REPORT ON COPPER, LEAD, ZINC, SILVER, CADMIUM
GEOCHEMICAL SOIL AND SEDIMENT SURVEY

BRYAN GROUP OF CLAIMS

BRYAN 1-16 and 23-38

COPTER CREEK AREA, WATSON LAKE MINING DISTRICT,
YUKON TERRITORY

61° 24' N, 128° 25' W

by

Alfred A. Burgoyne, M.Sc.

Crest Laboratories (B.C.) Ltd.

1068 - Homer Street

Vancouver 3, B.C.

Telephone: 688-8586

September 9, 1969

This report has been examined by the Geological Evaluation Unit. Approved as to technical worth by:

RESIDENT GEOLOGIST

Approved as to cost in the amount of: $5800.00

RESIDENT MINING ENGINEER

Accepted as representation work under Section 53(4) Yukon Quartz Mining Act.

COMMISSIONER OF YUKON

THE GRANBY MINING COMPANY LIMITED

1111 WEST GEORGIA STREET
VANCOUVER 5, B. C.

RECEIVED
NOV 1 1969
MINING
INSPECTOR'S OFFICE
WHITEHORSE, Y.T.

September 30, 1969

Mining Recorder,
Watson Lake,
Yukon Territory

Dear Sir:

Enclosed are duplicate copies of an Application for a Certificate of Work on mineral claims Bryan 1 - 16 and 23 - 38, for a total of $~~5300~~ 5600 together with a cheque in the amount of $~~265~~ 280 to cover fees.

The work consisted of soil sampling, and is described in detail in a report by Mr. A. Burgoyne of which two copies are enclosed.

Mr. Burgoyne performed this work under my general supervision. In addition to the qualifications set out in his certificate, Mr. Burgoyne was Chief Geochemist for Anaconda American Brass Limited, Western Exploration Division. Mr. G.C. Waterman P.Eng., Chief Geologist for Anaconda, has highly recommended him.

Yours truly,

D.H. James, P.Eng.,
Geologist.

RECEIVED
OCT 6 1969
MINING
RECORDER'S OFFICE
WATSON LAKE, Y.T.

Enclosure

DHJ/df

COPPER, LEAD, ZINC, SILVER, CADMIUM GEOCHEMICAL

SOIL AND SEDIMENT SURVEY

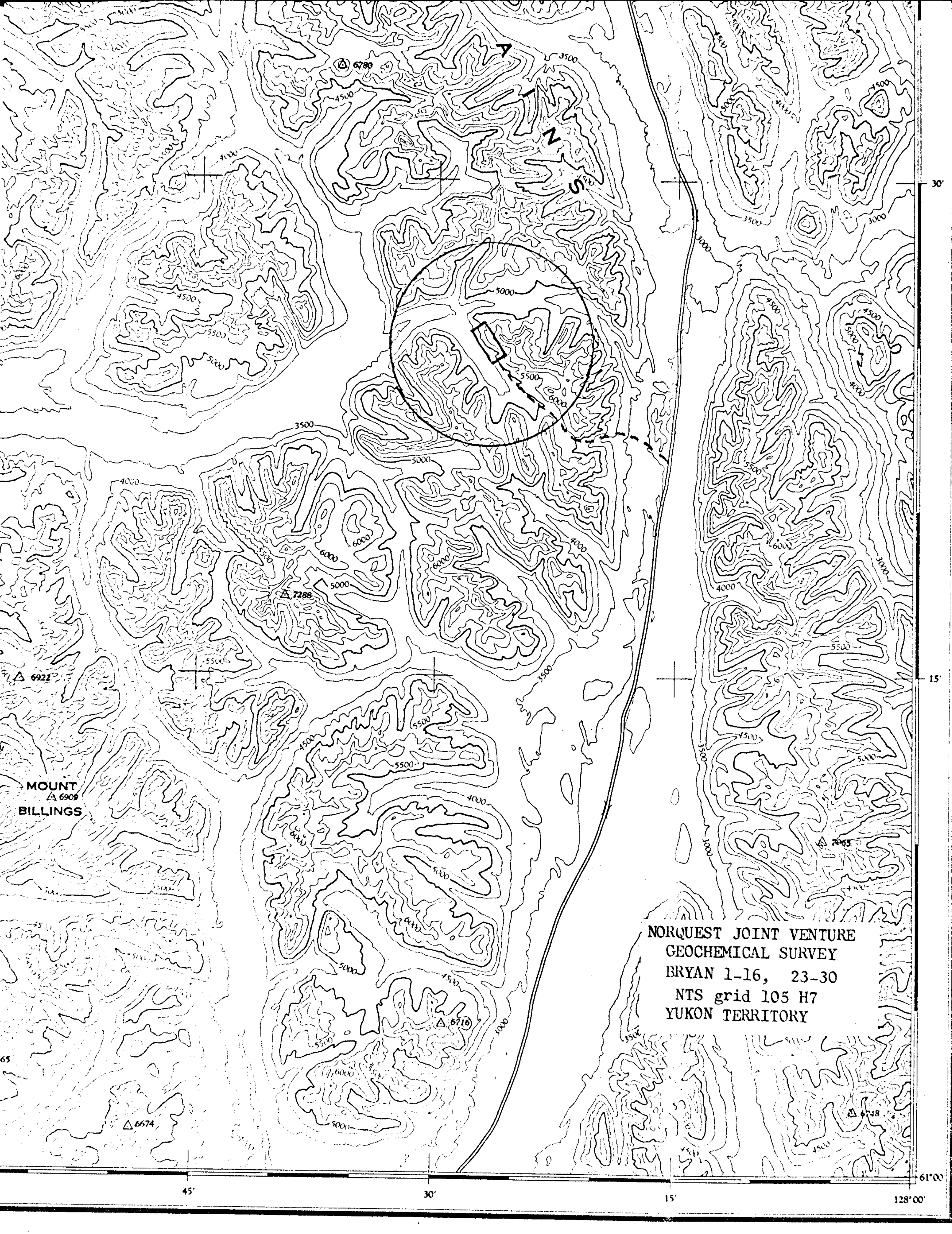
MINERAL CLAIMS

Bryan 1	Bryan 9	Bryan 23	Bryan 31
Bryan 2	Bryan 10	Bryan 24	Bryan 32
Bryan 3	Bryan 11	Bryan 25	Bryan 33
Bryan 4	Bryan 12	Bryan 26	Bryan 34
Bryan 5	Bryan 13	Bryan 27	Bryan 35
Bryan 6	Bryan 14	Bryan 28	Bryan 36
Bryan 7	Bryan 15	Bryan 29	Bryan 37
Bryan 8	Bryan 16	Bryan 30	Bryan 38

Bryan Group of Claims
Copter Creek Area, Watson Lake Mining District, Yukon Territory
Claims Bryan 1 - 16, and 23 - 38
61° 25' N, 128° 25' W

by: Alfred A. Burgoyne, M.Sc.

Owner:	Norquest Syndicate	
Work By:	Crest Laboratories (B.C.) Ltd.	
Work Dates:	Geochemical Survey:	July 31 - August 8, 1969
	Analytical Work:	August 18-20 and 27, 1969



NORQUEST JOINT VENTURE
GEOCHEMICAL SURVEY
BRYAN 1-16, 23-30
NTS grid 105 H7
YUKON TERRITORY
MOUNT
BILLINGS
6909
6780
7288
6922
6716
6674
7065
30'
15'
61°00'
45'
30'
15'
128°00'

CONTENTS

FIGURES

CONTENTS

Figures, Cont'd:

SUMMARY:

A soil and sediment geochemical survey for lead, silver, zinc, cadmium, and copper on the Bryan Group of mineral claims (Bryan 1-16, 23-38) was completed from July 31 - August 8, 1969. The analytical work was completed on August 18-20 and 27, 1969. A sample grid was placed on the group by placing a base line in a N 50° E direction by chain and compass; cross lines were placed every 500 feet apart in N 40° W or N 30° W directions by chain and compass. Soil samples were taken at 200 foot spacings on the cross lines, where ever a line crossed a stream, a silt or sand sample was collected where possible. Approximately 20 line miles or 460 samples were collected. These samples were then dryed, sieved, weighed and digested by a hot concentrated perchloric-nitric acid mixture and subsequently analyzed by atomic absorption. The lead, silver, zinc, cadmium, and copper values were plotted and statistical calculations completed. For all metals except cadmium, cumulative percent (frequency) - concentration graphs were constructed. From these graphs distinct and possible anomalies were determined for the respective metals. For lead, +190 ppm is distinctly anomalous, a possible anomaly is between 130 and 190 ppm. For silver, +2.5 ppm is distinctly anomalous, a possible anomaly is between 2.0 and 2.5 ppm. For zinc, +500 ppm is distinctly anomalous, a possible anomaly is between 380 and 500 ppm. For cadmium a distinct anomaly is +1.8 ppm. For copper, a distinct anomaly is +65 ppm. A possible anomaly is between 55 to 65, and 45 - 65 ppm east and west of line 15 W respectively. The copper results suggest a distinct change in lithology in the gneiss sequence; line 15 W being the approximate contact.

A large block of ground north of Lone Creek Valley and extending to the north east edge of the claims is distinctly anomalous in lead and zinc. Coincidental with these anomalies are a small number of silver, cadmium, and copper anomalies. Three separate anomalous areas thought to represent one or more bands of skarn minerilization have been designated 1, 2 and 3. Area 1 represents known mineralization in the Fir Tree Area while Areas 2 and 3 are new and open for further investigation. One small area on the south portion of the claims block and designated Area 4 is a lead-zinc anomaly that may be a possible extension of skarn mineralization uncovered by stripping on Pedro 4 mineral claim (mid Copter Area) in 1966.

There are several other small areas having anomalous values for lead, silver zinc and copper and these are no doubt related to many small mineralized occurences. Geochemistry is seen to define in a broad sense areas of definite interest but on a detailed basis its use will probably be limited beaause of the great amount of physical dispersion (due to steep slopes) and talus cover. Further detailed work is

definitely warranted on the above discussed anomalies (Areas 2 and 3). Some form of geophysics, possible electro magnetics is recommended to pinpoint the mineralization for trenching and other follow-up work.

SOIL COLLECTION AND CLASSIFICATION:

A sample grid was placed on the claim group by first placing a base line in a N 50° E direction by chain and compass. The line was marked with orange flagging tape at 100 foot intervals. At 500 foot intervals cross lines were placed by chain and compass and samples locations marked at 200 foot spacings along these lines with orange flagging tape. Lines 15 E to 5 W and 32 W trend in a N40° W direction both north and south of the base line. The north lines varied from 2,800 to 11,800 feet and averaged 7,000 feet in length. The south lines varied from 200 to 3,200 feet and averaged 1,500 in length. All lines where possible were tied into known claim location lines and claim posts. Approximately 20 line miles or 460 soil samples were collected. Wherever a line crossed a stream, a silt or sand sample was collected where possible and its location marked.

The soil sampling was done simutaneously with the placing of the grid lines. At each soil sample location a pit or hole was dug with a grub hoe to a depth of 4 - 16 inches depending on the soil development and the depth of bedrock. In all cases a C soil sample (weathered bedrock) was sampled except in a few instances where it was not possible to obtain this type of horizon; this occurred only below tree line on lines 32 W and 36 W toward Copter Creek Valley. At each sampling site 4 - 6 ounces of the soil was taken with a clean trowel and and large rock fragments were rejected. The soil was placed in a kraft soil sample bag and its location recorded. The soils, for the most part, are developed upon calc-silicate gneisses and as such are residual in nature. On the sides of some of the secondary valleys and in the bottoms of some of the main valleys the soils are developed on glacial outwash deposits of gravel and sand. The soil development is generally very immature; however, the immaturity decreases appreciably below timber line. The soil horizon development for the area is:

Ao: Organic liter, undecayed leaves, twigs, 0 - 1 inches thick above timber line and 2 - 14 inches thick below timber line. The thickness generally increasing to a maximum in the lower parts of the main valleys.

A_1: Partially decomposed organic debris, organic rich humus horizon, black in colour. Almost completely absent above timber line and from 0 - 2 inches thick below timber line.

B: Brown to orange in colour, loose structure, accumulation of clay and iron minerals and of organic matter. Almost completely absent above timber line and from 0 - 4 inches thick below timber line.

c: Weathered bedrock.

This writer was assisted in the field by soil samplers, B. Needham and K. Michels. The field work was completed in the period of July 31 - August 8, 1969.

ANALYTICAL TREATMENT OF SOIL SAMPLES:

The samples were analysed by Crest Laboratories (B.C.) Ltd. and the analyst was chemist, Edwin Andrews, supervised by this writer. The analytical work was on August 18 - 20, and August 27, 1969. The samples were dried in their respective sample bags at a temperature of 150° F. and then sieved to -80 mesh through a stainless steel screen. One gram portions of these screened soils were placed in 25 x 200 millimeter culture tubes and then digested in a mixture of perchloric and nitric acids at 425° F. for a period of three hours. The resulting digested residues were then made up to 50 milliliters volume in 10 percent perchloric acid. The respective sample solutions were asperated into a Techtron Atomic Absorption Spectrophotometer Model 5 and absorption readings were recorded first for copper, and then for lead, zinc and silver on all samples. Absorption readings for cadmium were recorded on lines 15 W, 20W, and 25W. Calibration of the atomic absorption spectrophotometer is effected by preparation and analyses of the respective metal standards each day.

RESULTS:

I Statistical Treatment of Data:

E. Copper.

From inspection of Figure 1E, the plot of copper results, it is evident that the background copper values are expressing two distinct lithologic untis. There is one set of background copper values which average 40.7 ppm and these are found almost entirely east of line 15W; the second set of background copper values average 19.0 ppm found almost entirely west of line 15 W. These two distinct zones of copper are thought to represent distinct lithologic units within the calc-silicate gneiss sequence. In Figure 2 D, a cumulative percent-concentration graph for copper for both sets of copper values is given. Those copper values generally east of line 15 W are distinctly anomalous at +65 ppm. From 55 to 65 ppm high background and low anomalous values mix (zone of overlap) and values less than 55 ppm are background. Those copper values west of line 15 W are distinctly anomalous at +65 ppm; the zone of overlap in this case is from 45 to 65 ppm and background is less than 45 ppm. Possible copper anomalies for the respective rock types are then defined as between 55 to 65 ppm and 45 to 65 ppm.

A. Lead.

In Figure 2A, a cumulative percent-concentration graph for lead is given. Here regional threshold (anomalous) and local threshold values are indicated. On a regional basis any value greater than 45 ppm is anomalous, but on a detailed local basis a distinct lead anomaly is defined statistically as only those values of +190 ppm. The various zones of overlap between background, regional anomalous, and local anomalous values are indicated. A possible lead anomaly on a local basis is defined as between 130 and 190 ppm.

B. Silver.

In Figure 2B, a cumulative percent-concentration graph for silver is given and regional threshold (anomalous) and local threshold values are indicated. On a regional basis, any value greater than 1.1 ppm is anomalous, but on a detailed local basis a distinct silver anomaly is defined as only those values of +2.5 ppm. The various zones of overlap between background, regional anomalous, and local anomalous values are indicated on Figure 2B. A possible silver anomaly on a local basis is defined as between 2.0 and 2.5 ppm.

C. Zinc.

In Figure 2C, a cumulative percent-concentration graph for zinc is given and regional threshold (anomalous) and local threshold values are indicated. On a regional basis any value greater than 90 ppm is anomalous, but on a detailed local basis a distinct zinc anomaly is defined as only those values of +500 ppm. The various zones of overlap between background, regional anomalous, and local anomalous values are indicated on Figure 2C. A possible zinc anomaly on a local basis is defined as between 380 to 500 ppm.

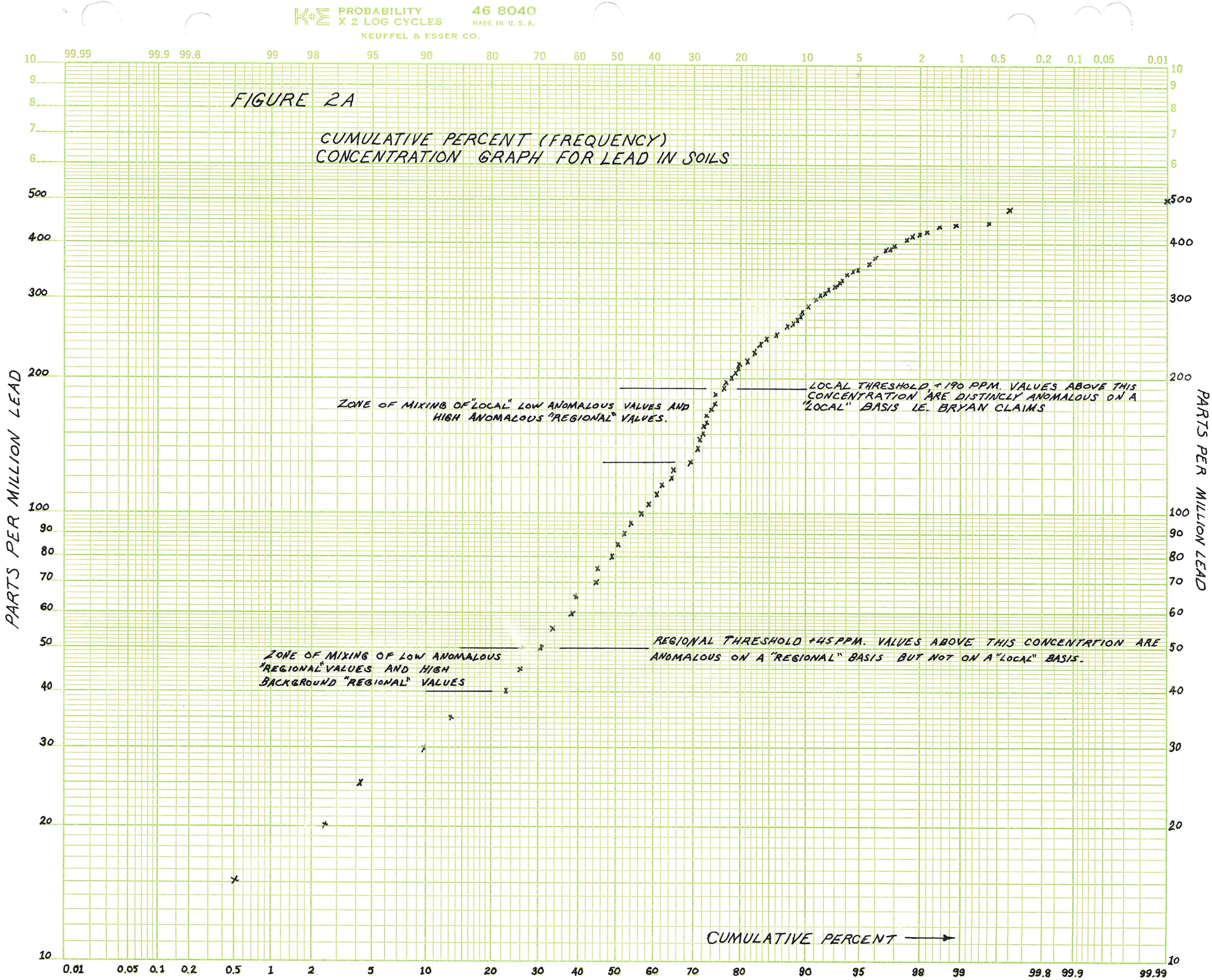
D. Cadmium.

No statistical calculations were done for cadmium because of its obvious genetic association with zinc and the limited number of samples analysed. From inspection of the data a distinct cadmium anomaly is +1.8 ppm.

<u>II Expression of Anomalies</u>:

A. Lead.

The lead results are plotted on Figure 1A. For sake of orientation the anomalous area denoted 1, is the Fir Tree Area where a series of "pyroxene" and "siliceous" skarn bands occur in and are conformable in strike with a series of feldspar-quartz-biotite gneisses. These bands contain economic amounts of sphalerite, galena, chalcopyrite, and silver and strike 010 - 015°, generally parallel to the mountain side. These bands contain, on the average, from 1.5 -


K+E PROBABILITY X 2 LOG CYCLES 46 8040
MADE IN U.S.A.
KEUFFEL & ESSER CO.
FIGURE 2A
CUMULATIVE PERCENT (FREQUENCY) CONCENTRATION GRAPH FOR LEAD IN SOILS
ZONE OF MIXING OF "LOCAL" LOW ANOMALOUS VALUES AND HIGH ANOMALOUS "REGIONAL" VALUES.
LOCAL THRESHOLD ± 190 PPM. VALUES ABOVE THIS CONCENTRATION ARE DISTINCLY ANOMALOUS ON A "LOCAL" BASIS I.E. BRYAN CLAIMS
ZONE OF MIXING OF LOW ANOMALOUS "REGIONAL" VALUES AND HIGH BACKGROUND "REGIONAL" VALUES
REGIONAL THRESHOLD ± 45 PPM. VALUES ABOVE THIS CONCENTRATION ARE ANOMALOUS ON A "REGIONAL" BASIS BUT NOT ON A "LOCAL" BASIS.
PARTS PER MILLION LEAD
CUMULATIVE PERCENT

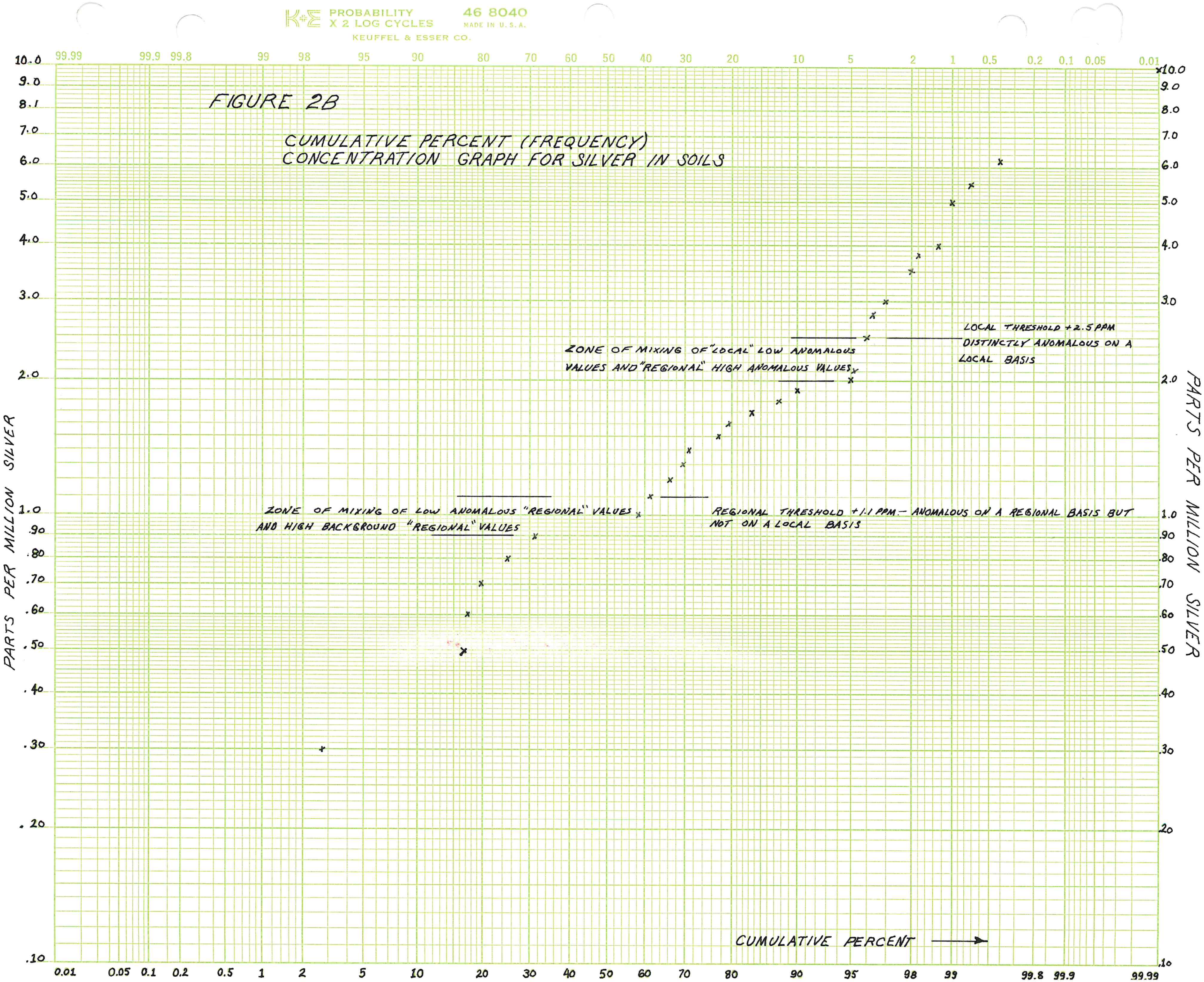
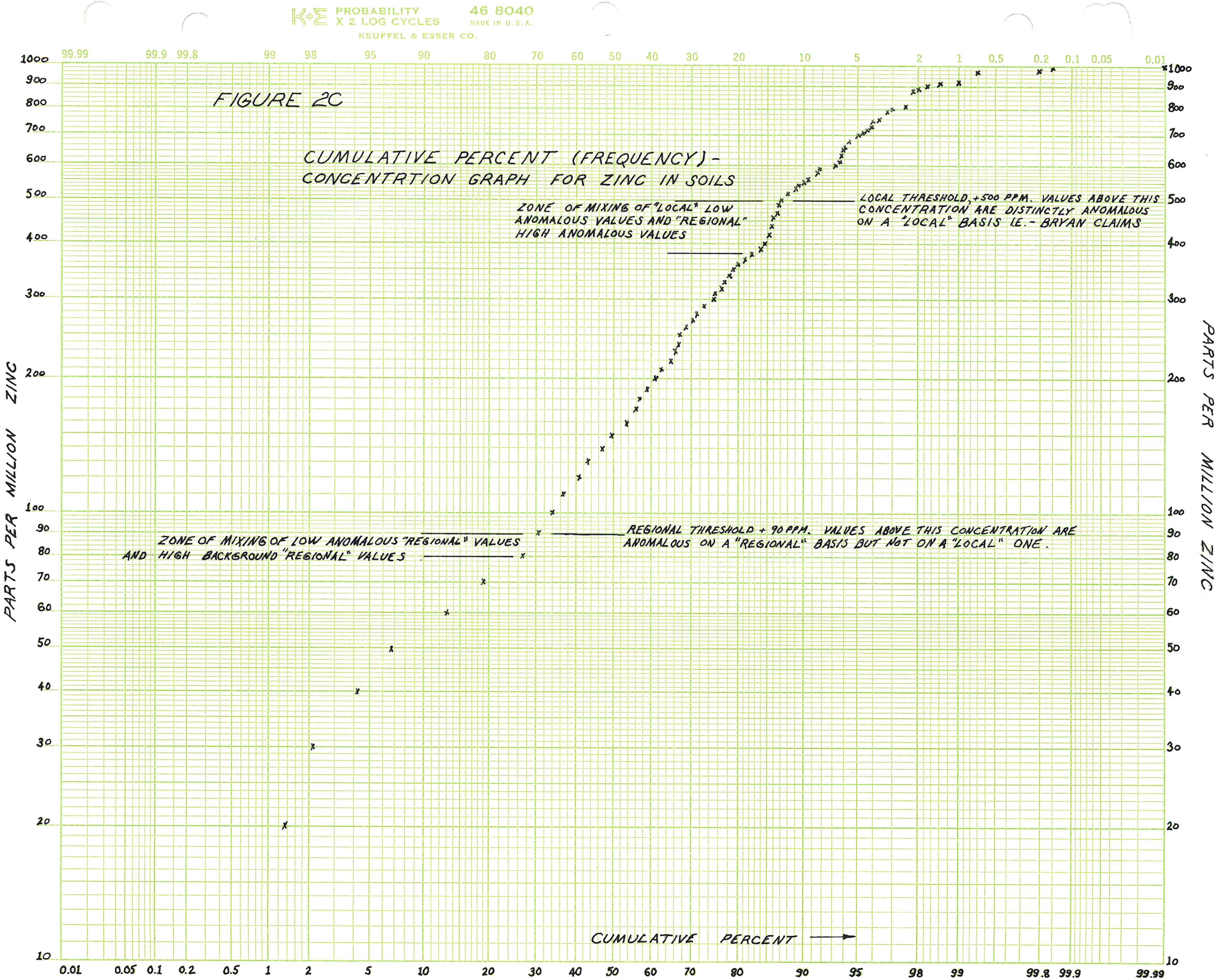
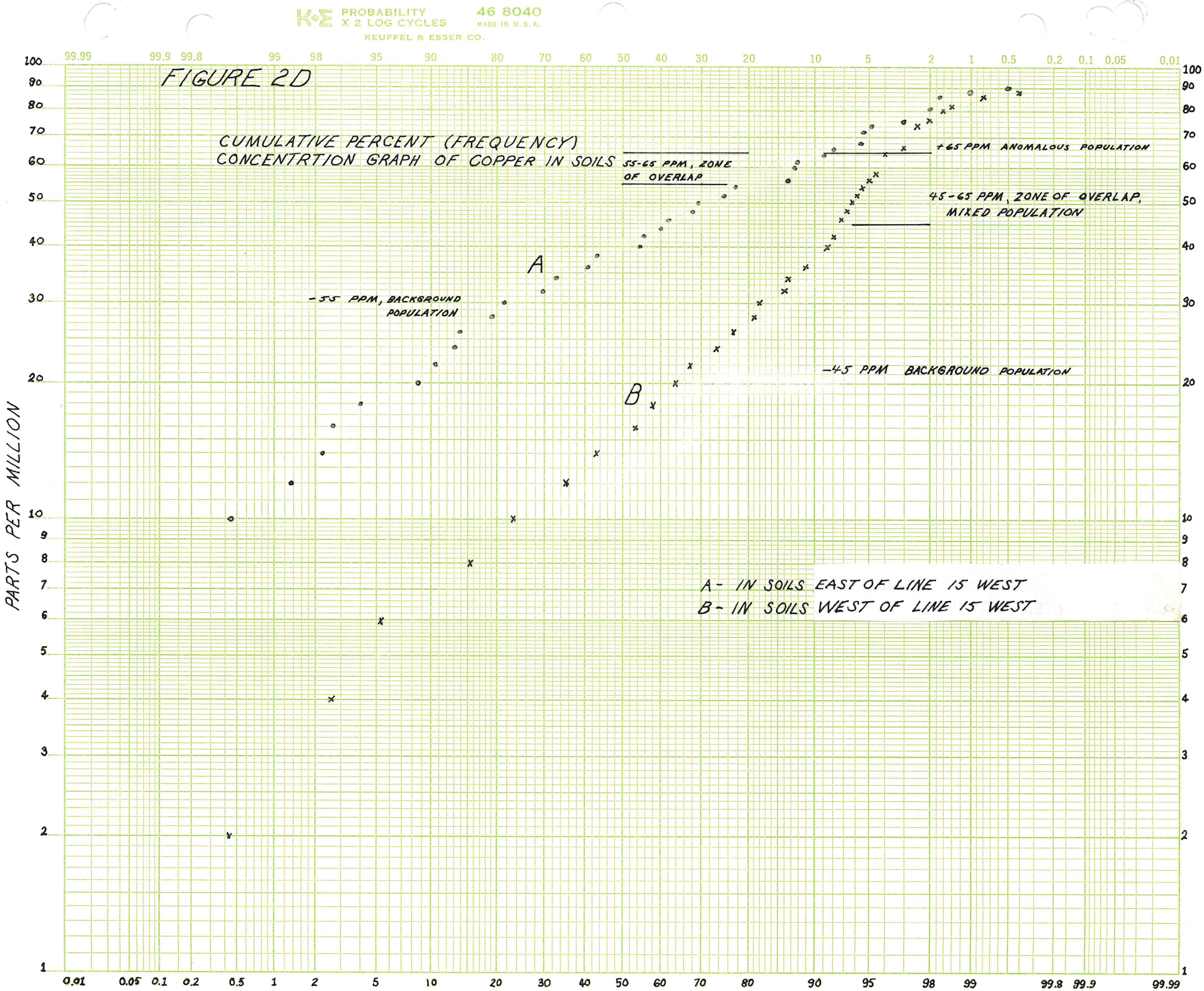


FIGURE 2B

CUMULATIVE PERCENT (FREQUENCY) CONCENTRATION GRAPH FOR SILVER IN SOILS


K+E PROBABILITY X 2 LOG CYCLES
46 8040 MADE IN U.S.A.
KEUFFEL & ESSER CO.
FIGURE 2C
CUMULATIVE PERCENT (FREQUENCY) - CONCENTRTION GRAPH FOR ZINC IN SOILS
ZONE OF MIXING OF "LOCAL" LOW ANOMALOUS VALUES AND "REGIONAL" HIGH ANOMALOUS VALUES
LOCAL THRESHOLD, +500 PPM. VALUES ABOVE THIS CONCENTRATION ARE DISTINCTLY ANOMALOUS ON A "LOCAL" BASIS I.E. - BRYAN CLAIMS
ZONE OF MIXING OF LOW ANOMALOUS "REGIONAL" VALUES AND HIGH BACKGROUND "REGIONAL" VALUES
REGIONAL THRESHOLD + 90 PPM. VALUES ABOVE THIS CONCENTRATION ARE ANOMALOUS ON A "REGIONAL" BASIS BUT NOT ON A "LOCAL" ONE.
PARTS PER MILLION ZINC
CUMULATIVE PERCENT



K+E PROBABILITY X 2 LOG CYCLES 46 8040 MADE IN U.S.A.
KEUFFEL & ESSER CO.
FIGURE 2D
CUMULATIVE PERCENT (FREQUENCY)
CONCENTRTION GRAPH OF COPPER IN SOILS
55-65 PPM, ZONE OF OVERLAP
+65 PPM ANOMALOUS POPULATION
45-65 PPM, ZONE OF OVERLAP, MIXED POPULATION
A
-55 PPM, BACKGROUND POPULATION
B
-45 PPM BACKGROUND POPULATION
A - IN SOILS EAST OF LINE 15 WEST
B - IN SOILS WEST OF LINE 15 WEST
PARTS PER MILLION
PARTS PER MILLION

2.0% lead, 1.7 - 3.6% zinc; less than 0.10% copper, and less than 0.7 ounces per ton silver, and 0.03% cadmium. The bands are traceable for at least 2,000 feet, although not fully mineralized in this distance and vary in thickness from 5 - 40 feet. A detailed description of these bands and the geology of the area may be obtained from the Norquest Project 1964 Report.

Clearly it is pointless to contour the lead results because the known mineralization trends parallel or near parallel to the lines and to the mountain sides. Further, there appears to be great amount of physical (gravity) dispersion down the mountain slopes. The anomalous lead values on line 36W, 50-74N are thought to represent float that has moved downhill from 200 - 500 feet from known skarn mineralization in the Fir Tree Area. There is little evidence of chemical dispersion of lead and this is to be expected because of the almost negligible solubility of lead sulphate or carbonate. To the north the anomalous values appear to fade out, however, a possible extension may be present on the unstaked ground north of Bryan 31 mineral claim. To the south the anomalous values of Area 1 end abruptly on or very near to Lone Creek Valley. This may be inferred as a faulted-off anomaly.

Anomalous Area 2 is uphill or above known or mapped skarn mineralization of the Fir Tree Area. It too, probably represents one or more mineralized skarn bands in the gneiss sequence that trend parallel to the skarn bands in the gneiss sequence that trend parallel to the skarn bands of Area 1. The anomalous values are open to the north and end abruptly in Lone Creek Valley to the south.

Anomalous Area 3 is uphill and east of Anomalous Area 2. The outlines of this anomaly in the north have been drawn to conform to the trend of the rocks as they relate to the topography. It is not certain whether this anomaly represents skarn mineralization or otherwise. The anomalous values are open to the northeast, however, a precipitous cliff is present immediately east of line 5E. The values end abruptly to the south in Lone Creek Valley.

Anomalous Area 4 may represent a skarn band; a possible extension may be the mineralized float which was uncovered on Pedro 4 mineral claim and subsequently stripped in 1966.

<u>Conclusions on Lead Results</u>:

A distinct lead anomaly is defined as greater than 190 ppm, a possible lead anomaly is defined as 140 - 190 ppm. Parallel mineralized skarn bands appear to be expressed easterly and uphill from the original known Fir Tree Area (1). These zones have been designated 2, and 3. It is impossible to delienate the exact location of the skarn bands because physical depression has moved lead mineralization downhill and probably in the order of several hundred feet from its source.

Further, most of Area 3 and half of Area 2 is covered by coarse talus. All three anomalous areas appear to be open to the north and either fade out or are faulted off to the south by a fault that is expressed by Lone Creek Valley. Area 4 is a small anomaly which may represent a skarn band and an extension to known mineralization on Pedro 4 mineral claim.

B. Silver:

A distinct silver anomaly has been defined as greater than 2.5 ppm and a possible silver anomaly as between 2.0 and 2.5 ppm. Almost all anomalous silver values occur with lead and this is a reflection of the genetic relationship between them. However, the striking fact that emerges when viewing the plot of silver values (Figure 1B), is that there are only a handful of anomalous silvers relative to lead. This is probably explained by the low and erractic silver content in the lead zinc mineralization.

The only anomalous silver values not associated with anomalous lead occur on lines 15 and 10E from 16 to 18N and these silver values occur with anomalous copper. These joint silver-copper anomalies are thought to be caused by small amounts of copper-silver mineralization in quartz veins that trend in a north easterly direction or nearly perpendicular to the general trend of the rocks. Abundant bull quartz was noted in the field in the general vicinity of these amomalous copper-silver values.

C. Zinc:

A distinct zinc anomaly is defined as +500 ppm. A possible zinc anomaly is 380 to 500 ppm. The zinc anomalous results generally coincide with the anomalous lead results in Anomalous Areas 1, 2 and 3, (Figure 1C) Area 4 is weakly expressed by a zinc anomaly. In Area 3, the zinc anomaly is not expressed areally to the same extent as the lead and this can be explained to a variation in the zinc mineralization, that is, a decrease in zinc in Area 3 relative to the lead mineralization. Like lead, anomalous Areas 1, 2, and 3 for zinc are open to the north or northeast and end abruptly in Lone Creek Valley to the south. Since zinc is highly mobile, chemically speaking, it would be expected that the zinc anomalies would extend over a greater area and extend further from their source than for lead; however, it is seen that the lead and zinc anomalies are nearly coincidental and it is concluded that since lead is highly immobile chemically, that all subsequent dispersion has been by physical (gravity) processes. This conclusion is further verified by the coincidence of cadmium with zinc anomalies as discussed below.

D. Cadmium:

Cadmium analyses were done on lines 15, 20 and 25 W in an effort to establish if the migration and dispersion of zinc was chemical, physical, or both. Cadmium follows zinc very closely in weathering except during oxidation of zinc sulfide. Here the secondary cadmium sulfide tends to remain behind after zinc sulfide has been solubilized by oxidation. It is seen in Figure 1D that anomalous cadmium values (+1.8 ppm) almost without exception occur with anomalous zinc. Consequently the dispersion of zinc is dominated primarily by physical (gravity) processes.

E. Copper:

A distinct copper anomaly is defined at +65 ppm. Anomalous copper values are coincidental with anomalous lead and zinc values in Areas 1, 2 and 3, and weakly expressed in Area 4. However, like silver, there is a scarcity of copper anomalies and this is thought to be simply a reflection of the lack of copper associated with the lead-zinc skarn mineralization. The only anomalous copper values not associated with anomalous lead or zinc occurs on lines 15 and 10E from 14 to 20 N and occurs with anomalous silvers. The cause of these anomalies has been given in the discussion of the silver anomalies.

It appears that two distinct zones of copper occur within the gneiss sequence (Figure 1E) and these are thought to represent distinct lithologic units or changes within the gneiss sequence.

CONCLUSIONS AND RECOMMENDATIONS:

A block of ground north of Lone Creek Valley over lines 00 to 36W and extending to the north east edge of the Bryan Claims is distinctly anomalous in lead and zinc. Coincidental with these anomalies are a small number of silver, copper, and cadmium anomalies. On this block of ground three distinct anomalous areas have been designated 1, 2, and 3. Each area is thought to represent one or more bands of skarn mineralization. Area 1 represents known mineralized skarn bands in the Fir Tree Area. Areas 2 and 3 represent distinct new areas for further investigation. The interpretation of the results for the respective metals is compounded by the great amounts of physical (gravity) dispersion as evident by the results and field observations. Further in Areas in 2 and 3 approximately eighty percent of the area is talus covered. Area 4 is lead-zinc anomaly which may be indicative of skarn mineralization and a possible extension may be the mineralized float which was uncovered on Pdero 4 mineral claim and subsequently stripped in 1966. On lines 15 and 10E from 14 to 20N there restricted copper and silver anomalies occur. These are thought to represent easterly trending quartz veins.

There are several other anomalous values for lead, zinc, silver and copper on other parts of the Bryan Claims and these are no doubt related to many small mineralized occurences. The areas designated 2 and 3 should be subjected to further follow-up work and the following is recommended.

I. Because of the great amount of physical dispersion and talus cover further detailed geochemistry is not recommended; however, reconaissance geochemistry will be quite useful on areas not yet covered. Some form of geophysics, possible electromonetics should be used to define the mineralized skarn bands. Magnetometer surveys conducted in previous work over the Fir Tree Area were found to be inconclusive in defining the mineralization.

II. In conjunction or separate from the geophysics, trenching and pitting will be necessary to expose any mineralization.

III. Detailed prospecting and mapping.

IV. Two to four claims north of Bryan 31 and 32 mineral claims should be staked in order to cover any extension of the lead-zinc anomalies.

Respectively Submitted,
CREST LABORATORIES (B.C.) LTD.

Alfred A. Burgoyne

Alfred A. Burgoyne, M.Sc.
Geologist-Geochemist

AAB/seb

PHONE 688-8586

CREST LABORATORIES (B.C.) LTD.

B.C. REGISTERED ASSAYERS
GEOCHEMISTS

1068 HOMER STREET,
VANCOUVER 3, B.C.

August 25, 1969

Mr. K. Fahrni
Norquest Joint Venture
c/o Granby Mining Co.
1111 - West Georgia Street
VANCOUVER 5, B.C.

Dear Sirs:

Cost of Soil and Sediment Geochemical Survey for Copper, Lead, Zinc, and Silver on Norquest Joint Venture, Bryan Claims, Watson Lake Mining District, Yukon Territory, performed by Crest Laboratories (B.C.) ltd., July 31 - August 8, 1969.

Time Costs:

Field:	2 men (soil samplers) for 9 days @ $50.00 per day.		900.00
	Burgoyne for 9 days @ $120.00 per day.		1,080.00
Office:	1 man drafting for 2 days @ $50.00 per day.		100.00
	Burgoyne for 2¼ days @ $120.00 per day.		300.00

Analytical Costs for 459 soil and stream sediment samples for copper, lead, zinc, silver (20 line miles).

Analytical @ $2.30 per sample	1,055.70	
Preparation Charge @ $.20 per sample	91.80	
		1,147.50

Disbursement Fees:

Truck Rental	333.20
July 31/69 Limousine to Vancouver Airport	7.50
July 31/69 Excess Baggage & Equipment	12.00
July 31 Airline Fees for 3 men Vancouver Watson Lake, return	462.00
July 31 Groceries, Supplies, Naptha	233.24
July 31 3 meals (Watson Lake) Supper	11.00
July 31 Motel for 3 men	14.00
Aug. 1 3 meals (Breakfast)	6.00
Aug. 7 Motel for 3 men	14.00
Aug. 7 3 meals (Supper)	12.00
Aug. 8 3 meals (Breakfast)	6.00
Aug. 8 3 meals (Lunch)	9.00
Aug. 8 Equip. shipping charges	17.25
Aug. 8 Chauffeur for 3 men to Van.	7.50
Aug. 20 Sepia reproductions	20.58
	1,165.27

Norquest Joint Venture
c/o Granby Mining Co.
August 25/69
Page 2...

Balance Forward	1,165.27	
10% Disbursement Fee.	116.53	
Total		1,281.80
Grand Total:		$4,809.30

Yours truly,
CREST LABORATORIES (B.C.) LTD.

Alfred A. Burgoyne

A.fred A. Burgoyne
Geologist-Geochemist

AAB/seb

PHONE 688-8586

CREST LABORATORIES (B.C.) LTD.

B.C. REGISTERED ASSAYERS
GEOCHEMISTS

1068 HOMER STREET,
VANCOUVER 3, B.C.

September 10, 1969

Mr. K. Fahrni
Norquest Joint Venture
c/o Granby Mining Co.
1111 - West Georgia Street
VANCOUVER 5, B.C.

Cost of Preparing Report on Copper, Lead, Zinc, Silver, Cadmium Geochemical Soil and Sediment Survey on Bryan Group of Claims, Yukon Territory, for Norquest Syndicate.

Burgoyne, 4½ days @ $120.00 per day.	540.00
B. Needham 4½ days (drafing & statistical calculations) @ $50.00 per day.	225.00
	765.00
Cadmium Analyses 105 @ $.75 each	78.75
Total:	$843.75

CREST LABORATORIES (B.C.) LTD.

Alfred A. Burgoyne

Alfred A. Burgoyne, M.Sc.

CERTIFICATE

I, Alfred A. Burgoyne, of Burnaby, British Columbia, do hereby certify That:

1) I am a geologist-geochemist employed by Crest Laboratories (B.C.) Ltd., 1068 - Homer Street, Vancouver 3, B.C.

2) I am a graduate of the University of British Columbia (B.Sc. Geology and Chemistry, 1962), and of the University of New Mexico, (M.Sc., Geology, 1967).

3) I have practised my profession as a geologist-geochemist since 1962.

4) I personally have examined the property as described in this report.

Alfred A. Burgoyne

Alfred A. Burgoyne, M.Sc.
Geologist-Geochemist

Dates, September 10, 1969

FIGURE 1A

NORQUEST JOINT VENTURE

BRYAN CLAIM GROUP, WATSON LAKE, MINING DISTRICT, YUKON TERRITORY.

SOIL AND SEDIMENT GEOCHEMICAL SURVEY FOR LEAD

SCALE
0 200 400 600 800 1000 FEET

GEOCHEMICAL SURVEY BY :- CREST LABORATORIES (B.C.) LTD.
JULY 31 - AUGUST 8, 1969.

A. Burgoyne

FIGURE 1B

NORQUEST JOINT VENTURE

BRYAN CLAIM GROUP, WATSON LAKE, MINING DISTRICT, YUKON TERRITORY.

SOIL AND SEDIMENT GEOCHEMICAL SURVEY FOR SILVER

SCALE
0 200 400 600 800 1000 FEET

LEGEND

○ - C SOIL LOCATION UNLESS OTHERWISE NOTED, WITH METAL CONCENTRATION IN PARTS PER- MILLION.

▪ - CLAIM POST

A, - A, SOIL SAMPLE

B - B SOIL SAMPLE

SS STREAM SEDIMENT

N-S NO SAMPLE

○ DEFINATELY ANOMALOUS +2.5 P.P.M.

○ POSSIBLY ANOMALOUS 2.0 -2.5 P.P.M.

-------- SKARN MINERALIZATION (APPROXIMATE LOCATION)

GEOCHEMICAL SURVEY BY :- CREST LABORATORIES (B.C.) LTD.
JULY 31 - AUGUST 8, 1969.

A. Burgoyne

FIGURE 1C

NORQUEST JOINT VENTURE

BRYAN CLAIM GROUP, WATSON LAKE, MINING DISTRICT, YUKON TERRITORY.

SOIL AND SEDIMENT GEOCHEMICAL SURVEY FOR ZINC

GEOCHEMICAL SURVEY BY :- CREST LABORATORIES (B.C.) LTD.
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FIGURE 1D

NORQUEST JOINT VENTURE

BRYAN CLAIM GROUP, WATSON LAKE, MINING DISTRICT, YUKON TERRITORY.

SOIL AND SEDIMENT GEOCHEMICAL SURVEY FOR CADMIUM

GEOCHEMICAL SURVEY BY :- CREST LABORATORIES (B.C.) LTD.
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FIGURE 1E

NORQUEST JOINT VENTURE

BRYAN CLAIM GROUP, WATSON LAKE, MINING DISTRICT, YUKON TERRITORY.

SOIL AND SEDIMENT GEOCHEMICAL SURVEY FOR COPPER

GEOCHEMICAL SURVEY BY :- CREST LABORATORIES (B.C.) LTD.
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