth of July Creek one mile northeast of McDonald Lake. The survey was conducted above treeline on the north-facing slopes of Vulcan Creek at elevations 5400' to 5800'. Frost heaves cover 90% of Grid I. Grid II occupies a U-shaped grass covered valley.

CLAIMS

The following mineral claims were found during the course of the field work. Their positions are recorded on the geochemical maps.

<u>Name of Claim</u>	<u>Tag No:</u>
Omega (Init. Post) *	698462
Omega #5 Fr. (Int. Post)	698463
Omega (final post) ‡	698461
Omega (final post)	698469
Max # 4 Fr.)	
Max # 3 Fr.)	Tag No's not recorded
Omega # 2 Fr.)	
Omega # 3 Fr.)	
A. L. # 1 (Init. Post)	516003
A. L. # 2 (final post)	516004
Bruce # 38 (Init. Post)	470695
Bruce # 36 (final post)	470693
Canuck # 9 (final post)	594015
Canuck #10 (final post)	594016
Canuck # 7 (final post)	594013
Canuck # 8 (final post)	594014
Canuck # 16 (init. Post)	594022
Canuck # 15 (init. Post)	594021
Canuck # 14 (init. Post)	594020
Canuck # 13 (init. Post)	594019

GEOLOGY

GRID I (See Figure No. 1)*

The area surveyed is on the western edge of the Surprise Lake Batholith. The major rock type is granodiorite. Porphyrite dykes three feet in width intrude this granodiorite. Alteration consists of silicification and epidotization in varying degrees of intensity. Arsenopyrite, pyrite, chalcopyrite, molybdenum, galena and some sphalerite are found in quartz veins and siliceous zones up to 30 feet in width.

Description of Rocks

1. Granodiorite

- medium grained (average grain size 2 mm)
- quartz 10% of constituents of rock
- plagioclase orthoclase
- abundant hornblende

2. Pink Granite

- pink colour
- quartz 10% of rock
- quartz phenocrysts 2 mm in size in fine-grained groundmass consisting of quartz, orthoclase and hornblende.

3. Porphyrite

- feldspar (orthoclase) and quartz phenocrysts set in a dark grey, fine grained groundmass
- average size of phenocrysts = 1 centimeter

GRID II

No rock exposures occur within Grid II.

*Ref: G. S. C. Memoir 307, Atlin Map Area, British Columbia J. D. Aitken

FIELD WORK (See Figure no's 1, 2, 3, and 4)

A. Grids

A base line was established by running a chain and compass survey from a point on Vulcan Creek designated 10S, 10E due South to 34S, 10E with stations at 200 foot intervals. Cross lines were run East and West from the base line stations with sample stations at 100 foot intervals. Stations were marked by tying a length of fluorescent orange flagging tape to a building lath marked with the grid coordinates for each station.

Grid 2 was put in after the completion of Grid 1. The tie-in point is 34S, 3E. East coordinates are duplicated on the grids.

Samples were collected from the A horizon on Grid 1 at depths varying from 2" - 4". On Grid 2, the material available for sampling was sandy to gravelly soil.

TABLE I GRID I

Anomaly No:	Location	Geochemical Anomalies				Notes
		Silver Size (feet)	Peak (ppm)	Arsenic Size (feet)	Peak (ppm)	
1.	32S, 20E	-	7.8	-	150	Point anomaly, open to the south
2.	26S, 18E	250'x200'	9.1	-	330	Significant anomaly, but poor arsenic support
3.	From 21S to 26S Between 11E & 16E	500'x500'	8.7	-	1000	Significant anomaly
4.	From 12S to 19S Between 11E & 13E	700'x200'	16.2	-	1000	Anomalous zones in area of trenching
5.	From 12S to 15S Between 8E and 10E	300'x200'	10.0	-	1000	Possibility of downslope movement from trench area
6.	From 17S to 19S Between 7E and 8E	200'x100'	7.7	-	720	Ag and As anomalies do not coincide exactly
7.	29S to 31S	200'x100'	13.0	-	600	This anomalous area considered significant. Arsenic and silver anomalies have excellent correlation
	16S - 1E		3.2		600	Arsenic anomaly not supported by high silver assay

TABLE II GRID II

Anomaly No:	Location	Geochemical Anomalies				Notes
		Silver Size (feet)	Peak (ppm)	Arsenic Size (feet)	Peak(ppm)	
A	56S, 24E	-	7.5		60	Point anomaly open to south
B	From 55S to 56S Between 15E & 16E	100'x ?	8.5		38	Anomalous point borders swamp, not supported by high arsenic assay. Open to south
C	From 49S to 50S Between 17E and 19E	100'x200'	8.5		100	Anomaly in swampy area
D	From 36S to 40S Between 18E and 21E	400'x300'	4.6		100	Significant anomaly open to north
E	On 40S Between 14E and 15E	-	8.0		110	Possibly contaminated close to stream course
F	From 45S to 49S Between 4E and 6E	400'x200'	7.4		8	Significant silver anomaly, but not supported by high As assay
G	At 40S, OE	-	8.2		45	Significant silver anomaly but not supported by high As Assay Open to East

DISCUSSION OF RESULTS

A. GRID I (See Figure No's 1, 2, 5, 6 and Table I)

Threshold values of 7.0 ppm silver and 500 ppm arsenic were selected from inspection of the frequency distribution curves (Figure No's 5 and 6) ^Parts per million values above these are believed to outline areas of significant mineralization.

Anomalies

Anomalies 1, 2 and 3 outline a linear extension of mineralization beyond the trenches and warrant further investigation.

Anomalies 4 and 5 are within the area affected by the trenching which was done on known mineralization.

Arsenopyrite mineralization was found 180 feet west of Anomaly 6. Frost heave and snow cover prevented proper sampling in the area of Anomaly 6.

The isolated anomaly on Line 30S (Anomaly 7) is considered very significant because of its excellent correlation of anomalous arsenic and silver values.

B. GRID II (See Figure No's 3, 4, 7, 8 and Table II)

Threshold values of 3.0 ppm silver and 80 ppm arsenic were selected from inspection of the frequency distribution curves (Figure Nos 7 and 8).

Anomalies

Anomaly A is a point anomaly open to the south without arsenic support. This anomaly can be explained by downslope movement from the mineralized area to the southeast.

Anomaly B and C are in swampy area therefore their significance is questionable.

Anomalies D and E are the only two on this grid that exhibit a correlation of anomalous arsenic and silver values. Anomaly D is considered the most significant of the two as E could represent contamination transported by the creek.

Anomalies F and G are considered very significant silver anomalies but are not supported by high arsenic assays.

CONCLUSIONS

The geochemical survey of Grid I outlined the areas of known mineralization and established targets (Anomaly No's 1, 2, 3, 6, and 7) for further investigation. Grid II, although it has lower threshold values for arsenic and silver than Grid I, has anomalies D, F and G which are considered significant areas for further investigation.

Respectfully submitted,



E. W. Yarrow

Associated Geological Services Ltd.,

August 1, 1969

Vancouver, B. C.

Atlin, B. C.

September 15, 1969

Mr. J. C. Snell, President
Interprovincial Silver Mines Ltd.
1300 - 355 Burrard Street
VANCOUVER 1, B. C.

Dear Jim:

Enclosed are copies of the Vulcan Creek geochemical survey results. Two anomolous zones are indicated, both silver rich. Although these zones are broad and somewhat discontinuous, the alignment of values suggests the existence of two parallel vein structures.

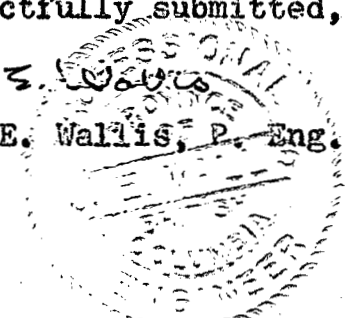
The first zone is approximately 150 feet in width and extends south easterly from line 30S to line 56S. This anomolous zone is the most important feature revealed by the survey and probably The second zone is roughly parallel to the first and extends continues to the S.E. from Vulcan Creek at line 12S to line 38S. Although this zone shows more highs than the first, it is not as continuous.

Both zones should be investigated by bulldozer trenching at 400 foot intervals, perpendicular to the strike.

Respectfully submitted,

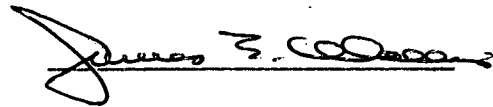
/JEW

J. E. Wallis, P. Eng.



AFFIDAVIT
SUPPORTING STATEMENT OF CLAIM

I, James E. Wallis General Manager of Interprovincial Silver Mines Ltd., do hereby swear that the itemized costs enclosed herein are the actual costs to this company of the geochemical program enclosed herewith and said total sum has been paid to Associated Geological Services Ltd., of Vancouver, B. C. in consideration for completion of the program.



James E. Wallis, P. Eng.
General Manager

Interprovincial Silver Mines Ltd.

sworn before me at ATLIN

B. C. this 2nd day of OCTOBER
1969.



MAGISTRATE.

Itemized Billing recieved from Associated Geological Services.

ITEMS

1- Wages and Benefits

salaries	\$	1240.00
UEI	\$	7.80
Pension Plan	\$	21.85
Holida y pay	\$	49.60
Compensation	\$	52.70

2- Tra vel

D. Asscote	\$	35.75
CPA	\$	510.00

3- Office and Technical

office	\$	30.00
Bondar Clegg	\$	1382.40

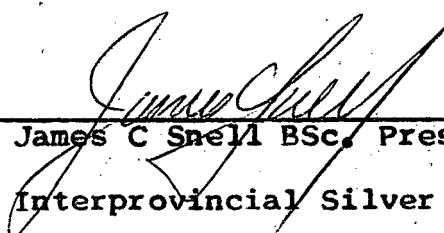
(chemical analysis)

4- Misc.

Apex Equipment	\$	9.95
BC Industries	\$	15.20

Sub Total \$ 3355.32

plus 15 % \$ 3858.61


James C Snell BSc, President
Interprovincial Silver Mines Ltd


James Wallis, General Manager



CERTIFICATE

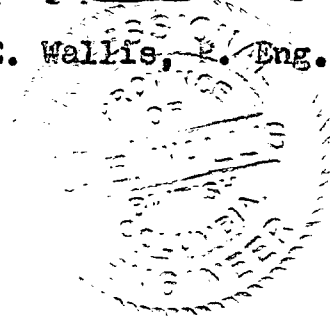
I, J. E. Wallis, of Atlin, British Columbia, do hereby certify:

1. That I am a consulting mining engineer employed as General Manager and Special Consultant of Interprovincial Silver Mines Ltd.
2. That I am a graduate of the University of Alaska- B. Sc. and of Queens' University at Kingston - M.Sc.(Eng.)
3. That I am a registered Professional Engineer of the Provinces of Saskatchewan and British Columbia.
4. That I am personally familiar with the Interprovincial property, having examined it on many occasions and having designed the enclosed program.

Respectfully submitted,



J. E. Wallis, P. Eng.



FIELD REPORT

GEOCHEMICAL SOIL SURVEY

VULCAN CREEK PROJECT

ATLIN, B. C.

E. W. Yarrow

Associated Geological Services Ltd.,

Vancouver, B. C.

August 1, 1969

MINING RECORDER
RECEIVED and RECORDED

FEB 17 1970

M. R. #
ATLIN, B. C.

APPENDIX "A"

TO ACCOMPANY FIELD REPORT

Geochemical Soil Survey

Vulcan Creek Project

Atlin, B. C.

59° 133° N. E.

by

E. W. YARROW

and

D. P. ARSCOTT, P. Eng.,

for

Interprovincial Silver Mines Ltd (NPL)

July 3, to July 11, 1969

Dated August 1, 1969

Vancouver, Canada

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SAMPLING AND ASSAYING METHOD

Samples were collected, wherever possible, at a depth of 4" 6" in the reddish brown "B" horizon. Sampling was done by digging a hole at each station with a spade, and collecting approximately 1/2 cup of the desired soil. Samples were placed in standard high wet strength brown paper sampling bags marked with grid co-ordinates corresponding to the markings on lengths of fluorescent flagging tape on each station in the field.

Samples were shipped to Bondar-Clegg and Company Ltd., in Vancouver, where they were dried in proper drying ovens within the bags used for collection.

A portion of the -80 mesh fraction of each sample was subjected to a hot HNO_3 - HCl solution and the extraction assayed for ppm (parts per million) silver content by the atomic absorption method, as well as a hot HNO_3 - HClO_4 solution and the extraction assayed for ppm arsenic content by the atomic absorption method.

LIST OF MEN EMPLOYED AND WAGES PAID

Name	Address	Position	Wages
T. D. Wilkinson	948 Garrow Road Port Moody, B. C.	Manager	\$124.99
D. P. Arscott	1924 McNichol Ave Vancouver, B. C.	Prof. Eng.	\$180.00
E. Yarrow	2244 W 6th Avenue Vancouver, B. C.	Asst. Geologist	\$644.77
J. Hamaguchi	1475 Tyrol Place West Vancouver B C	Sampler	\$202.50
T. Drews	555 Denman Street Vancouver, B. C.	Sampler	\$191.25
M. Maybury	555 Denman Street Vancouver, B. C.	Sampler	\$191.25
P. W. Dunsford	2564 Panorama Dr North Vancouver BC	Draftsman	\$249.23

CERTIFICATE

I, David P. Arscott, with business address in Vancouver, British Columbia, do hereby certify that:

1. I am a Professional Engineer, registered in the Province of British Columbia.
2. I personally visited the Vulcan Creek property of Interprovincial Silver Mines Ltd (NPL) and directed the survey described herein.
3. I concur with the results stated herein, and with the methods employed to collect and interpret the data of this survey.
4. To the best of my knowledge the expenses claimed for the performance of this survey are true as stated.

Cordially submitted,

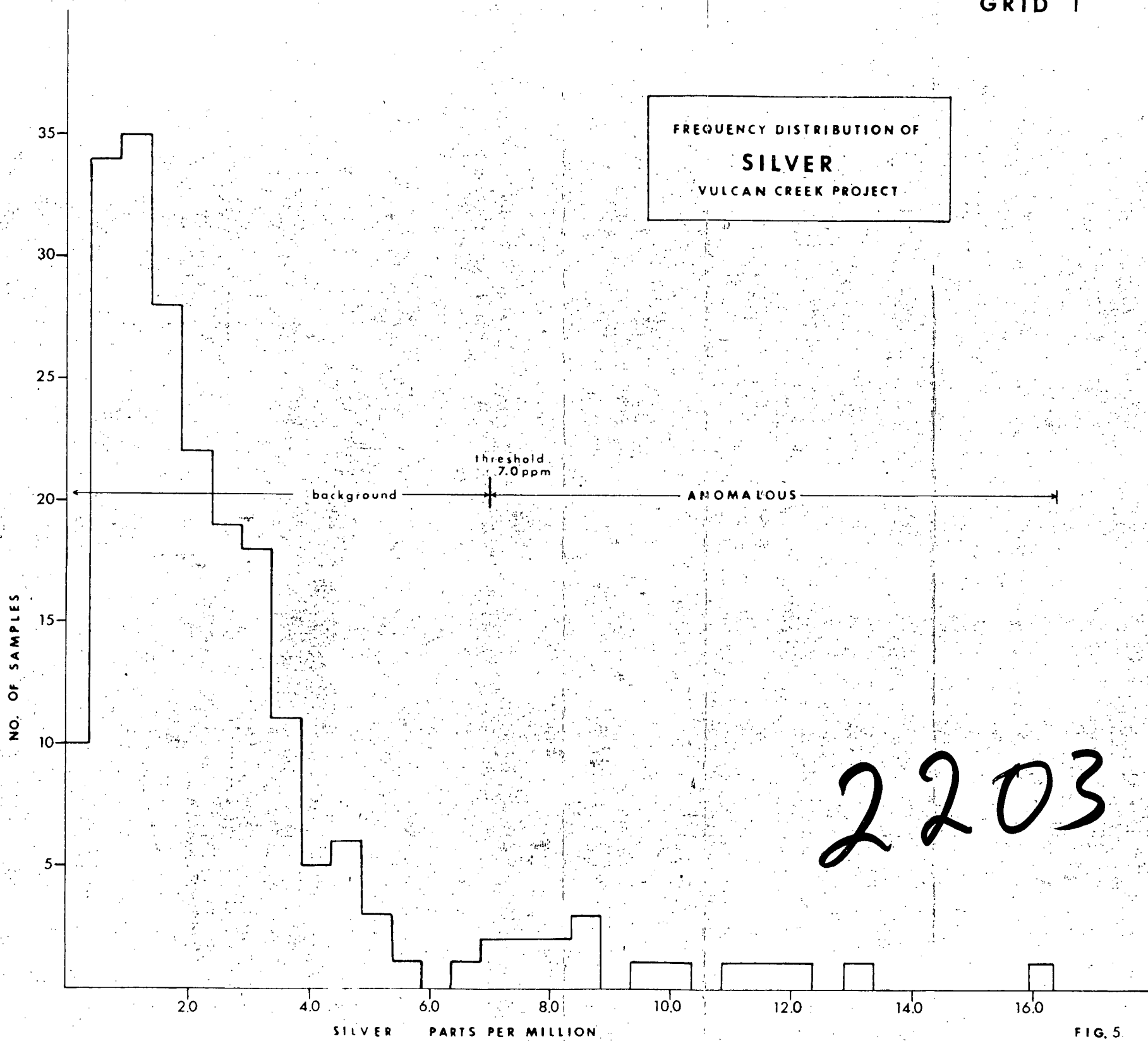
David Arscott

David P. Arscott, P. Eng.,

Vancouver, British Columbia
January 21, 1970

GRID 1

FREQUENCY DISTRIBUTION OF
SILVER
VULCAN CREEK PROJECT



2203

FIG. 5

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **2203** MAP

FREQUENCY DISTRIBUTION OF
ARSENIC
VULCAN CREEK PROJECT



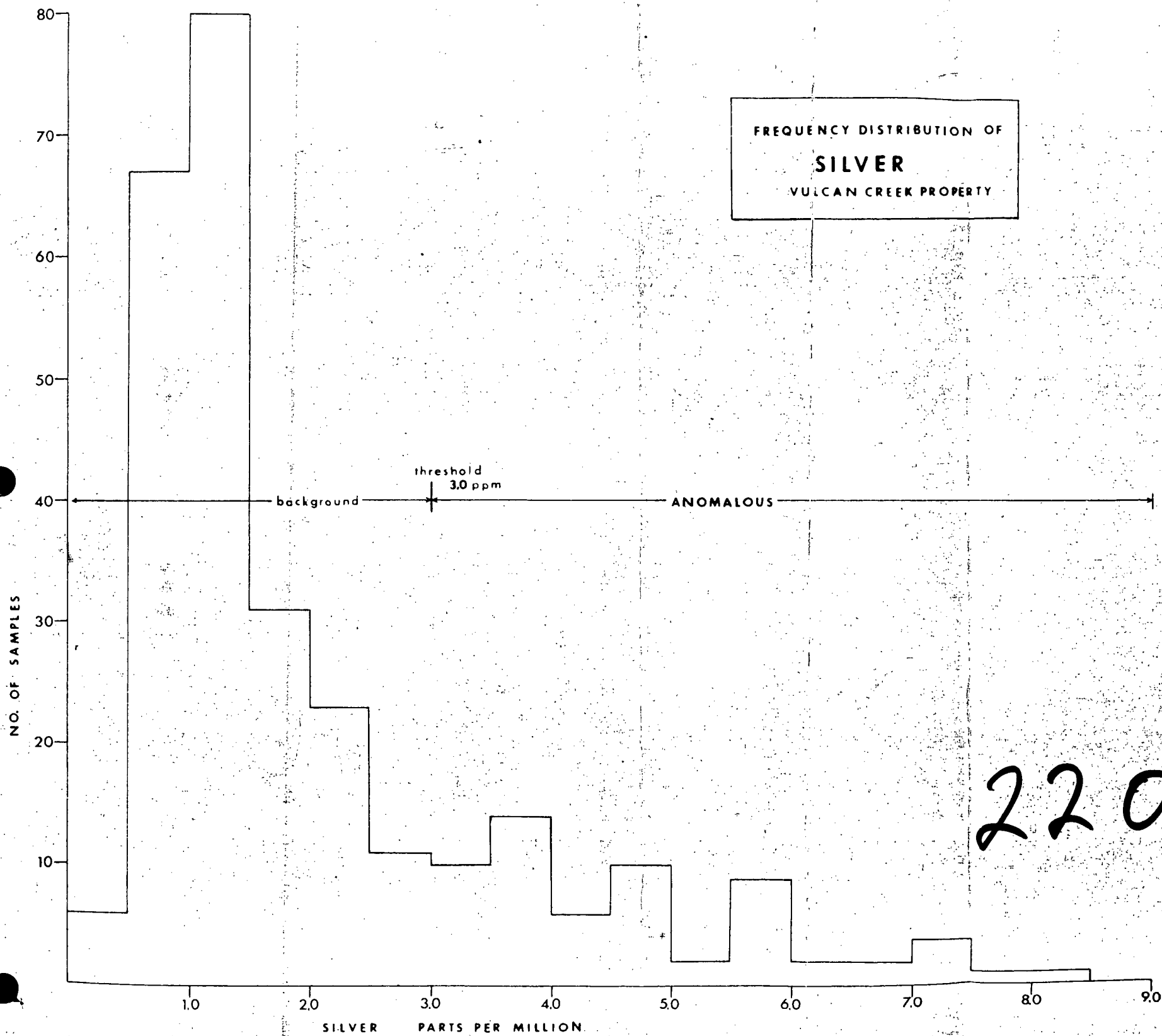
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FIG. 6

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ASSESSMENT REPORT

NO. **2203** JAP

GRID 2



2203

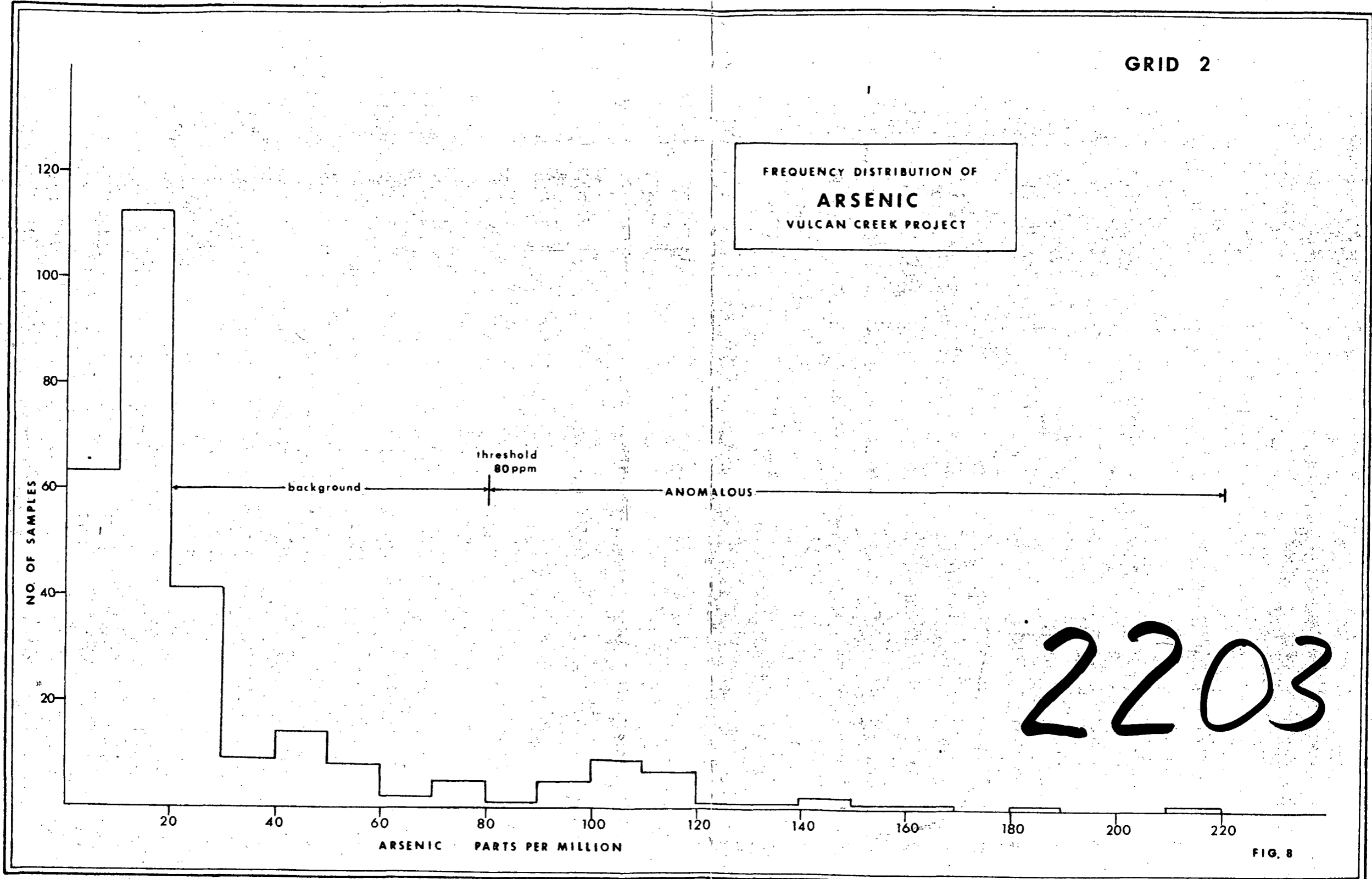
FIG. 7

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **2203** MAP

GRID 2

FREQUENCY DISTRIBUTION OF
ARSENIC
VULCAN CREEK PROJECT

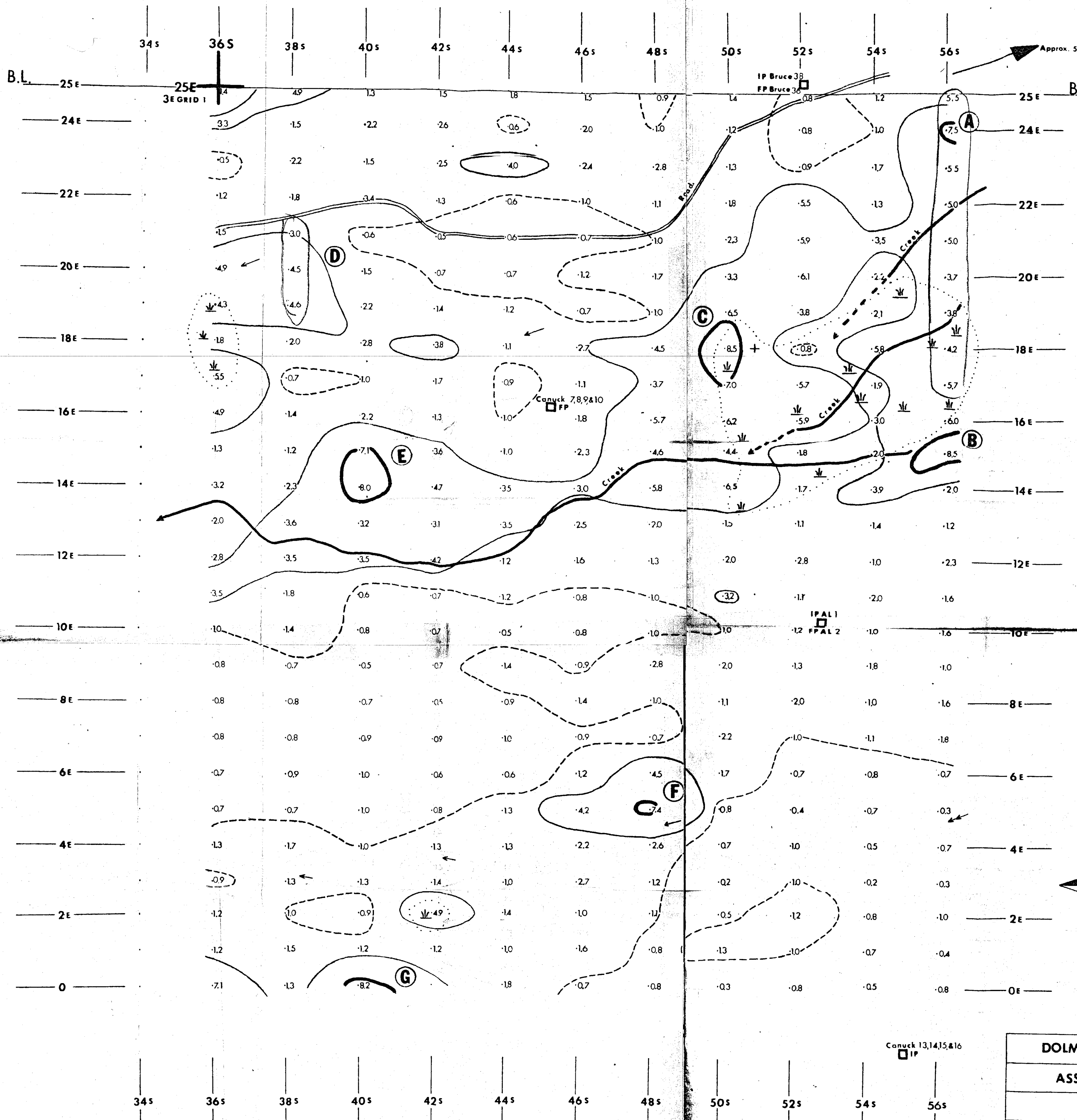


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FIG. 8

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NO. **2203** ALB



LEGEND

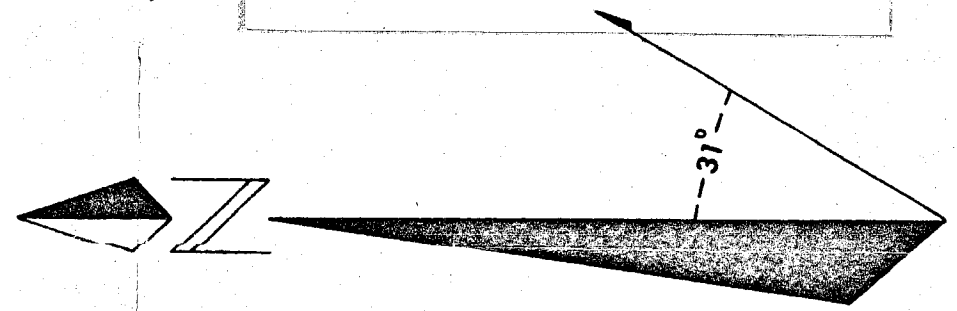
1. PARTS PER MILLION SILVER CONTOURS

- 1.0 ppm
- 3.0 ppm
- 7.0 ppm

2. TOPOGRAPHY

- FLAT
- GENTLE SLOPE
- MODERATE SLOPE
- CLAIM POST
- SWAMP, MUSKEG

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2203** MAP **#3**



2203

DOLMAGE - CAMPBELL & ASSOCIATES CONSULTANTS

ASSOCIATED GEOLOGICAL SERVICES LTD.

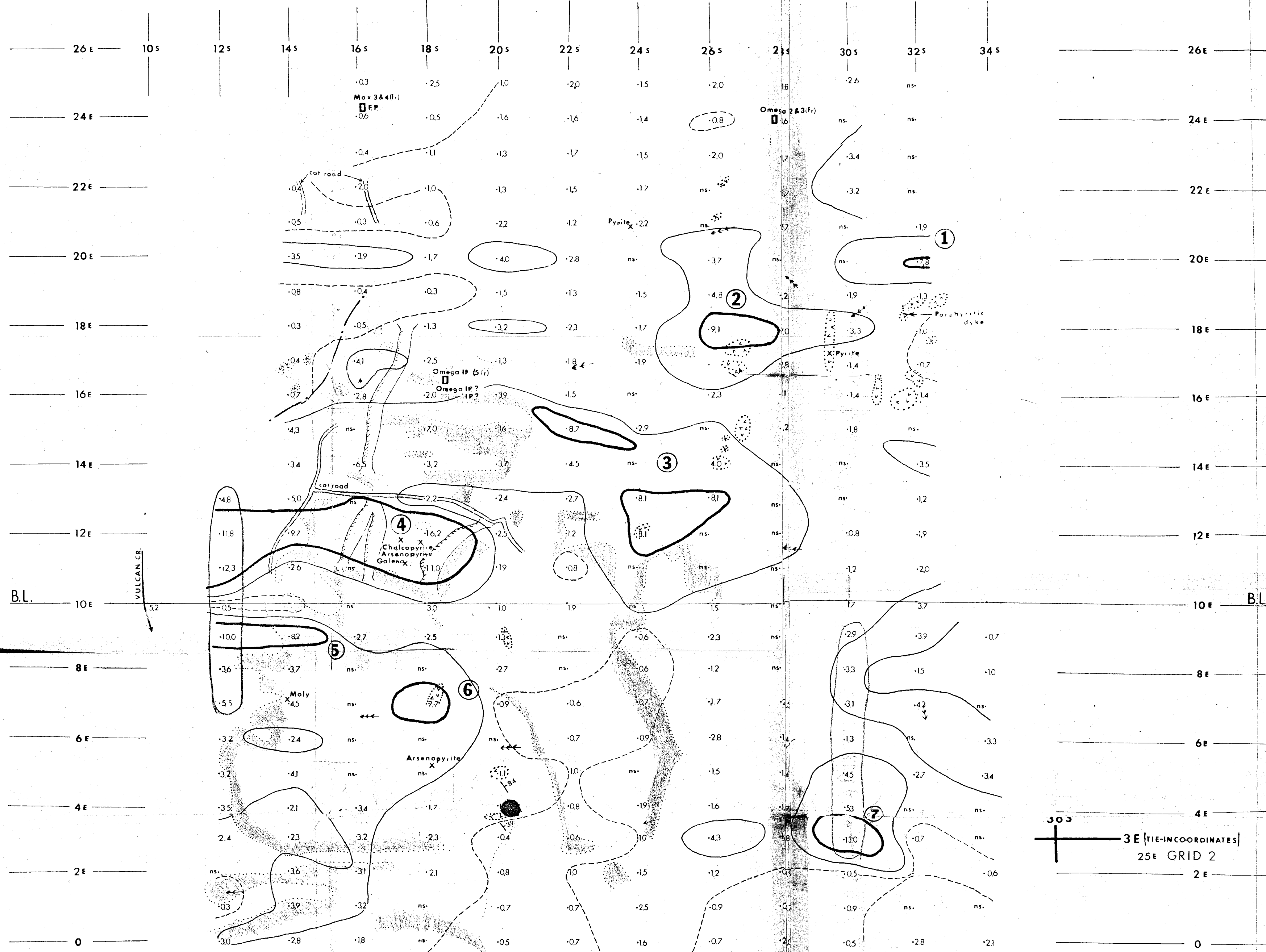
INTERPROVINCIAL SILVER MINES LTD.

Geochemical soil survey

SILVER

Vulcan Creek Property

DATE: JULY 1969	FIG NO: 3	SCALE: 1 in to 200 ft	FIELD WORK: E. W. YARROW DRAWN BY P. W. D.
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LEGEND

1. PARTS PER MILLION SILVER CONTOURS

- 1.0 ppm
- 3.0 ppm
- 7.0 ppm

2. GEOLOGY

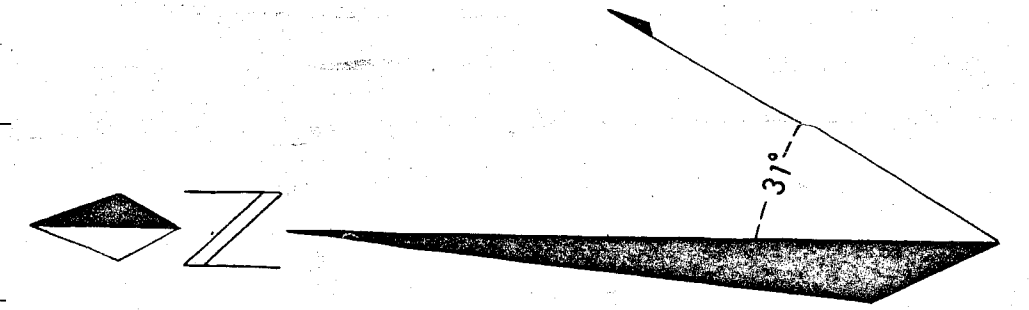
- Granodiorite
- Pink Granite
- Contact (assumed)
- Mineralized
- Frost heave
- Jointing
- ns No sample (frost heave and/or snow)
- Trenches
- Claim Posts

3. TOPOGRAPHY

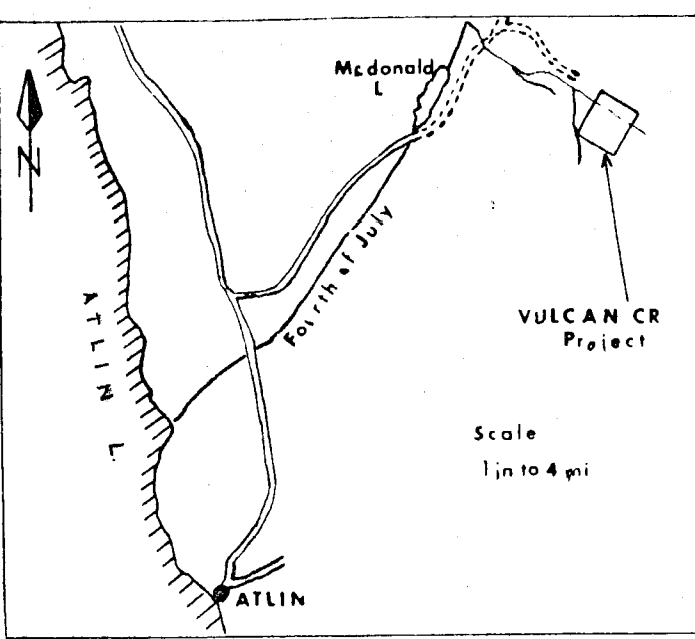
- Gentle slope
- Moderate slope
- Steep slope

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2203** MAP #1

3E [TIE-IN COORDINATES]
25E GRID 2

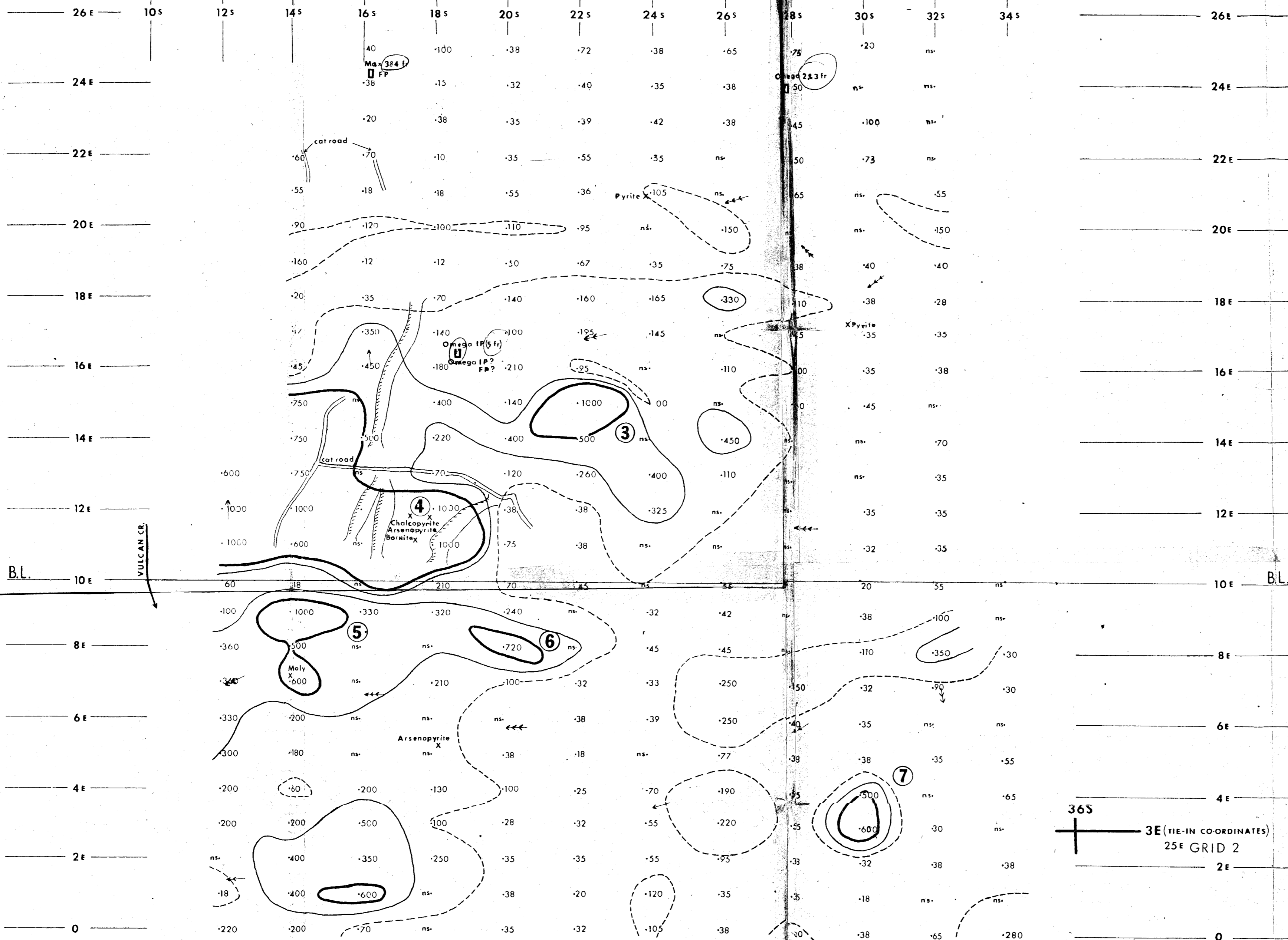


2203



DOLMAGE · CAMPBELL & ASSOCIATES CONSULTANTS
ASSOCIATED GEOLOGICAL SERVICES LTD.
INTERPROVINCIAL SILVER MINES LTD.
Geochemical soil survey for
SILVER
Vulcan Creek Property

DATE: JULY 1969 FIG NO: 1 SCALE: 1 in to 200 ft FIELD WORK: E. YARROW
DRAWN BY: P.W.D.



LEGEND

1. PARTS PER MILLION ARSENIC CONTOURS

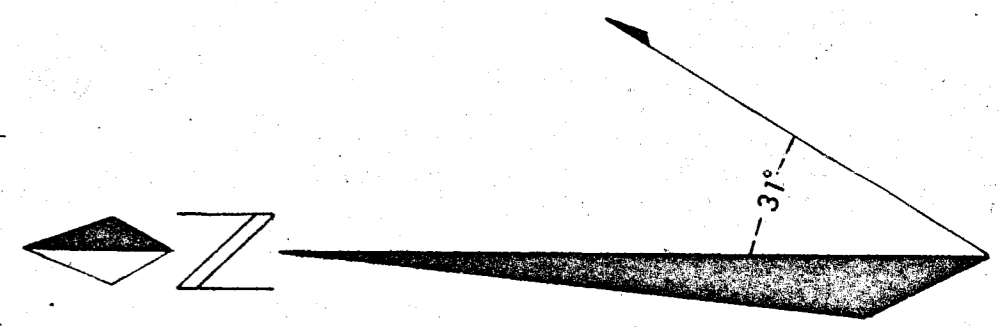
- 100 ppm
- 300 ppm
- 500 ppm

2. TOPOGRAPHY

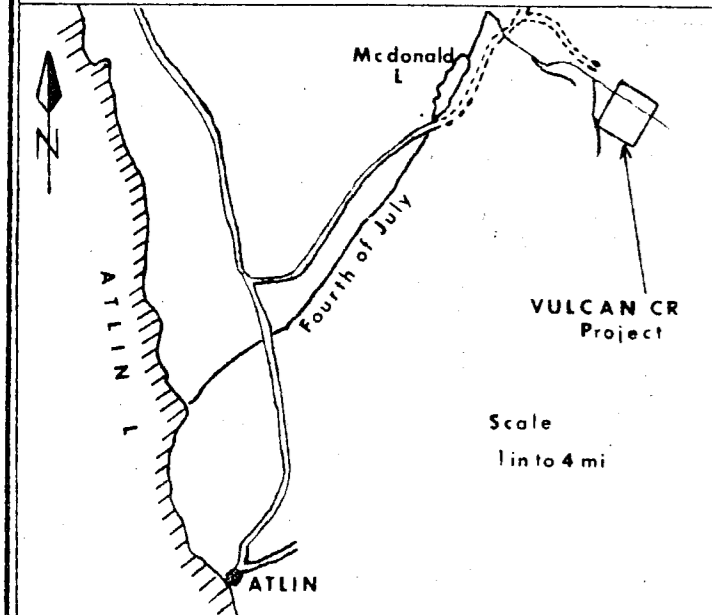
- Gentle slope
- Moderate slope
- Steep slope
- Mineralized
- No sample (frost heave and/or snow)
- Trenches
- Claim Post

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2203** MAP #**2**

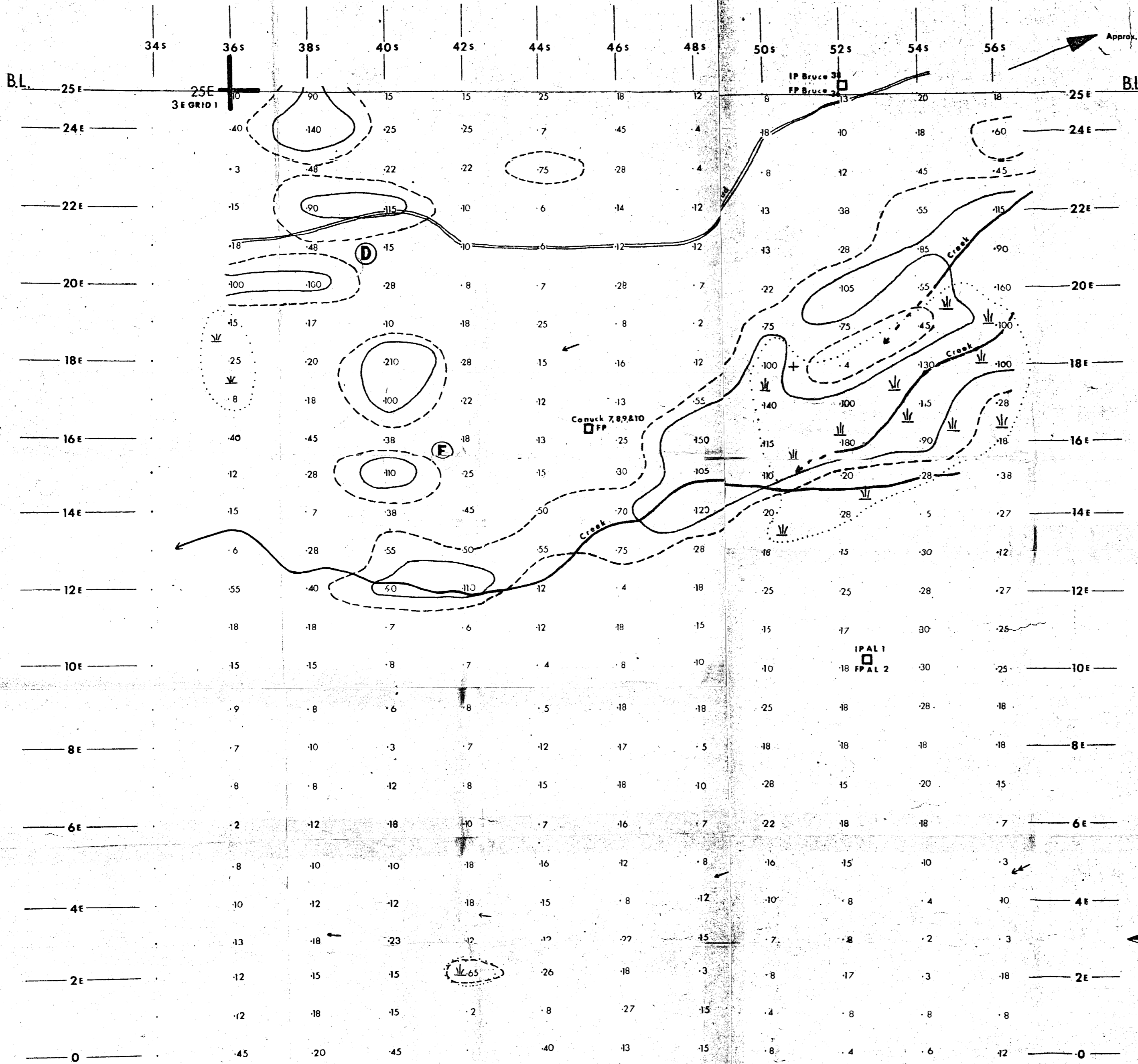
365
+-----+ 3E (TIE-IN COORDINATES)
25E GRID 2



2203



DOLMAGE - CAMPBELL & ASSOCIATES CONSULTANTS			
ASSOCIATED GEOLOGICAL SERVICES LTD.			
INTERPROVINCIAL SILVER MINES LTD.			
Geochemical soil survey for			
ARSENIC			
Vulcan Creek Property			
DATE	FIG NO:	SCALE:	FIELD WORK:
JULY 1969	2	1 in to 200 ft	E. YARROW
			DRAWN BY: P.W.D.



LEGEND

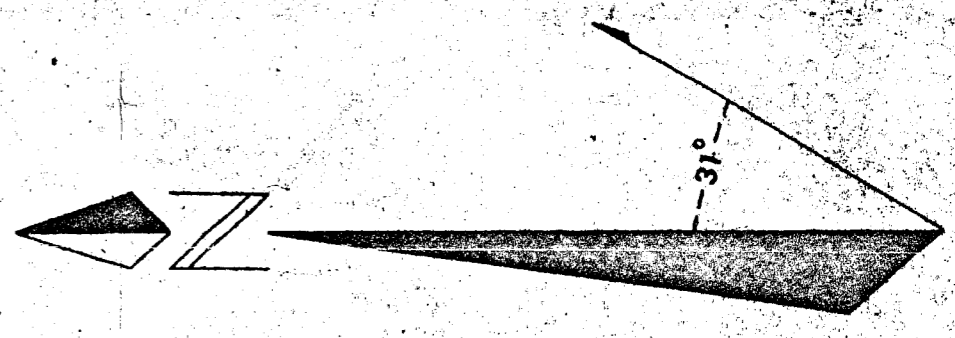
1. PARTS PER MILLION ARSENIC CONTOURS

- 50 ppm
- 80 ppm

2. TOPOGRAPHY

- + FLAT
- ↘ GENTLE
- ↘ MODERATE
- CLAIM POSTS
- ⌋ SWAMP, MUSKEG

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2203** MAP #4



2203

DOLMAGE - CAMPBELL & ASSOCIATES CONSULTANTS			
ASSOCIATED GEOLOGICAL SERVICES LTD.			
INTERPROVINCIAL SILVER MINES LTD.			
Geochemical soil survey for ARSENIC			
Vulcan Creek Property			
DATE: JULY 1969	FIG NO: 4	SCALE: 1 in. to 200 ft	FIELD WORK: E.W. YARROW DRAWN BY: P.W.D.

34s 36s 38s 40s 42s 44s 46s 48s 50s 52s 54s 56s