TG 141-74

FINAL REPORT
WINTER CREEK - Proj. 08
104G/14W
T.D. Pearse
December 1974

Texasgulf memo

Date December 16, 1974

To J. M. Newell Location Vancouver

From G. R. Peatfield Location Vancouver

Subject Final Report - Winter Creek Project, 08

Attached is Tony Pearse's report on the KIT Claims at Winter Creek (Proj. 08). I have been through this in some detail, and feel that I must disagree, at least in part, with Tony's conclusions. He sees, in the shear zone and massive mineralization, sufficient copper to explain the observed geochemical anomaly. He cannot explain the anomalous molybdenum values. His decision to recommend no further work is based on this feeling that the copper geochemistry simply reflects overall copper content of certain volcanic units, and that the intrusive body to the north is unaltered and not apparently a likely "mineralizing agent".

The geochemical data are not easy to interpret. Copper values for talus fines material range from 115 ppm to 2800 ppm, but yield an extremely erratic histogram. This plot suggests empirically that representatives of at least two and perhaps three statistical populations are present. A plot of copper data on probability paper confirms this suspicion. The distribution of molybdenum values is somewhat more straight forward.

My personal feeling is that the sampling all lies within a large localized anomaly, in a regional sense. This would account for the lack of a pronounced background peak in the 100-200 ppm copper range. In view of this, it is rather misleading to perform statistical "massaging" of the data to establish threshold values, and I think we should treat values above 400 ppm copper as anomalous in the local context.

As you are aware, I am nervous about this situation. There is no evidence to suggest an outcropping ore zone, and there is at present insufficient information to recommend extensive diamond drilling for a blind target. However, I see no reason

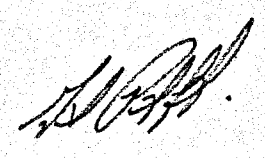
Continued. . .

to suspect that such a target does not exist. The geochemical sampling has outlined an area of surface exposure in which the rock is anomalously rich in copper and, locally, molybdenum. The problem remaining is to evaluate the true nature of this anomalous concentration of metals.

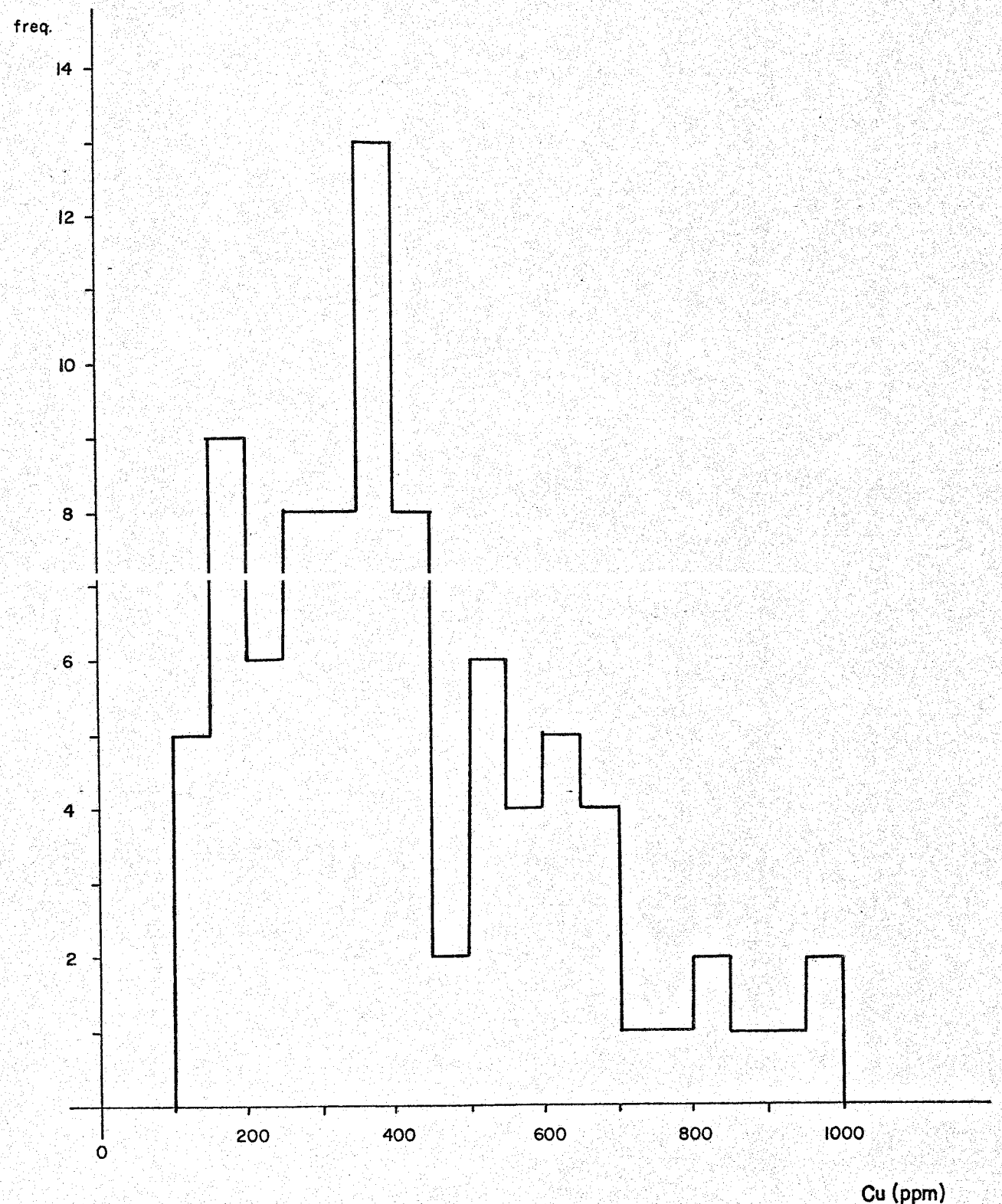
I would recommend: -

1) A minimal programme of rock trenching to obtain sufficient fresh rock for a meaningful geochemical test.

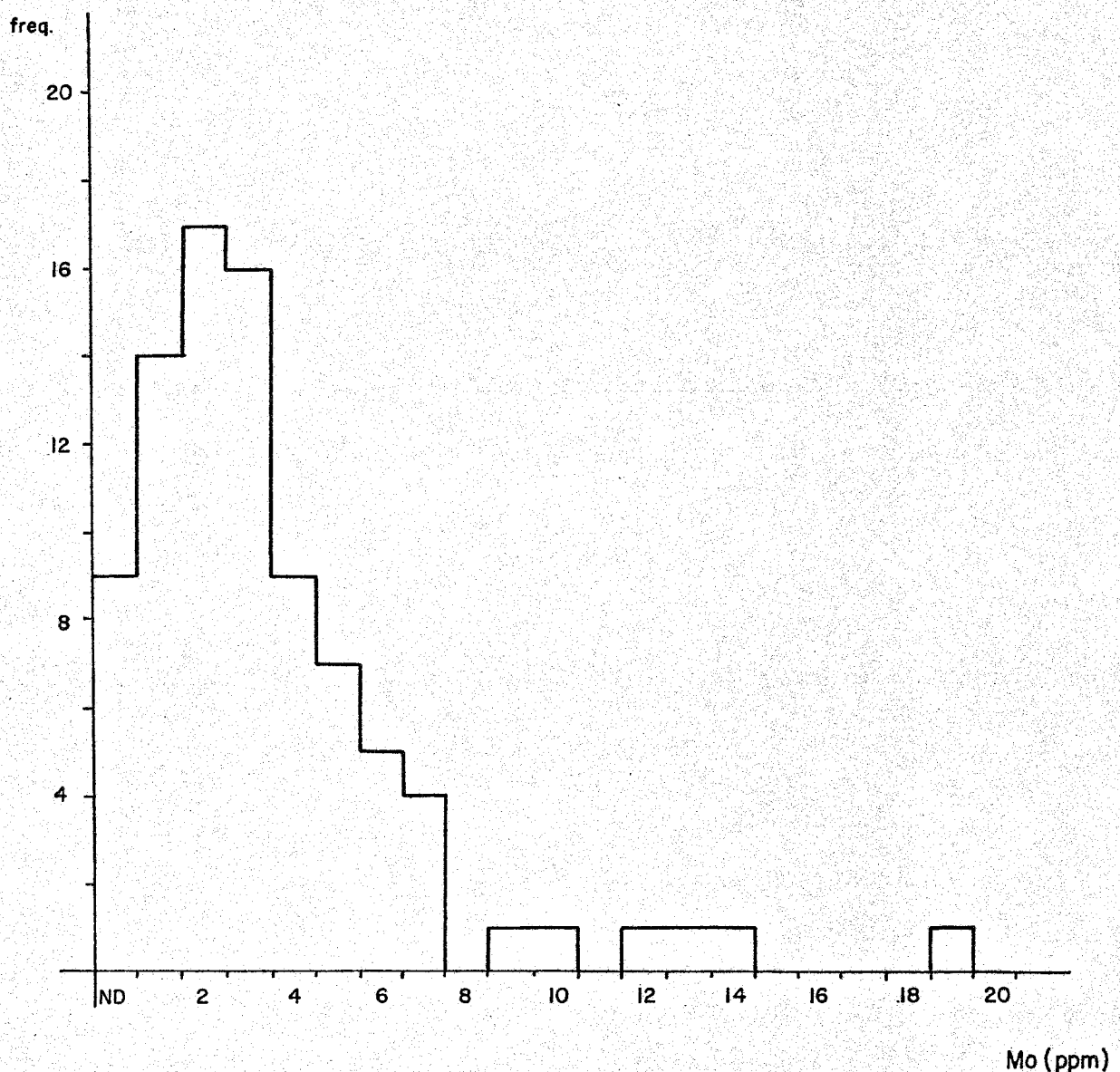
2) Filing such assessment work as is available at the conclusion of the above work.



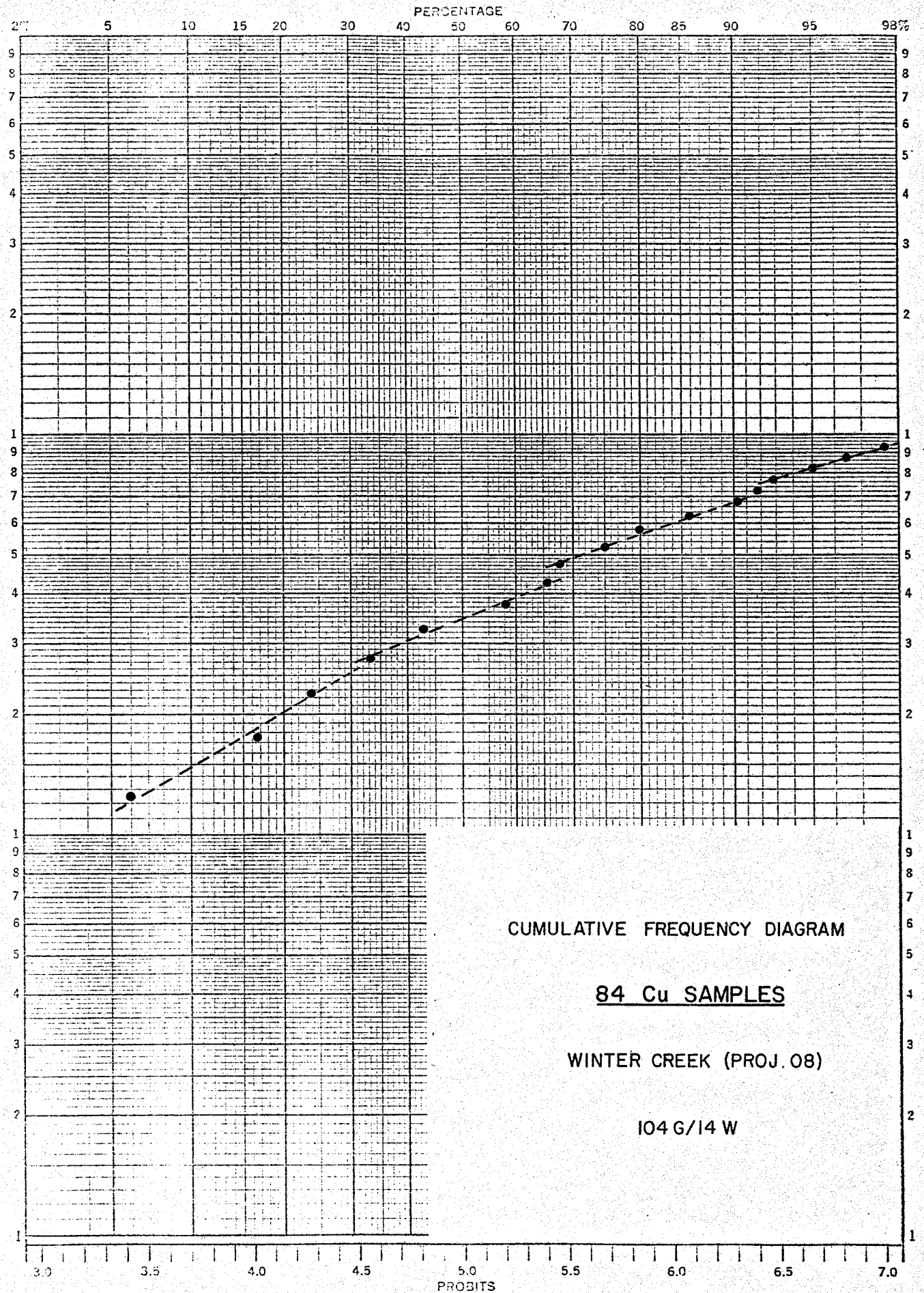
G. R. Peatfield



HISTOGRAM - TALUS FINE SAMPLES,
WINTER CREEK (PROJ. 08)
104 G/14 W



HISTOGRAM - TALUS FINES SAMPLES,
WINTER CREEK (PROJ. 08)
104 G/14 W



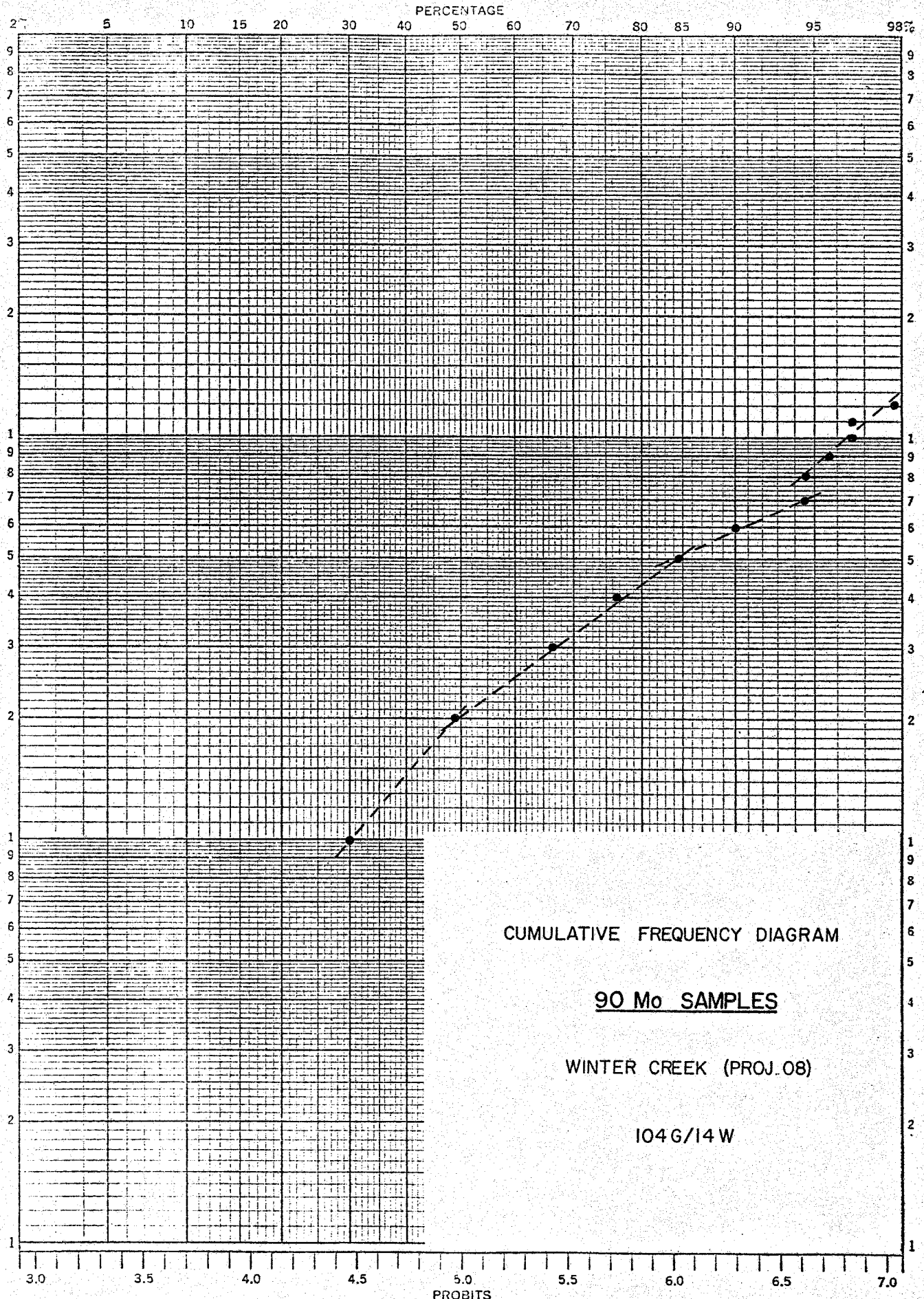
CUMULATIVE FREQUENCY DIAGRAM

84 Cu SAMPLES

WINTER CREEK (PROJ. 08)

104 G/14 W

X 3 LOG CYCLES
KEUFFEL & ESSER CO.



Texasgulf memo

Date 27 November 1974

To G.R. Peatfield Location Vancouver

From T. Pearse Location Vancouver

Subject RE: WINTER CREEK REPORT

Dear Giles:

Enclosed please find my report on the Winter Creek Property complete with map. As you will recall, this was a two week mapping project to map the KIT claims at 1" = 400' and hopefully delineate specific targets for possible drillsites. Unfortunately, this project was marred by such bad weather that Murray and myself were able to put only about 2-1/2 productive days into mapping. Consequently, several large areas show up as unmapped. We were, however, selective in choosing our priorities. Thus we concentrated on the northeast corner which had been bypassed in our earlier prospecting and the southwest corner where the interesting geology and mineralization was known to occur. The omitted areas are satisfactorily known from our earlier coverage to be relatively homogeneous geologically, and of little further interest economically. I believe, therefore, that the map gives a fairly accurate picture of what is happening with the rocks and that only substantially more detailed and lengthy mapping would add significantly to our knowledge of the area. I hope that this report and map are satisfactory to your needs in further consideration of the property's potential.

Sincerely and with Best Wishes,

Tony

Tony

TP:ll
Encl.

GEOLOGICAL & GEOCHEMICAL REPORT

by

T.D. Pearse, B. Sc.

on surveys completed during the period

July-August 1974

on the

KIT Claim Group

situated on

Winter Creek, Telegraph Creek area

in the

Liard Mining Divison

(57°55'N 131°25'W)

(NTS 104G/14W)

and owned by

ECSTALL MINING LTD.

October 1974 Vancouver, B.C.

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LIST OF ILLUSTRATIONS

INTRODUCTION & SUMMARY

The Winter Creek property, in the Stikine River area of northwestern B.C., consists of 26 claims overlying a steeply-dipping, undifferentiated sequence of upper Triassic volcanic rocks. Copper mineralization occurs sparsely but widely distributed within augite/feldspar porphyries. Occurrences are of two types: blebs and smears of chalcopyrite along serpentinized shear surfaces, and; massive chalcopyrite with pyrrhotite in two small lenticular sulphide replacement bodies. Subsequent to staking, work consisted of prospecting, geologic mapping (1" = 400 scale), and a talus fines sampling program. The geochemistry indicates a high background for copper in the order of 200 - 300 ppm. with some local values running to 2,800 ppm. Molybdenum concentrations range from a background of 2-3 ppm. to a high of 27 ppm. No molybdenum mineralization was observed on the property. Geochemistry and geology indicate a broad, undefined zone of sparse copper-sulphide mineralization throughout the western half of the property. The eastern half of the property contains no significant copper showings. It is the writer's belief that observed modes and concentrations of copper occurrences could account for the high geochemical values obtained. It appears that no concentrating mechanism has been active in concentrating sulphide mineralization into economically interesting amounts and thus the property's economic potential is low. It is recommended that no further work be accorded this claim group.

PREVIOUS WORK

In 1917, a discovery of copper mineralization was made on the south-facing slope of the Winter Creek Valley at an elevation of about 5,000'. This consisted of a small massive sulphide body containing varying amounts of pyrrhotite and chalcopyrite, a sample of which assayed 0.12 oz/ton Au, 0.92 oz/ton Ag., and 5.8% Cu. A description of this occurrence is given by J.D. Mandy in G.S.C. Memoir 246, Lower Stikine and Western Iskut Areas, British Columbia, p. 75. Claims covering the area have been staked and abandoned several times since and include, for example, the Glenora and King Groups of 1929, and the NP Group of 1962. An extremely recent campsite on the small tarn north of the ridge indicates that an exploration team was active in the area probably in the 1973 field season --- apparently no claims were staked at this time. On the 6th. of July, 1974, four men employed by Ecstall Mining Ltd. staked KIT Nos. 1 to 22; KIT NOS. 23 to 26 were added August 26th., 1974. Subsequent to the initial staking,

two men spent approximately forty-two man-days actively engaged in a geologic assessment of the area's copper-bearing potential.

CLAIMS & OWNERSHIP

The property consists of twenty-six contiguous mineral claims in the Liard Mining Division of B.C. The claims are owned by Ecstall Mining Ltd., and are listed as follows:

CLAIMS	TAG NOS.	RECORDING DATES
KIT #1 to 22	352701 M - 352722 M	July 15th., 1974
KIT #23 to 26	352724 M - 352727 M	Sept. 25th., 1974

LOCATION & ACCESS

The Winter Creek property is located approximately 10 miles west of Telegraph Creek, B.C., at 57° 55' N lat. and 131° 25' W. long. (see Index Map). It is accessible by foot along packtrails from Telegraph Creek, or by helicopter from Iskut B.C., approximately 55 miles to the east on the Stewart-Cassiar highway.

PHYSIOGRAPHY

The KIT Group lies along the eastern contact of the Coast Mountain Area and the Central Plateau-Mountain Area of the Interior system of the Canadian Cordillera. It is located on the east flank of the Coast Mountains at elevations of 3,500' to 6,300' and consists of a single, rugged, east-west trending ridge bounded to the north and south by two trunk valleys opening to the east, and to the west by Grass Mountain. To the south of the property, Winter Creek flows steeply east to its confluence with the Stikine River; a small unnamed tributary of Dodjatin Creek drains the north half of the map-area. The floors of Winter Creek Valley are forested with balsam, spruce and other alpine scrub species to about 3,800' grading into buckbrush slide alder, heather and grasses higher up on the valley slopes. Ninety-five percent of the outcrop is above 4,500' and this marked by a pronounced steepening in slope from the vegetated slopes below. Both the north and south faces of the ridge are deeply incised by erosional gulleys and characterized by precipitous topography that makes detailed traversing hazardous.

GEOLOGIC SETTING

The Winter Creek property is underlain by a sequence of undifferentiated intermediate volcanic rocks of upper Triassic age. These are predominantly augite andesite breccia, conglomerate, and volcanic sandstone, but include thick sections of greywacke, siltstone, tuff and minor shale. This sequence of rocks lies along the north flank of the northeast trending Stikine Arch, a crystalline complex that remained relatively positive throughout Mesozoic time and which greatly influenced the style of deposition of great thicknesses of volcanic and clastic sedimentary rocks during this time. The main axis of the Arch lies approximately 20-30 miles to the south of the property.

Immediately to the north of the claim group a small, double-lobed intrusion of quartz-deficient, intermediate to basic rocks of post upper Triassic age outcrops. The main axis of this body is approximately six miles in length and parallels the Stikine Arch Axis. There are several intrusive phases which exhibit gradational or complex migmatitic contacts with each other. Contacts with the intruded volcanic rocks, however, are sharp with relatively little contact metamorphism.

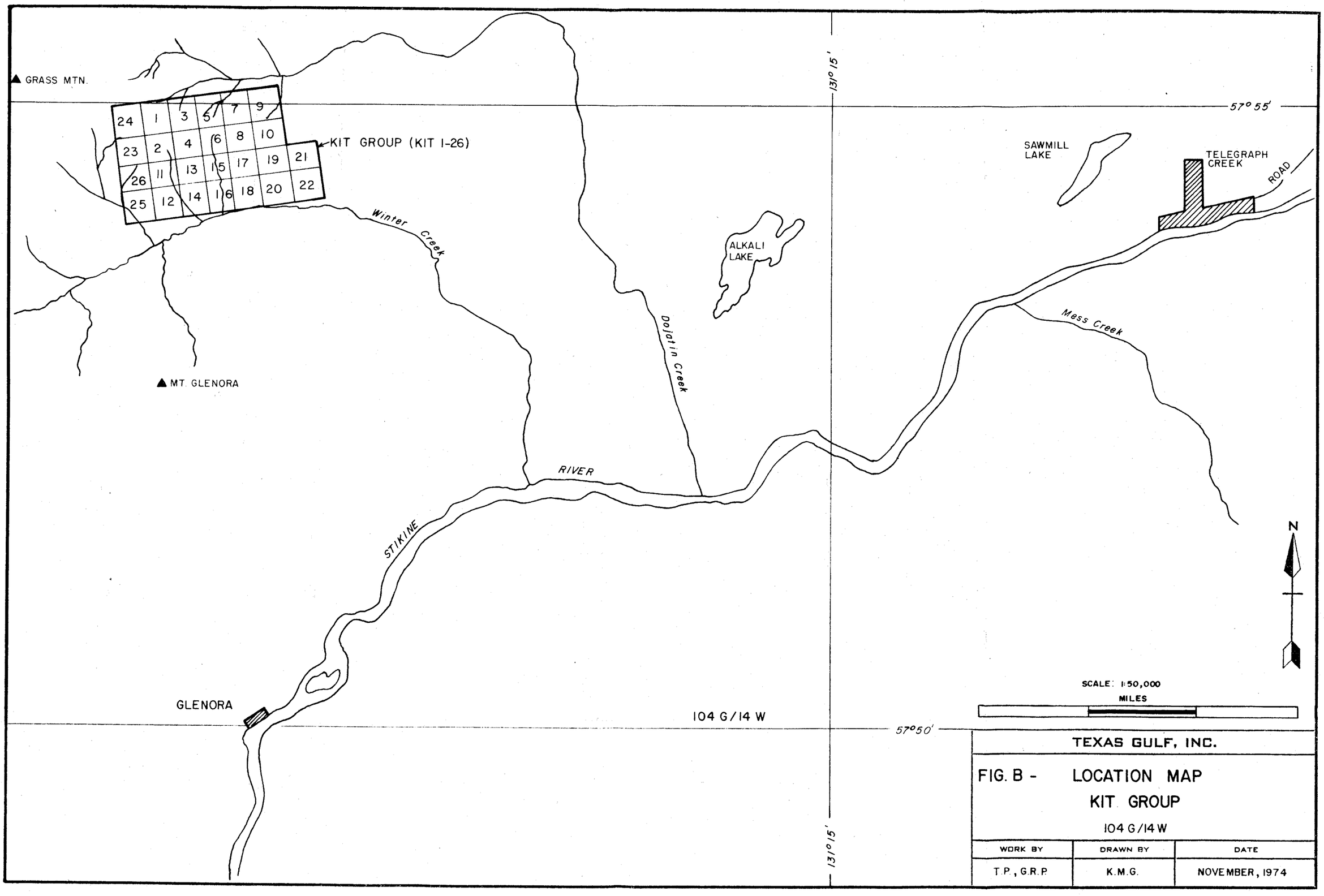
DETAILED GEOLOGY

Lithologic Units

The bulk of the rock types underlying the Winter Creek property comprise intermediate volcanic porphyries of varying compositions, textures, and relative age. Minor nonporphyritic lithologies include rhyolitic-dacitic tuffs, massive pyritiferous andesite, syenite, and monzonite. The rocks are described below in order of their relative abundance:

aP:

Augite Porphyry: a medium-dark grey porphyritic andesite with euhedral augite phenocrysts (up to several cm. in length) in an aphanitic matrix. Crowded porphyry textures with a concomitant decrease in phenocryst size are common. Minor concentrations of euhedral plagioclase phenocrysts or rare blebs of intergranular pyrite may be present. With an increase in pyrite content this rock grades into massive, nonporphyritic andesite.



TEXAS GULF, INC.

FIG. B - LOCATION MAP
KIT GROUP
104 G/14 W

WORK BY	DRAWN BY	DATE
T.P., G.R.P.	K.M.G.	NOVEMBER, 1974

fP:

Feldspar Porphyry: a medium-dark grey porphyritic andesite containing varying concentrations of fine-medium grained, euhedral plagioclase phenocrysts in a dark, aphanitic matrix. Phenocrysts may range up to 3 mm. in length and locally may exhibit trachytoid texture. Augite phenocrysts may be present in minor quantities.

H:

Hybrid Porphyry: a transitional member between aP and fP characterized by either approximately equal concentrations of plagioclase and augite phenocrysts in the same groundmass or by poorly defined and/or complex zones of mixing between the two rock types. The augite/feldspar porphyries are gradational and have been distinguished in the field on the basis of which phenocrysts are predominant. Unit H, therefore, represents a hybrid zone where distinction between aP and fP was difficult or not practicable.

rT:

Rhyolitic Tuff: an aphanitic felsic rock generally intensely fractured in surface exposures. It contains fine grains of pyrite which oxidize extensively to limonite and thus well-developed stain zones earmark the occurrences of this unit. Classificatinn as a rhyolite is tentative at best because of the difficulty of obtaining fresh rock surfaces. On the few such surfaces observed, however, this unit exhibited poorly-defined, thin banding; this coupled with its well-bedded occurrences suggests it represents a pyroclastic layer of siliceous composition. On the north-east side of the property, this unit occurs in several bands that are wide-ranging and continuous in extent and which may reach thicknesses of several tens of feet. Towards the west end of the property these rocks are restricted in occurrence to small crescentric lenses and "stringers" and are commonly fracture-filled with a cemented quartz-carbonate matrix. It is with these latter occurrences that the two small massive sulphide lenses exist. Locally, quartz-eye phenocrysts have been distinguished.

dT:

Dacitic Tuff: an aphanitic felsic rock of minor occurrence, less siliceous and darker in colour than the rhyolitic tuff.

Locally, it is distinctly more clastic in texture than rT and disseminated pyrite was commonly observed. Epidote in fractures is present to a lesser degree.

M:

Monzonite (plus diorite): a fine-grained equigranular rock with less than 10% quartz, 10-15% hornblende, and 75-80% consisting of an even mixture of K-feldspar and plagioclase. Locally, this rock grades into: a) diorite, wherein the abundance of plagioclase increases significantly and; b) mafic syenite, wherein the concentration of K-feldspar and hornblende increase to the point at which plagioclase and quartz comprise minor constituents of the rock. Generally, the monzonite is fresh in appearance, although the K-feldspars may be bleached on the weathered surfaces. Alteration is extremely weak or absent (minor epidote and K-feldspar along hairline fractures or in patches) and the rocks are not strongly fractured or deformed. Accessory minerals include apatite and magnetite.

S:

Syenite: a light pink to grey, fine-grained equigranular syenite which occurs as dyke-like bodies within the monzonite and the volcanic units. These bodies are all extensively fractured and pervasively altered through quartz-carbonate flooding --- in very few instances is a primary magmatic character distinguishable. Mafic content is low; the rock is composed primarily of K-feldspar with minor quantities of quartz.

QC:

Quartz-carbonate rock: small lenticular occurrences of highly fractured, Fe-stained rock in which the only recognizable constituents are limonite, quartz, and carbonate. This assemblage apparently occurs with both the felsic volcamies and the syenite and associations are generally difficult to make in the field. These bodies range from 10' - 100' long and several feet thick.

Alteration

Alteration types present in the Winter Creek rocks include, in order of relative predominance, chloritization, serpentinization, quartz-carbonate alteration, and minor occurrences of epidote and gypsum. Chloritization and

serpentinization are the most widespread; the former occurs both as propylitization of primary pyroxenes in the augite porphyries and with serpentine along shear surfaces. Serpentine development is restricted to shear surface coatings and slickensides in weakly to intensely sheared porphyritic rocks. Commonly the most fractured and altered zones are shot full of fine felsic stringers. Pods of quartz-carbonate rock are present in several locations usually in conjunction with felsic volcanics (at least in the eastern end of the property), although this relationship sis not always distinguishable. These bodies of intensely-altered rock have been more substantially described under Section (1) above as they were mapped as a separate rock unit. Other alteration minerals include rare epidote, hematite, gypsum and actinolite-tremolite, all located along hairline fractures in the volcanics and none with any significant continuity. Small, uncommon veinlets of epidote were also observed in the monzonite/diorite rocks to the north.

Alteration in the intrusive rocks along the north edge of the claim group is restricted to limited development of pink, K-feldspathized veinlets and patches, and the thin veinlets of epidote as mentioned above. Generally, the intrusive rocks are unaltered and extremely fresh-looking on the broken surface.

Chloritization and serpentinization are ubiquitous alteration modes in the volcanics; other alterations occur locally and are generally not intensive. There appears to be no significant alteration pattern associated with any of the processes.

Mineralization

Sulphide minerals observed on the property include pyrite, chalcopyrite, and pyrrhotite. Economic mineralization occurs in two distinct forms: 1) fracture-fillings of chalcopyrite in the volcanics, and; 2) pyrrhotite and chalcopyrite in two small massive sulphide lenses. Approximately one dozen small localities within the west half of the claim group carry minor quantities of blebby chalcopyrite along heavily serpentinized shear surfaces in both the porphyritic and pyritiferous, massive andesites. These are all localized in extent (several feet along strike, one or two inches thick) and mineralization is extremely erratic and inconsistent throughout. Moderately well-developed malachite staining results from these sparse sulphide occurrences rendering them easily observable

from a distance. These showings are apparently related to a late-stage fracturing/shear system parallel or semi-parallel the regional trend of the volcanic units.

Chalcopyrite in association with pyrrhotite occurs also in two thin(upto 6" wide) massive sulphide lenses which occurs along the upper contact zone of the massive andesite and the porphyritic member. The western showing occurs along a well-developed shear zone and strikes southerly with a vertical dip: exposure is erratic and offset over a length of approximately 100'. The eastern showing strikes southerly, dipping 65° East, and is exposed for approximately 40' with widths up to 6". Two rock-chip samples (WCTP-5,6) were taken on the western massive sulphide exposure and these assayed:

1) Au, 0.20 oz/ton; Ag, 0.41 oz/ton; Cu, 4.25%

2) Au, 0.06 oz/ton; Ag, 0.06 oz/ton; Cu, 0.83%

Structure

The volcanic rocks underlying the KIT group apparently comprise a thick sequence of steeply-dipping, interbedded rhyolities and andesites, striking approximately ENE and dipping to the south. Some kind of major structural element breaks the stratigraphic continuity between the east half of the property and the west. To the west the rocks consist of thick, undifferentiated augite/feldspar porphyries with a thick (up to 200') interbedded, pyritiferous unit which is commonly massive and non-porphyritic. The oxidation of pyrite in this unit weathers to yield a distinctive stain zone across the south slope of the ridge. Bedding attitudes were impossible to measure in the field due to the extensive fracturing and shearing that has occurred. However, a best-fit approximation of stratigraphy has been derived from the outcrop pattern of the pyritiferous-member. In addition, a prominent S1 surface is developed in outcrop which parallels the suggested stratigraphy and lends support to the model. The pyritiferous horizon is offset by faulting in several locations and the fault zones are marked by gouge and brecciation over several tens of feet. One of these shear zones contains the western-most massive sulphide occurrence which is apparently associated with felsic volcanics. Smaller fault surfaces with brecciation and slickensides are common throughout the entire sequence. It is these faults and prominent fractures that contain the observed copper mineralization.

The major faults appear to offset slightly from the strike of the stratigraphy, but exhibit the same steep dip to the south. In the most southwesterly outcrops a series of segmented and disoriented dykes are exposed. These are all vertically dipping and consist of augite porphyries, some with large quartz lenses up to six inches and locally comprising 50% of the rock by volume. Also within the pyritiferous horizon an interbedded rhyolitic member is exposed; its extent is unknown. One rock geochemical sample from this locality was taken (WCTP4), yielding 178 ppm. Cu and 1 ppm. Mo. Along the ridgetop several small bodies of felsitic volcanics and one small syenite dyke are exposed, contact relations with the andesites are obscured and indeterminate.

In the northeast corner of the map area stratigraphy is more obvious due to prominent and well-defined interbedded layers of felsitic volcanics and intermediate volcanics. At least ten distinctive bands of rhyolitic tuff ranging up to 40' thick are exposed on the north face. These exhibit strikes to the east and east-north-east and moderate dips to the south. Outcrop patterns and bedding suggest this sequence has been gently folded around a north-south fold axis plunging 20° - 40° to the south. Some small faults and a prominent ENE fracture set were observed. No copper-sulphide mineralization was observed on the east half of the claim group.

To the north of the property the volcanics are intruded by the monzonitic intrusion. This pluton is apparently concordant with the regional structure of the country rocks. Contacts are abrupt with relatively little contact effect, but may exhibit complex textures where intermixing of volcanic and plutonic rocks has occurred. For example, dyking of both rock types into the other is evident; small zones of augite porphyry with monzonitic inclusions and thin intrusive dykes with fragments of volcanic wallrock can be distinguished. This small stock comprises three differentiated phases; a basic dioritic original phase, a monzonitic younger phase, and a late phase of syenite dyking. Late stage volcanic dyking was apparently going on during the initial plutonic intrusive phases. The plutonic rocks, however, are all structurally undeformed and insignificantly altered. They are barren of sulphide mineralization and it is difficult to envision them as source potential for the volcanic copper occurrences.

GEOCHEMISTRY

Discussion of Field Methods

Geochemical work to date consists of 89 samples of talus fine material and 7 rock chip samples. Two lines of talus sampling were run horizontally across the south face at elevations of approximately 5,400' and 4,500'. The lower line was located topographically below the pyritiferous andesite horizon and the upper line above it. Sample stations were chained and established every 200' by flagged markers. An altimeter was used to maintain vertical control. In addition, a shorter line of 9 samples was run, before the claims were staked, between the two lines described above. Also, two samples were subsequently taken north of the main ridge. Approximately four tablespoons of the finest talus material were collected at each site and placed in numbered, 3½" x 6-1/8" ' Open End ' Kraft envelopes. All samples were analyzed for copper and molybdenum in the Bondar-Clegg Laboratory located at 1500 Pemberton Ave., N. Vancouver, B.C.

Seven rock chip samples were secured by taking 20-25 small chips in a randomly distributed manner over a width of approximately 20'. These samples were collected in plastic bags and sent to Bondar-Clegg for Cu. and Mo. analysis; the results are listed in Appendix A.

Laboratory Determination Method

The samples were first separated to a -80 mesh fraction. This process required crushing in the case of rock samples. Combined metal was extracted from a weighed sample of this fraction with Le Fort aqua regia. The resulting solutions were bulked to a 20% acid concentration and analyzed by atomic absorption spectrophotometry, in constant comparison with both synthetic and matrix standards. Results are expressed in parts per million contained metal.

Discussion of Results

Values for copper in the talus fines sampling range from 115 ppm. to 2,800 ppm. with a calculated arithmetic mean at approximately 504 ppm., and median at 370 ppm. Cu. Molybdenum values range from nil to 27 ppm. with a background of 2-3 ppm. Only a very general correlation between Cu and Mo values is revealed; i.e. high Mo concentrations were

generally associated with higher Cu concentrations, but exceptions are common with correlations being erratic and inconsistent.

Observed mineralization could account for the anomalous and high background concentrations of copper. The anomalous Mo values are more difficult to explain as Mo mineralization was unobserved on the property. The results do shown that this sequence of volcanic rocks does have an interestingly high copper background, but that no real pattern of concentration is revealed.

T. D. Pearse

TEXASGULF, INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

SAMPLER IC/GRP

DATE 11 June 1974

PROJECT Winter Creek (08)

NTS 104G/14W

LINE

AIR PHOTO No. BC 5358-165

SAMPLE No.	LOCATION	DEPTH	HORIZ.	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS					
				COLOUR	PART. SIZE	% ORG.	Ph				Cu	Mo	Zn	Pb		
3348		6"	n.a.	reddish	coarse	—		35°	none	near west edge of one stain	317	3				
49		"	"	"	"	—		"	"	100' east	520	2				
50		"	"	"	"	—		"	"	200' "	450	4				
51		"	"	dk. brn.	"	5%?		"	grass	300' "	425	5				
52		"	"	"	"	—		"	"	400' "	225	6				
53		"	"	reddish	"	—		"	none	500' "	575	6				
54		"	"	"	"	—		"	"	600' "	2700	25				
55		"	"	"	"	—		"	"	700' "	330	2				
3356		"	"	"	"	—		"	"	800' "	1700	27				
										taken ± on 5000' contour, 100' spacing; mostly talus fines.						

TEXASGULF, INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

NTS 104G/14W

SAMPLER Pearse/Cooper

PROJECT Winter Creek (08)

LINE

DATE 4 July, 1974

AIR PHOTO No. BC 5358-165

SAMPLE No.	LOCATION	DEPTH	HORIZ.	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS					
				COLOUR	PART. SIZE	% ORG.	Ph				Cu	Mo	Zn	Pb		
										Samples ~on 4600' contour						
K3063	Cairn above camp	4"	C	m-dk brn	soil	low		mod	grass		361	1				
64	200' W.	"	"	"	"	"		steep	willow	andes. tuff bedrock	629	7				
65	400' "	sfc	"	"	"	mod		mod	"	" " "	405	4				
66	600' "	"	"	"	"	low		steep	bk-brn	andes. fldsp. porph.	545	2				
67	800' "	"	"	"	vk chips	nil		"	"	" " "	382	1				
68	1000' "	"	"	"	chips & soil	nil		"	heather	" " "	300	3				
69	1200' "	"	"	"	"	"		"	"	" " "	296	3				
70	1400' "	"	"	lt. brn	"	"		"	nil	" " "	250	2				
71	1600' "	"	"	"	"	"		"	grass	" " "	560	3				
72	1800' "	"	"	"	"	"		"	nil	?	540	6				
73	2000' "	"	"	"	"	"		"	"	?	635	4				
74	2200' "	"	"	"	"	"		"	"		645	3				
75	2400' "	"	"	"	"	"		"	"		1880	4				
76	2600' "	"	"	"	"	"		"	"	Samples ~~on~~ 5400' contour	130	2				
77	900' vert above 76	"	"	red brn.	chips	nil		"	"	gossan w. malachite	960	1				
78	200' E of 77	"	"	"	"	"		"	"	some stain, just above gossan	910	7				
79	400' E	"	"	lt. brn.	"	"		"	"	augite porph	140	13				
80	600' E	"	"	"	"	"		"	"	" "	650	12				
81	800' E	"	"	"	"	"		"	"	" "	775	6				
K3082	1000' E	"	"	"	"	"		"	"	" "	615	5				

TEXASGULF INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

SAMPLER Pearse / Cooper

DATE 4-5 July, 1974

PROJECT Winter Creek (08)

NTS 104G/14W

LINE

AIR PHOTO No. BC 5358-145

SAMPLE No.	LOCATION	DEPTH	HORIZ.	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS, Samples @ ± 5500' contour.	ASSAYS					
				COLOUR	PART. SIZE	% ORG.	Ph				Cu	Mo	Zn	Pb		
K3083	1200' E of N	sfc	C	lt. brn.	chips	nil		steep	grass		480	4				
84	1400' "	"	"	"	"	"		"	nil	flds. porph. b/r.	659	3				
85	1600' "	"	"	"	chips & soil	"		"	grass	" " "	300	3				
86	1800' "	"	"	"	"	"		"	nil	gulley	371	4				
87	2000' "	"	"	"	"	"		"	"	flds. porph.	810	7				
88	2200' "	"	"	"	"	"		"	grass	aug. porph.	585	6				
89	2400' "	"	"	"	"	"		"	nil		1350	19				
90	2600' "	"	"	"	"	"		"	"	flds. porph. (epy in flt 100'W)	270	3				
91	2800' "	"	"	"	"	"		"	grass		350	9				
92	3000' "	"	"	"	"	"		"	"		320	3				
93	3200' "	"	"	"	"	"		"	shrubs	elev. 5520'	308	14				
July 5 94	200' E of K3093	"	"	"	"	low		"	alder	" 4440' (at cairn @ K3093)	430	4				
↓ 95	400' E "	"	"	"	"	nil		"	nil	" 4400'	383	3				
96	600' "	"	"	"	"	"		"	"		700	3				
97	800' "	"	"	rd. brn.	"	"		"	"	" 4430' (in gossan)	815	3				
98	1000' "	"	"	"	"	low		"	heather & alder		545	5				
99	1200' "	"	"	"	"	"		"	"	" 4380'	130	2				
K3100	1400' "	"	"	"	"	"		"	grass	possible contamination *	2800	10				
01	1600' "	"	"	lt. grey	chips	"		"	heather	elev 4400 (grass covered talus)	370	2				
02	1800' "	"	"	lt. brn.	"	nil		"	"		270	3				

* with what? G.R.P.

TEXASGULF INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

NTS 104G/14W

SAMPLER Pearse / Cooper

PROJECT Winter Creek (08)

LINE

DATE 5 July, 1974

AIR PHOTO No. BC 5358-165

SAMPLE No.	LOCATION	DEPTH	HORIZ.	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS					
				COLOUR	PART. SIZE	% ORG.	Ph				Cu	Mo	Zn	Pb		
K3103	2000' E. of 3063	sfc	C	lt. brn	chips & soil	low		steep	alder	elev. 4419'	215	2				
04	2200' "	"	"	"	"	nil		"	grass		120	2				
05	2400' "	"	"	"	"	"		"	"	" 4360'	675	2				
06	2600' "	"	"	"	"	low		"	"		400	3				
07	2800' "	"	"	"	"	"		"	" & shrubs		754	1				
08	3000' "	"	"	"	"	"		"	"	" 4310'	280	ND				
09	3200' "	"	"	"	"	nil		"	"		375	1				
10	3400' "	"	"	"	"	"		"	alder & heather	" 4280'	365	1				
11	3600' "	"	"	"	"	low		"	"		375	1				
12	3800' "	"	"	"	"	"		"	"	" 4300'	500	1				
13	4000' "	"	"	"	"	"		"	"	Flds. porph. andes.	550	2				
14	4200' "	"	"	"	"	"		"	"	" 4200' "	300	1				
15	4400' "	"	"	red brn	"	"		"	"	gossan	530	5				
16	4600' "	"	"	"	"	"		"	"	" 4230' "	892	7				
17	4800' "	"	"	lt. brn.	"	"		"	"		425	2				
18	5000' "	"	"	m. brn.	"	"		"	grass	" 4260'	360	1				
19	5200' "	"	"	"	"	"		"	shrubs		640	5				
20	5400' "	"	"	red brn.	"	"		"	"	" 4210' gossan.	960	3				
K3121	5600' "	"	"	m. brn.	"	"		"	"		660	4				
	End of lower line.															

TEXASGULF INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

SAMPLER Pearse / Cooper

DATE 5 July, 1974

PROJECT Winter Creek (08)

NTS 104G/14W

LINE

AIR PHOTO No. BC 5358-165

SAMPLE No.	LOCATION	DEPTH	HORIZ.	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS					
				COLOUR	PART. SIZE	% ORG.	Ph				Cu	Mo	Zn	Pb		
K3177	cairn at el. 5500'	sfc	C	red brn.	chip'd soil	low		mod.	grass	gossan; pyritic volc.	190	ND				
23	200' W 3rd	"	"	m. "	"	"		"	"		150	ND				
24	400' "	"	"	" "	"	"		"	"	elev. 5400'	190	ND				
25	600' "	"	"	red. "	"	"		Steep	"		170	ND				
26	800' "	"	"	m. "	"	"		"	"	" 5450'	295	ND				
27	1000' "	"	"	red "	"	nil		"	nil	gossan.	160	ND				
29	1200' "	"	"	" grey.	chips	low		"	grass	" 5420'	150	1				
30	1400' "	"	"	" brn	"	"		"	"		190	ND				
31	1600' "	"	"	" "	"	"		"	"	" 5450'	175	ND				
32	1800' "	"	"	lt. "	t soil	"		"	"		219	1				
33	2000' "	"	"	m. "	"	"		"	"	" 5500'	270	1				
34	2200' "	"	"	lt. "	chips	"		"	"		115	1				
35	2400' "	"	"	" "	"	nil		"	"	" 5520'	200	3				
36	2600' "	"	"	" "	"	low		"	"		180	2				
37	2800' "	"	"	m. "	t soil	"		mod	"	" 5540'	270	3				
38	3000' "	"	"	lt. "	chips	"		steep	"		305	5				
39	3200' "	"	"	" "	"	"		"	"	" 5520'	350	2				
40	3400' "	"	"	red "	"	nil		"	"		345	4				
41	3450' "	"	"	lt. "	"	"		"	"	" 5400' End of Line	240	5				

TEXASGULF INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — SOIL SAMPLING

SAMPLER Pearse

DATE 10 July 1974

PROJECT Winter Creek (08)

NTS 104G/14W

LINE

AIR PHOTO No. BC 5358-165

SAMPLE No.	LOCATION	DEPTH	HORIZ.	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS					
				COLOUR	PART. SIZE	% ORG.	Ph				Cu	Mo	Zn	Pb		
K3142	see map	sfc	C	red brn.	chips	nil		steep	nil	qtz.-carb. gossan upslope	330	2				
43	" "	"	"	m. "	"	"		"	"		410	2				

TEXASGULF INC. EXPLORATION DIVISION

GEOCHEMICAL DATA SHEET — ROCK CHIP SAMPLING

SAMPLER Pearse

DATE Aug. 1974

PROJECT Winter Creek (08)

NTS 104G/14W

LINE

AIR PHOTO No. BC 5358-165

SAMPLE No.	ROCK TYPE	LOCATION	DESCRIPTION				ADDITIONAL OBSERVATIONS OR REMARKS	ppm. ASSAYS; ppb.						
			AGE	ALTERATION	FRESHNESS	VEINING MET. MIN.		Cu	Mo	Zn	Pb	Ag	Au	
WCTP-1		See map						88	2					
-2		"						63	1					
-3	fld. porph.	"		chlor. serp.		fract. fill cpy.	abund. Cu stain, rare cpy	2300	ND					
-4	rhyol.?	"		nil		diss. pyr.	taken from area of intense gossan; strong fracturing.	178	1					
-5	volc.	"				mass. po/pyr + mal.	small mass. sulph. lens.	+20,000	9	118		15.2	6100	
-6	silic volc. rhy?	"			intense oxid.	mass & diss pyr, mal.	small lens rhyol? in strong shear-fract. zone	10,200	22	80		4.0	850	
-7	fld. porph.	"		serp.	"	diss. pyr.	±200' above GRP disc., Cu stain rare ~ flt, none in sample. Strong fracturing.	820	2					

To: Texas Gulf, Inc.

PAGE No. 1

REPORT No A 751

DATE: Oct. 4, 1974

BONDAR-CLEGG & COMPANY LTD.

701 - 1281 West Georgia Street
Vancouver, B. C. V6E 3J7
Attn: Mr. G. Peatfield

CERTIFICATE OF ASSAY

Samples submitted: Sept. 24, 1974
Results completed: Oct. 4, 1974

PROJECT: 08

I hereby certify that the following are the results of assays made by us upon the herein described pulp samples.

MARKED	GOLD		SILVER	Cu							TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
WCTP - 5	0.20		0.41	4.25							
WCTP - 6	0.06		0.06	0.83							

Registered Assayer, Province of British Columbia

APPENDIX B

STATEMENT OF EXPENDITURES

APPENDIX B

STATEMENT OF EXPENDITURES
KIT CLAIMS; WINTER CREEK

Salaries & Fringe Benefits			
T.D.Pearse, Geologist	7 - 12 July, 1974 15 - 29 Aug., 1974 21 days @ $50 - $1050		
M.F.J.Cooper, Field Assistant	7 - 12 July, 1974 15 - 29 Aug., 1974 21 days @ $25 - $ 525		$ 1575
Room & Board			
	42 man days @ $10		$ 420
Equipment Rental			
	Traeger radio		$ 120
Preparation of Topographic Base Map			
	Photogrammetry by McElhanney Engineering Ltd.		$ 520
Travel & Helicopter Support			
	6 hours Bell 206B helicopter @ $210		$ 1260
	Travel for crew		$ 250
Report Preparation & Supervision			
J.M.Newell, P.Eng.	1 day @ $210 -	$ 120	
T.D.Pearse	Sept. 12 - 20 7 days @ $50 -	$ 350	
Drafting, reproductions etc		$ 125	$ 595
Total Expenditure			$ 4740
Total expenditure claimed in Application for Certificates of Work:			$ 4400

Continued. . . .

N.B. The results of a geochemical survey are included in the supporting report. This work was completed prior to staking and the costs involved are NOT included in the above statement of expendiutres.

APPENDIX C.

STATEMENT OF QUALIFICATIONS

T.D. Pearse - obtained his B.Sc. degree from the University of British Columbia in 1971. He worked for 3 years a a staff geologist for Noranda Exploration Co., Ltd. in northern B.C., and assumed a temporary position as field geologist for Texasgulf, Inc. for the 1974 field season.

M.F.J. Cooper - is currently completing his B.Sc. degree at the University of Western Ontario and, as a field assistant, is thoroughly competent in all the tasks assigned to him during this project

UNMAPPED

UNMAPPED

UNMAPPED

WCTP-1
WCTP-2
WCTP-3
WCTP-4
WCTP-5
WCTP-6
WCTP-7

x 6349
x 5812
5720
5769

discovery showing

cairn

SCALE: ONE INCH = 400 FT.

N

LEGEND

- S — Syenite
- M — Monzonite
- rT / dT — Rhyolitic / Dacitic Tuff
- qP, H / fP — augite / feldspar Porphyry Hybrid.
- QC — Quartz – Carbonate rock
- Outcrop Pattern
- Contact
- Fault
- Shear
- Bedding
- Jointing
- X 5812 Elevation
- Rock Geochem Station.
- x^m Malachite
- py Pyrite
- Limit of Gossan

Texasgulf inc.

FIG. C. Geological Map

KIT GROUP

104 G/14 W

WORK BY	DRAWN BY	DATE	DRW.G. NO.
T.P., G.R.P.	K.M.M	JANUARY, 1975	

Texasgulf Inc.

FIG. D. **Geochemical Map**

KIT GROUP

104 G/14 W

WORK BY	DRAWN BY	DATE	DRWG. NO.
T.P., G.R.P.	K.M.M.	JANUARY, 1975	

Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute map accuracy.
Compiled from aerial photography at an approximate scale of 1 inch equals 16 000 feet flown in 1974

TEXASGULF INC.

WINTER CREEK - STIKINE RIVER

PRELIMINARY RECONNAISSANCE TYPE MAPPING

McElhanney Surveying & Engineering Ltd.
1200 West Pender Street, Vancouver, B.C. Canada

Scale	1"=4000'
Contour Interval	50'
Date	Aug 1974
Job No.	06116-0
Sheet No.	1 of 1