83-#990 - #12387
11/85
104B/8E

ASSESSMENT REPORT

GEOLOGICAL/GEOCHEMICAL WORK

ON THE FOLLOWING CLAIMS

JIM	#3623(11)	Jonas	#3625(11)
JOHN	#3624(11)	Jack	#3626(11)

LOCATED 47 AIR KILOMETERS NORTH OF STEWART, B.C.

LATITUDE 56°17'
LONGITUDE 130° 8'

SKEENA MINING DIVISION
NORTHWESTERN, BRITISH COLUMBIA

WORK BETWEEN AUGUST 24 - SEPTEMBER 17, 1983

ON BEHALF OF

BILLIKIN RESOURCES INC.
VANCOUVER, B.C.

REPORT BY

E.R. KRUCHKOWSKI, P.Geol.
23 Templeside Bay, N.E.,
Calgary, Alberta

-and-

D. Cremonese, P.Eng.
200-675 West Hastings Street
Vancouver, B.C.
V6B 4Z1

Dated: 15 August 1984

TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES

TABLES

INTRODUCTION

The gold-silver potential of the 4-J property was evaluated during August - September 1983 by Billikin Resources Inc. Work completed included claim staking, prospecting, rock and silt geochemistry, geological mapping and trenching and sampling.

The work was conducted by E.R. Kruchkowski Consulting Ltd. personnel of Calgary, Alberta and Billikin Resources Inc. personnel of Vancouver, British Columbia.

A total of 33 rock, 15 silt and 29 assay samples were collected and analyses performed by Acme Analytical Laboratories of Vancouver, B.C.

Location and Access

The 4-J property is located at 56°17' - 56°18' latitude and 130°5' - 130°10' longitude approximately 47 kilometers north of Stewart, B.C. and about 8 kilometers north of the Granduc Millsite in the Skeena Mining Division. Figure 1 shows the location of the mineral property.

Access to the property is presently by Bell 206 Long Ranger helicopter based in Stewart.

Access is also possible from a road that connects the East Gold property with the all weather Granduc Mine road.

In the event of a large program, all supplies and equipment could be hauled by flat deck truck to the Granduc air strip area, then by helicopter to the property. Alternatively, supplies for a small program could be driven to the East Gold area then flown the remaining 3 km by helicopter.

Physiography and Topography

The 4-J property area lies entirely within the Boundary Range of the Northern Coast Mountains and the region is one of complex mountainous topography at an early

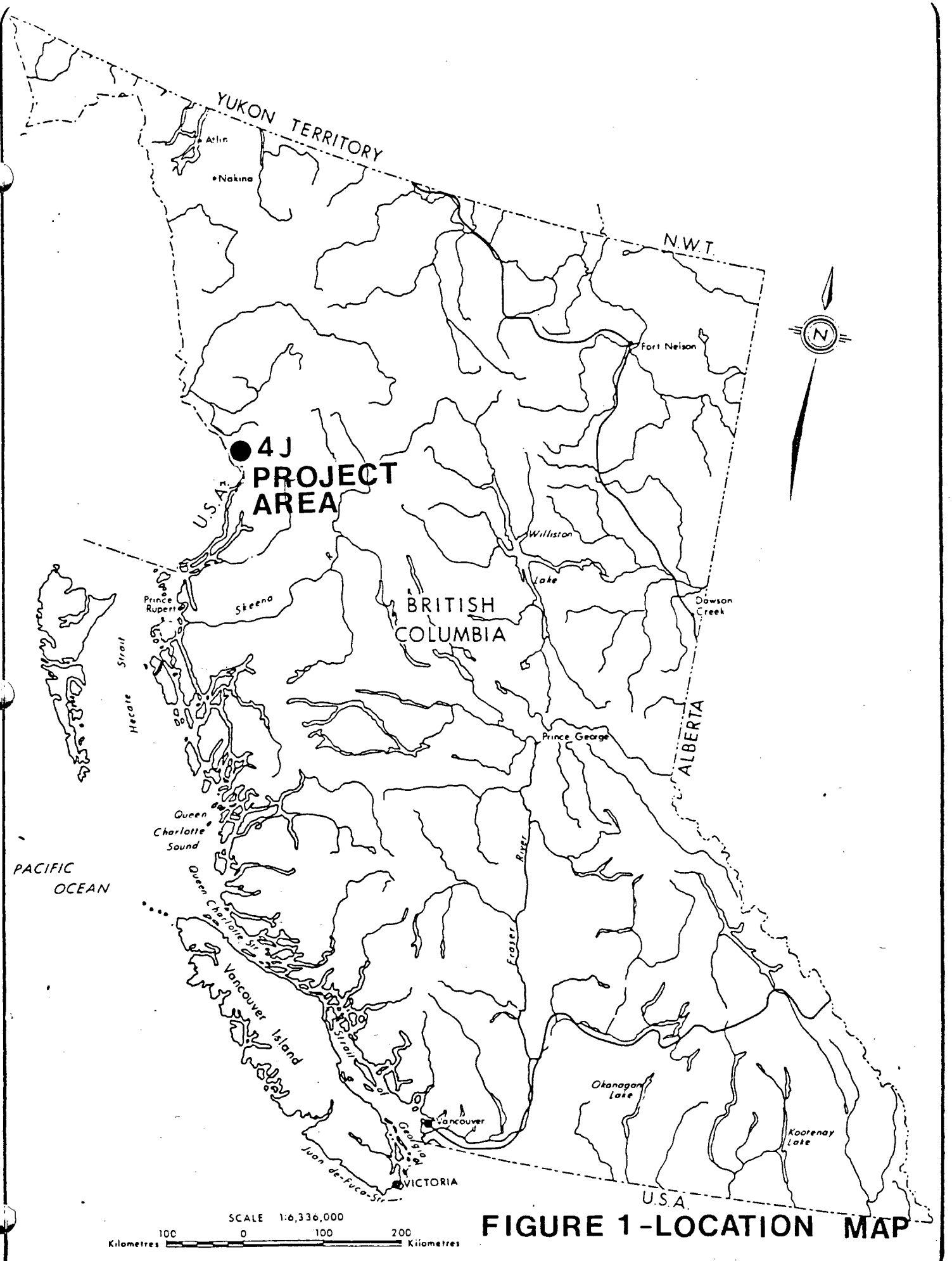


FIGURE 1 - LOCATION MAP

stage of maturity. The property is located along the south edge of the Frank Mackie Glacier and extends from the Bowser River on the east to the Frank Mackie Icefield on the west. Elevations on the property range from 610 m in the Bowser River Valley to 2260 m for the highest mountain peak on the property.

Along the Bowser River, the valley bottom is flat with broad elevated river terraces. Above the terraces, slopes rise gently across areas recently uncovered by the retreating glaciers. However, once this area is crossed, slopes rise steeply to precipitous rock faces and icefields.

Except for the river bottom, outcrop occurrence is good, generally exposed along the numerous creek beds. Near the icefields in the central portion of the property, rock exposure is almost 100% of the surface.

Property Ownership

The property consists of 6 MGS contiguous claims as follows:

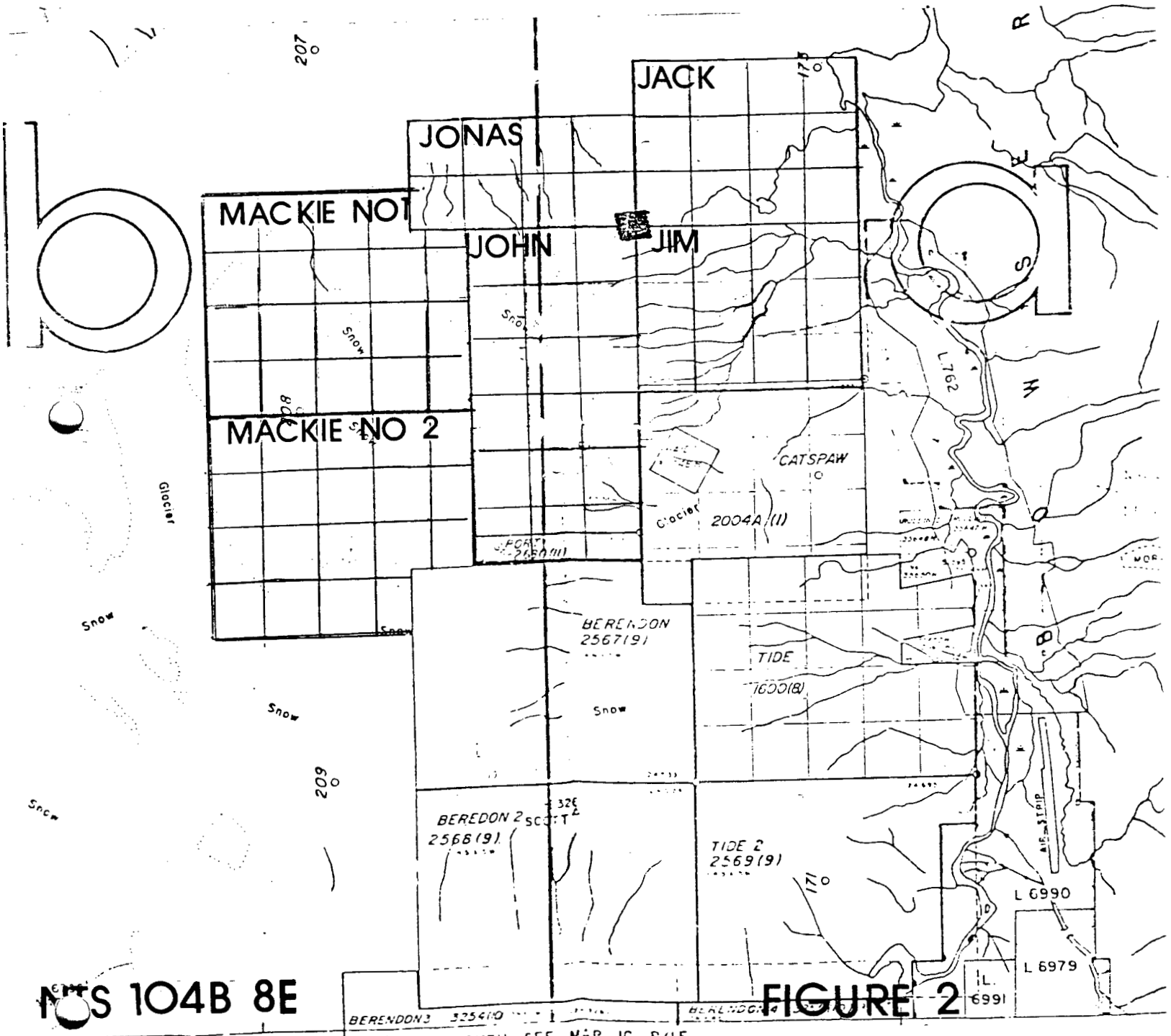
	Units	Record No.	Recorded
Jim	12	3623	1 November 1982
John	18	3624	1 November 1982
Jonas	8	3625	1 November 1982
Jack	12	3626	1 November 1982
Mackie No. 1	20		16 September 1983
Mackie No. 2	20		16 September 1983
	90		

Figure 2 shows the claim disposition. The John claim appears to overlap the Haida 1 mineral claim (31748). Billikin Resources Inc. own 100% undivided interest in the Mackie No. 1 and 2 claims and have optioned the Jim, John, Jonas and Jack claims from Teutron Resources Corporation.

Personnel and Operations

Personnel involved during the program are as follows:

E.R. Kruchkowski, Geologist, E.R. Kruchkowski Consulting Ltd.
September 13-17, 20, 21 1983



NTS 104B 8E

FIGURE 2

TO SOUTH SEE MAP 10 D/1E

MINERAL TITLES REFERENCE MAP

AND PETROLEUM RESOURCES

M. Cloutier, Prospector and Director, Billikin Resources Inc.
August 24-29, September 13-17, 20, 21 1983

D. Pegg, Geologist, Independant Consultant
August 24-29 1983

Personnel involved in the project were accomodated in a plywood frame tent camp located near a little lake on the Jack claim. The Bell 206 Long Ranger helicopter was utilized to transport personnel to the property as well as ferrying supplies and equipment from the camp site to the area of trenching.

All supplies and materials for the program were purchased in Stewart and ferried in via helicopter.

Previous Work

The first exploration activity in the 4-J area probably occurred during early gold exploration work on the nearby old Portland claim (Haida) and East Gold property.

Exploration efforts on these properties are summarized.

East Gold

This property was staked in or about 1926 when free gold was found in several large shear zones. During 1929 - 1930, the Consolidated Mining and Smelting Company of Canada Limited under an option agreement, put down 10 diamond drill holes to check these discoveries. With the exception of one hole, which intersected five feet carrying 8.72 oz gold and 8.78 oz silver per ton, the results of the drilling were disappointing and the option was relinquished. In 1931 and subsequent years, an adit was driven to intersect the vein with the high assay. When the vein was encountered, the light yellow electrum was mistaken for pyrite. By 1939, the electrum was recognized and a limited amount of mining

conducted from 1939-1945, 14 shipments of sorted ore totaling 16.25 tons was sent to the smelter. During 1949, 5 tons were hand cobbed and shipped. During 1950, 100 feet of drifting, 35 feet of stoping was conducted with a total of 18 tons of sorted ore sent to the smelter.

Total production in this period was 39.25 tons yielding 1533 oz Au and 4024 oz Ag.

Portland

The original 16 claims called the Portland Group were staked by Alphonse Thomas in 1934. Exploration was continued by Thomas to 1940 when the property was optioned to the Premier Gold Mining Company. Development included a 162 foot adit, a 10 foot adit and ten open cuts. This work indicated a number of quartz veins and silicified zones containing pyrite and arsenopyrite which assayed as high as 0.98 oz Au/T and 0.7 oz Ag/T. Another zone with pyrite, arsenopyrite, galena and sphalerite assayed 1.15 oz Au/T and 3.2 oz Ag/T.

In 1980, Can-Lake Explorations conducted exploration work in the area on behalf of E & B Explorations Ltd. The work included reconnaissance mapping and sampling of exposed workings. Sampling indicated assays ranging from 0.14 - 2.288 oz Au/T and 0.12 - 2.53 oz Ag/T.

Little if any obvious work has been conducted in the area of the 4-J claims.

GEOLOGICAL SURVEYS

Regional Geology

The 4-J property lies in the Stewart area which encompasses two main geological elements of northern British Columbia. It is east of the main Coast Crystalline Complex and is on the western edge of the Bowser Basin. Rocks in the area are apparently of Mesozoic age belonging to the Hazelton Group intruded by small plugs of diorite and syendiorite.

Within the Stewart area, Lower Jurassic Hazelton Group rocks which include an extensive sequence of volcanic and sedimentary rocks are unconformably overlain by Middle and Upper Jurassic Bowser rocks which are comprised of a series of non-marine and marine sediments with minor volcanics.

The oldest rocks in the project area as outlined by Grove's map titled Geology of the Unuk River - Salmon River - Anyox Map Area appears to be the Unuk River formation of Lower Jurassic age. These rocks vary in composition from green, red and purple volcanic breccia, conglomerate,sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and coal. The formation appears to form a belt or zone of rocks extending from the Iskut River south to the Alice Arm area.

Grove indicates that in the Frank Mackie Glacier - Bowser River area, the Salmon River formation of late Middle Jurassic age occurs as an erosional remnant. The Salmon River rocks include dark color banded siltstones, greywackes, intercalated calcarenite (limestone) and a variety of volcanic sediments and a few flow rocks. The underlying Betty Creek formation of Lower Middle Jurassic age consists of green, red, purple and black volcanic breccia, conglomerate, sandstone and siltstone with minor crystal and lithic tuffs, chert limestone and lava.

The bulk of the Hazelton rocks were derived from a uniform sequence of andesitic volcanics which after erosion were deposited as lenticular overlapping beds. Many units display lateral fragment size gradation from large breccia chunks through conglomerate to sandstone and siltstone.

Granodiorite is the dominant rock of the Coast Crystalline Batholith. Stocks and plutons generally varying from quartz monzonite, quartz diorite to granite are associated intrusive phases.

Structurally, the Betty Creek and overlying Salmon River units have been folded into doubly plunging, east-west trending syncline overlying the more massive Unuk River members. These canoe - fold structures are common within the Stewart complex reflecting half graben development.

Local Geology

During the exploration program, reconnaissance geological mapping was conducted using a 1:50,000 scale map, NTS 104 B/8 Frank Mackie Glacier for survey control. Results of this mapping were plotted on an enlargement of the 1:50,000 scale map and shown in Figure 3, 1:10,000.

The main area examined on the property included the John, Jack and Jim claims. This area is predominantly underlain by thinly banded argillites and andesitic volcaniclastics cut by a variety of feldspar porphyry dykes. These volcaniclastics appear to belong to the Unuk River formation and appear to be conformably overlain by the Betty Creek formation along the west edge of Bowser River.

The rocks along the western portion of the area examined, consists of dark green to grey thinly bedded andesitic tuffs. Minor narrow argillite bands varying from 1-10 m in width are interbedded with these tuffs.

Both the tuffs and argillites are cut by dark green "silicious" appearing feldspar porphyry dykes. These dykes vary from 2 m up to 20 m in width and appear to strike approximately north-south. The dyke is a massive rock with occaissional subhedral to euhedral feldspar phenocrysts from 5 mm up to 2 cm in width occurring in a coarse grained feldspar rich ground mass. Mafics which form less than 5% of the rock appear to be altered to chlorite. Fine grained disseminated pyrite forms up to 1 - 2% of the rock.

East of the above tuffs, a wide zone of highly fissile and contorted black argillites occur. Bedding measurements indicate a strike of approximately 270 - 285° with steep dips to the north-northeast. The argillites are thinly bedded with individual beds 1 cm to 15 cm in thickness. Minor pyrite occurs as blebs and fracture fillings and as grains along bedding planes, usually forming less than 5% of the rock.

Overlying these argillites is another band of thinly bedded green to grey andesitic tuffs. These tuffs are dense, fine grained with abundant pyrite along fractures. Due to the pyrite, these rocks weather a bright orange-brown color. These tuffs are cut by medium grained feldspar porphyry dykes with hornblende and/or biotite up to 7-8% altered to chlorite.

Along the northwest corner of the Jack claim, a large feldspar porphyry stock or plug outcrops. This rock is a dark to light green with a highly foliated appearance. Fine feldspar phenocrysts occur in small amounts within an aphanitic appearing ground mass. Trace amounts of pyrite were noted in this rock.

The andesitic tuffs appear to be overlain by a thinly bedded sequence of green to red tuffs with minor coarse pyroclastic rocks. This sequence is correlated with the bottom of the Betty Creek formation occurring along the west edge of Bowser River.

Along or near the Bowser River, the tuffs are variably altered to sericite schists with a large pyrite content. These sericite schist zones are from 1 m up to 5 m in width extending up to 10-40 m in length within the tuffs.

On the John and Jonas claim, a wide zone of sericite alteration appears to extend north-south across the entire property. This zone appears to be from 10 up to 50 m in width and consists of a sericite altered rock variably silicified. Unaltered, brecciated argillite and tuffs were also noted within this zone. This zone contains abundant pyrite as disseminations and as fracture fillings and as a result weathers dark orange-brown. The altered rocks in the zone appear a mottled grey to white on fresh surfaces with abundant narrow calcite stringers. These calcite stringers appear to cut the mineralized pyrite stringers. Figure 4 shows the geology of the above area.

Within the above alteration zone, three different types of mineralization have been noted:

1. massive galena, tetrahedrite, sphalerite and pyrite stringers up to 15 cm wide
2. blebs, disseminations and fracture fillings of galena, tetrahedrite, sphalerite and pyrite in quartz stockworks and breccias in graphitic argillites
3. coarse tetrahedrite in large angular quartz boulders

The source of the quartz boulders is likely beneath the icefield immediately to the west of the mineralized zone. The tetrahedrite occurs as coarse blebs in amounts up to 30% in these boulders.

Minerals noted in the above zone included tetrahedrite, a bright silver grey coarse crystalline galena,as well as a dark grey non-lustrous steel galena, amber to yellow sphalerite and coarse granular pyrite. Secondary minerals included malachite, hydrozincite, manganese stain, green as well as bright yellow and orange arsenic minerals probably orpiment.

Beside yielding the secondary copper and arsenic minerals, the tetrahedrite weathers white on exposed surfaces making detection difficult.

Economic Geology

As described previously, mineralization on the 4-J property consists of galena, tetrahedrite, sphalerite and pyrite occurring as veins, blebs and dissemination and tetrahedrite in large angular quartz boulders.

Grab and chip sampling on the mineralized zones has indicated assay values ranging from 0.001 - 0.098 oz Au/T, 0.06 - 39.50 oz Ag/T with 0.01 - 1.81% Cu, 0.03 - 64.5% Pb and 0.03 - 38.10% Zn for widths from 10 cm - 1.9 m. This sampling indicated a zone of mineralization measuring approximately 50 m wide by 75 m in length with veins, stockworks and breccia controlled mineralization within this zone. Appendix I contains all the assay results for sampling on the property.

Sampling of coarse crystalline galena has yielded the highest silver assays (38571 - 38572 and 38575 - 39.50, 33.90 and 25.68 oz Ag/T respectively).

The large angular quartz float with abundant coarse tetrahedrite generally indicated low gold results and an average silver content of approximately 6-7 oz.

The wide quartz stockwork zones have yielded low gold and silver assays with the exception of grab samples of the massive stringers and pods within this stockwork. A complete description of the assay samples are in Appendix II.

At present, work has explored only a small portion of the long sericite, pyrite alteration zone.

The property lies a short distance north of the East Gold prospect and known gold mineralization at the old Portland showing as well as about 10.5 kilometers north of the producing Scottie Gold mine; all in the rocks of the Hazelton Group. Combined with the recent success by Scottie in increasing gold reserves, the gold discovery in the Granduc Millsite area and discovery of native gold on the Tide claims, it appears that the 4-J property is well located in terms of known gold occurrences.

It is recommended that a more thorough exploration program be conducted on the 4-J property. This program should incorporate further prospecting and trenching and geological mapping.

GEOCHEMICAL SURVEYS

Silt Geochemistry

A geochemical silt survey was conducted over the property area in such a manner that all the streams were tested at least at one location. The survey utilized a "Le Trap" gold pan to collect 15 samples, each approximately 30-40 grams in weight.

This gold pan consisted of a 25 cm x37.5 cm rectangular plastic pan with reserve slope riffles to the centre measuring 15 cm x 15 cm. Three screen sizes from 5 mm to -80 mesh were used to reduce the sample size and eliminate the coarse fraction.

Samples were placed in numbered kraft paper envelopes and the samples air dried before shipment to the laboratory.

Geochemical analyses were performed by Acme Analytical Laboratories of Vancouver, B.C. The samples were dried, sieved to - 80 mesh, dissolved in a perchloric -nitric acid solution and Au and Ag detected by atomic absorption methods. Geochemical analyses are listed in Appendix III.

Separate cumulative frequency plots were established for both gold and silver (Appendix V). The 50 percentile was considered as mean or background while the 97.5 percentile on the straight line plot was considered as threshold. Table I shows the means and calculated threshold for the silt sampling.

TABLE I

Mean and Threshold Values - Silt Sampling

Element	Mean	Threshold
Au	30 ppb	80 ppb
Ag	0.4 ppm	1.0 ppm

Figures 6 and 7 show the distribution of Au and Ag respectively in silts.

Interpretation of the results are discussed for the separate elements as follows.

Gold

Utilizing the threshold value of 80 ppb, the data plot for gold indicates five anomalous stream sites.

Three of the anomalous sites 1-27-08-83-Dp, 2-27-08-83-Dp and 5-27-08-83-Dp drain an area of highly pyritic argillites. Values for these sites vary from 95-210 ppb Au.

The other two anomalous sites (MC-8-27-3 and MC-8-27-4) are within tuffs and argillites downhill and north of the sericite-pyrite alteration zone trending north-south across the John and Jonas claims. Values for these two sites vary from 175 - 245 ppb Au.

Silver

Utilizing the threshold value of 1 ppm, the data plot for gold indicates 6 anomalous stream sites.

The silver anomalies show a strong correlation with the gold anomalies. Four of the anomalous sites are near each other in an area of highly pyritic argillites. These sites are 2-27-08-83-Dp, 3-27-08-83-Dp, 4-27-08-83-Dp and 5-27-08-83-Dp and have values ranging from 1.2 - 1.6 ppm.

The other two silver anomalies correspond with the gold anomalies MC-8-27-3 and MC-8-27-4. Values are 1.0 and 1.1 ppm silver respectively for the above sites.

Rock Geochemistry

In conjunction with the silt survey, representative rock types were collected and analysed for gold and silver. This type of sampling was random and determined by geology and mineralogy, ie. presence of abundant sulphides.

A total of 29 samples were collected from the 4-J property with 4 samples collected from the sericite-pyrite alteration zone surrounding the East Gold mineral zone for use as a comparison.

Each sample collected weighed approximately 50 grams and was placed in an appropriately numbered kraft sample bag.

Geochemical analyses were performed by Acme Analytical Laboratories of Vancouver, B.C. The samples were crushed, sieved to - 80 mesh, dissolved in a perchloric -nitric acid solution and Au and Ag detected by atomic absorption methods. Geochemical results are located in Appendix IV.

Separate cumulative frequency plots were established for both gold and silver (Appendix V). The 50 percentile was considered as mean or background while the 97.5 percentile on the straight line plot was considered as threshold. Table 2 shows the means and calculated threshold for the rock sampling.

TABLE II

Mean and Threshold Values - Rock Sampling

Element	Mean	Threshold
Au	5 ppb	120 ppb
Ag	0.6 ppm	1.5 ppm

Figures 8 and 9 show the distribution of Au and Ag respectively in the rocks.

Interpretation of the results are discussed for the separate elements as follows:

Gold

Utilizing the threshold value of 120 ppb, the data plot for gold indicates 3 anomalous sites.

Two of these sites 38568 and 38569 are taken from tetrahedrite and pyrite rich rock respectively in the zone of sericite-pyrite alteration. Values vary from 7300 - 2200 ppb respectively for the above sites. Two other samples in the area , 9 and 10, indicated background values in the sericite schist away from the mineralization.

The third anomalous site was sample No. 2, taken from a pyritic malachite stained argillite close to the sericite-pyrite alteration zone.

None of the samples collected near the East Gold mineralization indicated anomalous values in gold.

Silver

Utilizing the threshold value of 1.5 ppm, the data plot for silver indicates 8 anomalous sites.

The silver anomalies show a strong correlation with the gold anomalies with several exceptions.

The strongest anomalies correlate with the strong gold values at sites 38568 and 38569. Values vary from 39.5 - 25.5 ppm Ag respectively. These values correspond to known tetrahedrite and pyrite mineralization.

The anomaly at sample site No. 2 (7.1 ppm) corresponds to a strong gold anomaly in pyritic argillite.

Two anomalies 38551 (5.6 ppm) and 39558 (5.3 ppm) occur in rocks near a large feldspar porphyry plug. These anomalies may be related to the high pyrite content in these rocks.

Three of the four samples collected at East Gold indicated anomalous values in silver (2.2-2.9 ppm).

Based on the rock geochemical survey, it would appear that any mineral zones have subtle gold and silver geochemical expressions with values decreasing rapidly with distance from the known mineralization.

As a result, it is recommended no further rock geochemistry be conducted. Instead, more detailed silt geochemistry in conjunction with detailed prospecting should be conducted over the property area particularly in the area of the Jonas and John claims.

CONCLUSIONS

1. The Billikin Resources Inc. 4-J property is located in an area of known gold occurrences and deposits.

2. Geological mapping has indicated that the project area is underlain by Hazelton volcaniclastic rocks cut by a variety of feldspar porphyry dykes.

3. Gold, silver, lead, zinc and copper mineralization occur within a wide zone of sericite, pyrite alteration trending north-south across the John and Jonas claims. Three types of mineralization have been noted:

   a) massive galena, tetrahedrite, sphalerite and pyrite stringers up to 15 cm wide
   b) blebs, disseminations and fracture fillings of galena, tetrahedrite, sphalerite and pyrite in quartz stockworks and breccias
   c) coarse tetrahedrite in large angular quartz boulders

4. Grab and chip sampling on the mineralized zones has indicated assay values ranging from 0.001 - 0.098 oz Au/T and 0.06 - 39.50 oz Ag/T over widths from 10 cm - 1.9 m. The sampling indicated an extensive area of mineralization measuring approximately 50 m wide by 75 m in length.

5. Geochemical silt sampling indicated anomalous sites for Au and Ag.

6. Geochemical rock sampling indicated anomalous sites for Au and Ag.

7. Further work consisting of detailed silt geochemistry, further prospecting, trenching and geological mapping is recommended for the property.

Respectfully Submitted on
Behalf of E. Kruschkowski, P. Geol.

D. Lemoine, P. Eng.

Aug. 14, 1984

REFERENCES

Annual Report, Minister of Mines, British Columbia

1934 p B29
1939 p A66
1940 p A52
1946 p A74, A77

Fawley, A.P., 1947

An Electrum - Ruby Silver, Deposit at East Gold Mine, B.C.
The Canadian Institute of Mining and Metallurgy

Grove, E.W., 1971

Geology and Mineral Deposits of the Stewart Area, B.C.
British Columbia Department of Mines and Petroleum Resources
Bulletin No. 58

Grove, E.W., 1982

Unuk River, Salmon River, Anyox Map Areas
Ministry of Energy, Mines and Petroleum Resources

Grove, E.W., 1983

The Catspaw Property, Bowser River Area; Stewart District, British Columbia

Kruchkowski, E.R., 1981

Exploration Summary - Catspaw Claim for E & B Explorations Ltd.

APPENDIX I

WORK COST STATEMENT

WORK COST STATEMENT

Field Personnel

E. Kruchkowski, P.Geol, Project Geologist		
September 13,14,15,16,17,20,21: 7 days @ $30/day	$ 2,100	
M. Cloutier, Prosepctor/Blaster, Geochem Sampler Aug. 24-29 (incl.), Sept. 13-17(incl), 20,21: 13 days @ $250/day	3,250	
D. Pegg, Geologist, Geochem Sampler Aug 24-29 (incl): 6 days @ $150/day	900	
	$ 6,250	
Less: Physical work portion, estimated at	2,750	
	$ 3,500	$ 3,500
Mobilization/demobilization Vancouver,Calgary to Stewart & return 20% of $ 2,400		480

Field Costs (Geological portion of work only)

Helicopter: 8.1 hrs. @ $653/hr =$5,289.30 less $ 2,500 (physical)	2,789
Tent Frame Lumber	650
Food Allowance - 26 man days @ $30/day (none charged under physical)	840
Tent & Equipment Rental: 13 days @$20/day	260
Truck Rental: 13 days @$30/day (all found)	390
Supplies: Kerosene, gas, sample bags, etc.	140
Accommodation: 4 days @ $45/day	180
Freight Samples	60

Assays

43 Cu, Pb, Zn, Ag, Au, Analysis Rock Samples @ $23/sample	989
15 Au, Ag, Geochem Silts @ $6/sample	90
33 Au, Ag rock Geochem @ $7.50/sample	248

Report Cost:

E. Kruchkowski, P.Geol: Compilation, report and map preparation, sample prep. etc. - 5days @ $300/day	1,500
Draughting: 40 hours @ $15/hr.	600
Typing	250
Costs: Blow-ups, Mylar, courier, report copies, prints, etc.	180
	$ 13,146

D9.

APPENDIX II

CERTIFICATE - E. KRUCHKOWSKI, P.Geol.

CERTIFICATE

I, Edward R. Kruchkowski, Geologist residing at 23 Templeside Bay, N.E. in the city of Calgary in the province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.

2. I have been practising my profession continuously since graduation.

3. I am a member of the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.

4. I am a consulting geologist working on behalf of Billikin Resources Inc.

5. This report is based on a review of data and maps supplied by Billikin Resources Inc. and my experience and knowledge of the area obtained during August-September 1983.

6. I hold no direct or indirect interest in the 4-J property or securities of Billikin and do not expect to receive any such interest.

7. I consent to the use of the accompanying report in a prospectus or information circular issued by Billikin Resources Inc.

Feb 15/84
Date

E.R. Kruchkowski, B. Sc.

APPENDIX III

CERTIFICATE - D. CREMONESE, P.Eng.

CERTIFICATE

I, Dino M. Cremonese, do hereby certify that:

1. I am a Consulting Engineer with an office at 200-675 West Hastings Street, Vancouver, British Columbia, V6B 4Z1.

2. I am a graduate of the University of British Columbia: B.A.Sc (Metallurgical Engineering) 1972, L.L.B. 1979.

3. I am a registered Professional Engineer in the Province of British Columbia.

4. I have practised my profession since 1979.

5. I completed the Work Cost Statement (Appendix I- Assessment Report) based on receipts and invoices supplied to me by Billikin Resources Inc.; the geological information presented in the report is derived wholly from E. Kruchkowski, P.Geol., who was in charge of the 1983 field program.

6. I am a principal of Teuton Resources Corp., owner of the Jim, John, Jonas and Jack claims.

Respectfully submitted,

D. Cremonese

D. Cremonese, P.Eng.

13 August 1984.

APPENDIX IV

ASSAY RESULTS

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED SEPT 19 1983

DATE REPORTS MAILED Sept 21/83

ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PRULVERIZED TO -100 MESH.

ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

BILLIKIN RESOURCES LTD FILE # 83-2196 PAGE# 1

SAMPLE	CU %	PB %	ZN %	AG OZ/TON	AU OZ/TON
03870	.37	.03	.02	.40	.022
03871	.01	64.50	.68	39.50	.056
03872	.01	54.10	1.69	33.90	.042
03873	.25	9.94	3.98	2.03	.074
03874	.08	3.04	.52	.62	.012
03875	.01	48.60	.14	25.68	.026
03876	.33	18.90	5.38	6.30	.098

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED SEPT 27 1983

DATE REPORTS MAILED Sept 29/83

ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PRULVERIZED TO -100 MESH.

ASSAYER _____ DEAN TOYE, CERTIFIED B.C. ASSAYER

BILLIKIN RESOURCES LTD FILE # 83-2328 PAGE# 1

SAMPLE	CU %	PB %	ZN %	AG OZ/TON	AU OZ/TON
38577	.17	10.68	3.24	1.69	.066
38578	.20	.74	4.28	.19	.035
38579	.01	.18	.10	.06	.016
38580	.32	5.59	2.68	3.34	.017
38581	.01	.11	.13	.06	.001
38582	.15	5.56	4.98	1.39	.054
38583	.03	.06	.03	.09	.009
38584	.15	.05	18.20	.18	.050
38585	.03	.32	1.02	.24	.007
38586	.23	2.71	5.71	1.66	.013
38587	.01	.32	2.38	.22	.009
38588	.59	21.40	30.20	5.68	.038
38589	.07	1.52	1.18	.63	.008
38590	.16	2.24	3.82	.96	.008
38591	.01	.06	.12	.06	.002
38592	1.81	8.59	38.10	6.08	.034
38593	.47	8.35	19.40	4.12	.024
38594	.16	2.99	3.08	1.27	.014
38595	.02	.22	.14	.22	.005
38596	.83	6.60	.81	2.94	.003
38597	.12	.04	.15	1.32	.018
38598	.12	.78	5.46	42.30	3.984
1	.01	.01	.01	.04	.003
2	.09	.01	.03	.32	.019
3	.01	.02	.01	.01	.001
4	.01	.01	.01	.01	.002
5	.01	.01	.01	.01	.001
6	.01	.01	.02	.01	.002
7	.01	.01	.04	.01	.001
8	.01	.01	.02	.01	.001
9	.01	.03	.01	.01	.001
10	.01	.01	.01	.01	.002
11E	.01	.01	.03	.02	.002
12E	.01	.01	.06	.08	.003
13E	.01	.01	.01	.08	.002
14E	.01	.02	.03	.04	.001

APPENDIX V

SAMPLE DESCRIPTIONS

4-J SAMPLES

SAMPLE NO.	WIDTH	DESCRIPTION
038570	Grab (float)	Massive pyrrhotite, pyrite, chalcopyrite.
038571	Grab (float)	Massive galena, tetrahedrite, sphalerite.
038572	Grab (float)	Quartz with massive galena, minor tetrahedrite and sphalerite.
038573	Grab (float)	Silicified argillite breccia with minor galena, sphalerite - sulphides $\lesssim$ 10% in bands.
038574	Grab (float)	Quartz with 5-10% tetrahedrite and minor galena.
038575	Grab (float)	Massive galena (streaky) or jamesonite?, minor tetrahedrite $\lesssim$ 50%.
038576	Grab (float)	45 x 60 cm boulder with coarse fracture controlled tetrahedrite 50% minor coarse sphalerite, traces galena.
038577	Grab	Quartz with massive tetrahedrite and fine amber sphalerite out of trench - sulphides $\lesssim$ 50%.
038578	Grab	Trench sample - argillite breccia with quartz stockwork - coarse sphalerite, tetrahedrite, minor galena.
038579	1.22 m	Grey, sericitic rock with minor pyrite veinlets with tetrahedrite and fine silver-grey crystals.
038580	2.5 m	High weathered quartz with abundant green-yellow secondary minerals, minor galena and tetrahedrite.
038581	2.6 m	Altered rock with fine pyrite disseminations and veinlets, trace tetrahedrite and sphalerite.
038582	Grab (float)	Same type as sample 038576 - boulder 45 cm x 75 cm.
038583	8 cm	Argillite breccia with quartz stockwork with coarse pyrite.
038584	15 cm	Massive pyrite and sphalerite.

SAMPLE NO.	WIDTH	DESCRIPTIONS
038585	1 m	Graphitic schist with contorted quartz veinlets $\prec$ 25% trace pyrite.
038586	0.8 m	Quartz rich zone with minor graphite, fine galena, tetrahedrite, sphalerite with steel galena along zone with 038585.
038587	0.69	Graphitic schist with quartz veinlets $\prec$ 15% - minor pyrite, trace galena, sphalerite, tetrahedrite.
038588	0.28	Massive steel galena and sphalerite, minor graphite.
038589	1.5 m	Intense quartz stockwork with graphitic bands, coarse sphalerite blebs, minor galena as fine disseminations, minor pyrite sulphides $\prec$ 5%.
038590	1.9 m	Graphitic schist with quartz veinlets $\prec$ 15%, minor tetrahedrite, galena, sphalerite and pyrite $\prec$ 5%.
038591	1.7 m	Graphitic schist with quartz veinlets $\prec$ 5% minor pyrite.
038592	Grab	Select grab out of sample 038586 - massive steel galena seam.
038593	Grab	Select grab out of trench - massive tetrahedrite and sphalerite $\prec$ 60%.
038594	1.4 m	Graphitic schist with 10% quartz veinlets minor coarse tetrahedrite and sphalerite $\prec$ 5%.
038595	1 m	Graphitic schist with 10% quartz veinlets, minor pyrite.
038596	Grab	Select grab of quartz in graphitic schist with tetrahedrite, sphalerite, pyrite and galena.
038597	Grab	Quartz + sericite schist minor sphalerite, pyrite, chalcopyrite EAST GOLD.
038598	Grab	Same.

4-J ROCK GEOCHEM SAMPLES

#1	-	Sericite-pyrite schist with minor narrow quartz veinlets.
#2	-	Argillite with pyrite $\sim$ 5% minor malachite stain.
#3	-	Black volcanic or argillite with calcite stockwork.
#4	-	Same as above, with 4% fine pyrite.
#5	-	Grey altered sericitic, pyritic rock - weathers brown.
#6	-	Same as above.
#7	-	Same as above.
#8	-	Same as above.
#9	-	Grey altered sericitic pyritic rock - area of rock geochem 038568.
#10	-	Grey altered secicitic, pyritic rock- area of rock geochem 038568.
#11E	-	Drill core - sericite - pyrite schist (East Gold).
#12E	-	Drill core - sericite - pyrite schist (East Gold).
#13E	-	Sericite - pyrite schist (East Gold).
#14E	-	Sericite - pyrite schist (East Gold).

APPENDIX VI

GEOCHEMICAL SILT SAMPLE RESULTS

SAMPLE	AG PPM	AU* PPB
1-26-08-83-MC	.6	25
2-26-08-83-MC	.6	70
3-26-08-83-MC	.6	10
4-26-08-83-MC	.6	15
5-26-08-83-MC	1.0	75
6-26-08-83-MC	.8	15
1-27-08-83-DP	.8	180
2-27-08-83-DP	1.2	95
3-27-08-83-DP	1.3	40
4-27-08-83-DP	1.6	30
5-27-08-83-DP	1.2	210
MC-8-27-1	.3	10
MC-8-27-2	.4	15
MC-8-27-3	4.0	175
MC-8-27-4	1.1	245

APPENDIX VII

GEOCHEMICAL ROCK SAMPLES

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED SEPT 6 1983

DATE REPORTS MAILED Sept 9/83

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : AG.
SAMPLE TYPE : P1 ROCK P2 SILT
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

BILLIKIN RESOURCES LTD FILE # 83-2025 PAGE# 1

SAMPLE	AG PPM	AU* PPB
038551	5.6	80
038552	.5	5
038553	.2	5
038554	1.8	40
038555	.3	30
038556	.4	5
038557	.1	5
038558	5.3	5
038559	.1	5
038560	.7	5
038561	.2	5
038562	.3	75
038563	.4	5
038564	.5	30
038565	.3	5
038566	1.1	60
038567	.3	15
038568	39.5	7300
038569	25.5	2200

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253 3158 TELEX:04-53124

DATE RECEIVED JAN 11 1984

DATE REPORTS MAILED Jan 12/84

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : AG.
SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

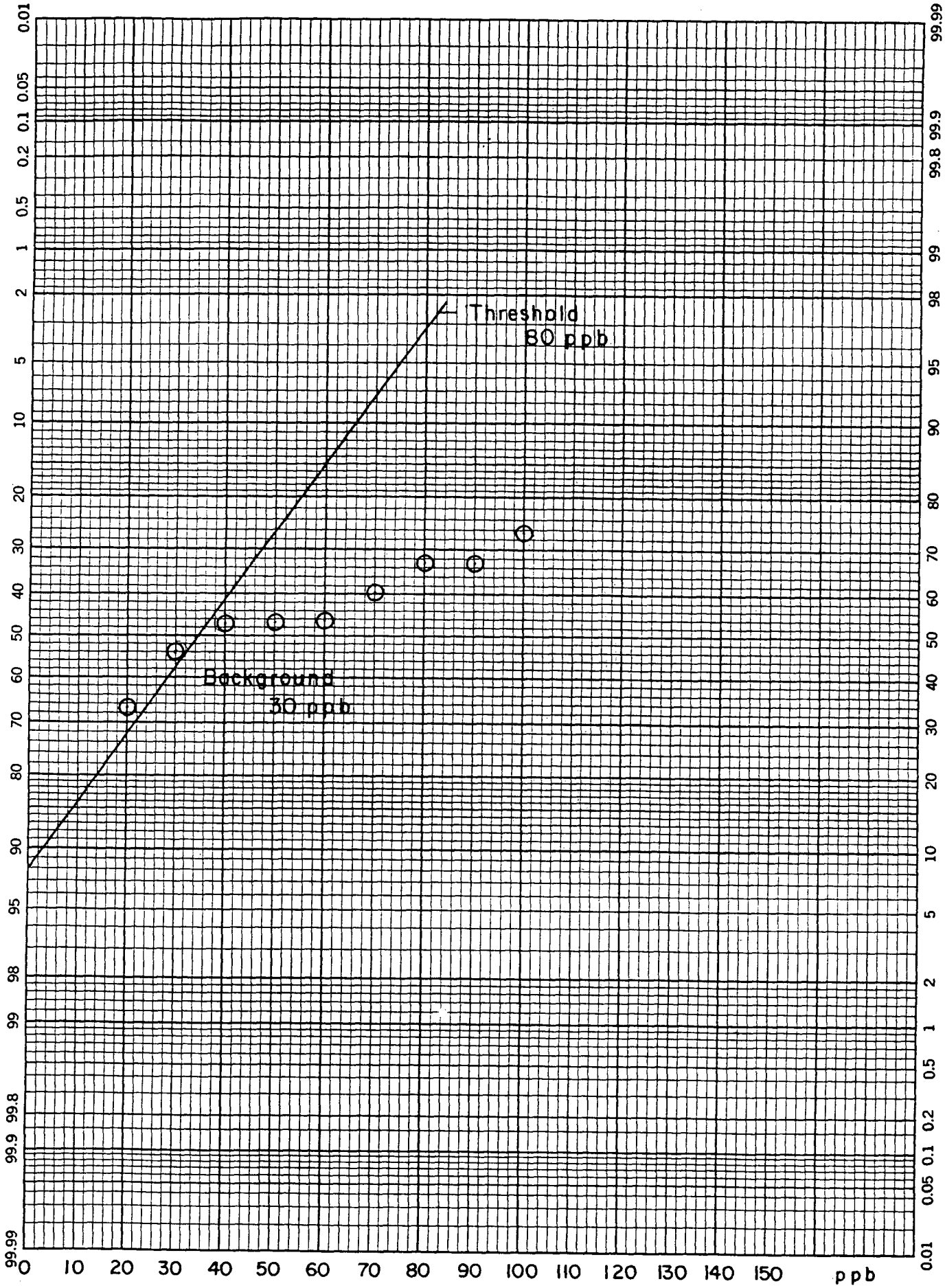
ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

BILLIKIN RESOURCES LTD FILE # RE: 83-2328 PAGE# 1

SAMPLE	AG PPM	AU* PPB
1	.7	60
2	7.1	675
3	.3	5
4	1.0	5
5	.1	10
6	.8	25
7	.5	5
8	.4	5
9	.1	5
10	.5	5
11	1.2	15
12	2.7	110
13	2.9	40
14	2.2	10

APPENDIX VIII

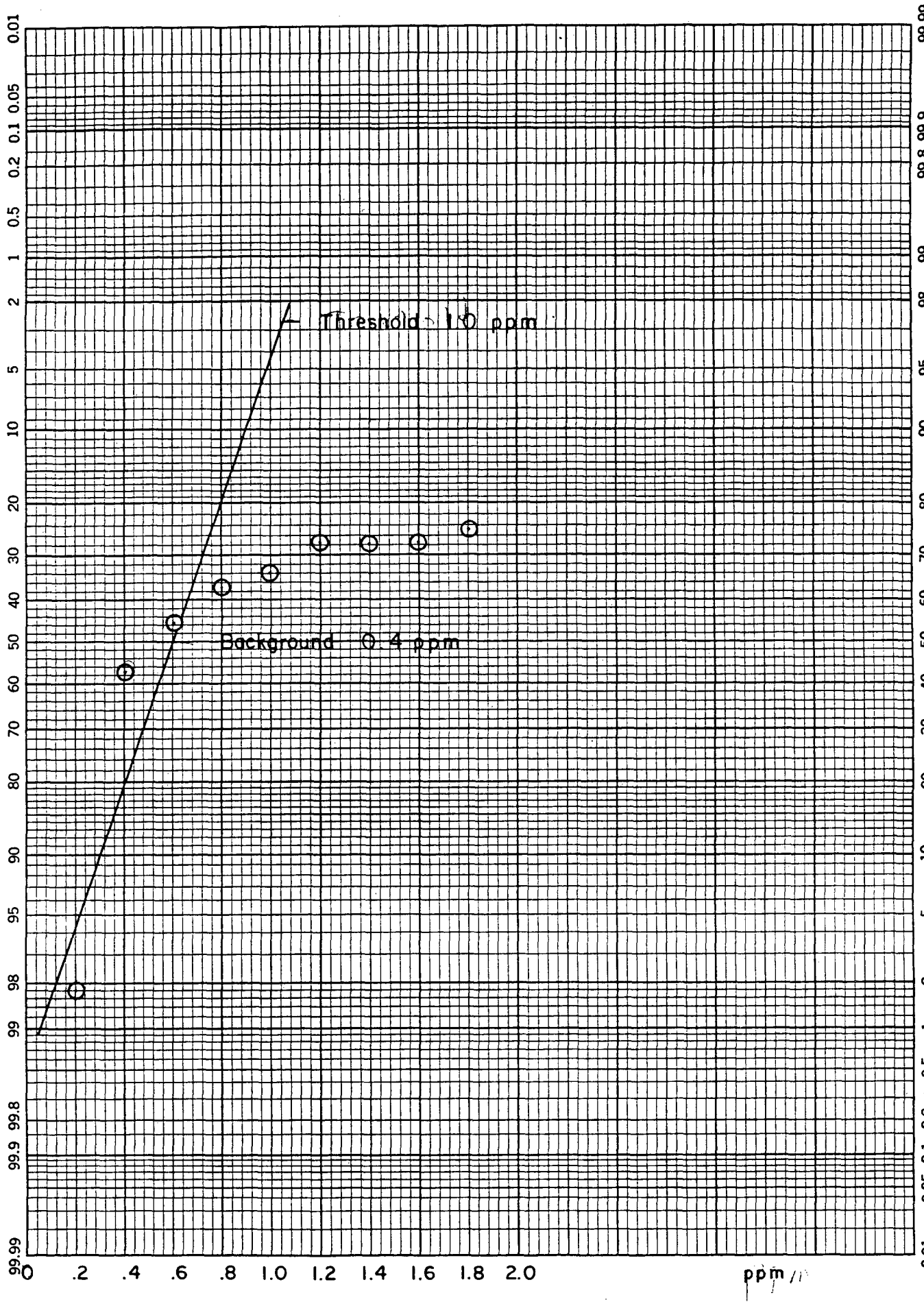
CUMULATIVE FREQUENCY PLOTS



46 8003

KEUFFEL & ESSER CO. MADE IN U.S.A.

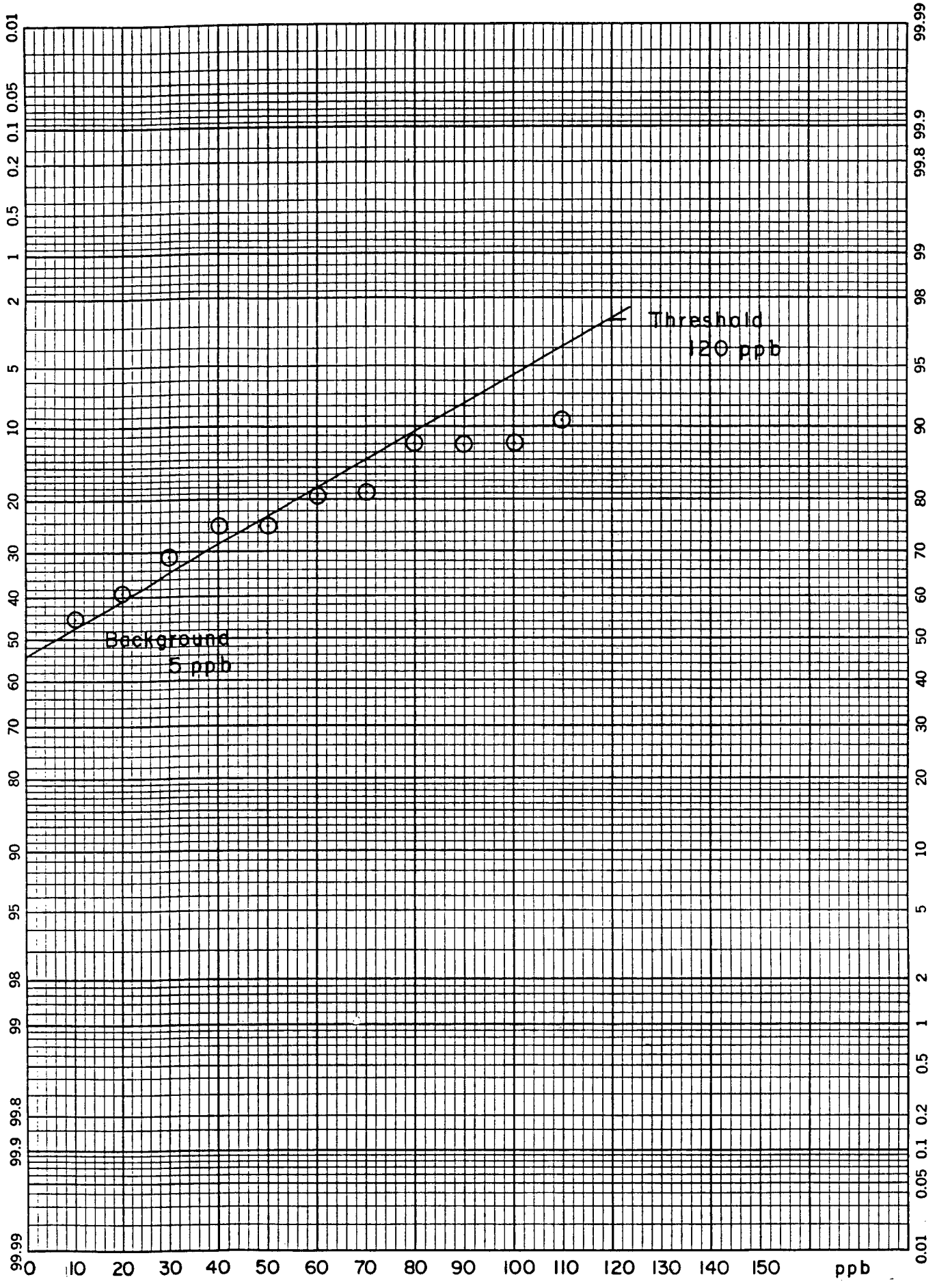
Figure 10 Gold in Silts



46 8003

K+E PROBABILITY X 90 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

Figure 11 Silver in Silts



46 8003

K&E PROBABILITY X 90 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

Figure 12 Gold in Rocks

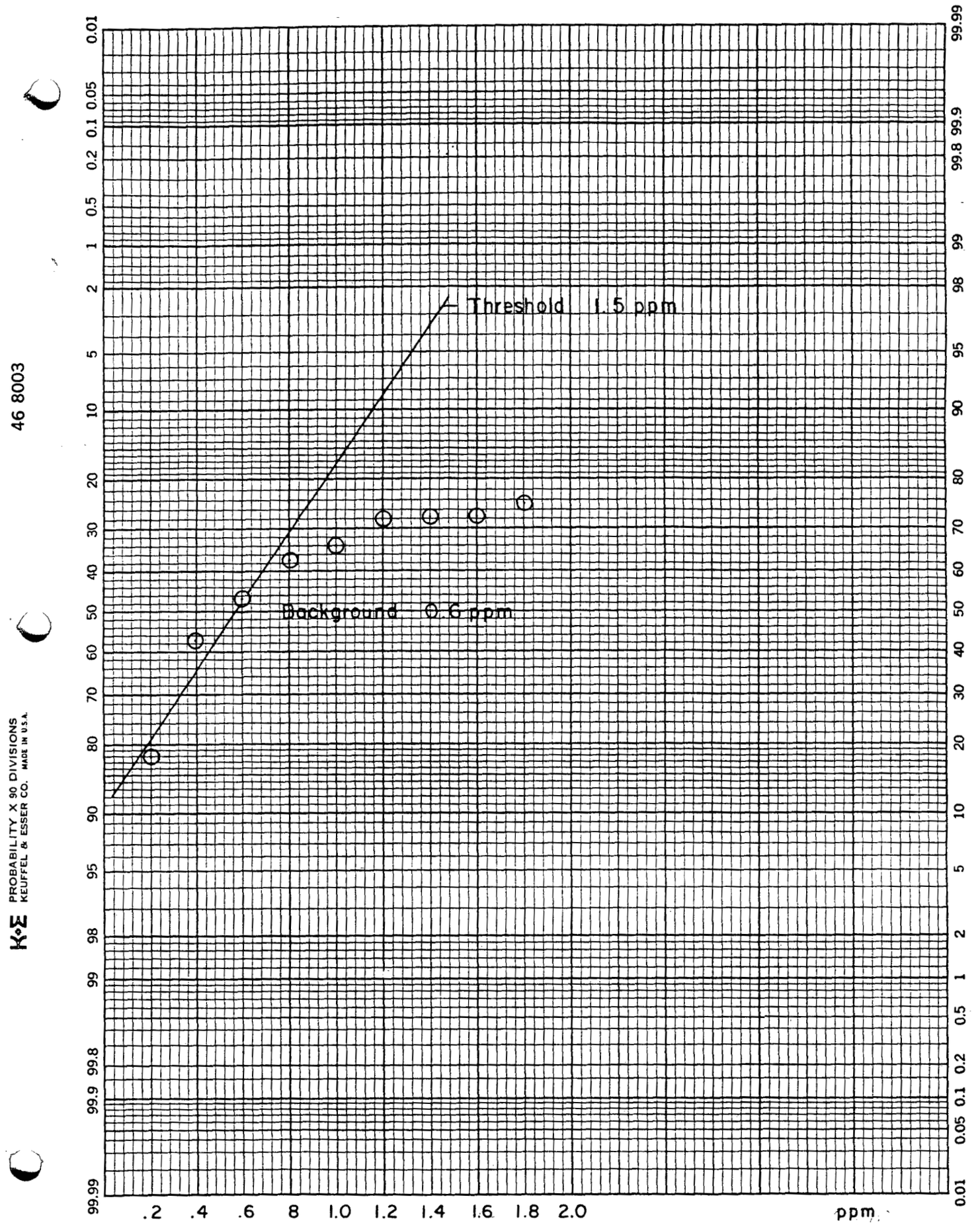
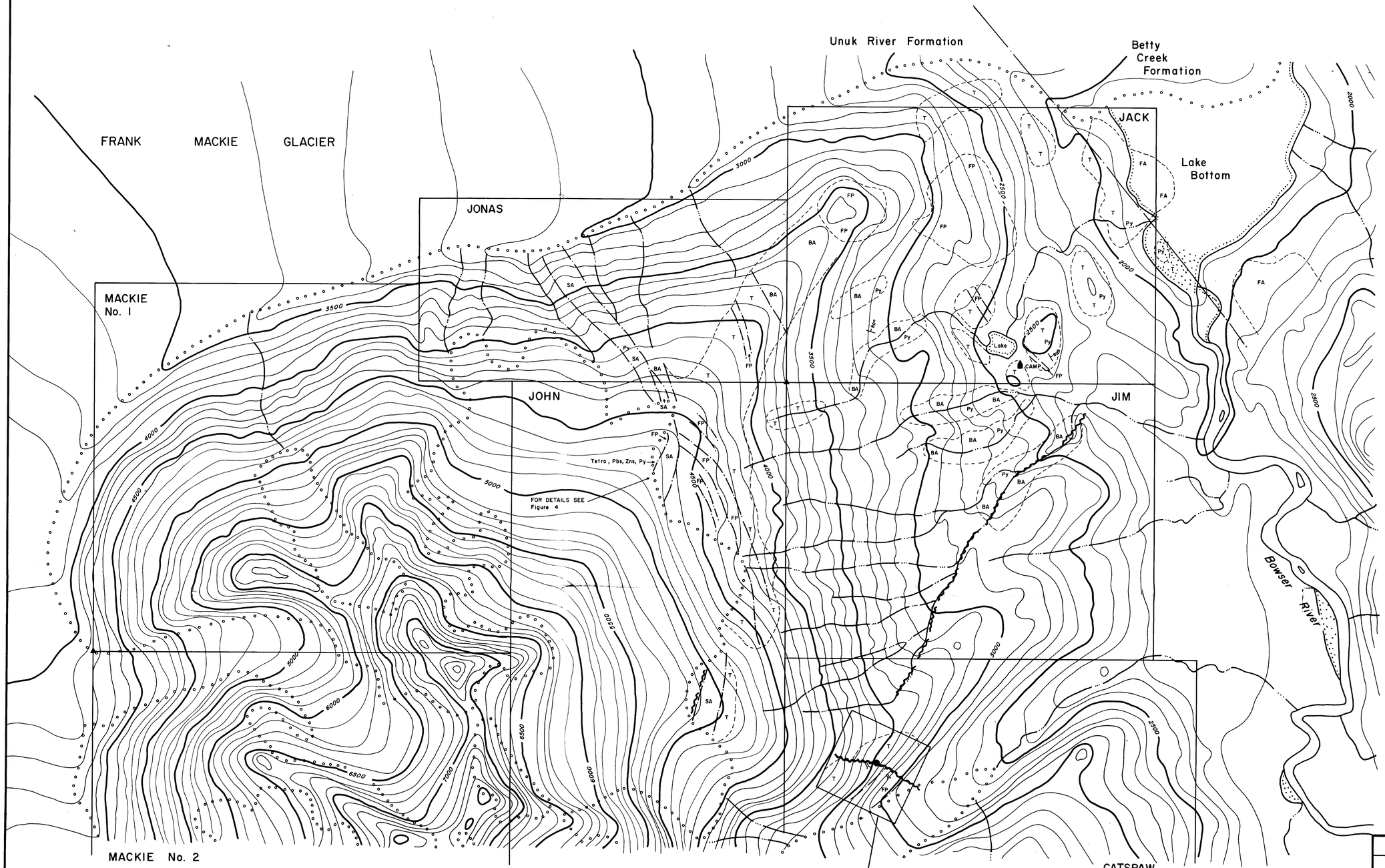


Figure 13 Silver in Rocks



Symbols

- Claim Post
- Fault defined, intrepreted
- Bedding, Strike dip inclined, vertical
- Gold Showing
- Adit
- Tetra — Tetrahedrite
- Pbs — Galena
- Zns — Sphalerite
- Py — Pyrite
- Outcrop
- Geological Contact

Legend

HAZELTON VOLCANICS

Betty Creek Formation

- FA — FRAGMENTAL ANDESITE

Unuk River Formation

- T — TUFFS THINLY BEDDED
- BA — BLACK ARGILLITE

INTRUSIVES

- FP — FELDSPAR PORPHYRY

ALTERED ROCKS

- SA — SERICITE ALTERED, Py ZONE

Scale 1 : 10,000
0 — 200 m

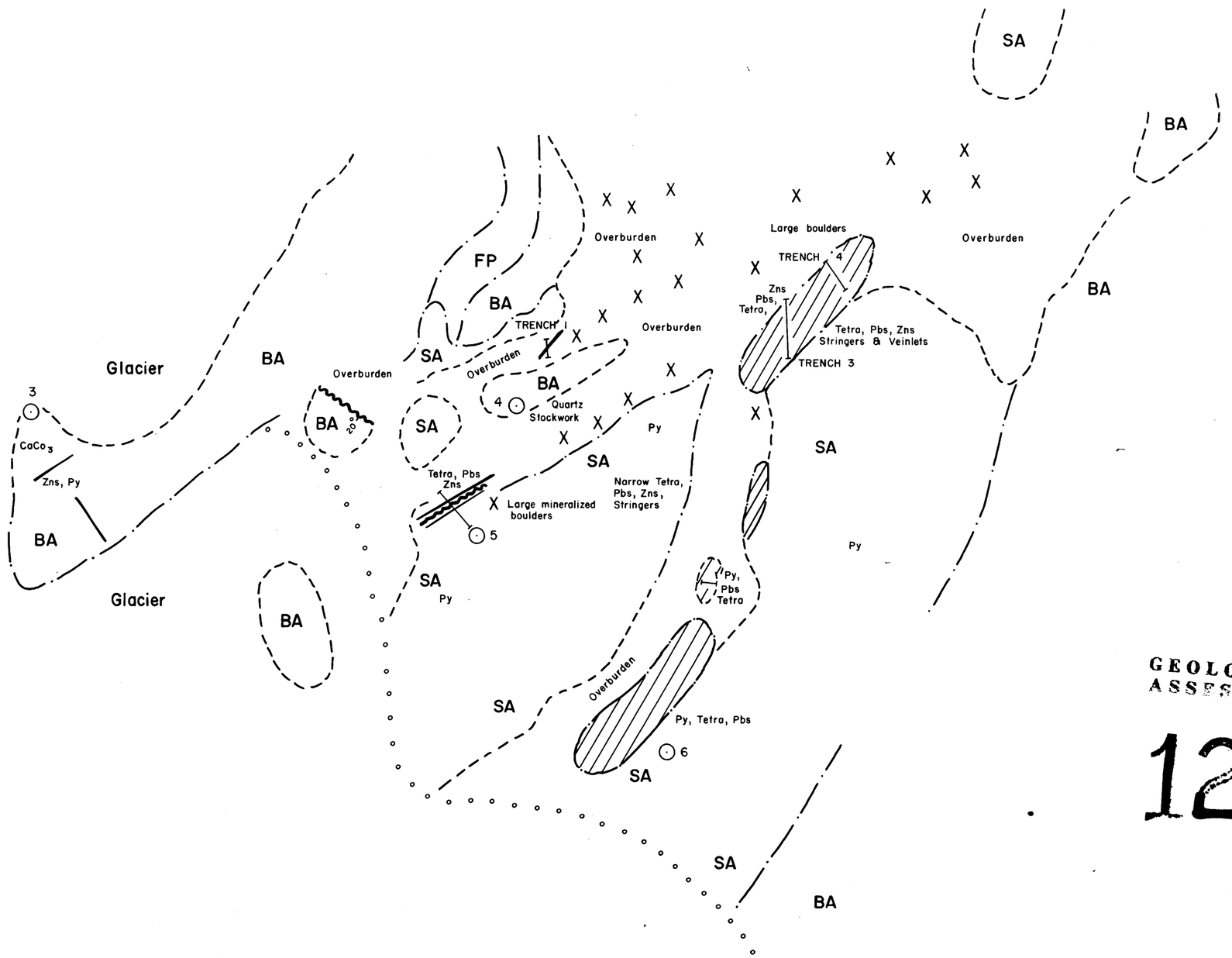
BILLIKIN RESOURCES INC.

4 - J PROPERTY

GEOLOGY

To accompany report by: E. R. KRUCHKOWSKI
Drawn by: c. l. c. NTS 104B/8E

Figure 3



Symbols

- Outcrop
- Geological Contact
- Trench
- Tetra — Tetrahedrite
- Pbs — Galena
- Zns — Sphalerite
- Py — Pyrite
- X — Mineralized Float
- Fault
- 3 ⊙ — Rock Geochem Site

Legend

- BA — BLACK ARGILLITE
- FP — FELDSPAR PORPHYRY
- SA — SERICITE ALTERED, PYRITIC ZONE
- QUARTZ WITH MINERALIZATION (Tetra and/or Pbs, Zns ± Py)
- QUARTZ STOCKWORK

Scale 1 : 500
0 —— 10 m

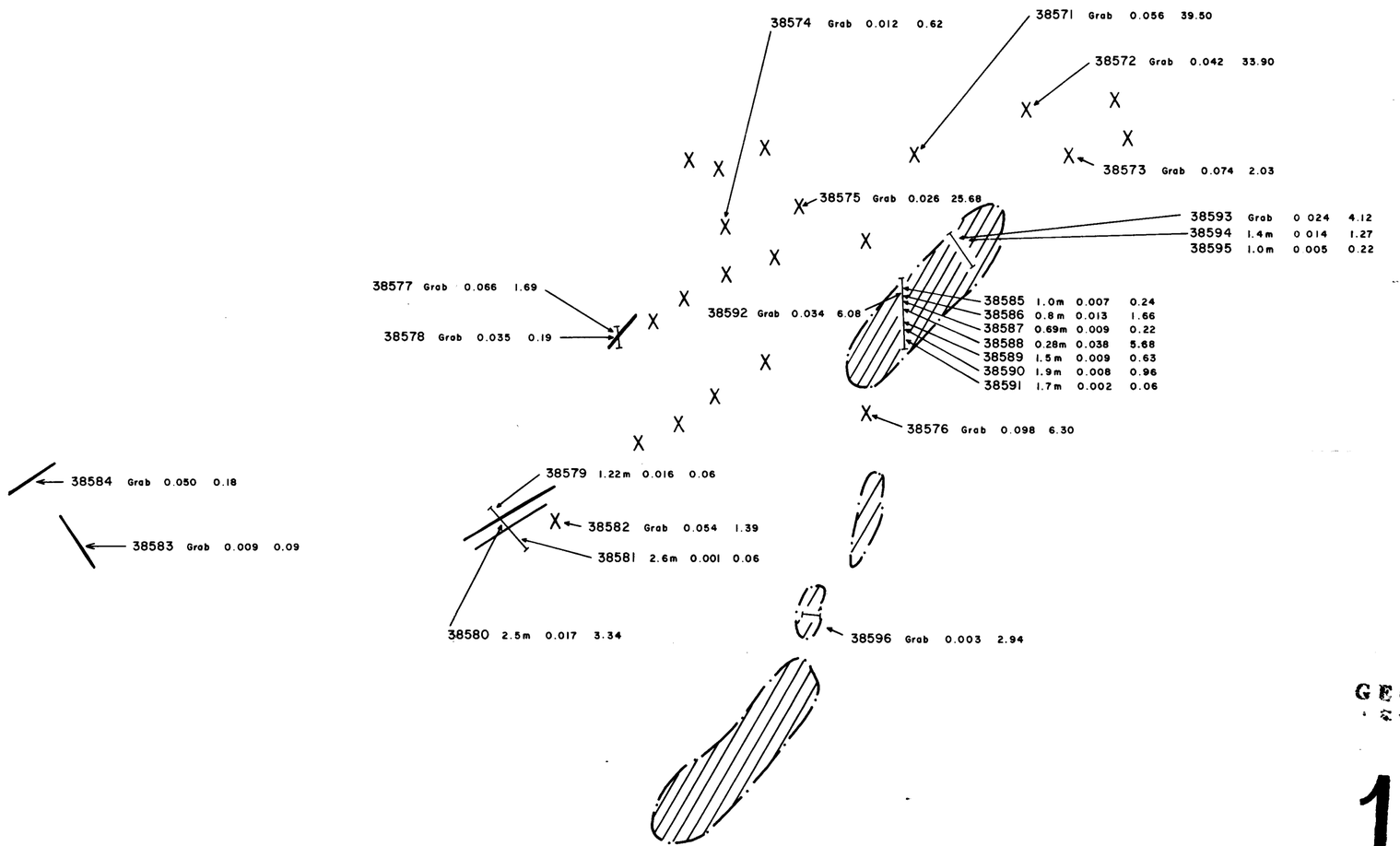
BILLIKIN RESOURCES INC.

4 - J PROPERTY

GEOLOGY MAP

To accompany report by: E. R. KRUCHKOWSKI
Drawn by: c.l.c. NTS 104B/8E

Figure 4



Legend

- QUARTZ VEIN WITH MINERALIZATION (Tetrahedrite and/or Pbs, Zns ± Py)
- QUARTZ STOCKWORK
- TRENCH

38571 Grab Au oz/T Ag oz/T
Sample No. Width 0.056 31.5

Scale 1 : 500
0 10 m

BILLIKIN RESOURCES INC.

4 - J PROPERTY

ASSAY PLAN

To accompany report by: E.R. KRUCHKOWSKI
Drawn by: c.l.c. NTS 104 B/8E Figure 5

Unuk River Formation

Betty Creek Formation

FRANK MACKIE GLACIER

JONAS

JACK

Lake Bottom

MACKIE No. 1

JOHN

JIM

Bowser River

MACKIE No. 2

HAIDA

CATSPAW

3000 3500 4000 4500 5000 5500 6000 6500 7000 2000 2500

10 1 - 27 - 08 - 83 - MC
175 3 - 27 - 08 - 83 - MC
15 2 - 27 - 08 - 83 - MC
240 4 - 27 - 08 - 83 - MC

70 1 - 26 - 08 - 83 - MC
2 - 26 - 08 - 83 - MC
25 Lake
CAMP

180 1 - 27 - 08 - 83 - DP
95 2 - 27 - 08 - 83 - DP

10 3 - 26 - 08 - 83 - MC
15 4 - 26 - 08 - 83 - MC
75 5 - 26 - 08 - 83 - MC
15 6 - 26 - 08 - 83 - MC
4 - 27 - 08 - 83 - DP
30 40 3 - 27 - 08 - 83 DP
210 5 - 27 - 08 - 83 - DP

Legend

● SAMPLE SITE, SAMPLE No.
6 - 26 - 08 - 83 - MC

15 ● SAMPLE No. Gold in Silts ppb
6 - 26 - 08 - 83 - MC

ANOMALOUS VALUES —— Gold in Silts
Greater than 80 ppb

after Data Supplied by: Pegg and Cloutier

Scale 1 : 10,000
0 200 m

BILLIKIN RESOURCES INC.

4 - J PROPERTY

Geochemical Surveys
Gold in Silts

To accompany report by: E. R. KRUCHKOWSKI
Drawn by: c. l. c. NTS 104B/8E

Figure 6

Unuk River Formation

Betty Creek Formation

FRANK

MACKIE

GLACIER

JONAS

JACK

Lake Bottom

MACKIE No. 1

JOHN

JIM

MACKIE No. 2

HAIDA

CATSPAW

Bowser River

1 - 27 - 08 - 83 - MC .3
3 - 27 - 08 - 83 - MC .0
2 - 27 - 08 - 83 - MC .4
4 - 27 - 08 - 83 - MC 1.1
1 - 26 - 08 - 83 - MC .6
2 - 26 - 08 - 83 - MC .6
Lake
CAMP
1 - 27 - 08 - 83 - DP .8
2 - 27 - 08 - 83 - DP 1.2
3 - 26 - 08 - 83 - MC .6
4 - 26 - 08 - 83 - MC .6
5 - 26 - 08 - 83 - MC 1.0
6 - 26 - 08 - 83 - MC .8
4 - 27 - 08 - 83 - DP
3 - 27 - 08 - 83 - DP 1.3
5 - 27 - 08 - 83 - DP 1.2

Legend

SAMPLE SITE, SAMPLE No.
6 - 26 - 08 - 83 - MC

.8 SAMPLE No. Silver in Silts ppm
6 - 26 - 08 - 83 - MC

ANOMALOUS VALUES — Silver in Silts
Greater than 1 ppm

after Data Supplied by: Pegg and Cloutier

Scale 1: 10,000
0 200 Mtrs

BILLIKIN RESOURCES INC.

4 - J PROPERTY
Geochemical Surveys
Silver in Silts

To accompany report by: E. R. KRUCHKOWSKI
Drawn by: c. l. c. NTS 104B/8E

Figure 7

Unuk River Formation

Betty Creek Formation

FRANK MACKIE GLACIER

JONAS

JACK

Lake Bottom

MACKIE No. 1

JOHN

JIM

Lake

CAMP

Bowser River

MACKIE No. 2

HAIDA

CATSPAW

38551 38552 38553 38554 38555 38556 38557 38558 38559 38560 38561 38562 38563 38564 38565 38566 38567 38568 38569

2200

7300

Legend

SAMPLE SITE, SAMPLE No. 38551

80 SAMPLE No. Gold in Rocks ppb 38551

ANOMALOUS VALUES —— Gold in Rocks Greater than 120 ppb

after Data Supplied by: Pegg and Cloutier

Scale 1:10,000

0 100 m

BILLIKIN RESOURCES INC.

4-J PROPERTY
Geochemical Surveys
Gold in Rocks

To accompany report by: E. R. KRUCHKOWSKI
Drawn by: c.l.c. NTS 104B/8E

Figure 8

Unuk River Formation

Betty Creek Formation

FRANK

MACKIE

GLACIER

JONAS

JACK

Lake Bottom

MACKIE No. 1

JOHN

JIM

Lake

CAMP

Bowser River

MACKIE No. 2

HAIDA

CATSPAW

Legend

SAMPLE SITE, SAMPLE No.
38551

5.6 SAMPLE No. Silver in Rocks ppm
38551

ANOMALOUS VALUES — Silver in Rocks
Greater than 1.5 ppm

after Data Supplied by: Pegg and Cloutier

Scale 1: 10,000
0 100 200 m

BILLIKIN RESOURCES INC.

4 - J PROPERTY
Geochemical Surveys
Silver in Rocks

To accompany report by: E. R. KRUCHKOWSKI
Drawn by: c. l. c. NTS 104B/8E Figure 9