1983 SUMMARY REPORT
ON THE KOOTENAY ARC TUNGSTEN PROJECT
ANOMALY INVESTIGATIONS
SOUTHERN BRITISH COLUMBIA

NTS 82 F, 82 M

by

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February 1984 Vancouver, B.C.

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SUMMARY

This report presents results of the 1983 Kootenay Arc tungsten project completed in southeastern British Columbia. The primary project objective was the investigation of tungsten anomalies outlined during a regional heavy minerals survey in 1982. Cordilleran-type tungsten deposits formed the basic exploration target. Known deposits range in size from the small Dimac deposit (35,000 tons @ 1.6% WO_3) northeast of Clearwater, B.C. to the giant Mactung deposit (90,000,000 tons @ 0.94% WO_3) in the Yukon and Northwest Territories. A second objective was to evaluate the gold potential in project areas which were considered to be favourable; hence 638 heavy mineral pulps were analysed for gold.

Fieldwork was conducted by a 2-3 man, truck-supported crew and consisted of detailed sampling, (heavy mineral and silt), prospecting and U.V. lamping of anomalies. Thirty-nine high and medium priority tungsten anomalies were examined. Approximately twenty-five gold anomalies, resulting from analysis of sample pulps, were investigated concurrently.

Tungsten anomalies investigated during the Kootenay Arc project are caused by low concentrations of tungsten which occur in skarn developed peripheral to Cretaceous intrusives, within intrusives in veinlets and fractures, and in calc-silicate-marble bands in the Shuswap Metamorphic Complex.

Heavy mineral surveys are very effective in detecting concentrations of Au. Gold anomalies are numerous in the Kootenay District, where precious metal

exploration has historically been concentrated, with resultant contamination effects. Gold values in the Adams Plateau-Clearwater area are relatively sparse in number and magnitude by comparison which suggests that gold potential is low in areas surveyed.

No further work is recommended on tungsten anomalies. Two gold anomalies northeast of Creston require further sampling and detailed prospecting.

CONCLUSIONS

1. The 1983 anomaly investigation failed to delineate potentially economic tungsten or tin mineralization in rocks of the Kootenay Arc or Shuswap Metamorphic Complex. Anomalies are caused by low concentrations of tungsten in the following environments:

   a) In skarn developed peripheral to Cretaceous granite-quartz monzonite stocks or batholiths that have intruded lower to mid Paleozoic carbonates.

   b) Within Cretaceous intrusive bodies in association with fractures, quartz veins and weakly developed greisen veinlets.

   c) In regionally metamorphosed calc-silicate and marble bands of the Shuswap Metamorphic Complex.

2. Downstream dispersion and resultant enhancement of tungsten and tin values have been a major factor in the development of a large number of high and medium priority anomalies. (e.g. P21, 46, 54, 60, 70, 72, 79). Weak tungsten mineralization occurring in upper drainage systems is concentrated in heavy mineral traps in the main stream, producing high analytical values.

3. Tungsten displays persistent downstream dispersion trains in heavy mineral concentrates whereas stream silt dispersion of tungsten, is far shorter and therefore more site-specific, or proximal to tungsten mineralization. Only one of thirty-nine anomalies investigated contained appreciable W in silt. Anomaly P23 consistently returned anomalous W in silts and corresponding pan concentrates downstream from known tungsten mineralization.

4. An area of approximately 200 sq km bounded by the West Raft River on the west and the Mad River on the east, north of Vavenby, contains the Dimac deposit and a number of interesting tungsten skarn occurrences. This area is considered to have the most potential for the discovery of additional tungsten deposits. The area has good road access and a well developed drainage pattern. The major drainages have been sampled with negative results. The remaining, poorly drained, overburden-covered areas retain the best potential for tungsten mineralization. The probability of discovering a large deposit is judged to be low.

5. Heavy mineral surveys are very effective in detecting concentrations of Au. The effectiveness of the procedure is proven by the large number of gold anomalies developed in streams draining known gold or base metal-gold mineralization in the

Kootenay District. Contamination from old workings has enhanced the magnitude of anomalous values and areal dispersion.

6. The relative lack of anomalous gold values in stream drainages in the Adams Plateau-Clearwater area indicates a low potential for gold mineralization in the areas sampled.

7. In general, gold values are often erratic and difficult to reproduce on re-sampling or re-analysis. Replicate analyses and a large sample volume may help to overcome this problem.

8. The concentration factor for gold in panned concentrate is very high and careful thought must be given to determine significant levels.

9. The highest values for W, Sn and Au in heavy mineral surveys are often obtained from deltas at the mouths of creeks where reworking of stream sediments is greatest. If practicable, samples should be taken above these deltas in order to obtain a more representative indication of mineral content.

RECOMMENDATIONS

1. No further work is recommended for W-Sn anomalies delineated in the Kootenay District or the Adams Plateau-Clearwater area.

2. Anomalous gold values in Leadville Creek, northeast of Creston, require more detailed examination. The main creek should be re-sampled and tributary drainages should be carefully prospected and sampled. Kuttat Creek, 20 km to the north, which returned low order anomalous gold values, should be prospected at the same time.

INTRODUCTION

Project Purpose

The purpose of the 1983 Kootenay Arc project was to investigate W, W-Sn, and Au anomalies developed during a regional heavy minerals-stream silt sampling program in southeastern British Columbia in 1982.

Location, Access and Terrain

Field work was centered in and adjacent to the Kootenay District, N.T.S. map sheet 82F, and the Adams Plateau-Clearwater region, N.T.S. map sheet 82 M (Figure 1). Access within these areas is provided by a good system of logging roads, trails, and/or creek drainages.

The present government restraint program has resulted in reduced road maintenance by the Department of Forestry. Consequently many less frequently used access roads have not been repaired after spring washouts. Logging is widespread in both areas and new roads exist which are not shown on Government maps.

Terrain in the Kootenay Area varies from moderate to rugged. Elevations range from less than 1,000 metres to approximately 3,000 metres. Low lying areas are densely overgrown, often with poor bedrock exposure. Higher elevations are characterized by deeply incised steep sided valleys.

The Adams Plateau is topographically more subdued with a well developed plateau at approximately 1,900 metres. Relief averages 600-700 metres. Glacial overburden is widespread and quite thick. Bedrock is best exposed in creek drainages.

Exploration Target

The primary exploration objective was the discovery of Cordilleran-type tungsten skarn deposits.

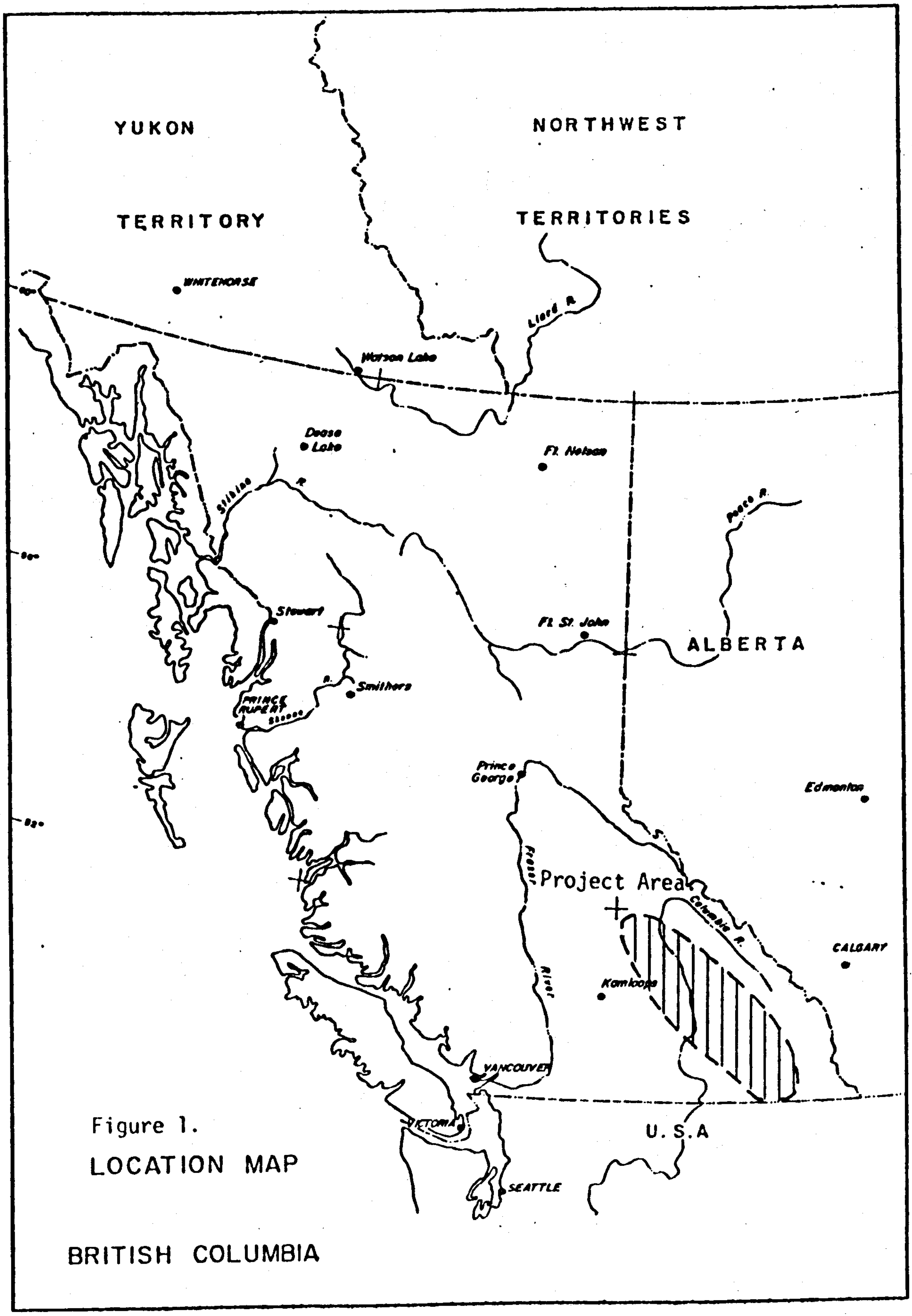


Figure 1.
LOCATION MAP

BRITISH COLUMBIA

Examples are the Emerald deposit near Salmo (1 million tons of 1% WO_3), and Cantung (6 million tonnes of 1.6% WO_3) in the Yukon and Northwest Territories.

Cordilleran-type tungsten skarn deposits are characterized by continental collision tectonics, intrusion of post tectonic stocks or plutons commonly with metasomatic overprints, and a general lack of associated volcanism. The average composition of intrusive rocks ranges from qranite to qranodiorite. Host rocks are usually lower Paleozoic or younger impure limestone. Mineralization within these tungsten skarns normally consists of scheelite, pyrrhotite, pyrite, chalcopyrite and lesser amounts of molybdenite, sphalerite, wolframite, bismuth, etc.

Tonnages of known deposits vary widely from 35,000 tonnes of 1.6% WO_3 at Dimac, northwest of Clearwater, to 90,000,000 tonnes of 0.94% WO_3 at Mactung in the Northwest Territories.

A secondary target was gold mineralization, which often occurs in a geological setting favourable for the formation of tungsten deposits.

WORK COMPLETED IN 1982

A truck-supported heavy minerals and stream sediment sampling program was completed in 1982. Approximately 1,000 sites were sampled, which resulted in 111 geochemical anomalies. The most interesting, and accessible of these were investigated during the latter part of that field season. Further office evaluation provided 19 anomalies designated "A priority", and 20 anomalies designated "B priority". The major factors determining anomaly ranking were:

1. Magnitude of tungsten values and supporting associated elements

2. Favourable geological setting
3. Support by adjacent anomalous samples and reported presence of mineral occurrence

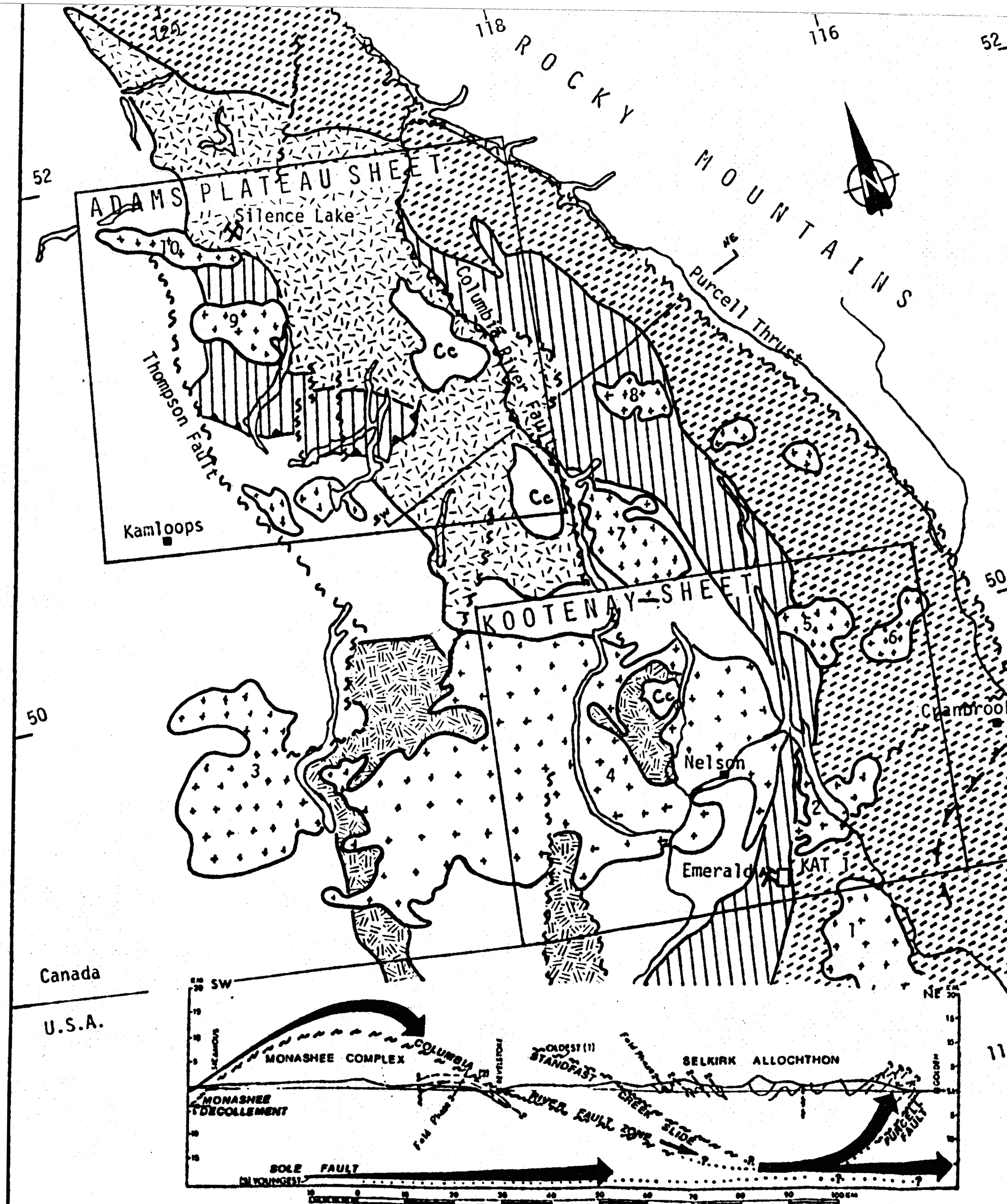
High gold values detected by Induction Coupled Plasma (ICP) analysis led to the recommendation that all panned concentrates be analyzed for Au using the Atomic Absorption (AA) method. Subsequently 50% of the samples were selected for analysis. Approximately 10% of these returned values greater than 100 ppb Au.

1983 WORK PROGRAM

The 1983 anomaly follow-up program utilized a 4 wheel drive Toyota Landcruiser and a crew of 2 to 3 men. Work began June 6th and continued until August 30, 1983. The anomaly investigation was divided into a two phase approach. The initial phase consisted of detailed sampling of drainages in the anomaly area, prospecting for float in creeks, and examination of heavy mineral residue in pans. If analytical results appeared favourable the area was re-visited. The second phase relied on geological examination, detailed prospecting and U.V. lamping of the suspected source area. High water levels in creeks during June caused sampling problems. Ideally a heavy minerals sampling program should be carried out late in the season. This allows better site selection and easier creek access.

GENERAL GEOLOGY

The project area lies at the south end of the Omineca Crystalline Belt and extends from the U.S. border northward to Wells Gray Park. As shown in Figure 2, the most important tectonic elements in southeastern British Columbia are the Rocky Mountains, the Selkirk Allochthon (comprising a combination of the Purcell Anticlinorium and the Kootenay Arc) and the Shuswap Metamorphic Complex



Diagrammatic cross-section from west of Monashee Complex to east of the Rocky Mountain Trench showing the chronology of movement on the faults from the oldest at the highest level to the youngest at the deepest levels (after Brown et al. 1981)

Batholiths

1. Kiasku
2. Bayonne
3. Okanagan
4. Valhalla-Nelson
5. Fry Creek
6. White Creek
7. Kuskanax
8. Battlerange
9. Baldy
10. Raft

Selkirk Allochthon

- Purcell Anticlinorium
- Lower Kootenay Arc
- Shuswap Metamorphic Complex
- Monashee Complex
- Cc Core Complex

Kidd Creek Mines Ltd.

Geological Terranes Of South-eastern B. C.

Scale 1 : 2,000,000

Figure: 2

which includes in part the Monashee Complex. Current interpretations suggest that beginning in late Jurassic, the Selkirk Allochthon was transported eastward more than 80 km over the top of the Monashee Complex.

The Purcell Anticlinorium consists of a core of Helikian and Hadrynian subtidal and locally, deep basin sediments including turbidites, collectively known as the Purcell Supergroup; the core is flanked by Hadrynian, dominantly clastic sediments (quartzite and argillite) and minor mafic volcanics of the Windermere Supergroup. Broad open folds characterize the Purcell Anticlinorium, which is cut by north and northeast trending faults.

The term Kootenay Arc refers to a 400 km long, arcuate, eastward convex belt of dominantly sedimentary rocks which range in age from Lower Cambrian to mid-Jurassic. This belt consists of a thick succession of complexly deformed and regionally metamorphosed sedimentary and minor volcanic rocks which become progressively younger to the west. The Kootenay Arc lies conformably upon the Purcell Anticlinorium on the east and is separated from the adjacent Monashee Complex on the west by the eastward-dipping Columbia River Fault. The Lower Cambrian Badshot and Reeves Limestone members are regional markers. To the north, the Kootenay Arc terminates against the Shuswap Metamorphic Complex, although current lithologic revisions suggest its continuation northwest beyond the Shuswap Complex to the North Thompson Fault. The eastern or older Kootenay Arc stratigraphy, of lower Paleozoic age, provides the greatest exploration attraction for tungsten mineralization.

The Shuswap Metamorphic Complex consists of probable North American continent-derived rocks, most of which have been metamorphosed. At lease four tectonic slices of this Complex, caught up in the Selkirk Allochthon, have been mapped in the region north of Upper Arrow Lake. The Shuswap Terrane extends northwest as far as Quesnel Lake. Relatively little significant work has been completed to define this metamorphic complex, particularly further north where poor exposure has hampered detailed mapping. Some Monashee Complex rocks are included in Shuswap Complex as shown by older maps, because the definition of Monashee Complex is relatively new. Lithologies such as quartz-mica schist (often with garnet), quartzite, marble, amphibolite, granitoid gneiss and paragneiss are present with complex patterns of penetrative deformation superimposed on early tight recumbent folds in rocks that generally are in the sillimanite zone of regional metamorphism. Age is estimated to range from late Proterozoic to Paleozoic. The Complex's relationship to bordering terrane, particularly the western margin, is poorly defined.

Recent geological work in the Adams Plateau area of the Shuswap Metamorphic Complex has resulted in tentative tectonic and stratigraphic correlations of this region with the Kootenay Arc to the southeast. Revision of the Eagle Bay Formation is currently underway, based on radiometric and paleontologic dating and re-interpretation of rock assemblages. The Eagle Bay Formation was previously mapped as a broad heterogeneous lithologic group of Late Devonian to Mississippian age. Present definition of this Formation includes a broad assemblage of mafic and felsic metavolcanic rocks and numerous beds and lenses of carbonate rocks, including the Tshinakin Limestone. By inferring an unconformity within the Eagle

Bay Formation, the lower part of the Eagle Bay has tentatively been correlated with the Cambro-Ordovician Lardeau Group of the Kootenay Arc and the upper part with the Upper Mississippian to Pennsylvanian Milford Group. This suggests that the Tshinakin Limestone at the base of the Eagle Bay Formation could correlate with Lower Cambrian Badshot Limestone and Reeves Limestone.

Large syn-orogenic and post-orogenic granitic batholiths with satellitic stocks ranging in age from Middle Jurassic to Cretaceous intrude all of the terranes; the largest of these batholiths are the Valhalla-Nelson and the Kuskanax. Several pre-tectonic Devonian plutons are also present. Small, generally quartz-deficient Tertiary stocks known as the Coryell intrusions are present in the southern and western part of the Kootenay Arc.

GEOCHEMISTRY

General

The sample collection, treatment, and analytical procedures established during the 1982 survey were adopted in 1983 to provide compatible results. A condensed version of these sample procedures has been extracted from the 1982 final report.

In the anomaly investigation priority was given to the collection of pan concentrates over silt sampling. Conventional stream silts were used to serve as confirmation of W mineralization in near source areas, and to indicate base metal anomalies.

A system of control samples and blind duplicate samples was introduced to monitor the accuracy and precision of analytical procedures. Each block of twenty samples contained one reference control sample and one blind duplicate sample. The blind duplicate is a split of one of the 18 field samples and the reference control is taken from a bulk reference sample. The bulk reference sample was obtained from Sheep Creek which is anomalous in W and Au. Sample material was sieved to - 80 mesh and the fines ground to - 200 mesh.

The convention in numbering sample types established in 1982 was continued to provide uniformity and ease in use of analytical data; odd numbers were used for panned concentrate samples and even numbers for stream silt samples. All samples were plotted on a flat file 1:50,000 NTS folio. Approximately 750 samples were collected.

Sampling Method

Sampling equipment consisted of a spade, coarse screen and fibreglass batae pans. Active, high-energy sites were chosen for sampling within stream beds. On larger streams (more than 15 metres wide) several collection sites were used to obtain material representing a composite sample. Flowsheets showing sample collection, preparation and analysis are given on Tables 1 and 2. The coarse screen rejected pebbles greater than 1 cm to give more uniform pan volumes. Two batae pans were systematically filled with coarse-screened stream gravel to an upper mark placed on the pan. This material was then systematically panned down to a lower mark also carefully placed on each pan. Following this, the remaining sample was scrupulously transferred to standard Kraft bags. The lower mark was empirically chosen so that the final sample material had not yet lost any of the black sands (magnetite). This was to prevent the inadvertent panning loss of fine scheelite from the sample, and to assure consistent sample quantity from

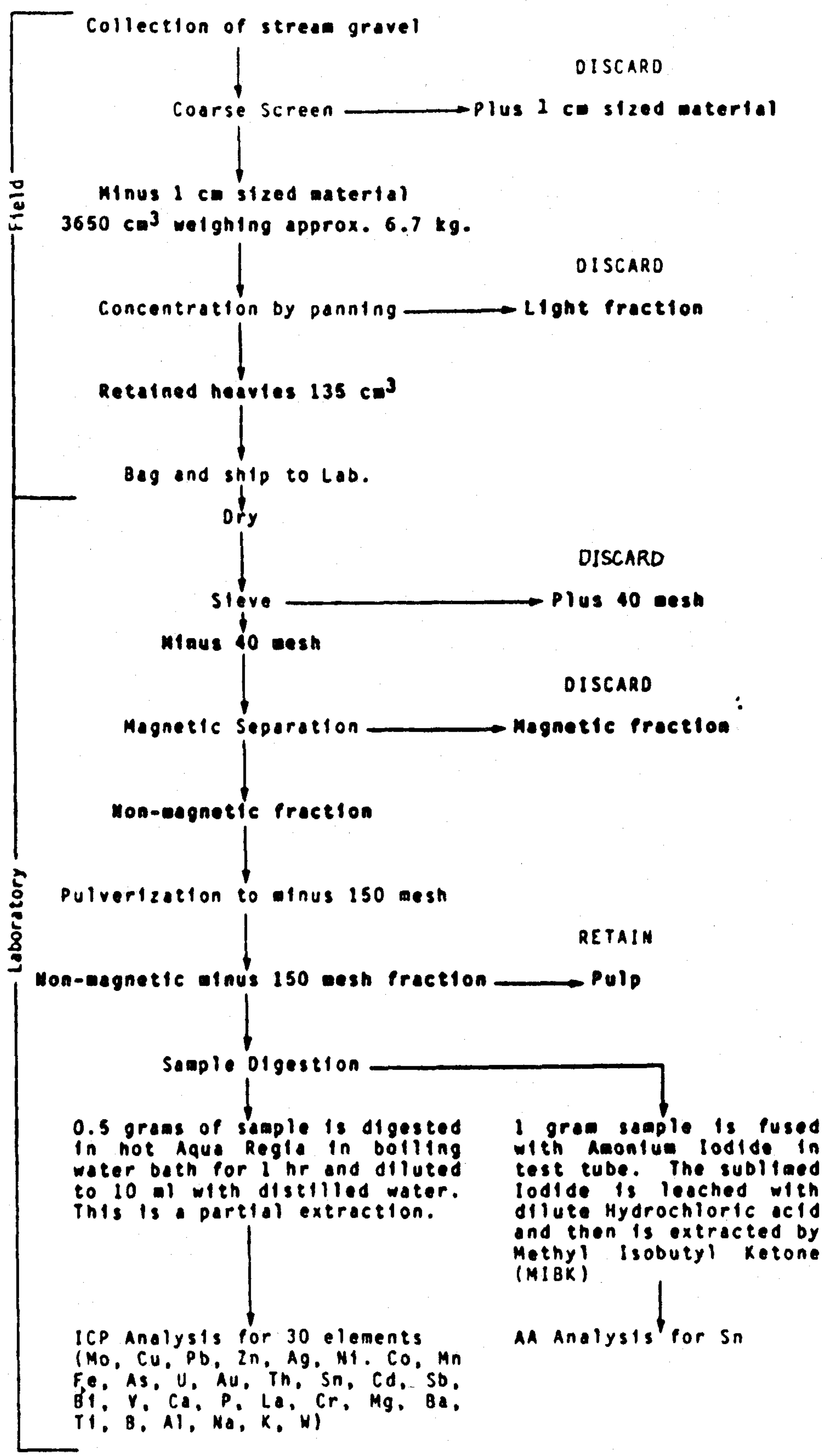


TABLE 1. FLOWSHEET FOR PANNED CONCENTRATE SAMPLES

Collection of active stream sediment

Bag and ship to Lab.

Dry

DISCARD

Sieve

Plus 80 mesh

RETAIN

Minus 80 mesh

Pulp

Sample Digestion

0.5 grams of sample are disgested in hot Aqua Regia in boiling water bath for 1 hr and diluted to 10 ml with distilled water. This is a partial extraction.

ICP Analysis for 30 elements

(Mo, Cu, Pb, Zn, Ag, Ni. Co, Mn Fe, As, U, Au, Th, Sn, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W)

TABLE 2 FLOWSHEET FOR STREAM SILT SAMPLES

stream to stream for better geochemical comparison. The panned concentrate sample collected at each stream occupies about 135 cubic centimetres and represents a calculated concentration factor of 27 times the initial sample volume; the initial sample (two batae pans) averaged 7.6 kg. A conventional stream sediment sample for silt analysis was routinely collected at the same site. Site data were recorded on the new Kidd Creek computer compatible geochemical data sheets. Drainages were carefully inspected for the presence of skarn boulders and rusty stream float; where present, such float was checked for visible mineralization. The major lithologies represented in stream float were noted.

Analysis

Laboratory preparation and analysis of all samples was completed by Acme Analytical Laboratories Ltd. Preparation of the panned concentrate samples included drying, minus 40 mesh sieving, magnetic separation, pulverization of the non-magnetic fraction, followed by analysis. Flow charts illustrating analytical treatment are given on Tables 1 and 2. The ICP 30-element analysis was chosen because it is cost effective and generally has a better detection limit for tungsten (3 ppm) than other types of analysis. AA analysis was used for Sn and a fire assay - AA procedure for Au. Overall, average analytical cost per sample was about $9.00

All analytical results are tabulated in Appendix II.

Statistical evaluation of geochemical data was not attempted because data are from diverse geological settings, and belong to a previously selected anomalous population.

The purpose of the current investigation required careful study of W, Sn and Au values from panned concentrates and W, Cu, Mo Ag, Pb, Zn from silt samples. Other analytical data were scanned for unusual concentrations only.

A combination of visual inspection and field experience gained during the project were used to determine threshold levels. The following values were judged to be anomaly thresholds.

Pan concentrate:	- greater than 100 ppm W
	greater than 20 ppm Sn
	greater than 100 ppb Au
Stream Silt:	- greater than 10 ppm W
	greater than 200 ppm Cu
	greater than 10 ppm Mo
	greater than .8 ppm Ag
	greater than 100 ppm Pb
	greater than 500 ppm Zn

Results

Thirty-nine high and medium priority W and W-Sn anomalies were investigated. Results of gold analyses carried out on 638 selected pan-concentrate samples from 1982 are discussed following the W, W-Sn results.

Brief individual anomaly descriptions arranged in order of importance with comments on geology, mineralization, conclusions and recommendations, are given in Appendix I. A map showing geochemical data and general geology accompanies significant anomalies. Analytical data are listed in Appendix II.

In the Kootenay District, project results indicate that the most promising tungsten anomalies (P54, P23-24) are caused by widely dispersed, weak scheelite mineralization. Anomaly P54 is caused by small concentrations of scheelite within erratic skarn zones that have developed at the contact between the Cretaceous Fry Creek Batholith and lower Cambrian carbonates of the Badshot-Mohican Formation. Trace scheelite also occurs in calc-silicate bands in Lardeau Group metasediments and with quartz veins in the Fry Creek Batholith.

The source of Anomaly P23-24 is low-grade, disseminated scheelite in quartz veinlets, erratic greisen veinlets and hairline fractures in Cretaceous granite to quartz-monzonite of the Bayonne Batholith. Geochemical results show elevated tungsten values in excess of 100 ppm W, up to 776 ppm W, in pan concentrates from streams draining the mineralized area. Silt samples in proximity to tungsten mineralization give values ranging from 10 ppm W to 37 ppm W.

The Kat claim (NTS 82F/3), staked on the basis of favourable geology near the old Emerald W mine, is underlain by carbonaceous argillite of the Ordovician Active Formation that has been intruded by Cretaceous granite of the Nelson Batholith. The argillite lacks carbonate interbeds on the claim, hence skarn development is non-existent. Soil samples collected returned low values for W, Sn and Au.

Scheelite-bearing float found on a north tributary of Buckworth Creek (Anomaly P2, NTS 82F/2) is well rounded and most likely glacially transported.

No appreciable tungsten mineralization was discovered in the Adams Plateau-Clearwater area. Calc-silicate bands within the Shuswap Metamorphic Complex are the most likely cause of low order tungsten anomalies

The most promising area for W appears to lie along the contact zone between a large granite-granodiorite stock which has intruded mixed calcareous and pelitic metasediments of the Shuswap Assemblage. This stock, which may represent part of the Cretaceous Raft River Batholith, underlies an area between the Raft River and the West Raft River northeast of Clearwater (NTS 82M/13). The small Dimac W deposit may be related to an apophysis of the stock. Coarse-grained scheelite occurs in idocrase-diopside-garnet skarn float on the east slope above the West Raft River. A similar band of skarn outcrops on the west slope. No scheelite was seen in outcrop but a nearby stream returned 783 ppm WO_3.

A small W showing was discovered at the margin of a granite-quartz monzonite stock 11 km north of the confluence of the Mad and North Thompson Rivers. Coarse-grained disseminated scheelite occurs in a medium grained, green sulphide-bearing epidote-pyroxene-garnet skarn. Scheelite distribution is erratic and low-grade. The best sample assayed 272 ppm WO_3, 1 ppb Au.

Gold analysis of 1982 pan concentrates resulted in 65 anomalous values (10.2%) ranging from 100 ppb to 9300 ppb Au. Replicate analysis of selected sample pulps showed a wide variation in values, Table 3.

A large percentage of anomalous gold values were obtained in the Kootenay District from drainages in the Nelson-Ymir-Salmo region. Numerous gold-silver and base metal-bearing vein systems are found throughout the belt in a diversity of geological settings. The exploration boom generated by junior companies searching for precious metal properties has resulted in virtual blanket staking of the entire area.

TABLE 3
TABLE OF GOLD ANALYSES

Sample No.	Au ppb	re-run Au ppb*
AW 28-82-55	2230	1650
AW 28-82-83	9100	1360
AW 28-82-151	3060	140
AW 28-82-219	2330	55
AW 28-82-371	1680	5
SE 28-82-75	870	30
SE 28-82-167	870	5
MC 28-82-205	125	325
MC 28-82-255	4070	480, 940
MC 28-82-301	1550	275
CL 28-82-79	9250	2100
CL 28-82-115	2060	5
CL 28-82-135	350	1100
CL 28-82-713	115	5
CL 28-82-791	1980	5
GH 28-82-61	1320	280
GH 28-82-63	1430	75

*10 gm sample,
F.A.-AA analysis

Leadville and Kuttat Creek (NTS 82F/8) contain interesting gold values in pan concentrates. Leadville Creek returned 8500 ppb Au in a downstream sample with 160, 310, and 105 ppb Au in upstream drainages. A sample at the mouth of Kuttat Creek returned 285 ppb Au and a resample gave 165 ppb Au.

Angus Creek (NTS 82F/9) returned anomalous gold values. An extensive, partially mined, quartz vein cuts argillaceous quartzites of the Creston Formation and contains base metal and gold values (up to 0.4 oz Au). The area is currently staked.

The Adams Plateau-Clearwater region contains comparatively few anomalous gold values. Placer gold concentrations are recorded on Scotch Creek (NTS 82M/3). The most interesting anomaly investigated lies on Gollen Creek (NTS 82M/5). Gollen Creek drains the north contact of the Cretaceous Baldy Batholith and a mixed assemblage of sediments and mafic volcanics of the Cambro-Ordovician lower Eagle Bay Formation. Erratic, but high gold values were obtained from pan concentrates and one silt but were not reproducible. Gold values appear to be associated with a pyritic greenstone unit cut by quartz veins.

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PROJECT AND PROGRAM EXPENDITURES - 1983

Project: Kootenay Arc   Project # 909   AFE # E-306

01	Salaries and Wages	CDN$ 29,800.34
02	Fringe Benefits	
03	Camp Expense	4,203.65
04	Shipping and Storage	151.22
05	Travel Expenses	487.70
07	Office and Technical Supplies	225.95
08	Communications	
11	Geological	
12	Geophysical Programs	
13	Geochemical Programs	9,216.50
14	Photogrametry	
15	Drafting, Publications and Maps	
16	Assaying Charges	1,523.81
17	Auto Operation and Maintenance	3,119.44
18	Aircraft Charter - Fixed Wing	
19	Aircraft Charter - Helicopter	990.38
21	Equipment Purchases and Maintenance	31.42
22	Heavy Equipment Contracting	
23	Surveying and Line-cutting	
24	Drilling and Logging	
25	Exploration Mining	
28	Metallurgical Testing	
29	Bulk Sampling	
30	Consultants	
60	Legal Expenses	
61	Property Acquisition - Purchase	
63	Property Acquisition - Staking	
65	Government Fees	
66	Option Payments	
67	Lease Bonuses	
68	Tolls and Trespass Charges	
	Other	
	TOTAL	49,766.41

APPENDIX I

KAT CLAIM

Anomaly Descriptions

KAT CLAIM (W)

NTS 82F/6

Lat. 49°07' Long. 117°10'

The Kat claim was staked as a geological target on the basis of skarn presence in the vicinity of an intrusive contact. The claim lies on the northeast flank of Nevada Mountain south of Salmo B.C., approximately two km east of the old Emerald W mine.

Access is via the Sheep Creek road, across Sheep Creek and then along an old Cat trail.

A prospecting and soil sample traverse was completed over the claim to determine the potential for tungsten mineralization.

History

The Sheep Creek-Nevada Mountain area has been a focus for tungsten exploration since the development of the Emerald-Feeney-Dodger W deposits in the early 1950's. The closest known tungsten occurrence is the Victory prospect on lower Bennett Creek. Drilling in 1951-53 outlined approximately 200,000 tons of 0.4% WO_3 with accessory molybdenite.

In 1977-78, Mentor Exploration completed soil geochemical surveys on a grid basis over the area covered by the Kat claim. Analytical results were very low for W and low for Mo, Pb, Zn.

Geology

The claim is underlain by a Cretaceous Nelson granite apophysis in contact with black siliceous argillite of the Ordovician Active Formation. This contact is well exposed at higher elevations. Locally, the granite is unaltered, medium to coarse grained and contains approximatley 5% biotite. A fine grained leucocratic border phase cut by occasional aplite dykes occurs at the contact with argillite. This contact is sharp with little indication of alteration or metasomatism.

The argillite is very fine grained, black, and variably siliceous, possibly hornfelsed. Pyrite content in the argillite reaches approximately 10%. No interbedded carbonate or calcareous argillite occurs in the section on the claim, i.e. no skarn development has occurred.

Mineralization

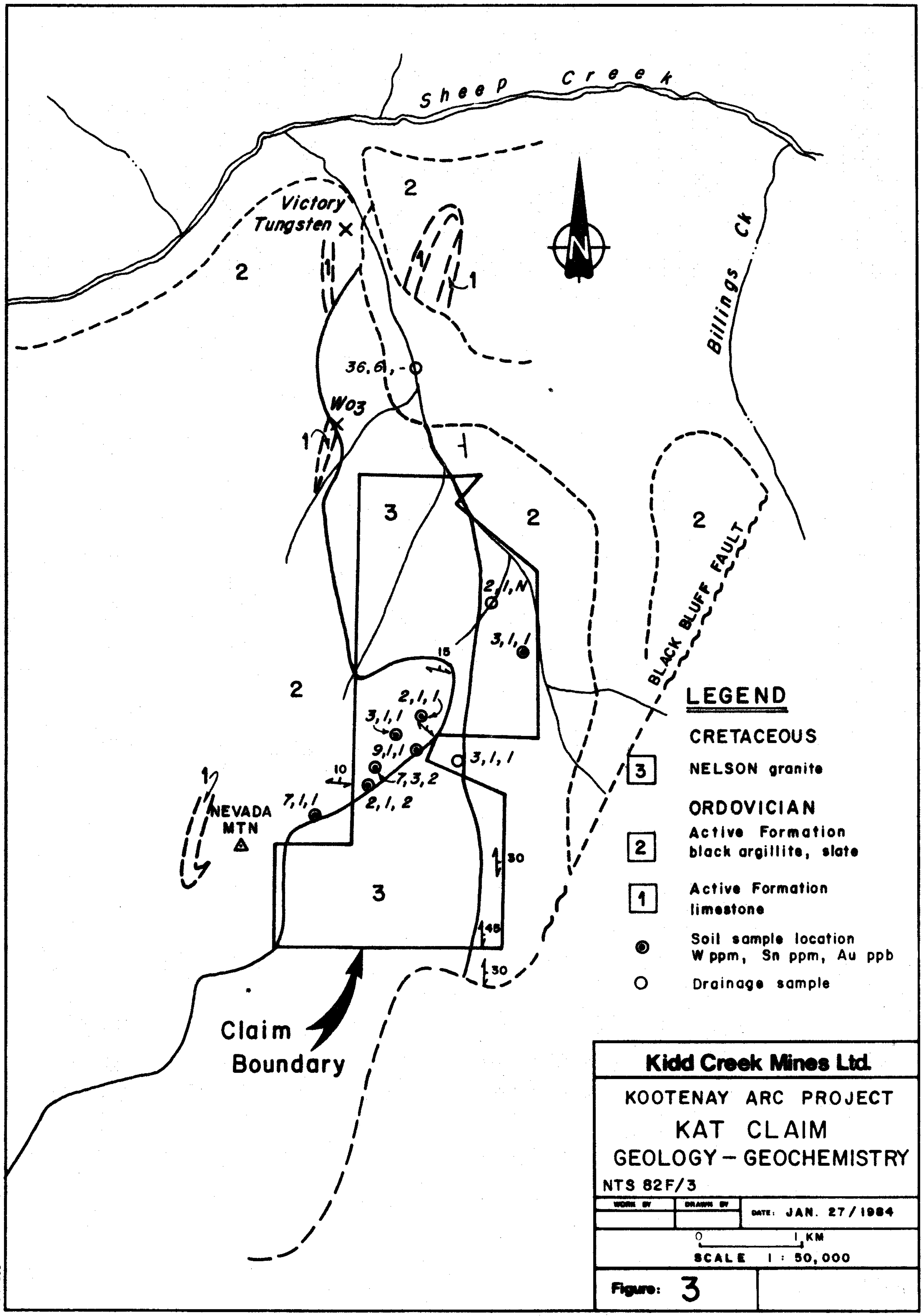
Disseminated pyrite is found in argillite. No other mineralization was detected.

Conclusions

Soil samples taken over the contact zone returned low values for W, Sn, Au, Pb, and were slightly elevated for Zn and Mo. The lack of calcareous interbeds within Active Formation argillite has prevented the development of skarn and possible W mineralization at the sediment-intrusive contact.

Recommendations

The potential for economical tungsten mineralization is low. No further work is recommended.



Sheep Creek
Victory Tungsten
Billings Ck
2
1
36,6,-
WO3
3
2,1,N
3,1,1
15
2,1,1
3,1,1
9,1,1
3,1,1
10
7,3,2
2,1,2
7,1,1
NEVADA MTN
BLACK BLUFF FAULT
30
45
Claim Boundary
LEGEND
CRETACEOUS
3 NELSON granite
ORDOVICIAN
2 Active Formation black argillite, slate
1 Active Formation limestone
Soil sample location W ppm, Sn ppm, Au ppb
Drainage sample
Kidd Creek Mines Ltd.
KOOTENAY ARC PROJECT
KAT CLAIM
GEOLOGY – GEOCHEMISTRY
NTS 82F/3
WORK BY
DRAWN BY
DATE: JAN. 27/1984
0 1 KM
SCALE 1 : 50,000
Figure: 3

Anomaly Descriptions

Kootenay District

NTS 82F

P54 - North Kootenay Lake (W)

P23 - Sanca and Skelly Creek (W)

P 2 - Buckworth Creek (W)

P21 - Lockhard and La France Creek (W, Sn, Au)

P34 - Gray Creek (W)

P37 - Sherraden Creek (W)

- Leadville Creek (Au)

- Bayonne Creek Area (Au)

ANOMALY P54 - NORTH KOOTENAY LAKE (W)

NTS 82 F/15

Lat. 49°50' Long. 116°50'

Reconnaissance heavy mineral samples returned moderate to strong tungsten values from seven major contiguous drainages over 18 kilometres along the east shore of Kootenay Lake. The close association of lower Cambrian Mohican-Badshot Formation carbonates with contact phases of the Cretaceous Fry Creek Batholith was considered an ideal setting for tungsten skarn deposits. Scheelite-bearing float was located in Powder Creek in 1982.

To evaluate anomalies, main drainages and tributaries were sampled in detail and calc-silicate-marble units within the Mohican-Badshot Fm and lower Lardeau Gp were prospected. A helicopter was used to investigate the contact between Mohican-Badshot marbles and the Fry Creek Batholith at high elevations.

Access

Access to the northeast shore of Kootenay Lake is provided by a paved highway leading to the old mining community of Riondel. This road branches north from highway 3A, approximately 1 km. beyond the ferry terminal at Kootenay Bay. A well maintained gravel Forestry access road continues north of Riondel to the mouth of Powder Creek.

Topography

The area is extremely rugged with elevations ranging from 530 metres at lake level to in excess of 2200 metres for peaks and ridges. East west trending U-shaped valleys are heavily forested to approximately 2000 metres. The lower sections of the main creeks are often deeply incised forming inaccessible canyons. Rock exposure is not abundant except above 2000 metres or on steep valley slopes.

Geology

The anomalous area lies within the central part of the Kootenay Arc, a north trending structural domain that lies east of the Shuswap Metamorphic Complex and merges to the east with the Purcell Anticlinorium.

Rocks in the area have been correllated with a regionally extensive lower Paleozoic sequence of quartzite (Hamill Gp), interlayered quartzite, schist, and marble (Mohican Fm), Cambrian marble (Badshot Fm) and micaceous shist, calcsilicate gneiss, and amphilotite gneiss (Lardeau Gp).

Jurassic-Cretaceous quartz monzonite intrusions underlie a large part of the area north of Loki Creek. These include the "syntectonic" Shoreline stock and the southern extensions of the "post tectonic" Fry Creek Batholith. Aplite and pegmatite sills of variable thickness are common, especially in the southwestern part of the area.

Tight to isoclinal, westerly dipping, over-turned folds are superposed on the inverted underlimb of an earlier recumbent antiformal structure named the Riondel Nappe. The sequence of rocks is inverted and older rocks occupy the cores of phase 2 synforms whereas younger rocks occupy the cores of antiforms.

Metamorphic grade ranges from upper greenschist facies in the east to upper amphibolite facies in the west. Metamorphism is due to regional deformation during the formation of the Kootenay Arc. Intrusive contacts are sharp and display little contact metamorphism.

Mineralization

Scheelite mineralization occurs widely distributed in minute amounts in all marble units from Mohican-Badshot to parts of the Lardeau Group. It is usually associated with erratic development of skarn near contacts with the Fry Creek Batholith, with pegmatites, or within quartz veins. Quartz veins cutting the Fry Creek quartz monzonite also contain traces of scheelite. The best scheelite mineralization seen occurs in float found beside the road on Powder Creek. A rusty weathering equigranular fragment of granodiorite contained disseminated scheelite and returned 661 ppm W, 66 ppm Mo, and 236 ppm Cu. The source of this float could not be located. Mechanical dispersion down the large streams has led to placer concentrations of scheelite wherever the flow regime has allowed desposition of heavy minerals. This occurs at the mouths of streams where deltas have formed below creek canyons and at the flattest parts of U shaped valleys.

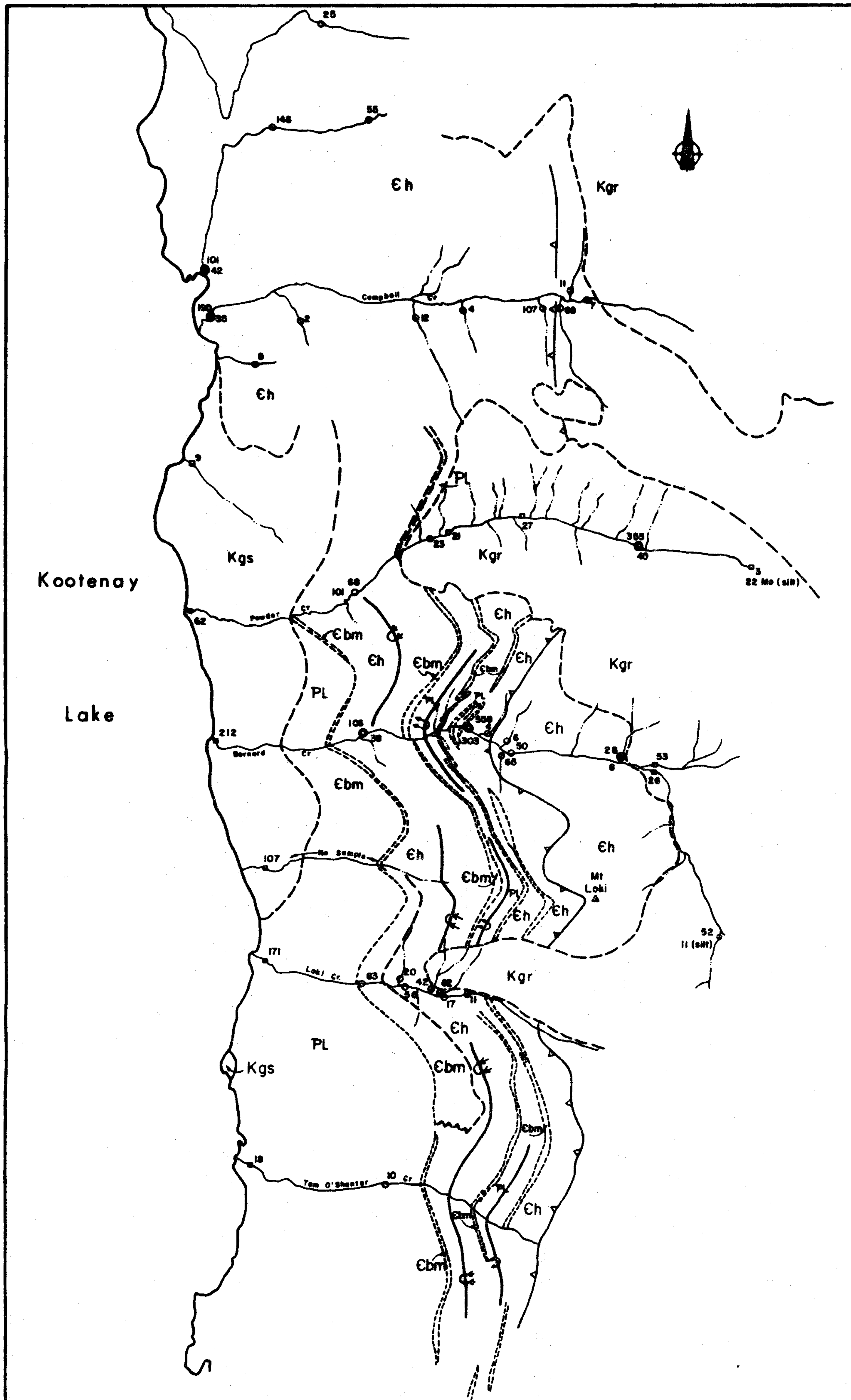
The fact that no silt anomalies were developed indicates that tungsten mineralization is not concentrated near stream drainages in any quantity.

Conclusions

Skarn development within lower Cambrian carbonates in contact with the Fry Creek batholith is very erratic and extremely limited. Usually marbles show no sign of metasomatism. Contacts are generally sharp and no significant gossan zones are developed. The Fry Creek Batholith has been investigated by numerous companies for MoS_2-Wo_3. A number of claim blocks are still held. Assessment records do not provide encouragement.

Recommendations

No further work is justified in the area. The lack of contact skarn development severely limits the area potential for tungsten skarns. Scheelite float in Powder Creek may have been glacially transported, however the source area was likely small because of the limited amount of float found.



LEGEND

CRETACEOUS

Kgr - biotite leucogranite, quartz monzonite
Kgs - foliated leucocratic granite

CAMBRIAN and younger

PL - LARDEAU GROUP, undivided biotite-quartz-feldspar gneiss amphibolite, marble with calc-silicate gneiss, biotite muscovite schist

LOWER CAMBRIAN

Єbm - Badshot-Mohican Formation
calcite marble, dolomite, calcareous schist, quartzite

LOWER CAMBRIAN and HADRYNIAN

Єh - HAMILL GROUP, UNDIVIDED
dark quartzite, quartz schist white quartzite, micaceous quartzite

□ 1982 H.M. Sample
○ 1983 H.M. Sample
W ppm

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT

Anomaly P54

GEOLOGY - GEOCHEMISTRY

NTS 82F/15

WORK BY	DRAWN BY	DATE: JANUARY 27, 1984
N. VF.	E. R	

1000 0 1000 2000 3000 4000
SCALE IN METRES

Figure: 4

ANOMALY P23 - SANCA AND SKELLY CREEK (W, Mo)

NTS 82 F/7, 8

Lat. 49°23' Long. 116°35'

Moderate to good W and Mo values were obtained from the drainages of Sanca and Skelly Creek. Detailed sampling and prospecting traverses were completed to locate the source.

Geology

The area is entirely underlain by the Cretaceous Bayonne Batholith which ranges in composition from granite to quartz-monzonite. Porphyritic texture is common with K-spar phenocrysts up to 3 cm in length. Biotite content averages 5-10%. Margins of the batholith contain more hornblende and frequent diorite inclusions.

On Sanca Creek, textures vary from very fine grained to coarse-grained, almost pegmatitic quartz-monzonite. Some pegmatite veins (<10 cm) occur but are not common, however, aplite dykes are widespread. Jointing is well developed in several major joint sets. Hairline to approximately 3 cm quartz and quartz-sericite veinlets commonly fill these joints. The spacing of veinlets is less than 1 per metre.

Mineralization

Scheelite, molybdenite and powellite(?) occur in quartz veinlets, along sericitized fracture planes and in greisen veins, accompanied by traces of fluorite. On Cominco's Sanca claims, widely scattered powellite and trace amounts of scheelite occur in hairline sericite-rich fractures associated with a fine-grained quartz monzonite. MoS_2 is seen in thin glassy quartz veinlets. The Elmo claim, south of Sanca Creek, hosts fracture-controlled scheelite in fine to medium grained porphyritic biotite granite. Weak greisen development in fractures and veinlets is accompanied by disseminated scheelite, molybdenite and fluorite. An area roughly 50 metres by 150 metres, weakly iron-stained, contains numerous quartz-sericite filled fractures with pyrite and disseminated scheelite. Estimated probable grade would be less than 0.2% WO_3. The tonnage potential appears limited.

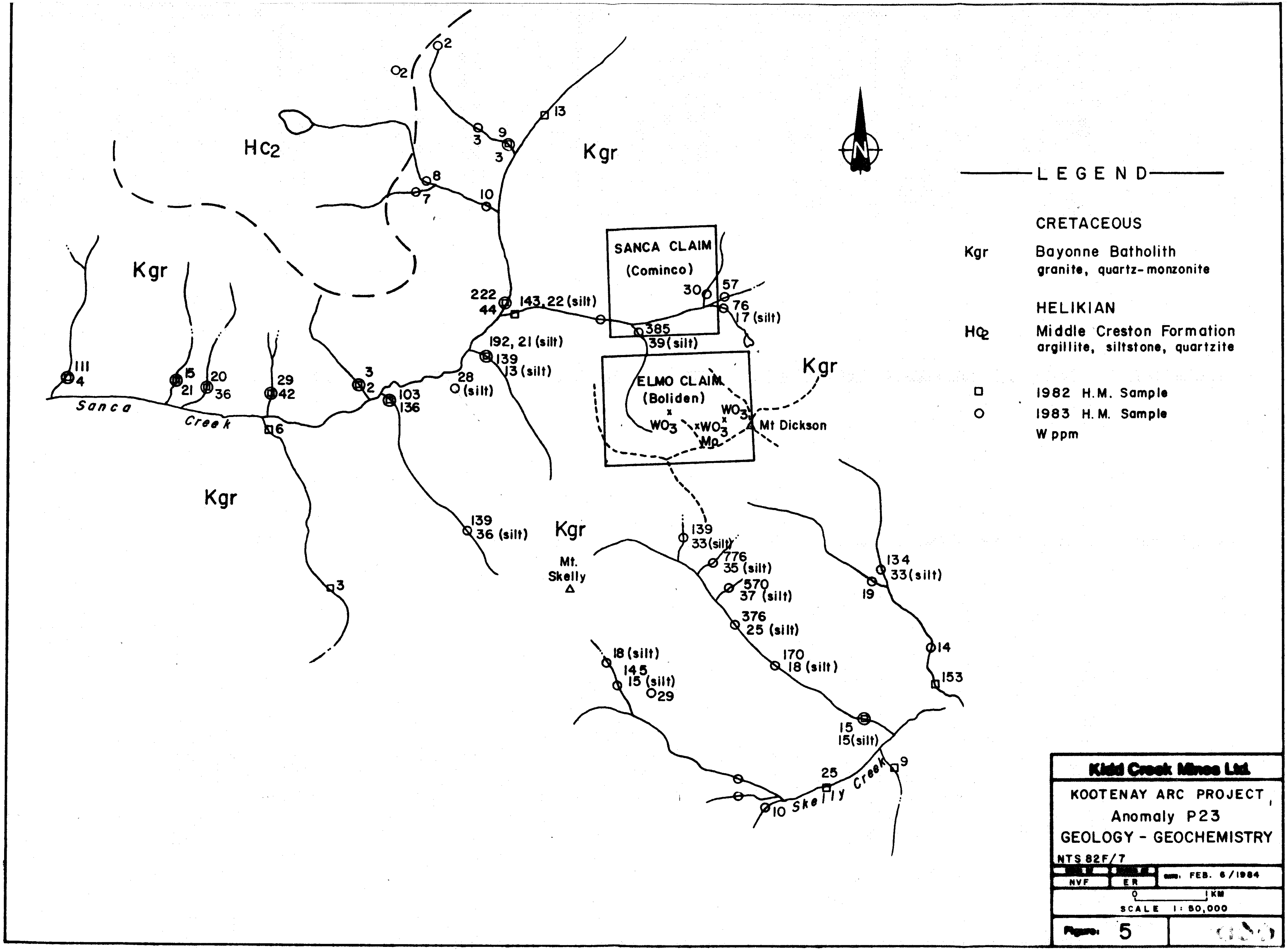
Conclusions

Good tungsten values were obtained from pan concentrates. The source of the anomaly is widespread but low-grade, fracture-controlled W, and MoS_2 mineralization in granite to quartz-monzonite of the Bayonne Batholith.

The Sanca-Skelly Creek area constitutes an excellent example of downstream disperison of weak tungsten mineralization. The tributaries draining the source area contain tungsten in silts, whereas the main drainage, further removed, does not.

Recommendations

It is unlikely that economic concentrations of scheelite exist in the Sanca-Skelly Creek area. No further work is recommended.


LEGEND
CRETACEOUS
Kgr Bayonne Batholith
granite, quartz-monzonite
HELIKIAN
Hc_2 Middle Creston Formation
argillite, siltstone, quartzite
1982 H.M. Sample
1983 H.M. Sample
W ppm
SANCA CLAIM
(Cominco)
ELMO CLAIM
(Boliden)
Mt Dickson
Mt. Skelly
Sanca Creek
Skelly Creek
Kidd Creek Mines Ltd.
KOOTENAY ARC PROJECT
Anomaly P23
GEOLOGY - GEOCHEMISTRY
NTS 82F/7
FEB. 6/1984
NVF
ER
SCALE 1:50,000
5

ANOMALY P2 - BUCKWORTH CREEK (W, Sn)

NTS 82 F/2

Lat. 49°06' Long. 116°47'

Low order Sn and W values were obtained from Buckworth Creek and its tributaries in 1982. Follow-up consisted of re-sampling old sites and prospecting drainages.

Geology

The anomalous area is underlain by biotite-quartz feldspar schist, biotite spotted schist and micaceous quartzite of the middle Proterozoic Aldridge Formation. Bedding is inferred to dip steeply to the west. Quartz-feldspar-muscovite pegmatite is conformable with foliation and is probably anatectic. Quartz veinlets are common, occasionally associated with tourmaline. Several dark green gabbroic dykes intrude spotted schist south of Buckworth Creek.

Mineralization

Weak to moderate tungsten and tin values occur in Buckworth Creek and its tributaries. No evidence of mineralization was found south of Buckworth Creek. Lamping of pan concentrates indicated coarse scheelite fragments from a northeast tributary. Two well rounded pieces of scheelite-bearing float were located. Coarse-grained scheelite occurs in amphibolite in association with quartz and feldspar. Bedrock exposed in the creek consists of micaceous quartzite and weakly pyritic biotite-quartz-feldspar schist. The scheelite-bearing float was located where the creek has cut through glacial deposits which contain amphibolite and mafic volcanic float.

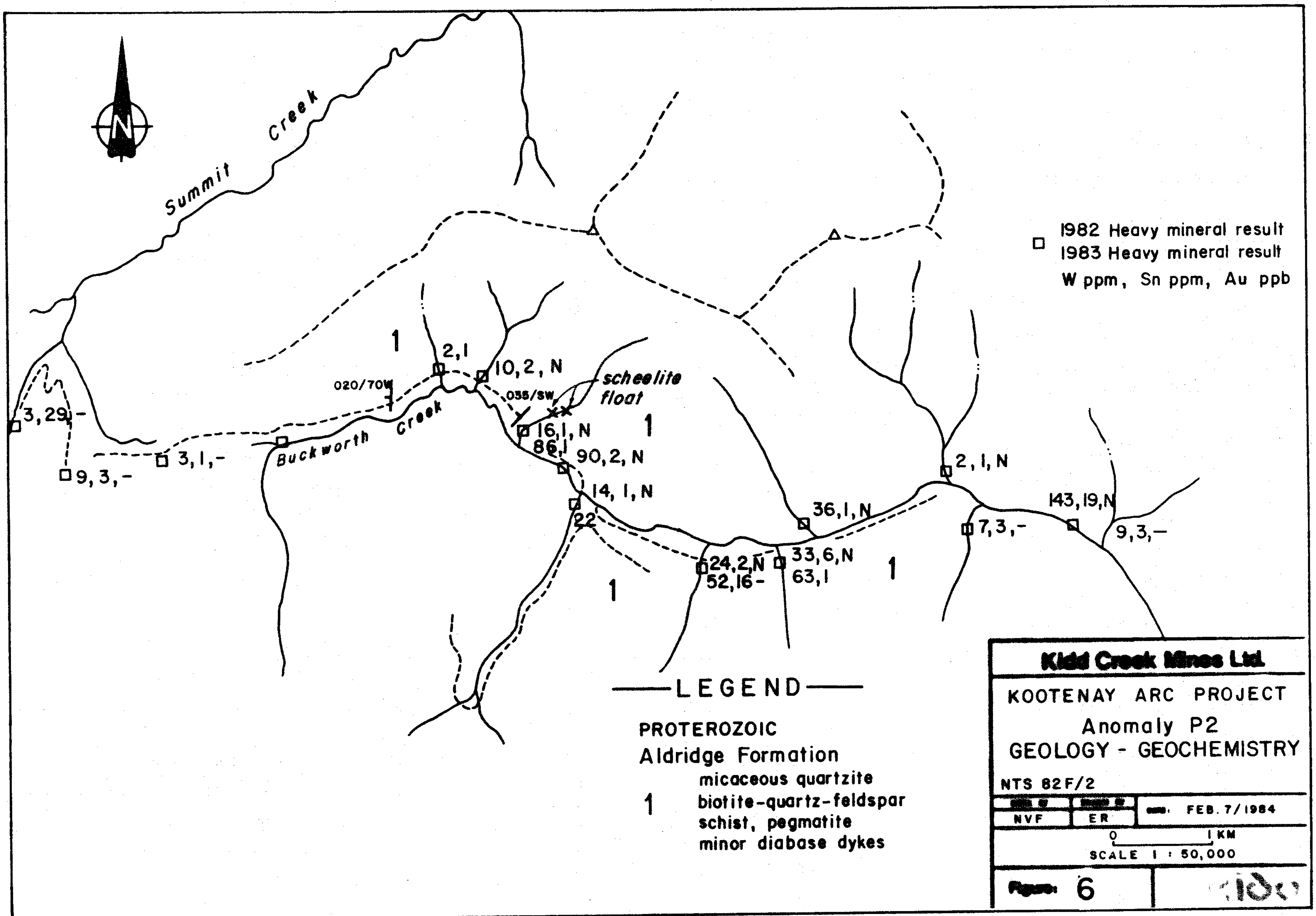
Conclusions

The better values in Buckworth Creek are due to downstream enhancement of weak scheelite content in tributaries. The well rounded nature of the scheelite-bearing float and its lithological similarity to float seen in glacial overburden suggests it is transported. Drainages to the north have been incompletely sampled. One of these returned interesting scheelite in pan concentrate (100 coarse grains).

Recommendations

Prospecting in the Buckworth Creek drainage failed to locate scheelite mineralization in place, however, the occurrence of scheelite-bearing float and incomplete prospecting coverage north of the main creek suggest that W potential has been incompletely tested.

The remaining creek drainages to the north should be sampled when a crew is in the area, preferably late in the season.



LEGEND

PROTEROZOIC

Aldridge Formation

1 micaceous quartzite
biotite-quartz-feldspar
schist, pegmatite
minor diabase dykes

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT

Anomaly P2
GEOLOGY - GEOCHEMISTRY

NTS 82F/2

Drawn by	Traced by	Date
NVF	ER	FEB. 7/1984

0 — 1 KM
SCALE 1 : 50,000

Figure: 6

ANOMALY P21-LOCKHART-LA FRANCE CK (W, Sn, Au)

NTS 82 F/10

Lat. 49°31' Long. 116°45'

Anomalous values in tin, tungsten, and gold were obtained from Lockhart and La France Creek. Both creeks were re-sampled and favourable geological units examined.

Geology

Grey limestone, marble and interbedded phyllite, quartzite, and pebble conglomerate of the late Proterozoic Horsethief Creek Group outcrops in the Lockhart - La France Creeks area. Numerous white quartz veins cut phyllites and quartzites. The quartz veins rarely contain sulphides.

Mineralization

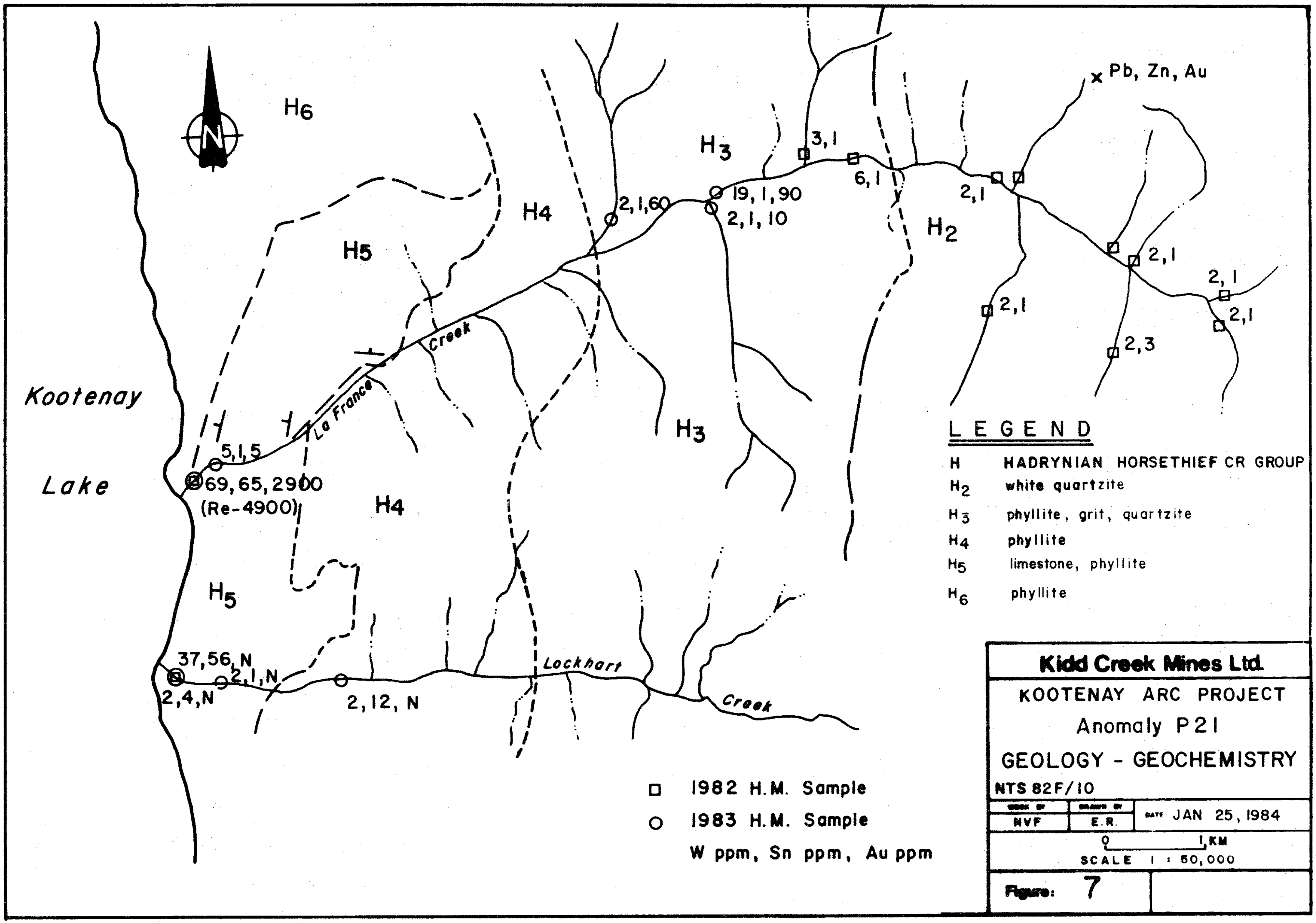
Sampling and prospecting of both creek drainages failed to produce evidence of scheelite or tin mineralization. No intrusive rocks were seen. Galena-sphalerite, chalcopyrite and minor tetrahedrite occur in quartz, calcite and minor barite veins in siliceous limestone in the headwaters of La France Creek. Trace amounts of gold (0.06 oz/ton) accompany this mineralization.

Conclusions

Heavy mineral anomalies in W, Sn, and Au may be due to downstream dispersion of mineralization hosted in siliceous limestone occurring in the headwaters of La France Creek.

Recommendations

No further work is recommended.


N
H6
H5
H4
H3
H2
Kootenay
Lake
La France
Creek
Lockhart
Creek
x Pb, Zn, Au
3,1
6,1
2,1
2,1,60
19,1,90
2,1,10
2,1
2,1
2,1
2,1
2,3
5,1,5
69,65,2900
(Re-4900)
37,56,N
2,1,N
2,4,N
2,12,N
LEGEND
H HADRYNIAN HORSETHIEF CR GROUP
H2 white quartzite
H3 phyllite, grit, quartzite
H4 phyllite
H5 limestone, phyllite
H6 phyllite
1982 H.M. Sample
1983 H.M. Sample
W ppm, Sn ppm, Au ppm
Kidd Creek Mines Ltd.
KOOTENAY ARC PROJECT
Anomaly P21
GEOLOGY - GEOCHEMISTRY
NTS 82F/10
NVF
E.R.
DATE JAN 25, 1984
0 1 KM
SCALE 1 : 50,000
Figure: 7

ANOMALY P34 - GRAY CREEK (W)

NTS 82 F/10

Lat. 49°37' Long. 116°45'

A weak W anomaly (33 ppm) was obtained at the mouth of Gray Creek. The source of the anomaly was thought to be the contact zone between clastic sediments of the Hamill Group and a small granite stock.

Geology

A Cretaceous leucocratic biotite granite stock has intruded micaceous to massive grey-green quartzite of the lower Cambrian Hamill Group and phyllite of the Hadrynian Horsethief Creek Group.

Mineralization

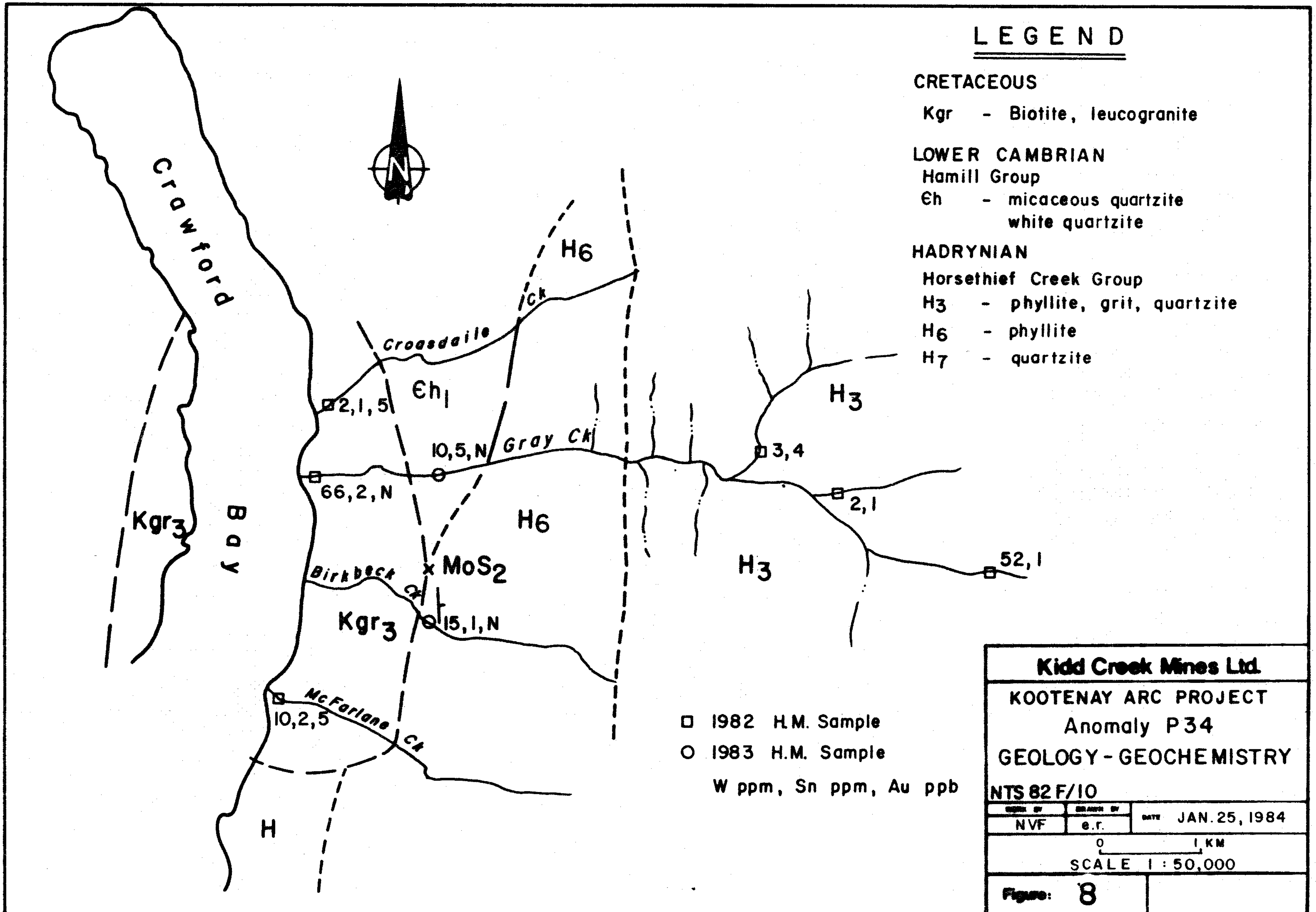
The biotite granite is weakly pyritic and cut by fracture-controlled quartz veinlets near the contact with micaceous quartzite. Disseminated MoS_2 occurs in quartz veins and in a poorly developed quartz stockwork between McFarlane and Birkbeck Creek. The area was previously investigated for its molybdenum potential. Lamping of the contact and quartz veins did not detect scheelite.

Conclusions

The intrusive contact is sharp and quartzitic sediments provide a poor environment for skarn development. Upstream sampling did not produce anomalous tungsten values. Small amounts of tungsten may be associated with quartz veins and the granite stock.

Recommendations

No further work is justified.



LEGEND
CRETACEOUS
Kgr - Biotite, leucogranite
LOWER CAMBRIAN
Hamill Group
Єh - micaceous quartzite
white quartzite
HADRYNIAN
Horsethief Creek Group
H3 - phyllite, grit, quartzite
H6 - phyllite
H7 - quartzite
Crawford
Bay
Croasdaile Ck
Gray Ck
Birkbeck Ck
McFarlane Ck
Єh1
H6
H3
Kgr3
H
MoS2
2,1,5
66,2,N
10,5,N
15,1,N
10,2,5
3,4
2,1
52,1
1982 H.M. Sample
1983 H.M. Sample
W ppm, Sn ppm, Au ppb
Kidd Creek Mines Ltd.
KOOTENAY ARC PROJECT
Anomaly P34
GEOLOGY - GEOCHEMISTRY
NTS 82 F/10
NVF
e.r.
JAN. 25, 1984
0
1 KM
SCALE 1 : 50,000
Figure: 8

ANOMALY P37 - SHERRADEN CREEK (W)

NTS 82 F/10

Lat. 49°44' Long. 116°51'

A pan concentrate sample near the mouth of Sherraden Creek returned 48 ppm W.

Geology

Sherraden Creek drains an area underlain by the lower Cambrian Lardeau Group. Interbanded marble, calc-silicate gneiss, biotite-quartz-feldspar gneiss, amphibolite and pegmatite occur in the section. In Sherraden Creek, outcrop consists essentially of biotite-quartz-feldspar gneiss with interbedded calc-silicate and micaceous quartzite. Pegmatite conformable to foliation is common.

Mineralization

No mineralization was observed in outcrop or in pan concentrates.

Conclusions

Tungsten values in Sherraden Creek were reproduced and are likely related to weak scheelite concentration in calc-silicate bands.

Recommendations

No further work is recommended.

LEADVILLE CREEK (Au)

NTS 82 F/8

Lat. 49°17' Long. 116°14'

A heavy mineral sample from Leadville Creek returned 350 ppb Au. Re-analysis of the sample gave 1100 ppb Au. The sample site was revisited and tributary streams were sampled.

Geology

The area is underlain by micaceous and argillaceous quartzite of the Proterozoic middle Aldridge Formation. Thick gabbroic sills and dykes forming part of the Moyie Intrusions cut the Aldridge Formation.

Mineralization

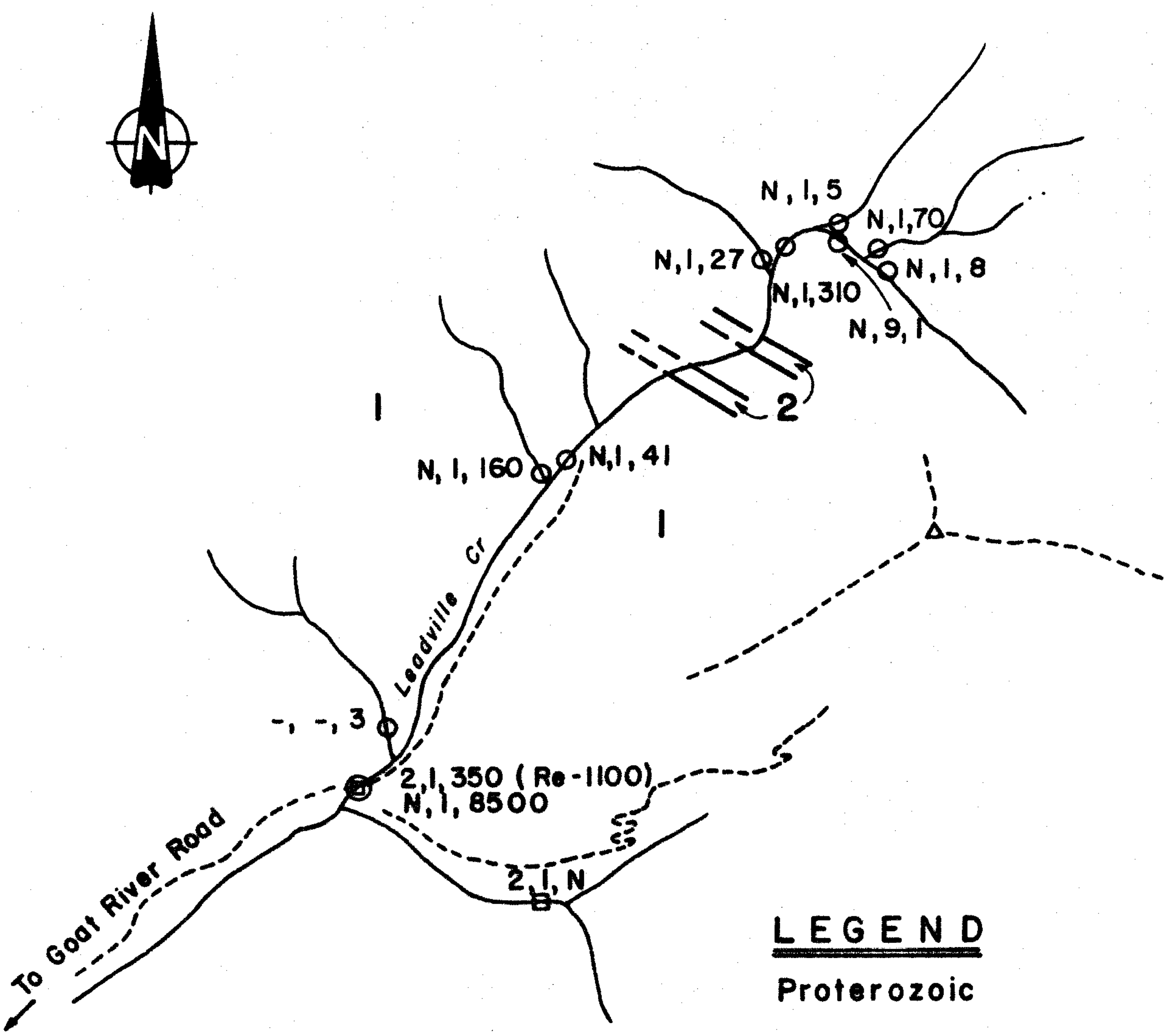
No significant mineralization was seen. Weakly pyritic quartzite float and occasional quartz vein fragments occur in Leadville Creek. The gold may be associated with quartz veins, or with the gabbroic sills.

Conclusions

The original site was resampled and returned 8,500 ppb Au (0.23 oz Au). Three anomalous samples - 105, 160, 310 ppb Au occur upstream. Although no significant mineralized features were seen in creek float, the results obtained indicate gold potential.

Recommendations

Tributary drainages returning anomalous gold values should be further sampled and prospected. The gabbroic sills should be examined in more detail.



LEGEND

Proterozoic

1 **Aldridge Formation**
micaceous quartzite
quartz wacke

2 **Moyie Sills**
gabbro

□ 1982 H.M. Sample

○ 1983 H.M. Sample
W ppm, Sn ppm, Au, ppb

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT
Leadville Creek Area
GEOLOGY - GEOCHEMISTRY

NTS 82 F/8

WORK BY	DRAWN BY	DATE: JAN. 30/1984
NVF	E R	

0 — 1 KM
SCALE 1 : 50,000

Figure: 9

NCI - 556

BAYONNE CREEK AREA (Au)

NTS 82F/2

Lat. 49°06' Long. 116°55'

A small stream approximately 1 km east of Bayonne Creek was sampled in 1982 and returned 290 ppb Au. Resampling in 1983 gave 1,180 ppb Au. Sampling and prospecting of the upper drainage resulted in one further sample containing 490 ppb Au.

Geology

Metamorphosed members of the Toby Formation conglomerate, basic volcanics and pyroclastics of the Irene Volcanics, and dolomitic sediments of the Monk Formation, form part of the late Proterozoic Windemere Supergroup. Rocks are intruded by granite-granodiorite of the Bayonne Batholith.

Mineralization

Pyrite is disseminated in rusty quartzite, pelitic schist, slate, and in quartz veinlets. Quartz veining is best developed in quartzite and marble. Fragments of medium grained equigranular leucogranite occur as float. Rock chip samples of quartz veins and sulphide impregnated country rock were collected and analized for Pb, Zn, Ag, Au. Results were uniformly low.

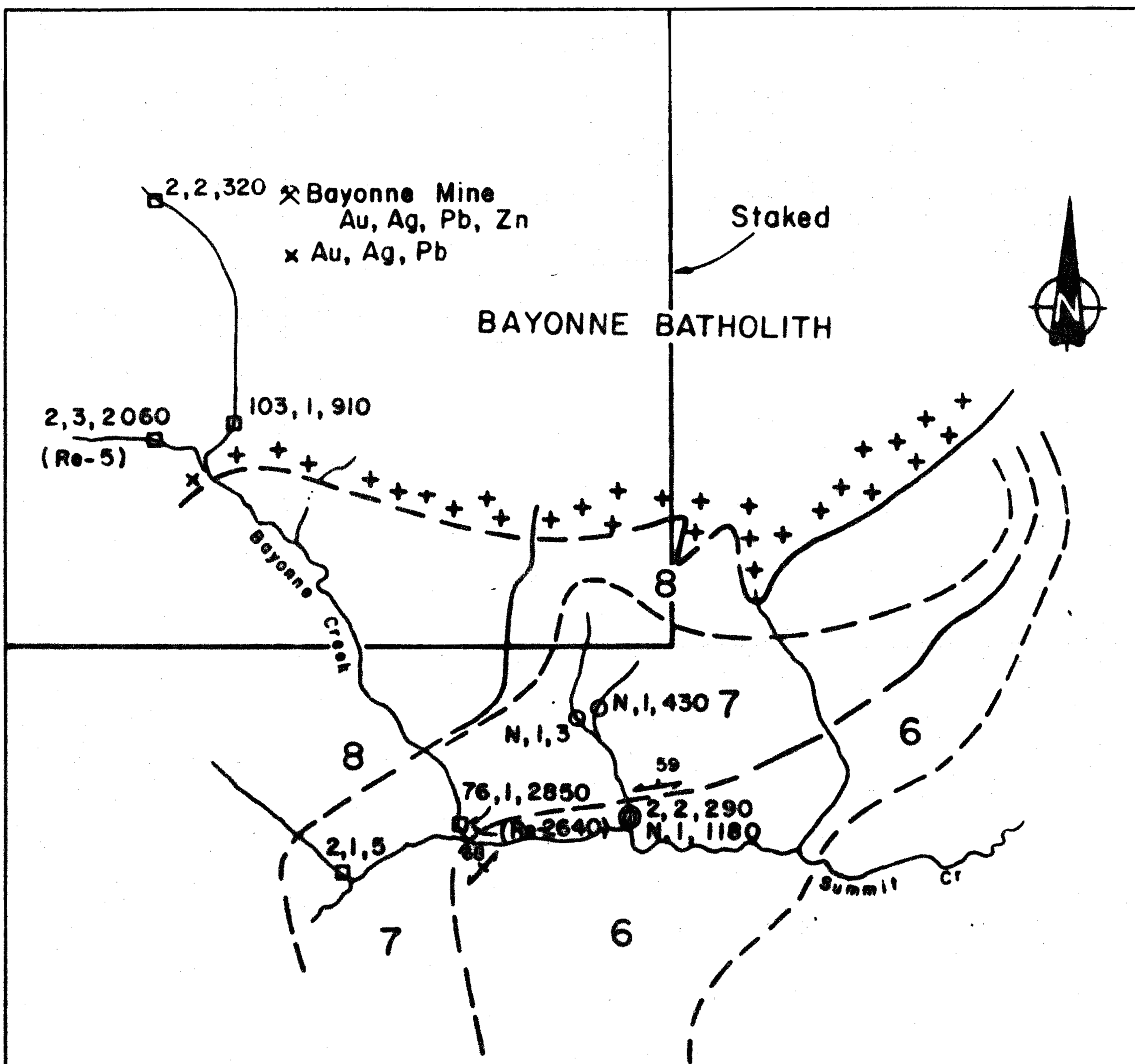
Gold deposits of the Bayonne Creek area occur within the Bayonne Batholith. Au is found in quartz veins which rarely exceed one metre in thickness. Mineralization consists of quartz, pyrite, galena and sphalerite. Native gold is reported to be fine-grained ($<$ 5 microns). Average grade is reported to be 0.5 oz/ton.

Conclusions

Trace amounts of Au may be associated with quartz veins in the anomaly area.

Recommendations

The anomaly occurs near an old gold producer and has not been completely explained. Immediate follow-up is not recommended, however, additional prospecting and sampling is warranted if prospecting crews are in the area.



□ 1982 H.M. Sample
○ 1983 H.M. Sample
W ppm, Sn ppm, Au ppb

LEGEND

HADRYNIAN
WINDEMERE SUPER GROUP

8 **Monk FM**
grey pelite dolomite

7 **Irene Volcanic FM**
pillow lava, pyroclastics

6 **Toby FM**
conglomerate, sandstone

Kidd Creek Mines Ltd.		
KOOTENAY ARC PROJECT BAYONNE CREEK AREA GEOLOGY - GEOCHEMISTRY NTS 82F/2		
WORK BY: NVF	DRAWN BY: ER	DATE: JAN. 30/1984
0 — 1KM SCALE 1 : 50,000		
Figure: 10		

NCI - 556

Anomaly Descriptions

Adams Plateau-Clearwater Area

NTS 82M

P79 - West Raft River (W)

P60 - Crowfoot Mountain (Au, W)

P66 - Gollen Creek (Au)

P76 - Martin Creek (W)

P72 - Wesley and McConnell Creek (W)

P70 - Myoff Creek (W)

P71 - Ratchford Creek (W)

P68 - Adams Lake (W)

P61 - Pisima Creek (W)

P82 - Finn Creek (W)

ANOMALY P79 - West Raft River (W)

NTS 82 M/13

Lat. 51°50' Long. 119°46'

A low order W anomaly (26ppm) was obtained from a sample on the West Raft River. The proximity of the Dimac deposit prompted more detailed investigation of geology. Major drainages in the area were sampled and prospected.

General Geology

Undifferentiated Shuswap Metamorphic Complex including biotite-granodiorite, foliated granitic to granodiorite gneiss, shist, marble, and skarn.

Local Geology

Medium-grained biotite granite to granodiorite underlies the eastern and southern portion of the area. Coarse siliceous garnet-idocrase skarn float is found on the east side of West Raft River and similar coarsely crystalline skarn outcrops in a band on the west side of the river. The skarn bed appears to dip at a shallow angle to the southwest.

Mineralization

Minor coarse-grained scheelite occurs in silicious garnet-idocrase skarn float sparsely distributed along a forestry access road on the east side of West Raft River. Detailed prospecting outlined a large boulder of weakly mineralized skarn upslope from the float. No skarn was found in place.

Massive coarsely crystalline skarn was found in place on the west side of the river adjacent to the boundary of Wells Gray Park. No scheelite was seen in the outcrop, however a creek draining the area returned 783ppm W.

Prospecting of the major drainages to the south failed to outline further skarn or scheelite mineralization, although traces of scheelite were found in the heavy minerals fraction coming from creeks draining the west slope of a major tributary to the south.

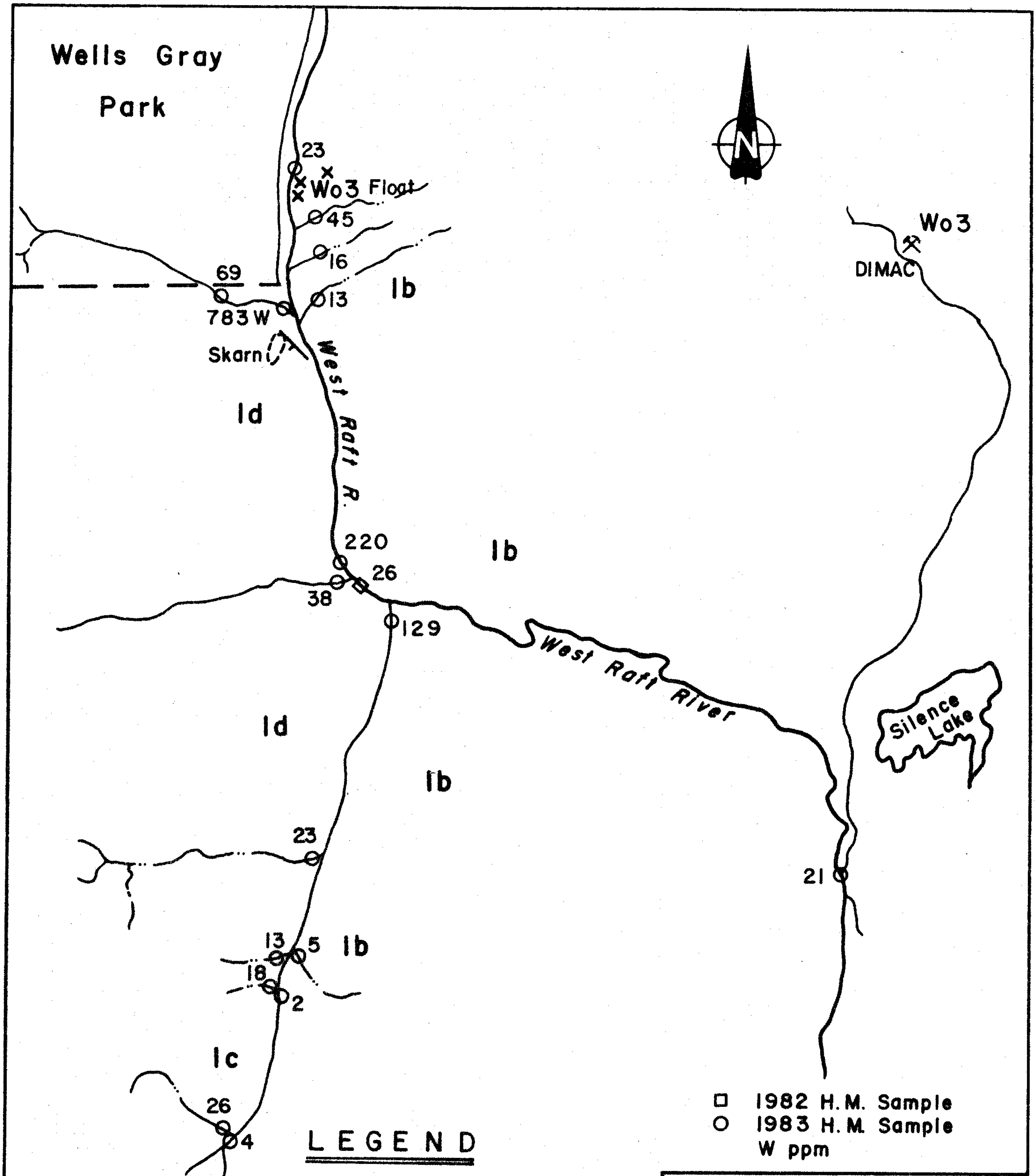
Conclusions

Interesting skarn development occurs west of the West Raft River adjacent to the Park boundary. The skarn band appears to dip southwesterly at a shallow angle and may be quite continuous. The skarn on the east side may be an erosional remnant of the same skarn band.

Both sides of the river are presently staked. Previous work has been done by Denison Mines on the west side (geology, geochemistry, and 3 diamond drill holes). Claims are in good standing until 1985.

Recommendations

No further work is recommended at this time. Results of Dennison's work should be reviewed when they become available.



□ 1982 H.M. Sample
○ 1983 H.M. Sample
W ppm

LEGEND

Shuswap Metamorphic Complex

Ib	biotite granite to granodiorite
Id	quartz-mica shistose gneiss quartzite marble, skarn amphibolite, pegmatite muscovite and biotite granite

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT

Anomaly P79

GEOLOGY - GEOCHEMISTRY

NTS 82M/13

WORK BY	DRAWN BY	DATE: JAN. 31/1984
NVF	ER	

0 — 1 KM
SCALE 1 : 50,000

Figure: 11

NCI - 556

ANOMALY P60 - CROWNFOOT MTN. (Au, W)

N.T.S. 82 L/14

82 M/3

Lat. 51°00 Long. 119°15'

The anomaly is located on the north shore of Shuswap Lake. Single samples on two major drainages returned strongly anomalous values in gold and gold-tungsten. The old sites were resampled and upstream tributaries were investigated.

General Geology

Onyx Creek and Ross Creek drain an area underlain by the lower Eagle Bay Formation composed of a thick, strongly deformed, sequence of altered volcanics, limestone, and calcareous shales.

Local Geology

Locally the Eagle Bay Formation is composed of a turbidite-like sequence of calcareous shales, siltstone and argillite, impure limestone, and basic volcanics. Rocks have been weakly metamorphosed to phyllite, marble, and greenschist. Phyllite and marble exhibit strong deformation. Quartz veining is common in phyllite, often accompanied by disseminated euhedral pyrite. A large quartz porphyry dyke has intruded phyllite in the headwaters of Onyx creek.

Mineralization

Ross Creek

Routine lamping of pan concentrates indicated anomalous tungsten content in a major north flowing tributary of Ross Creek. Rounded clasts of calcite-actinolite-diopside skarn and minor pyroxene skarn occur in the creek bed. Traces of scheelite were noted in the skarn float. No outcrop exposures of skarn were found.

Onyx Creek

No significant mineralization was seen in Onyx Creek or its tributaries. Pyrite bearing quartz veins, which cut phyllite were sampled.

Conclusions

Ross Creek

Skarn development in the Ross Creek drainage is probably related to the intrusion of the lower Devonian Mt. Fowler Batholith. A strong north-trending fault parallels the creek valley. The tungsten anomaly at the mouth of Ross Creek is thought to be the result of down-stream dispersion from the weakly mineralized skarn. The W anomaly was not reproducible.

A single gold value in silt (50 ppb) in the headwaters of a tributary stream may reflect known vein hosted Zn, Pb, Ag, Au mineralization in greenshist. Several quartz veins .1-.3 metres in width contain erratic mineralization.

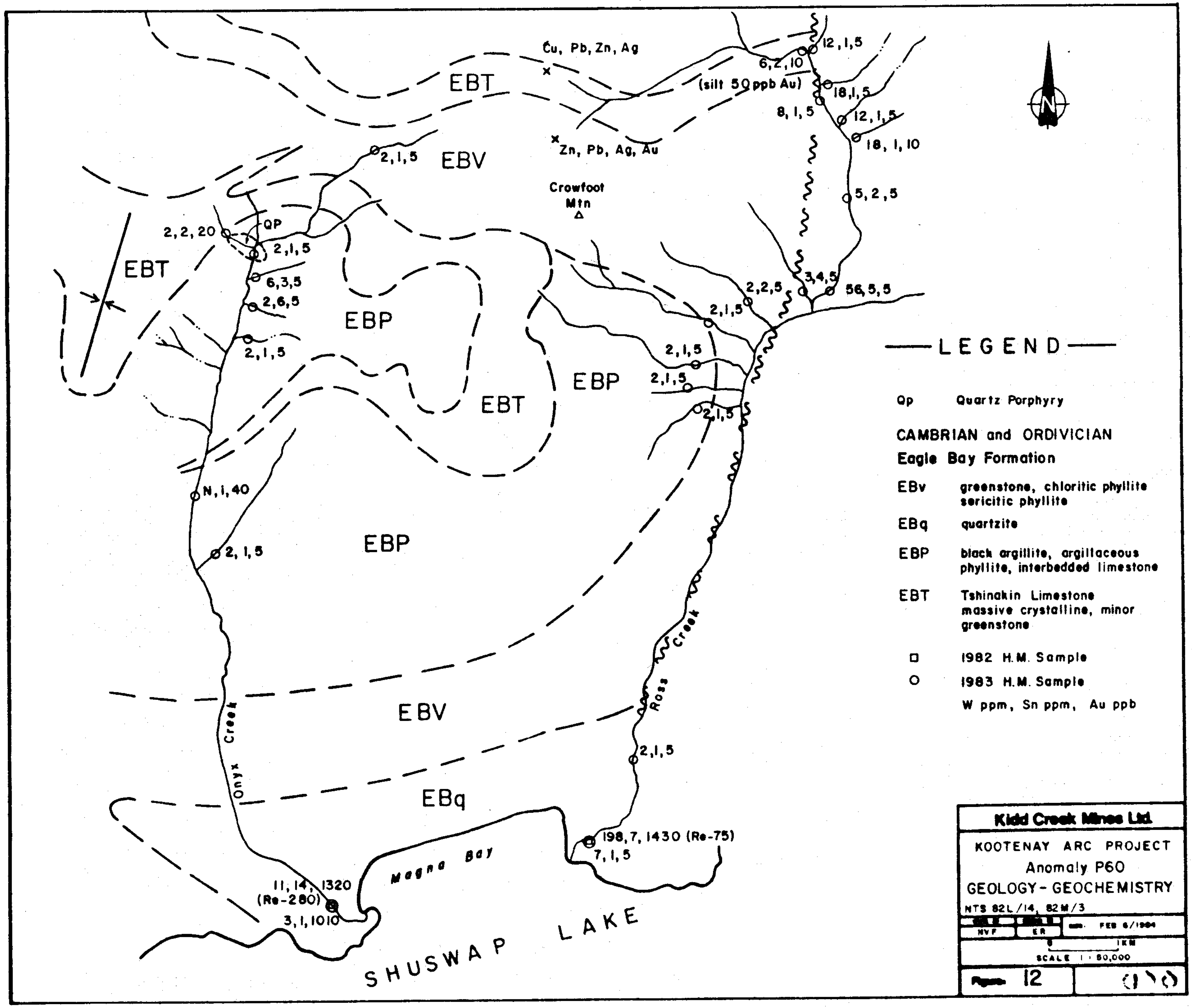
This area is currently staked. The gold anomaly at the mouth of Ross Creek was not reproduced.

Onyx Creek

No mineralization was seen in the Onyx Creek drainage. Upstream sample results were not anomalous in gold. The high gold value (1320 ppb Au) obtained was reproduced on resampling, (1010 ppb Au) and probably reflects placer concentrations of gold in the creek delta. Sampled pyritic quartz veins contained no gold.

Recommendations

Gold content in lower Onyx Creek has not been completely explained. The lower reaches of Onyx Creek are overburen-covered and are being actively farmed. No further work is recommended at this time.


Cu, Pb, Zn, Ag
Zn, Pb, Ag, Au
Crowfoot Mtn
EBT
EBV
EBP
EBq
QP
(silt 50 ppb Au)
12,1,5
6,2,10
18,1,5
8,1,5
12,1,5
18,1,10
5,2,5
2,1,5
2,2,20
2,1,5
6,3,5
2,6,5
2,1,5
2,2,5
3,4,5
56,5,5
2,1,5
2,1,5
2,1,5
2,1,5
N,1,40
2,1,5
2,1,5
198,7,1430 (Re-75)
7,1,5
11,14,1320
(Re-280)
3,1,1010
Onyx Creek
Ross Creek
Magna Bay
SHUSWAP LAKE
N
LEGEND
Qp Quartz Porphyry
CAMBRIAN and ORDIVICIAN
Eagle Bay Formation
EBv greenstone, chloritic phyllite sericitic phyllite
EBq quartzite
EBP black argillite, argillaceous phyllite, interbedded limestone
EBT Tshinakin Limestone massive crystalline, minor greenstone
1982 H.M. Sample
1983 H.M. Sample
W ppm, Sn ppm, Au ppb
Kidd Creek Mines Ltd.
KOOTENAY ARC PROJECT
Anomaly P60
GEOLOGY - GEOCHEMISTRY
NTS 82L/14, 82M/3
NVF
ER
FEB 6/1984
0 1KM
SCALE 1:50,000
12

ANOMALY P66 - GOLLEN CREEK (Au)

NTS 82 M/5

Lat. 51°29' Long. 119°37'

Three anomalous gold values (105-490 ppb Au) were obtained from the headwaters of Gollen Creek. A single sample from the main stream 8 km downstream returned 5,300 ppb Au. Anomalous sites were resampled with additional sampling of upper drainages.

General Geology

A northeast trending sequence of marble and interbedded sericitic phyllite, quartzite, greenstone and chloritic phyllite forms part of the lower Eagle Bay Formation. Cretaceous quartz monzonite of the Baldy Batholith intrudes the Eagle Bay Formation.

Local Geology

A regionally extensive, grey-buff crystalline, limestone unit is interbedded with calcareous, chloritic phyllite, pyritic greenstone and dark grey, sericite-rich, silicious phyllite. Minor dark green, epidote, actinolite skarn has been selectively developed in the limestone unit. The more iron rich phases of skarn contain minor amounts of sulphide. All units strike northeast and dip north-west at moderate angles. Quartz monzonite occurs to the south and west.

Mineralization

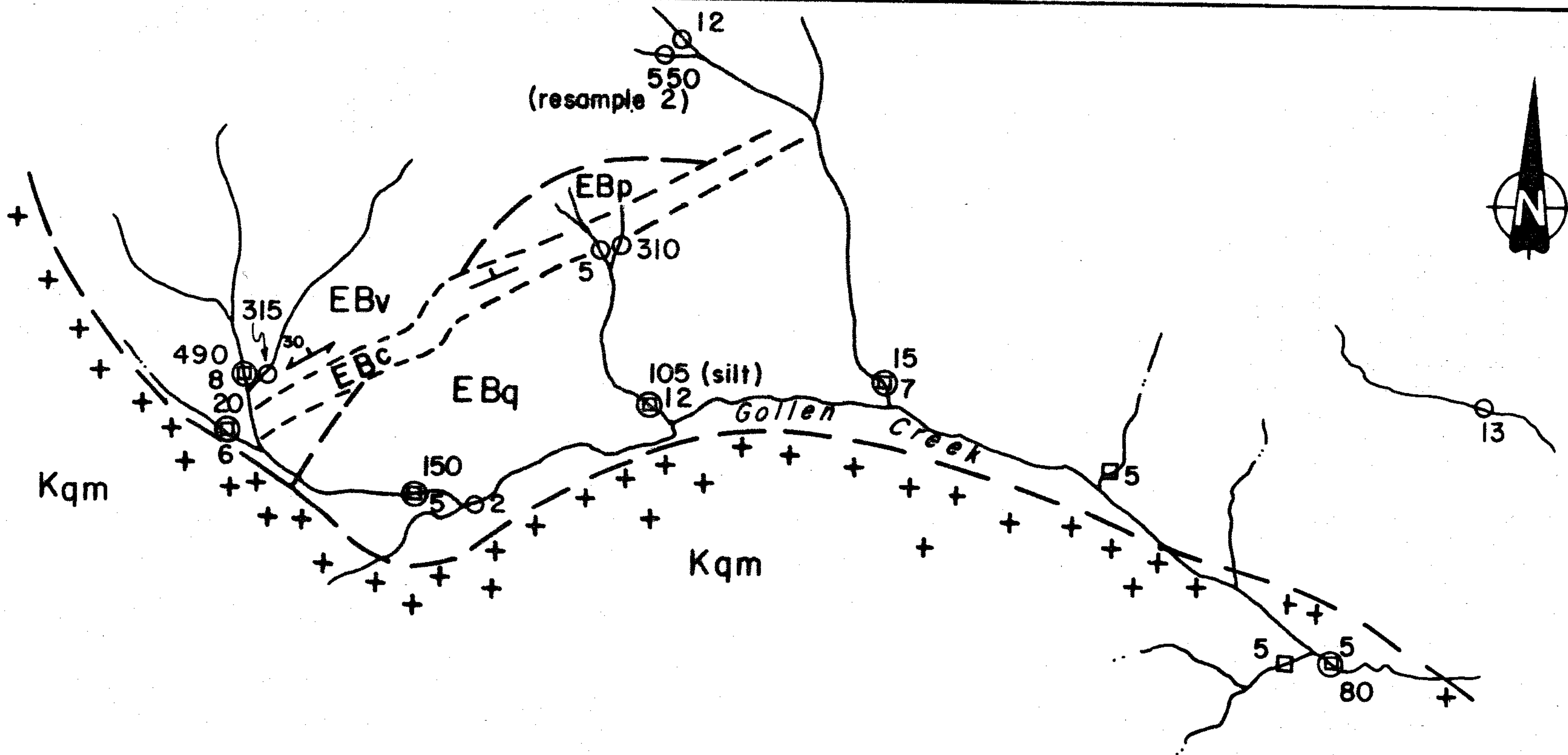
A pod of epidote-diopside, calcite, garnet skarn in impure crystalline limestone contains pyrite, pyrrhotite, and minor chalcopyrite. Greenstone contains disseminated pyrite and pyrrhotite up to 10% in volume accompanied by trace to minor chalcopyrite. A grab sample of pyritic greenstone assayed 115 ppm Cu, 4 ppm Ag, 2 ppb Au.

Conclusions

Previous work by others has indicated erratic lenses of low-grade copper mineralization in chloritic phyllite and pyritic greenstone close to the contact with the Baldy Batholith. No evidence of gold mineralization was noted. Skarn development is very localized. The source for the erratic anomalous gold values from pan concentrates has not been determined. Gold may be associated with the known sulphide mineralization or with small quartz veins that cut the section. The high gold value (5,300 ppb Au) downstream on Gollen Creek, was not substantiated on resampling.

Recommendations

Erratic, and relatively weakly anomalous gold values in pan concentrates from upper Gollen Creek suggest that potential for economic gold mineralization is low. No further work is recommended.



LEGEND

CRETACEOUS
Baldy Batholith
Kqm quartz monzonite

CAMBRIAN-ORDIVICIAN
Eagle Bay Formation

EBv	greenstone, chloritic phyllite
EBp	argillite, seritic phyllite
EBq	sericitic phyllite, sericitic quartzite
EBc	massive crystalline limestone minor greenstone, chlorite schist

□ 1982 H.M. Sample
○ 1983 H.M. Sample
Au ppb

Kidd Creek Mines Ltd.
KOOTENAY ARC PROJECT
Anomaly P66
GEOLOGY - GEOCHEMISTRY
NTS 82M/5

WORK BY	DRAWN BY	DATE
NVF	E.R.	FEB 6/1984

0 1 KM
SCALE 1 : 50,000

FIGURE 13

ANOMALY P76 - MARTIN CREEK (W)

NTS 82 M12/13

Lat. 51°45' Long. 119°33'

Martin creek flows south-easterly into the Mad River. A moderate W response (49 ppm) was obtained in 1982. Follow-up consisted of further sampling and prospecting.

General Geology

Undifferentiated Shuswap Metamorphic Complex, including ortho, and paragneiss, mixed, highly metamorphosed sediments, and volcanics.

Local Geology

The lower reaches of Martin creek are overburden covered and heavily overgrown. Good exposures in the headwaters of Martin creek consist of foliated granodiorite gneiss and biotite hornblende granodiorite gneiss. Bands of pelitic shist and quartz veins are rare.

Mineralization

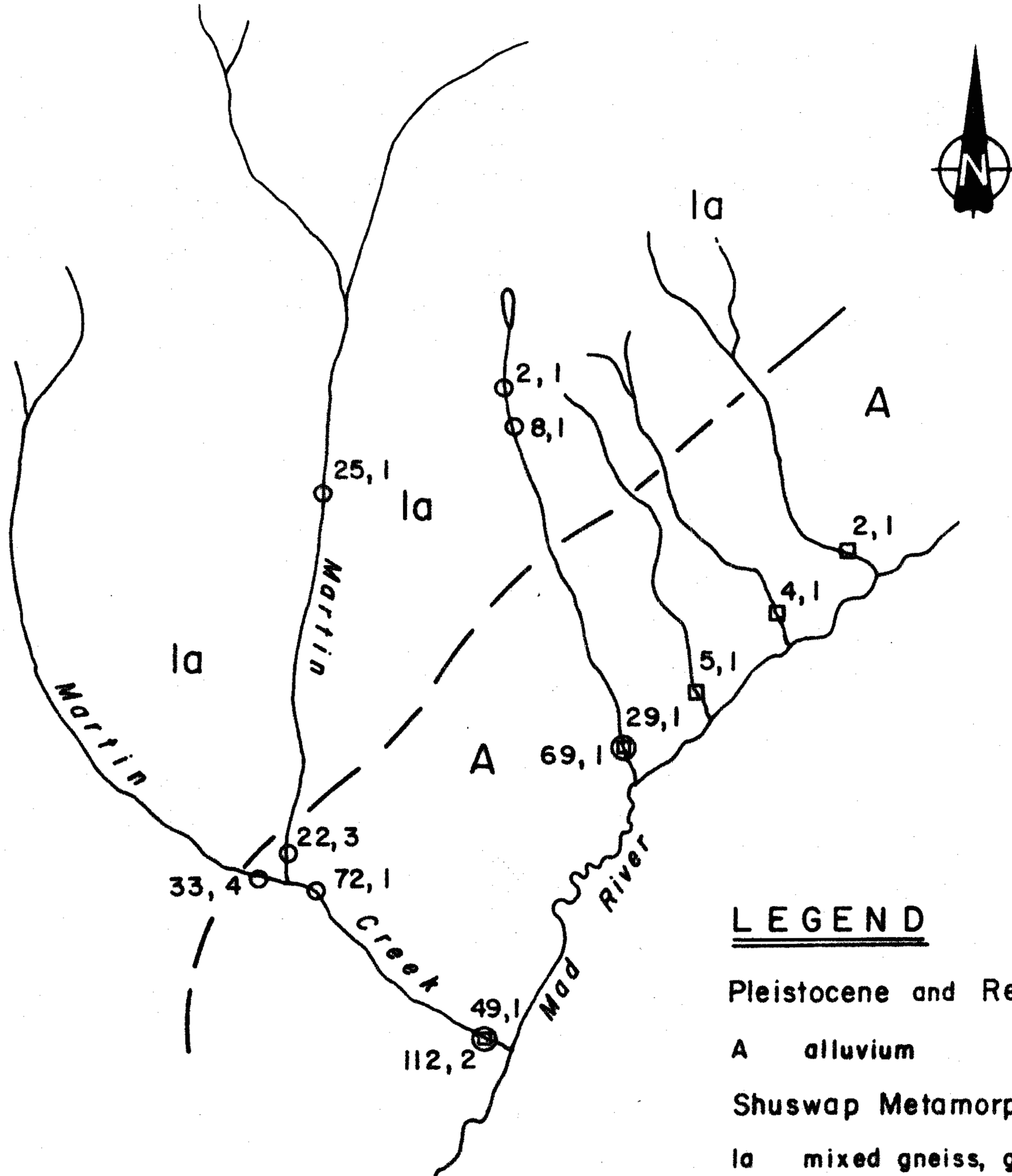
No mineralization of interest was seen. The heavy mineral fractions collected in Martin creek contain traces of fine to medium grained scheelite.

Conclusions

Trace amounts of scheelite occur in rocks of the Shuswap Metamorphic Complex drained by Martin Creek. Tungsten values systematically increase downstream indicating enhancement. Significant W mineralization is not present.

Recommendations

No further work is recommended.



LEGEND

Pleistocene and Recent

A alluvium

Shuswap Metamorphic Complex

Ia mixed gneiss, granodiorite gneiss, biotite hornblende granodiorite gneiss rare metasediments

□ 1982 H.M. Sample

○ 1983 H.M. Sample

W ppm, Sn ppm

Kidd Creek Mines Ltd.		
KOOTENAY ARC PROJECT		
Anomaly P76 GEOLOGY – GEOCHEMISTRY NTS 82 M/12/13		
WORK BY: NVF	DRAWN BY: ER	DATE: JAN. 30/1984
0 — 1 KM SCALE 1:50,000		
Figure: 14		

NCI - 556

ANOMALY P72 - WESLEY - McCONNEL CREEK (W)

NTS 82 M/11

Lat. 51°34' Long. 119°17'

Four stream drainages flowing southeast into Adams River returned weak to moderate W values ranging from 12-86 ppm W. The creeks were resampled and the most anomalous creek was prospected.

General Geology

The area covers undivided rocks of the Shuswap Metamorphic Complex. Well foliated gneiss ranging in composition from granite to granodiorite is interbanded with paragneiss, quartz mica shist, amphibolite, quartzite, and calc-silicate marble. Pegmatites are locally abundant.

Local Geology

Well foliated chlorite, biotite, and quartz-biotite-feldspar gneiss outcrops along the Adams River road. The gneiss is cut by coarse grained pegmatites up to 1 metre thick.

Wesley Creek drainage is underlain by massive to well foliated quartz-biotite-feldspar and hornblende-biotite gneiss. Pegmatites, aplite, and quartz veins are moderately abundant. Evidence of a Cretaceous granitic stock mapped in the headwaters of Camp 12 and McConnel Creek is seen in the abundant medium to coarse grained granite float.

Mineralization

The heavy minerals fraction in Wesley Creek contained approximately 50-100 medium grained fragments of scheelite. No scheelite was found in outcrop which is relatively abundant above 1000 metres. No evidence of calc silicate or skarn was seen in creek float.

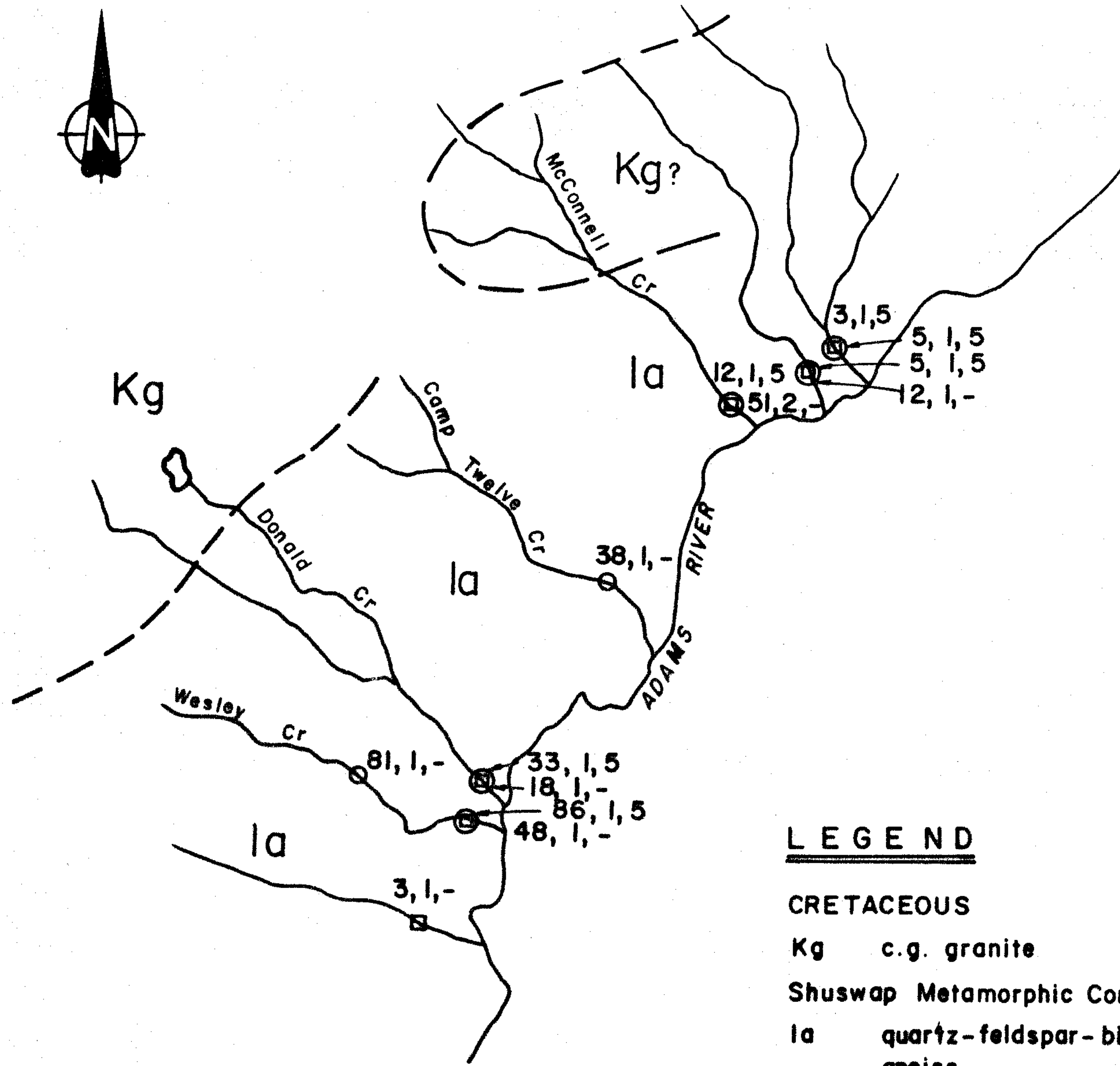
Other creeks contained traces of scheelite in the heavy minerals fraction. McConnel creek and Camp 12 creek contained abundant leucocratic granite float.

Conclusions

The anomalous values obtained in 1982 were substantiated by resampling the creeks. The steep, short, closely spaced drainages of the creeks suggest that scheelite mineralization is local and probably low in grade. The source of the W may be in calc-silicate and skarn bands which are thin and locally discontinous.

Recommendations

No further work is recommended.



LEGEND

CRETACEOUS

Kg c.g. granite

Shuswap Metamorphic Complex

Ia quartz-feldspar-biotite gneiss
hornblende-biotite gneiss, pegmatite
minor schists, marble, calc-silicate

□ 1982 H.M. Sample
○ 1983 H.M. Sample
W ppm, Sn ppm, Au ppb

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT

Anomaly P72

GEOLOGY GEOCHEMISTRY

NTS 82 M/11

WORK BY	DRAWN BY	DATE:
NVF	ER	JAN. 30/1984

0 1 KM

SCALE 1 : 50,000

Figure: 15

NCI - 566

ANOMALY P70 - MYOFF CREEK (W)

NTS 82 M/7

Lat. 51°20' Long. 118°39'

A westerly flowing branch of Myoff Creek returned anomalous W (77ppm). The catchment basin of the creek was prospected and sampled.

Geology

The area is underlain by a mixed gneiss assemblage varying in composition from leucocratic granite to granodiorite and diorite gneiss. The gneisses are in contact with high grade schists, paragneiss and minor marble and calc silicate. All units belong to the Shuswap Metamorphic Complex.

Mineralization

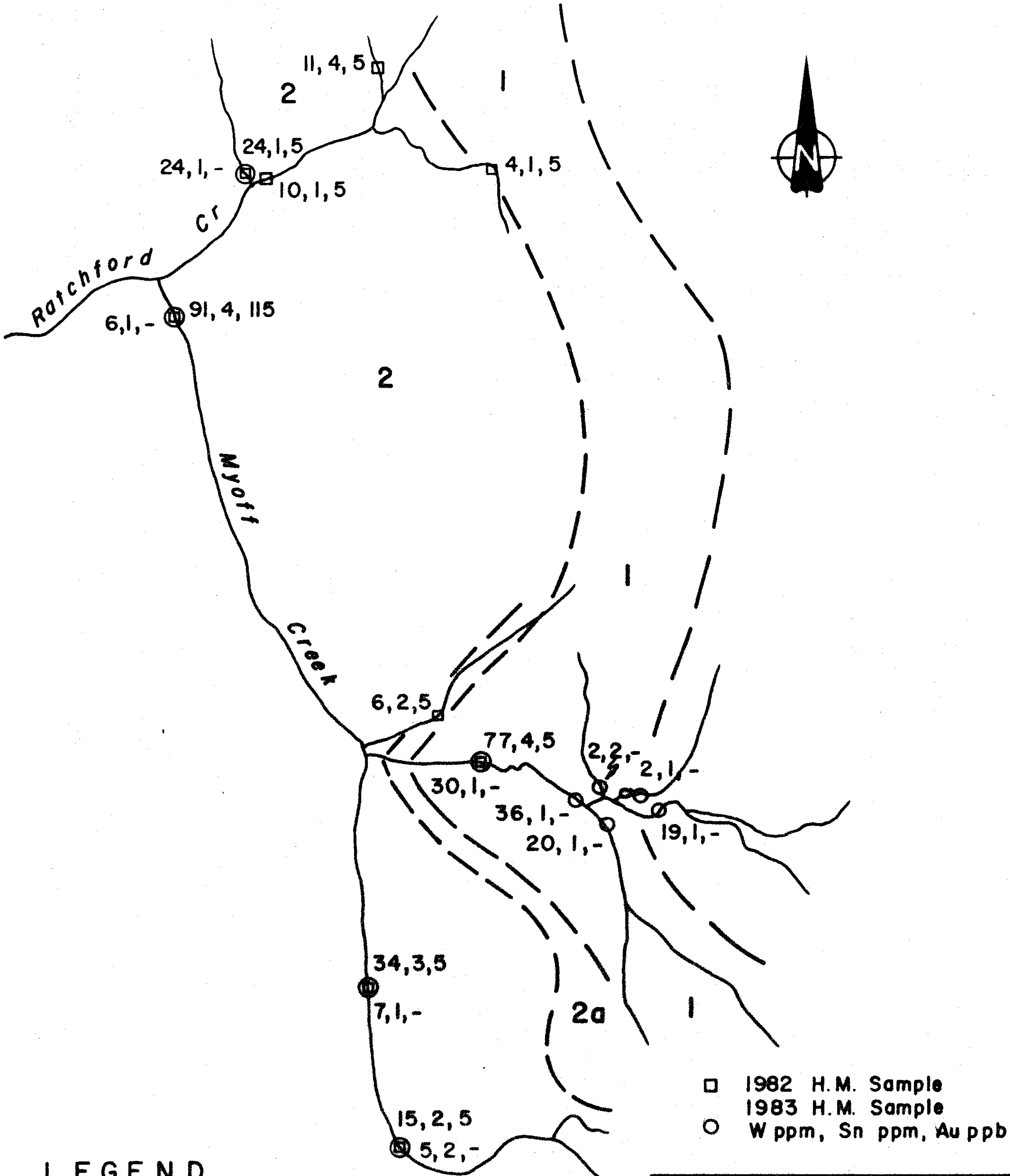
Traces of scheelite occur in well rounded fragments of calcite-tremolite-diopside skarn in a creek bed on the south side of the cirque.

Conclusions

Low sample values from tributary creeks indicate that the anomalous W in the main creek is the result of downstream enhancement of trace amounts of scheelite occurring in localized skarn zones.

Recommendations

No further work is recommended.



LEGEND

Shuswap Metamorphic Complex

1 mixed gneiss, granodiorite gneiss quartz diorite gneiss, granite gneiss

2a quartzite

2 mixed paragneiss, marble calc-silicate, amphibolite, hornblende gneiss

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT

Anomaly P70

GEOLOGY - GEOCHEMISTRY

NTS 82M/7

WORK BY	DRAWN BY	DATE:
NVF	ER	JAN. 30/1984

0 — 1KM

SCALE 1 : 50,000

Figure: 16

NCI - 556

ANOMALY P71 - RATCHFORD CREEK (W)

NTS 82 M/7

Lat. 51°20' Long. 118°42'

A low order, single value, W anomaly (24ppm) on upper Ratchford Creek was resampled and the heavy minerals fraction lamped for scheelite.

Geology

The Ratchford Creek area is underlain by the same Shuswap Metamorphic Assemblage as the Myoff Creek area.

Conclusion

The low order anomaly was duplicated on resampling. Traces of fine to medium-grained sheelite were found in the heavy mineral fraction. A source similar to the Myoff Creek anomaly is postulated.

Recommendations

No further work is recommended.

ANOMALY P68 - (W)

NTS 82 M/5

Lat. 51°19' Long. 119°31'

A single sample tungsten anomaly (77 ppm) was obtained from a small stream draining easterly into Adams Lake. The upper drainage system was prospected and sampled.

Geology

The area is mapped as Baldy Batholith, however, numerous outcrops of biotite-quartz-feldspar gneiss and quartz-feldspar-biotite-muscovite schist exist. The Cretaceous Baldy Batholith locally consists of foliated biotite-quartz monzonite porphyry, with microcline phenocrysts defining a well developed planar flow structure. The metasediments form part of a roof pendant. Aplite dykes and quartz veining are common in the metasediments.

Mineralization

Lamping of pan concentrates produced traces of scheelite. No evidence of scheelite mineralization was seen in outcrop.

Conclusions

Fine, sparsely disseminated scheelite may occur in quartz-monzonite or quartz veins. Sample results did not substantiate the original anomaly.

Recommendations

No further work is justified.

ANOMALY P-61 PISIMA CREEK (W, Sn, Au)

N.T.S. 82 M/3

Lat. 51°07' Long. 119°28'

A heavy mineral sample from Pisima Creek returned 42 ppm W, 46 ppm Sn and 760 ppb Au. The anomalous site was resampled and the area prospected.

General Geology

Tshinakin limestone, greenschist, chloritic phyllite, black argillite, and shale, form part of the lower Eagle Bay Formation. The Cretaceous post-tectonic Scotch Creek pluton lies 3 km to the south.

Local Geology

Foliated, micaceous, and massive marble (Tshinakin) was located in outcrop. The marble is in contact with calcareous, chloritic, graphitic, sericite phyllite, and quartz biotite shist. Black, graphitic, phyllite is variably pyritic, commonly containing euhedral pyrite. Several basalt dykes up to 1 metre in thickness intrude the phyllite.

Mineralization

Outcrops and pan concentrates were lamped for scheelite with negative results. Few if any heavy minerals were seen in the heavy fraction of pan concentrates.

Conclusions

The anomalous values could not be reproduced. No evidence of skarn development or interesting heavy mineral concentrations were found. One possible source for W, Sn, Au could be quartz veins which occasionally cut the phyllite unit.

Recommendations

No further work is recommended.

ANOMALY P 82 - FINN CREEK (W)

NTS 82 M/14

Lat. 51°56' Long. 119°11'

A weak W anomaly (13-36 ppm) was outlined in two drainages flowing north and west into Finn Creek. The drainages were resampled and prospected.

General Geology

Undifferentiated Shuswap Metamorphic Complex.

Local Geology

Granodiorite gneiss and coarse grained leucocratic granite is cut by minor aplite, pegmatite and quartz veins.

Mineralization

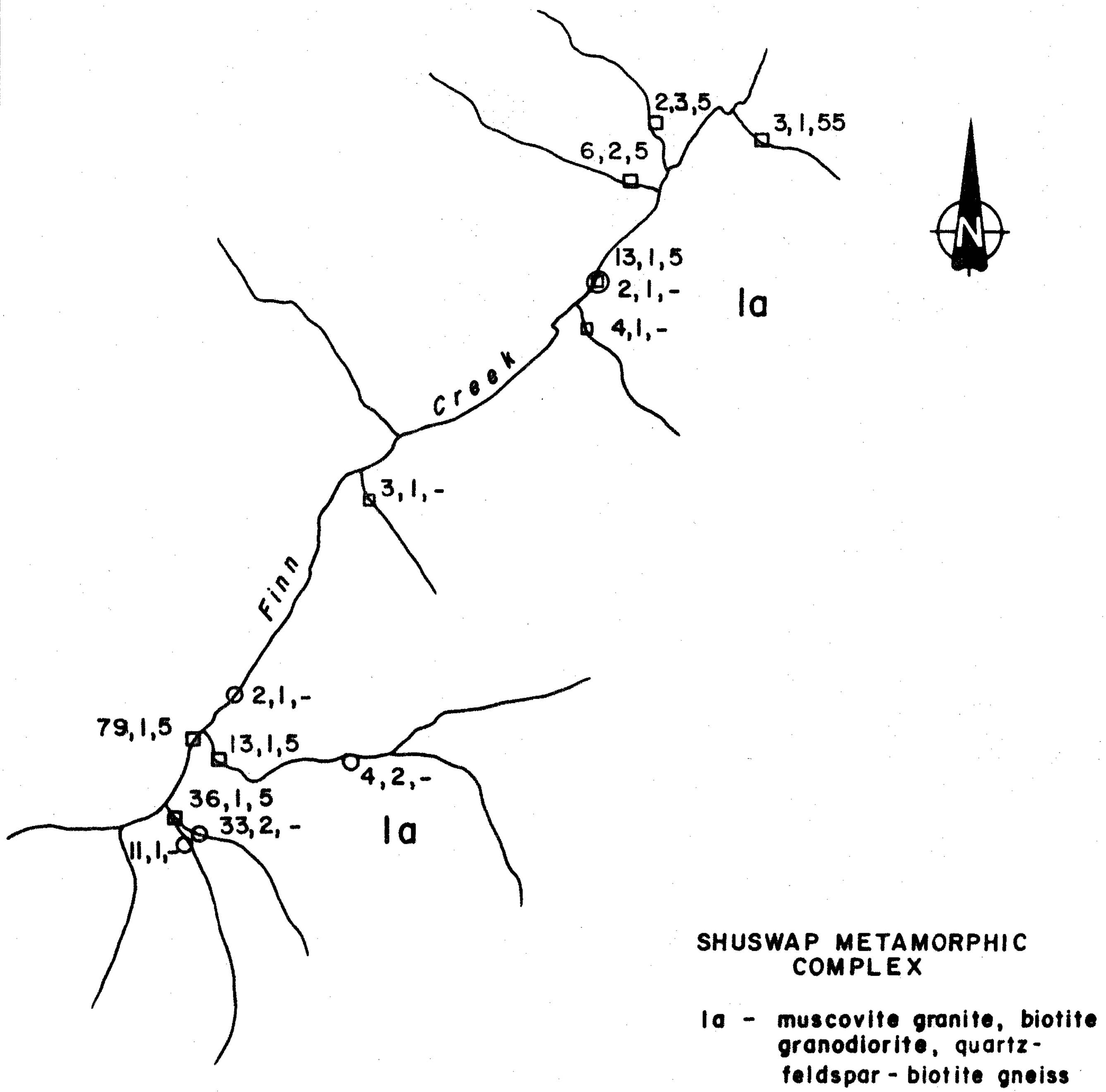
No evidence of scheelite or any sulphide minerals. Traces of scheelite occur in the heavy mineral fraction of pan concentrates. The best W value (79 ppm) obtained from the main creek, is likely caused by downstream enhancement.

Conclusions

The small amount of scheelite seen in pan concentrates may be from quartz veins. The tungsten potential in the Finn Creek area is considered to be low.

Recommendations

No further work is justified.



□ 1982 H.M. Sample

○ 1983 H.M. Sample

Wppm, Sn ppm, Au ppb

Kidd Creek Mines Ltd.

KOOTENAY ARC PROJECT

Anomaly P82

GEOLOGY - GEOCHEMISTRY

NTS 82 H/14

WORK BY	DRAWN BY	DATE: JAN. 30/1984
NVF	EP	

0 1 KM

SCALE 1 : 50,000

Figure: 17

NCI - 556

APPENDIX II

a) PAN CONCENTRATES

b) STREAM SILTS

c) SOILS AND ROCK SAMPLES

d) GOLD, 1982 PULPS

a) PAN CONCENTRATES

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
DF-1	1	13	4	25	.1	14	8	218	1.57	2	2	ND	4	86	1	2	2	22	.51	.17	30	26	.54	391	.11	2	.86	.03	.36	5
DF-3	1	45	12	68	.1	22	19	538	4.49	13	2	ND	2	48	1	2	2	101	.67	.11	10	42	1.25	106	.10	7	2.21	.03	.12	3
DF-13	1	12	6	19	.1	8	11	182	1.62	4	2	ND	4	18	1	2	12	17	.31	.04	14	6	.28	61	.05	2	.72	.02	.15	76
DF-15	1	16	6	15	.1	10	25	272	2.70	2	2	ND	15	73	1	2	2	33	.76	.24	85	11	.25	237	.08	2	.56	.02	.16	11
DF-17	1	17	5	18	.1	8	11	263	1.96	4	2	ND	5	5	1	2	2	28	.25	.04	12	6	.25	33	.07	2	.58	.03	.15	78
DF-19	5	36	27	247	.4	44	18	261	3.62	17	2	ND	6	61	2	2	2	52	1.75	.18	21	22	.76	267	.04	3	1.04	.02	.09	2
DF-21	1	9	6	22	.1	8	5	202	1.40	2	3	ND	3	5	1	2	2	14	.06	.02	12	13	.44	74	.08	2	1.11	.01	.31	3
DF-22	2	32	24	117	.1	38	15	298	3.57	14	2	ND	6	30	1	2	2	32	1.14	.09	19	21	.61	157	.02	2	1.25	.02	.10	2
DF-25	3	44	28	123	.2	47	27	318	4.98	29	2	ND	7	36	2	2	2	49	.70	.12	21	28	.68	167	.04	3	1.24	.02	.11	2
DF-27	18	65	28	680	1.2	81	14	180	3.52	36	2	ND	6	57	8	4	2	73	1.18	.31	23	18	.50	725	.02	4	.74	.01	.14	2
DF-29	10	56	135	623	1.5	65	18	227	3.43	26	2	ND	6	63	5	11	2	48	1.72	.30	22	13	.63	573	.03	4	.76	.02	.14	2
DF-31	1	7	3	13	.1	6	5	103	1.08	2	2	ND	3	11	1	2	2	9	.09	.03	11	7	.23	42	.06	2	.48	.01	.18	25
DF-33	5	22	29	204	.3	31	16	240	3.05	12	2	ND	4	103	2	2	2	32	7.80	.19	11	16	1.68	61	.02	2	.95	.02	.10	2
DF-35	1	13	3	26	.1	8	9	217	2.21	2	3	ND	4	4	1	2	2	16	.10	.02	15	9	.42	44	.10	2	.89	.01	.35	36
DF-37	1	10	3	21	.1	9	9	198	1.86	2	2	ND	5	4	1	2	2	16	.08	.02	13	10	.37	50	.08	2	.87	.01	.28	63
DF-39	1	10	3	23	.1	11	10	148	1.78	2	2	ND	4	7	1	2	2	16	.08	.02	17	13	.47	74	.09	2	.93	.01	.34	52
DF-43	1	12	9	48	.1	10	7	272	2.67	2	3	ND	6	6	1	2	2	21	.07	.02	16	11	.65	71	.11	2	1.41	.01	.38	22
DF-45	1	25	8	44	.1	12	10	348	3.59	3	2	ND	6	7	1	2	2	27	.15	.03	16	11	.49	63	.11	3	1.28	.02	.38	86
STD A-1	1	29	40	180	.2	35	13	1021	2.80	10	2	ND	2	37	1	2	2	60	.62	.11	8	73	.77	302	.08	6	2.11	.02	.21	2

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. SAMPLE TYPE - PAN-CONC -40 mesh pulverized.

DATE RECEIVED JUNE 24 1983 DATE REPORTS MAILED June 30/83 ASSAYER [signature] DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK FILE# 83-0920 project: 908 PAGE # 1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
DF-41	1	4	7	40	.1	5	3	285	.96	2	2	ND	3	22	1	3	2	20	.14	.03	11	20	.24	49	.04	27	.45	.03	.06	2	-
DF-49	1	3	11	55	.1	2	2	208	.91	2	8	ND	18	12	1	2	2	8	.12	.02	31	4	.12	39	.03	22	.37	.02	.09	24	-
DF-51	1	4	12	71	.3	3	4	297	1.67	6	2	ND	26	20	1	2	2	17	.34	.07	78	17	.34	42	.09	26	.76	.03	.09	4	-
DF-53	1	8	7	29	.2	2	9	221	1.91	9	2	ND	14	30	1	2	3	49	.53	.13	40	6	.13	21	.15	4	.35	.03	.05	71	-
DF-55	1	4	7	29	.3	5	5	198	1.24	6	5	ND	15	21	1	2	2	30	.30	.07	42	20	.18	33	.08	24	.31	.02	.04	32	-
DF-57	1	4	7	35	.2	4	4	223	1.43	2	2	ND	18	30	1	2	2	23	.55	.13	64	6	.25	41	.10	27	.51	.03	.10	12	-
DF-59	1	9	3	12	.1	10	8	170	1.26	2	2	ND	13	14	1	2	2	27	.62	.10	22	30	.33	59	.09	26	.50	.04	.08	9	-
DF-63	1	13	6	15	.1	14	14	302	1.96	3	2	ND	29	15	1	2	9	34	.76	.09	66	25	.41	121	.14	25	.63	.06	.10	50	-
DF-65	1	46	24	65	.2	41	25	348	4.95	32	3	ND	9	6	1	2	3	17	.09	.04	23	37	.87	43	.01	20	1.50	.01	.07	10	-
DF-67	3	25	14	63	.1	33	14	306	3.68	6	2	ND	11	19	1	2	23	17	.14	.04	26	26	.65	40	.04	21	1.29	.02	.08	15	-
DF-77	1	28	37	72	.1	33	21	340	4.25	24	3	ND	7	9	1	4	2	20	.16	.05	15	35	.77	61	.02	22	1.27	.01	.08	2	-
DF-79	1	38	23	73	.1	37	32	364	5.06	29	2	ND	7	10	1	5	2	23	.20	.05	14	23	.76	78	.03	20	1.27	.01	.08	2	-
DF-83	1	45	30	81	.3	46	41	369	6.53	44	2	ND	7	11	1	2	3	22	.18	.05	13	34	.73	98	.03	21	1.24	.01	.07	2	-
DF-93	1	23	8	38	.1	23	12	414	2.75	2	2	ND	3	27	1	3	3	48	1.37	.17	10	47	.77	107	.13	25	.94	.09	.15	10	-
DF-61	1	30	29	104	.2	31	22	341	4.28	26	2	ND	7	10	1	3	2	13	.25	.04	13	28	.69	73	.01	21	1.14	.01	.07	2	5
DF-69	1	40	28	78	.1	44	26	285	5.01	36	2	ND	10	6	1	2	2	17	.07	.04	24	31	.89	42	.01	19	1.67	.02	.06	2	60
DF-71	2	70	28	84	.1	60	42	430	7.64	52	8	ND	10	8	1	2	2	17	.08	.05	17	46	.91	53	.01	18	1.77	.02	.09	2	10
DF-73	5	112	195	239	2.8	89	174	416	15.50	186	2	ND	9	15	1	2	2	30	.37	.06	22	15	.53	38	.03	9	1.04	.01	.06	19	90
DF-75	3	68	77	141	.8	62	71	348	9.65	82	2	ND	9	12	1	2	8	18	.26	.05	12	24	.57	125	.01	18	1.08	.01	.06	5	5
DF-81	1	27	20	79	.1	14	13	349	3.59	30	2	ND	6	13	1	2	2	47	.45	.06	17	15	.59	88	.10	26	1.42	.04	.26	2	5
DF-85	1	42	18	73	.1	14	24	371	3.81	31	2	ND	6	9	1	2	2	75	.38	.03	13	18	.63	53	.15	24	1.35	.03	.18	2	15
DF-87	1	19	16	53	.1	9	12	308	3.44	22	2	ND	4	9	1	2	2	52	.65	.07	13	10	.43	43	.18	25	1.05	.06	.14	15	5
DF-89	1	12	21	60	.2	21	17	378	2.79	12	3	ND	5	8	1	2	2	28	.29	.04	17	27	1.80	88	.11	24	1.88	.01	.16	2	5
DF-91	1	6	11	39	.1	12	10	216	1.68	3	6	ND	5	12	1	2	2	15	.21	.05	16	10	1.04	66	.06	23	1.14	.01	.17	5	970
STD A-1/AU 0.5	1	30	39	189	.3	35	13	1061	2.84	9	2	ND	3	39	1	2	2	62	.63	.10	8	78	.79	273	.08	7	2.04	.01	.21	2	530

Nils

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
SN* ANALYSIS BY AA FROM 1.00 GRAM SAMPLE. SAMPLE TYPE - P1-PAN-CON -40MESH P2-STREAM SED -80MESH

DATE RECEIVED JULY 4 1983 DATE REPORTS MAILED July 9/83 ASSAYER D Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK PROJECT # 908 FILE # 83-1060

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sn* ppm
DF-95	3	4	5	23	.1	5	4	262	1.14	2	10	ND	19	11	1	2	2	11	.24	.06	38	9	.13	43	.03	5	.44	.01	.13	68	1
DF-97	5	3	8	20	.1	4	3	312	1.06	2	11	ND	11	10	1	2	2	10	.17	.04	26	8	.10	37	.02	5	.37	.01	.13	23	1
DF-99	5	2	5	20	.1	4	3	316	1.04	2	7	ND	15	10	1	2	3	9	.20	.05	35	9	.10	35	.02	4	.37	.01	.13	40	1
DF-101	1	12	8	38	.2	20	9	280	2.20	2	5	ND	6	27	1	2	2	24	.35	.08	19	24	.67	92	.09	5	1.32	.03	.47	2	2
DF-103	1	17	5	29	.1	15	8	235	1.79	2	3	ND	6	20	1	2	10	28	.76	.14	13	25	.42	113	.07	4	.72	.04	.17	83	1
DF-105	1	12	3	15	.1	11	9	132	2.52	2	2	ND	3	10	1	2	2	78	.71	.23	10	47	.45	463	.11	4	.50	.03	.14	20	1
DF-107	2	15	6	37	.1	16	8	238	1.87	2	2	ND	5	19	1	2	20	30	.70	.16	16	25	.43	142	.07	4	.76	.04	.18	56	1
DF-109	1	8	13	44	.1	13	6	201	1.65	2	6	ND	5	19	1	2	5	25	1.09	.34	15	22	.35	205	.06	3	.83	.03	.17	42	1
DF-111	2	20	7	30	.1	18	10	280	2.20	2	2	ND	7	18	1	2	31	26	.74	.16	23	22	.40	97	.07	4	.70	.03	.18	82	1
DF-113	2	14	7	38	.1	15	7	208	1.76	2	8	ND	5	19	1	2	6	29	.60	.12	15	26	.46	76	.07	3	.79	.04	.19	17	1
DF-115	3	12	7	43	.1	14	6	205	1.55	2	2	ND	5	20	1	2	9	22	.51	.11	18	19	.36	68	.05	3	.74	.03	.14	11	1
DF-117	2	11	4	21	.2	14	10	486	2.25	6	7	ND	13	19	1	2	21	23	.64	.21	33	19	.32	49	.06	2	.72	.02	.18	303	2
DF-119	2	10	5	14	.1	9	6	159	1.72	3	2	ND	7	12	1	2	2	14	.18	.07	21	11	.24	45	.05	3	.57	.01	.25	4	1
DF-121	3	8	14	79	.1	19	8	351	1.87	2	6	ND	4	24	1	2	2	19	.46	.06	17	23	.74	61	.06	4	1.34	.02	.27	11	1
DF-123	1	6	4	14	.1	9	5	192	1.68	2	2	ND	7	13	1	2	2	18	.18	.05	21	15	.23	44	.07	4	.66	.01	.23	6	1
DF-125	1	16	7	24	.1	20	9	243	1.91	2	4	ND	7	18	1	2	8	20	.44	.10	21	23	.58	76	.07	4	.87	.02	.35	65	1
DF-127	1	10	4	24	.1	12	8	302	1.94	2	2	ND	12	19	1	2	6	20	.47	.13	26	16	.33	58	.06	3	.81	.02	.25	50	1
DF-129	2	9	8	23	.1	10	7	330	1.71	3	7	ND	14	15	1	2	5	14	.27	.08	33	9	.23	59	.04	3	.69	.02	.24	8	2
DF-131	2	6	5	28	.1	9	7	261	1.44	2	5	ND	8	14	1	2	21	11	.26	.06	22	11	.23	33	.04	4	.58	.01	.14	52	1
DF-133	1	14	4	22	.1	14	7	276	1.81	2	2	ND	10	19	1	2	2	21	.71	.14	22	19	.47	58	.07	3	.80	.03	.25	38	1
DF-135	1	12	2	20	.1	12	8	312	1.77	4	4	ND	4	21	1	2	2	34	1.18	.26	11	22	.49	63	.10	5	.79	.07	.17	107	1
STD A-1/MP-1000	1	30	42	188	.3	36	13	1056	2.89	9	2	ND	2	39	1	2	2	61	.63	.10	8	75	.74	297	.07	7	2.06	.02	.22	3	23

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H20 AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
AU** ANALYSIS FROM 10 GRAM FA+AA. SN* ANALYSIS BY AA FROM 1.00 GRAM SAMPLE. SAMPLE TYPE - PAN-CONC & STREAM SED

DATE RECEIVED JULY 11 1983 DATE REPORTS MAILED July 16/83 ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES FILE# 83-1161 Project # 908

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sn ppb
DF-137	1	85	172	569	1.2	39	25	317	4.62	23	2	ND	8	6	3	4	2	11	.10	.03	13	28	.57	50	.02	22	1.06	.01	.07	34	-	115
DF-139	1	37	66	72	.4	55	24	328	5.43	18	2	ND	8	12	1	2	2	11	.47	.04	14	18	.78	32	.01	21	1.04	.01	.06	6	-	7
DF-141	1	3	17	47	.1	3	2	161	.62	2	2	ND	5	18	1	2	2	6	.14	.03	17	16	.09	46	.02	25	.34	.01	.07	2	-	2
DF-143	1	22	11	45	.1	34	13	263	3.30	4	2	ND	10	8	1	2	3	12	.11	.03	22	19	.73	32	.04	25	1.14	.01	.15	2	-	1
DF-145	1	38	35	110	.3	69	30	262	8.64	40	2	ND	10	17	1	6	5	14	.24	.04	19	21	.29	30	.02	20	.73	.01	.06	55	-	47
DF-147	1	54	53	116	.5	62	41	319	6.43	37	16	ND	11	7	1	2	4	12	.13	.04	17	15	.52	53	.02	23	.98	.01	.07	35	-	85
DF-149	1	5	28	37	.2	3	4	149	.92	5	2	ND	16	21	1	2	2	8	.24	.07	33	17	.06	40	.03	28	.30	.01	.06	4	-	4
DF-153	1	18	101	41	.4	6	14	235	2.56	33	2	ND	32	23	1	3	10	14	.29	.09	79	4	.08	56	.04	27	.34	.01	.06	21	-	2
DF-155	3	45	295	48	1.0	12	25	823	4.02	90	18	ND	149	24	1	2	45	22	.39	.14	137	19	.10	85	.05	26	.35	.01	.07	36	-	1
DF-157	1	4	13	13	.1	2	3	176	1.03	6	2	ND	21	22	1	2	8	12	.25	.07	50	3	.11	40	.04	26	.37	.02	.09	42	-	2
DF-159	1	5	15	18	.2	4	4	137	.93	9	2	ND	81	12	1	2	2	16	.31	.09	140	25	.17	41	.08	27	.39	.01	.10	2	-	3
DF-161	5	14	6	12	.1	1	1	85	.60	2	2	ND	7	4	1	2	2	3	.06	.02	12	4	.05	31	.01	27	.25	.01	.05	33	-	2
DF-163	1	9	7	20	.1	7	7	109	1.12	2	2	ND	18	5	1	2	2	11	.20	.06	39	24	.29	47	.04	24	.53	.01	.17	10	-	4
DF-165	1	4	7	21	.1	4	8	129	1.13	2	2	ND	34	9	1	2	2	13	.22	.07	108	6	.24	47	.06	27	.47	.01	.11	3	1	2
DF-167	1	9	11	30	.1	8	12	133	1.43	2	2	ND	13	4	1	2	2	12	.14	.04	29	20	.32	57	.05	27	.66	.01	.15	7	-	1
DF-169	1	8	7	34	.1	6	6	165	1.29	2	3	ND	12	5	1	2	2	14	.14	.03	23	7	.32	48	.06	28	.65	.01	.13	8	-	1
DF-171	1	5	6	13	.3	4	5	107	.89	2	2	ND	81	11	1	2	2	14	.55	.21	178	20	.15	37	.05	29	.34	.01	.06	44	-	2
DF-173	1	3	5	18	.2	2	3	166	1.17	13	3	ND	220	20	1	2	7	18	1.05	.41	221	8	.18	38	.08	28	.44	.02	.08	136	-	2
DF-175	2	5	4	21	.1	2	2	105	.59	5	3	ND	25	7	1	2	4	8	.12	.04	35	22	.09	32	.03	28	.32	.01	.05	139	-	4
DF-177	8	24	6	12	.1	1	2	75	.87	9	2	ND	17	4	1	2	7	4	.09	.03	25	2	.04	26	.01	27	.21	.01	.04	194	-	1
DF-179	10	26	2	12	.2	2	2	65	.71	24	2	ND	20	4	1	2	19	4	.09	.03	29	21	.04	26	.01	27	.22	.01	.05	385	-	1
DF-181	1	3	5	18	.2	3	2	168	1.04	2	5	ND	45	9	1	2	8	15	.16	.04	51	4	.20	48	.08	28	.49	.02	.15	21	-	3
DF-183	2	2	4	20	.1	2	1	115	.44	2	5	ND	7	3	1	2	2	3	.03	.01	12	26	.04	30	.01	26	.26	.01	.04	30	-	2
DF-185	3	3	5	17	.1	1	1	116	.60	2	7	ND	10	4	1	2	2	4	.05	.01	20	5	.04	30	.01	28	.26	.02	.04	57	-	2
DF-187	3	3	6	15	.1	2	1	84	.46	2	6	ND	20	4	1	2	2	4	.06	.02	25	26	.03	28	.01	27	.25	.01	.04	76	-	1
DF-189	1	4	7	13	.4	3	3	152	1.06	9	2	ND	211	18	1	2	13	16	1.14	.46	226	9	.15	30	.07	25	.37	.02	.06	139	-	3
DF-191	2	7	8	14	.4	2	3	152	1.15	10	21	ND	384	9	1	2	40	19	.37	.11	202	24	.11	33	.12	27	.31	.01	.06	134	-	7
DF-193	1	2	3	9	.3	2	2	147	.83	2	13	ND	223	15	1	2	4	14	1.14	.48	88	5	.15	34	.06	24	.39	.02	.09	19	-	2
DF-195	3	5	1	18	.2	3	2	116	.70	22	2	ND	74	10	1	2	26	11	.36	.12	90	22	.10	30	.06	29	.31	.02	.06	376	-	3
DF-197	1	3	3	13	.1	3	2	133	.99	2	2	ND	52	11	1	2	2	14	.36	.12	70	6	.15	32	.07	3	.35	.02	.12	15	-	1
DF-199	2	4	5	11	.3	2	2	93	.72	11	2	ND	169	14	1	2	11	13	.73	.28	203	20	.08	14	.08	2	.26	.01	.03	170	-	2
DF-201	1	2	4	14	.1	2	2	168	.90	2	4	ND	21	14	1	2	2	15	.28	.09	59	6	.17	40	.04	2	.47	.02	.06	2	-	1
DF-203	1	2	7	17	.4	2	2	148	.82	4	2	ND	159	20	1	2	8	17	.83	.32	245	19	.15	20	.06	2	.39	.02	.04	29	-	2
DF-205	1	4	9	17	.5	4	5	197	1.86	15	2	ND	301	23	1	2	3	30	.89	.31	383	13	.18	24	.12	2	.44	.02	.07	145	-	1
DF-207	1	2	5	11	.2	3	2	117	.72	2	2	ND	84	15	1	2	2	14	.56	.20	179	23	.12	22	.08	2	.34	.02	.04	7	-	2
DF-209	1	3	7	13	.4	3	3	160	1.22	8	2	ND	222	18	1	2	2	23	.89	.35	243	9	.20	30	.09	2	.45	.02	.09	3	-	2
DF-211	1	2	4	7	.2	2	1	76	.55	2	2	ND	146	12	1	2	2	12	.45	.16	202	18	.08	19	.06	2	.24	.01	.02	10	-	1
DF-213	1	3	3	10	.1	2	1	107	.74	2	2	ND	72	9	1	2	2	11	.42	.17	52	3	.10	22	.05	2	.33	.01	.06	14	-	1
STD A-1/MP-1000	1	30	40	183	.3	35	12	1009	2.86	9	2	ND	3	36	1	2	2	59	.61	.10	8	76	.77	284	.08	7	2.13	.01	.22	2	-	22

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sn ppb
DF-215	1	17	28	74	.1	33	18	455	4.09	19	2	ND	7	8	1	2	2	11	.08	.04	21	29	.59	67	.01	2	1.56	.01	.04	15	165	1
DF-217	1	17	20	60	.1	24	11	300	2.88	15	2	ND	5	8	1	2	2	10	.13	.04	9	31	.45	55	.01	2	1.09	.01	.06	2	3	1
DF-219	1	26	26	63	.1	27	17	327	3.76	24	2	ND	6	8	1	2	2	12	.13	.05	12	20	.44	64	.01	2	1.06	.01	.07	2	6	1
DF-221	1	2	5	31	.1	6	4	289	1.25	2	8	ND	24	29	1	2	2	24	.50	.16	31	22	.48	84	.09	12	.78	.02	.30	2	-	1
DF-223	2	9	31	45	.1	10	11	267	1.25	2	2	ND	7	5	1	2	2	13	.28	.03	17	15	.38	55	.04	26	.72	.01	.11	17	-	1
DF-225	2	4	6	33	.1	4	5	137	.89	2	2	ND	19	7	1	2	2	13	.20	.05	48	20	.22	71	.03	2	.47	.01	.07	34	-	1
DF-227	1	6	29	26	.1	9	18	753	2.87	7	2	ND	4	1	1	2	2	20	.02	.03	8	11	.50	34	.05	2	.98	.01	.24	2	1	1
DF-229	1	6	6	12	.1	5	3	78	.61	2	2	ND	2	1	1	2	2	8	.05	.01	5	31	.20	17	.03	2	.41	.01	.08	2	3	1
DF-231	1	6	7	26	.1	6	13	150	1.46	2	2	ND	46	6	1	2	2	14	.20	.06	72	8	.28	32	.07	2	.55	.01	.13	3	1	1
DF-233	1	3	6	14	.3	3	2	169	.88	4	15	ND	302	27	1	2	2	17	1.05	.41	165	22	.21	30	.06	2	.41	.01	.10	6	-	1
DF-245	2	2	8	8	.1	2	2	100	.60	3	2	ND	89	7	1	2	2	9	.41	.15	151	23	.09	17	.05	2	.20	.01	.04	59	-	1
DF-247	4	4	16	46	.2	5	6	188	1.35	10	2	ND	92	10	1	2	2	18	.63	.22	247	7	.36	57	.08	3	.49	.01	.13	82	6	1
STD A-1/FA-AU/M	1	30	41	184	.3	36	12	1025	2.80	9	2	ND	3	35	1	2	2	57	.60	.10	8	78	.75	296	.08	7	2.02	.02	.22	2	51	23

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B.   Au DETECTION 3 ppm.
AU** ANALYSIS FROM 10 GRAM FA+AA.   SN* ANALYSIS BY AA FROM 1.00 GRAM SAMPLE.   SAMPLE TYPE - P1-PAN CON P2-STREAM SED

DATE RECEIVED JULY 14 1983   DATE REPORTS MAILED July 20/83   ASSAYER D Toye   DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINE   PROJECT # 908   FILE # 83-1194

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sn* ppm
DF-255	1	5	9	21	.1	6	5	210	1.25	6	2	ND	65	11	1	2	2	20	.46	.16	120	13	.39	89	.08	4	.59	.01	.14	34	-	1
DF-257	2	2	7	11	.1	2	1	128	.61	3	2	ND	84	7	1	2	2	10	.36	.12	119	2	.13	26	.08	3	.29	.02	.09	33	-	1
DF-259	2	8	8	18	.1	6	6	204	1.12	8	4	ND	20	7	1	2	2	14	.29	.06	54	9	.49	46	.05	5	.61	.01	.10	25	-	1
DF-261	1	22	47	61	.1	17	10	296	2.90	35	2	ND	8	8	1	2	2	10	.06	.03	28	10	.42	50	.01	3	1.05	.01	.21	2	-	1
DF-263	3	11	12	16	.1	7	8	179	1.39	14	2	ND	24	10	1	2	4	17	.35	.07	86	8	.63	102	.08	7	.56	.02	.14	39	-	2
DF-265	2	4	11	14	.3	3	2	126	.81	4	2	ND	66	11	1	2	4	14	.66	.22	214	7	.19	27	.10	4	.34	.02	.07	37	-	1
DF-267	2	37	22	16	.1	16	22	221	2.57	20	2	ND	13	10	1	2	3	14	.26	.06	39	11	.52	729	.04	7	.76	.01	.22	4	-	1
DF-269	2	9	8	22	.2	6	5	190	1.05	11	6	ND	10	6	1	2	3	14	.30	.03	38	12	.52	59	.06	5	.80	.01	.12	27	-	1
DF-271	1	10	11	23	.2	10	6	265	1.62	7	2	ND	6	3	1	2	2	11	.09	.02	24	11	.41	78	.01	4	.89	.01	.22	2	-	2
DF-273	1	14	10	27	.1	14	11	224	2.10	15	2	ND	6	5	1	2	3	10	.06	.02	28	12	.41	49	.01	3	.97	.01	.17	2	-	1
DF-275	1	18	33	31	.1	14	9	213	2.33	17	2	ND	6	5	1	2	3	8	.05	.02	26	10	.40	35	.01	2	.94	.01	.15	2	-	1
DF-277	1	30	80	71	.2	21	13	315	3.42	67	3	ND	9	8	1	4	2	12	.06	.03	31	10	.44	46	.01	4	1.08	.01	.20	2	-	1
DF-279	1	29	17	39	.1	20	15	395	3.77	24	2	ND	9	8	1	3	2	12	.07	.04	34	10	.35	68	.01	4	1.05	.01	.20	2	-	1
DF-281	1	22	21	91	.2	30	12	415	3.73	18	2	ND	6	14	1	2	2	18	.19	.05	20	28	.69	58	.01	3	1.80	.01	.13	2	-	1
DF-283	1	23	20	42	.1	19	11	309	3.54	24	2	ND	8	8	1	2	2	11	.06	.04	30	10	.52	49	.01	4	1.16	.01	.17	2	-	1
DF-285	1	4	5	10	.1	2	1	101	.54	2	5	ND	17	8	1	2	4	7	.19	.06	34	4	.09	25	.04	3	.29	.02	.08	2	-	2
DF-287	1	22	26	103	.1	33	13	478	4.24	15	2	ND	6	17	1	2	2	13	.24	.09	10	24	.49	87	.01	3	1.58	.01	.11	2	-	1
DF-289	1	11	19	32	.1	12	8	217	1.82	13	2	ND	5	4	1	2	2	8	.09	.03	20	7	.27	68	.01	4	.63	.01	.14	2	-	1
DF-291	1	18	22	71	.1	25	11	248	3.20	17	3	ND	5	8	1	2	2	14	.10	.03	16	21	.55	35	.01	2	1.33	.01	.10	2	-	1
DF-293	5	42	34	87	.3	49	32	463	6.37	37	2	ND	9	16	1	2	2	19	.20	.07	23	36	.86	47	.01	3	2.17	.01	.09	192	-	1
DF-295	1	19	20	84	.1	45	19	453	5.31	24	2	ND	8	15	1	2	2	18	.13	.04	17	44	.86	35	.01	2	2.57	.02	.08	8	-	1
DF-297	1	16	26	93	.1	40	16	418	4.95	11	2	ND	8	26	1	2	2	15	.15	.04	18	44	.78	36	.01	2	2.45	.01	.12	2	-	2
DF-299	1	14	14	37	.1	18	10	353	2.76	10	2	ND	6	7	1	3	2	9	.07	.04	22	14	.30	125	.01	4	.91	.01	.14	2	4	1
STD A-1/MP-1000	1	30	40	181	.3	35	12	966	2.82	9	2	ND	2	34	1	2	2	56	.59	.10	7	75	.73	293	.08	7	2.02	.02	.21	2	-	22

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B.   Au DETECTION 3 ppm.
AU** ANALYSIS FROM 10 GRAM FA+AA.   SN* ANALYSIS BY AA FROM 1.00 GRAM SAMPLE.   SAMPLE TYPE - P1-PAN CONC P2-S SED P3-SOIL P4-ROCK

DATE RECEIVED JULY 21 1983   DATE REPORTS MAILED July 28/83   ASSAYER D Toye   DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK   PROJECT # 908   FILE # 83-1303   PAGE # 1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sn* ppm
DF-301	3	8	9	37	.1	8	5	462	1.41	2	10	ND	4	27	1	2	2	15	.26	.04	16	15	.40	72	.08	5	.86	.02	.27	2	-	1
DF-303	3	8	11	124	.1	17	2	195	1.08	2	4	ND	16	10	2	2	2	57	.18	.03	36	13	.15	45	.03	4	.57	.01	.05	2	-	1
DF-305	4	21	25	169	.3	29	9	258	2.34	2	2	ND	18	30	2	2	2	63	1.53	.18	37	18	.86	58	.03	5	1.01	.02	.11	36	-	6
DF-307	2	13	7	26	.1	8	5	320	1.33	2	6	ND	14	22	1	2	2	13	.46	.10	35	11	.27	49	.07	6	.59	.02	.17	7	-	1
DF-309	3	10	9	20	.1	10	6	217	2.13	2	2	ND	10	16	1	2	2	25	.37	.13	23	20	.36	59	.08	3	.71	.02	.33	11	-	1
DF-311	1	22	5	26	.1	14	7	254	1.65	2	2	ND	2	20	1	2	2	28	.80	.12	6	24	.53	49	.10	4	1.10	.06	.27	69	-	6
DF-313	1	10	3	19	.1	12	9	485	1.65	2	2	ND	5	9	1	2	2	28	.45	.02	18	21	.31	33	.14	7	.89	.03	.09	107	-	1
DF-315	1	6	7	16	.1	8	4	219	1.30	2	3	ND	5	7	1	2	2	25	.22	.04	19	17	.21	45	.08	7	.51	.02	.13	4	-	6
DF-317	1	14	17	77	.1	15	5	459	1.77	7	2	ND	3	21	1	2	2	28	1.18	.16	13	22	.69	244	.07	8	.91	.04	.16	12	-	3
DF-319	1	5	8	40	.1	12	3	222	1.01	2	4	ND	4	9	1	2	2	10	.15	.03	9	11	.16	63	.06	6	.94	.02	.14	8	-	2
DF-321	1	7	9	36	.1	8	3	323	1.10	2	2	ND	4	12	1	2	2	12	.27	.03	9	12	.30	52	.05	7	.68	.02	.16	2	-	1
DF-323	1	14	6	23	.2	12	6	410	1.89	2	7	ND	19	19	1	2	2	22	.59	.15	49	18	.30	74	.08	2	.65	.03	.19	35	3	2
DF-325	1	6	10	24	.1	7	3	401	1.14	2	10	ND	18	8	1	2	2	10	.23	.06	35	12	.12	34	.03	7	.44	.02	.10	42	5	1
DF-327	2	7	11	34	.1	7	4	1228	1.55	4	10	ND	38	8	1	2	8	13	.42	.12	67	10	.13	32	.05	6	.55	.02	.11	146	2	1
DF-329	1	5	10	139	.1	8	3	627	1.08	2	2	ND	14	12	1	2	2	11	.38	.06	29	14	.33	39	.05	3	.78	.02	.13	25	-	2
DF-331	2	11	13	62	.1	12	5	610	1.93	3	7	ND	12	12	1	2	3	19	.58	.14	23	18	.34	69	.08	3	.94	.02	.27	55	-	1
DF-333	1	4	8	22	.1	7	3	466	1.17	2	7	ND	16	11	1	2	2	11	.45	.06	32	13	.24	30	.05	7	.47	.02	.08	33	2	7
DF-335	2	102	60	66	.3	72	96	431	6.10	134	4	ND	24	68	1	2	2	39	.94	.13	20	51	.89	159	.13	5	1.08	.02	.10	12	-	1
STD A-1	1	29	41	185	.3	36	13	1035	2.76	11	2	ND	2	38	1	2	2	60	.68	.11	7	80	.77	281	.08	9	2.02	.01	.21	2	1	1

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
W* ANALYSIS BY ICP FROM 1.00 GRAM FUSED SAMPLE. SN* ANALYSIS BY AA FROM 1.00 GRAM SAMPLE. SAMPLE TYPE - PAN-CONC , P3 - Stream Sed.

DATE RECEIVED JULY 27 1983 DATE REPORTS MAILED Aug 3/83 ASSAYER [signature] DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK FILE # 83-1375 PROJECT # 908 PAGE # 1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm
DF-335	2	6	22	47	.1	8	3	188	1.22	2	5	ND	9	12
DF-339	1	9	9	33	.1	13	4	427	1.52	2	3	ND	8	16
DF-341	1	13	18	83	.1	30	8	376	2.18	4	4	ND	4	72
DF-343	2	4	6	25	.1	5	2	168	.84	2	3	ND	7	9
DF-347	1	5	7	22	.1	6	2	206	.91	2	2	ND	12	12
DF-349	1	22	12	73	.2	19	7	332	1.64	2	35	ND	14	31
DF-351	1	8	8	30	.1	6	3	301	1.74	2	2	ND	53	12
DF-353	1	13	14	49	.1	24	6	272	1.62	2	3	ND	7	58
DF-355	1	9	2	34	.2	12	4	354	1.31	2	4	ND	9	18
DF-357	2	21	7	30	.1	18	6	360	2.70	2	2	ND	14	21
DF-361	1	14	13	48	.1	15	9	419	1.88	3	2	ND	3	18
DF-363	1	9	8	28	.1	11	6	332	1.51	2	2	ND	7	13
DF-365	1	10	11	28	.1	11	7	438	1.81	2	2	ND	16	17
DF-367	1	10	10	30	.1	11	7	371	1.71	6	2	ND	12	17
DF-369	1	13	12	30	.1	9	6	268	1.42	5	2	ND	14	15
DF-371	1	10	13	26	.4	10	7	454	1.83	2	2	ND	21	18
DF-373	1	5	7	24	.1	6	5	309	1.47	2	2	ND	18	33
DF-375	1	7	5	21	.1	4	3	232	.93	3	2	ND	12	13
DF-377	1	16	4	16	.2	4	3	235	.79	2	2	ND	14	22
DF-379	1	9	4	13	.1	4	4	505	.84	2	2	ND	35	20
DF-381	1	3	3	21	.1	4	2	150	.82	3	2	ND	4	19
DF-383	1	3	5	15	.1	4	2	246	.75	2	2	ND	11	20
DF-385	1	8	9	24	.1	9	4	310	1.33	4	2	ND	12	24
DF-387	1	12	6	28	.1	8	5	301	1.32	2	4	ND	19	48
DF-389	1	6	8	42	.1	109	19	484	2.75	4	5	ND	12	31
DF-391	1	4	10	24	.1	45	8	355	1.63	2	2	ND	14	30
DF-393	1	11	9	50	.1	95	19	448	2.97	6	2	ND	7	59
DF-395	1	7	5	21	.1	8	4	263	1.47	2	2	ND	13	23
DF-417	1	23	8	45	.1	25	9	325	2.40	2	2	ND	6	22
DF-419	1	13	9	28	.1	16	9	268	2.05	10	2	ND	14	23
DF-421	1	11	8	61	.1	15	6	310	1.96	2	3	ND	6	19
DF-423	1	10	7	28	.1	15	7	240	1.72	2	2	ND	9	26
DF-425	2	12	7	26	.1	12	7	255	1.94	13	2	ND	20	12
DF-427	1	7	5	41	.1	11	5	262	1.57	2	4	ND	13	15
DF-429	1	10	7	43	.1	13	6	235	1.68	2	4	ND	11	14
DF-431	1	5	7	35	.1	6	3	188	1.33	2	12	ND	11	16
DF-433	1	12	9	34	.1	16	9	284	2.25	8	2	ND	12	26
STD A-1/W-50/MP	1	29	39	182	.3	35	12	1026	2.80	10	2	ND	2	37

SAMPLE #	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sn* ppm	W* ppm
DF-335	1	2	2	14	.13	.02	24	8	.23	50	.02	2	.60	.03	.09	27	2	27
DF-339	1	2	2	15	.20	.04	26	17	.33	53	.06	3	.71	.03	.10	23	1	26
DF-341	1	2	2	39	.39	.07	24	36	.96	438	.14	2	1.38	.05	.28	2	2	2
DF-343	1	2	3	8	.13	.02	23	7	.15	28	.03	2	.42	.03	.09	45	1	45
DF-347	1	2	2	9	.14	.03	39	6	.13	29	.02	2	.46	.05	.09	13	5	16
DF-349	1	4	3	20	.47	.08	37	23	.46	110	.06	5	.81	.04	.11	783	1	860
DF-351	1	2	5	27	.27	.08	118	11	.18	35	.05	2	.48	.03	.08	129	1	125
DF-353	1	2	2	25	.44	.09	28	34	.58	218	.07	2	.81	.04	.15	35	1	42
DF-355	1	2	4	15	.28	.05	29	16	.31	58	.05	3	.66	.03	.08	220	1	240
DF-357	1	2	2	30	.28	.06	64	23	.30	63	.06	3	.62	.03	.08	21	1	26
DF-361	1	2	2	28	.26	.06	15	24	.57	81	.06	3	1.07	.02	.15	2	5	2
DF-363	1	2	2	20	.23	.05	26	16	.37	44	.06	3	.67	.02	.09	25	1	24
DF-365	1	2	2	23	.35	.09	75	15	.33	140	.09	2	.66	.03	.08	72	1	74
DF-367	1	2	2	24	.31	.08	56	17	.40	117	.08	4	.72	.03	.09	22	3	26
DF-369	1	2	2	16	.28	.07	69	10	.25	74	.06	3	.54	.03	.08	33	4	36
DF-371	1	2	2	24	.41	.12	98	15	.34	127	.09	4	.66	.03	.08	112	2	110
DF-373	1	2	2	31	.47	.12	109	12	.40	73	.08	2	.78	.04	.10	69	1	75
DF-375	1	2	2	15	.24	.05	38	6	.22	26	.03	3	.51	.03	.08	11	1	12
DF-377	1	2	2	16	.37	.09	40	6	.25	24	.04	9	.51	.03	.10	11	1	14
DF-379	1	2	2	15	.42	.12	93	6	.19	16	.04	2	.46	.03	.08	33	2	34
DF-381	1	2	2	12	.22	.04	14	9	.21	29	.03	2	.62	.04	.09	2	1	2
DF-383	1	2	2	12	.36	.08	37	7	.17	20	.03	3	.50	.04	.07	2	1	4
DF-385	1	2	2	17	.37	.09	35	14	.30	40	.05	2	.87	.03	.12	2	1	2
DF-387	1	2	2	28	.52	.10	43	14	.54	31	.06	3	1.04	.04	.18	4	2	4
DF-389	1	5	2	34	.48	.10	33	48	2.99	232	.15	4	1.07	.06	.10	28	3	36
DF-391	1	2	2	24	.38	.08	40	29	1.18	251	.09	5	.78	.05	.10	35	1	40
DF-393	1	2	2	35	.79	.10	20	50	2.75	220	.17	17	1.54	.17	.18	6	5	6
DF-395	1	2	2	26	.44	.08	41	14	.34	51	.06	4	.73	.06	.09	51	1	50
DF-417	1	2	2	27	.39	.08	19	31	.55	78	.07	7	1.01	.04	.21	19	1	20
DF-419	1	2	2	27	.46	.12	49	21	.48	49	.06	2	.89	.04	.15	48	1	46
DF-421	1	2	2	27	.22	.04	20	19	.59	80	.06	3	1.12	.04	.17	2	1	2
DF-423	1	2	2	26	.52	.14	29	21	.50	68	.06	3	.94	.05	.15	18	1	14
DF-425	1	2	3	18	.31	.10	55	12	.23	48	.03	4	.57	.03	.11	51	2	50
DF-427	1	2	2	17	.23	.06	43	11	.29	59	.03	3	.81	.03	.09	12	1	12
DF-429	1	2	2	18	.25	.06	35	12	.35	59	.04	5	.71	.03	.10	5	1	6
DF-431	1	2	4	11	.28	.09	35	7	.17	55	.02	3	.61	.03	.09	38	1	40
DF-433	1	2	2	33	.50	.12	42	25	.62	60	.07	5	1.06	.05	.20	81	1	86
STD A-1/W-50/MP	2	2	2	59	.63	.10	8	73	.80	291	.10	10	2.10	.02	.19	2	24	48

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. SN* ANALYSIS BY AA FROM 1.00 GRAM SAMPLE. SAMPLE TYPE - P1-2 PAN-CONC P3-4 STREAM SED

DATE RECEIVED AUG 8 1983 DATE REPORTS MAILED Aug 12/83 ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT # 908 FILE # 83-1525

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb	Sn* ppm
DF-435	1	20	14	67	.1	40	15	707	3.96	4	2	ND	6	44	1	3	2	46	.37	.10	22	62	1.18	118	.05	4	1.59	.02	.10	12	-	1
DF-439	1	17	13	52	.1	37	17	340	3.75	11	2	ND	6	17	1	3	2	37	.26	.08	18	59	.90	42	.05	3	1.47	.01	.09	2	10	2
DF-441	1	28	14	55	.1	35	14	748	3.34	13	2	ND	4	21	1	2	2	33	.29	.07	20	59	.75	75	.02	5	1.50	.01	.07	2	5	1
DF-443	1	17	9	47	.1	30	14	410	3.23	13	2	ND	5	15	1	2	2	31	.23	.06	16	47	.76	44	.04	4	1.34	.01	.06	2	550	4
DF-445	1	36	29	52	.1	40	31	404	4.44	40	2	ND	3	67	1	2	2	32	1.36	.08	7	50	.99	37	.05	5	1.25	.01	.07	2	310	1
DF-447	1	26	12	58	.1	39	23	433	4.05	24	2	ND	5	27	1	2	2	51	.39	.10	15	63	1.23	62	.09	3	1.82	.01	.11	2	5	1
DF-449	1	16	11	28	.1	23	11	272	2.33	10	2	ND	24	31	1	2	2	39	.58	.05	38	43	.40	45	.09	5	.79	.02	.07	2	5	1
DF-451	1	67	26	58	.4	63	84	462	6.13	21	2	ND	5	48	1	2	2	66	.99	.10	10	74	1.33	103	.12	4	1.58	.02	.09	4	5	1
DF-453	1	20	14	36	.1	29	11	436	2.64	3	2	ND	5	23	1	2	2	28	.33	.07	18	48	.40	69	.05	4	.88	.02	.15	9	-	1
DF-455	1	14	6	27	.1	21	11	928	2.49	3	6	ND	19	39	1	2	2	30	.41	.09	51	30	.37	101	.06	3	1.02	.04	.15	2	-	2
DF-459	1	8	6	23	.1	12	5	298	1.52	2	2	ND	9	29	1	2	2	25	.36	.08	30	32	.31	65	.04	4	.76	.03	.11	2	5	1
DF-461	1	7	8	35	.1	15	5	272	1.69	4	2	ND	5	39	1	2	2	28	.30	.06	19	26	.44	99	.05	4	1.14	.04	.15	2	-	1
DF-463	1	6	6	21	.2	12	5	719	1.53	3	13	ND	62	29	1	2	2	23	.45	.14	146	31	.26	52	.04	3	.73	.03	.08	39	-	1
DF-465	1	2	1	11	.1	5	2	329	1.01	2	4	ND	20	19	1	2	2	17	.21	.05	57	6	.14	38	.05	5	.50	.02	.06	11	-	1
DF-467	1	3	3	17	.1	6	3	259	.87	3	2	ND	15	18	1	2	2	16	.27	.07	40	23	.18	52	.04	4	.53	.02	.08	3	-	1
DF-469	1	7	4	23	.1	14	8	386	1.52	2	6	ND	15	27	1	2	2	19	.38	.12	38	17	.22	100	.03	5	.56	.03	.10	17	-	2
DF-471	1	5	2	29	.1	12	5	403	1.53	2	2	ND	26	15	1	2	2	25	.22	.08	66	27	.21	74	.04	8	.78	.02	.10	12	-	1
DF-473	1	31	19	56	.1	46	26	518	4.45	10	2	ND	4	36	1	2	2	74	.62	.11	17	73	1.21	120	.10	6	1.54	.02	.12	2	5	1
DF-475	1	20	9	32	.1	29	21	307	3.08	9	2	ND	5	40	1	2	2	47	.92	.09	21	55	.76	72	.10	3	1.00	.03	.09	2	5	1
DF-477	1	24	22	44	.1	41	21	403	3.29	13	2	ND	3	37	1	2	2	55	.63	.08	14	72	1.02	97	.11	4	1.27	.03	.10	2	5	1
DF-479	1	27	18	89	.3	54	27	372	3.60	15	2	ND	3	55	1	6	2	60	.64	.10	16	99	1.20	162	.14	5	1.51	.04	.14	2	5	1
DF-481	1	41	9	65	.1	70	20	622	4.11	12	2	ND	4	42	1	2	2	72	.54	.09	20	128	1.48	181	.11	3	1.87	.03	.18	2	5	1
DF-483	1	33	15	46	.1	64	38	412	3.92	13	2	ND	6	47	1	4	2	64	.65	.09	16	122	1.19	130	.15	4	1.43	.03	.17	2	5	2
DF-485	1	28	13	40	.1	41	20	407	3.01	6	2	ND	5	36	1	4	2	45	.55	.08	21	67	.79	88	.09	4	1.14	.03	.11	3	5	4
DF-487	1	36	35	45	.2	48	29	341	3.54	11	2	ND	6	37	1	3	2	49	.69	.10	22	75	.81	76	.11	4	1.14	.03	.11	2	10	2
DF-489	1	35	46	46	.3	32	24	371	3.54	7	2	ND	22	44	1	2	2	41	.79	.09	41	35	.55	79	.09	4	1.02	.04	.12	56	5	5
DF-491	1	18	18	40	.1	22	12	362	2.26	5	2	ND	8	32	1	2	2	35	.67	.07	27	41	.55	68	.07	3	1.02	.03	.14	13	5	1
DF-493	1	7	13	28	.1	11	7	465	2.02	6	2	ND	15	31	1	2	2	27	.75	.06	50	15	.31	55	.05	8	.77	.02	.08	8	5	2
DF-495	1	31	12	50	.1	55	20	434	3.41	6	4	ND	4	42	1	4	2	59	.51	.08	16	102	1.23	117	.10	3	1.54	.03	.11	2	5	3
DF-497	1	15	9	48	.1	16	7	336	2.04	2	2	ND	5	47	1	2	2	30	.58	.04	17	23	.48	79	.06	4	1.18	.03	.11	24	5	1
DF-499	1	8	10	29	.1	10	5	232	1.36	3	2	ND	5	27	1	2	2	21	.40	.05	18	25	.34	79	.04	8	.66	.02	.10	2	10	2
DF-501	1	22	6	41	.1	27	10	340	2.58	7	2	ND	7	52	1	2	2	40	.68	.08	23	39	.68	83	.06	7	1.18	.04	.14	2	5	6
DF-503	1	10	6	31	.1	12	7	332	1.71	3	2	ND	12	25	1	2	2	25	.47	.05	39	30	.37	44	.05	5	.85	.02	.07	17	5	1
DF-505	1	11	2	32	.1	21	11	300	1.80	4	2	ND	7	28	1	2	2	31	.46	.04	24	33	.57	54	.07	3	1.04	.03	.10	18	5	1
DF-507	1	33	17	40	.1	28	13	298	2.59	7	3	ND	9	46	1	2	2	38	.69	.08	23	49	.63	73	.08	2	1.11	.04	.13	5	5	2
DF-509	1	32	39	68	.2	26	16	356	2.83	6	2	ND	9	46	1	2	2	33	.88	.08	29	30	.56	68	.07	5	1.02	.04	.15	18	10	1
DF-511	1	33	18	41	.2	32	16	314	2.82	8	2	ND	6	53	1	2	2	44	.91	.08	17	59	.68	68	.10	2	1.20	.05	.14	12	5	1
STD A-1/AU0.5/S	1	31	38	181	.3	36	12	1018	2.83	10	2	ND	2	36	1	2	2	59	.58	.10	8	75	.77	281	.08	8	2.08	.02	.20	2	495	26

KIDD CREEK MINES PROJECT # 908 FILE # 83-1525

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb	Sn* ppm
DF-513	1	22	9	35	.1	19	12	323	2.10	3	2	ND	7	61	1	2	2	30	1.08	.12	25	31	.53	93	.07	3	.97	.04	.19	8	5	1
DF-515	1	20	9	31	.2	15	10	331	2.03	3	2	ND	9	78	1	2	2	29	1.27	.10	29	19	.48	88	.09	2	1.07	.06	.22	18	5	1
DF-517	1	45	19	64	.1	53	27	462	4.13	5	2	ND	8	72	1	2	2	51	1.32	.17	22	75	1.04	106	.07	5	1.42	.03	.14	6	10	2
DF-519	1	17	8	23	.1	14	10	328	2.13	2	2	ND	15	46	1	2	2	27	.80	.14	54	19	.36	66	.07	8	.86	.06	.12	12	5	1
DF-521	1	31	8	70	.1	48	18	545	3.36	3	2	ND	3	46	1	2	2	62	.58	.12	17	93	1.46	192	.11	4	1.83	.02	.23	2	5	1
DF-523	1	39	24	59	.1	43	24	627	3.96	8	2	ND	4	56	1	2	2	54	1.57	.12	12	51	1.06	646	.08	6	1.29	.02	.20	2	5	1
DF-525	2	71	30	111	.1	77	31	742	5.61	25	2	ND	3	26	1	2	2	61	.52	.10	14	71	.96	629	.03	7	1.37	.01	.13	2	5	1
DF-527	2	41	35	68	.1	51	33	585	4.30	11	4	ND	3	49	1	2	2	52	.77	.10	12	55	1.01	484	.09	9	1.34	.03	.27	2	5	6
DF-529	2	36	26	49	.3	40	28	498	3.44	5	2	ND	4	111	1	2	2	53	1.35	.11	11	71	1.03	351	.13	4	1.27	.03	.26	6	5	3
DF-531	3	72	30	150	.1	85	35	1282	5.15	11	2	ND	3	31	1	2	2	54	.34	.10	14	81	.61	937	.02	7	1.11	.01	.13	2	5	1
DF-533	2	36	41	49	.3	38	28	466	3.46	5	2	ND	4	67	1	2	2	51	1.20	.12	14	55	1.19	241	.14	4	1.27	.04	.27	2	20	2
DF-535	1	31	14	70	.1	51	20	545	3.99	3	2	ND	2	44	1	3	2	71	.54	.12	14	99	1.61	170	.13	4	1.94	.03	.22	2	5	1
DF-537	1	42	30	60	.7	95	19	502	3.32	5	2	ND	3	55	1	5	7	67	.71	.09	11	214	1.89	142	.12	3	2.00	.02	.27	2	5	1
DF-539	1	68	15	60	.1	82	28	597	4.59	6	2	ND	2	64	1	2	2	76	1.10	.10	14	161	1.80	103	.13	7	2.01	.02	.11	2	5	1
DF-541	2	42	41	112	.1	68	23	955	4.37	2	2	ND	2	45	1	2	2	66	.52	.11	17	100	1.24	159	.06	5	1.73	.02	.12	2	5	1
DF-543	1	51	16	69	.1	71	27	643	4.56	5	2	ND	4	42	1	2	2	57	.54	.11	20	120	1.36	105	.07	5	1.63	.02	.11	2	5	1
DF-545	1	46	19	74	.1	57	25	634	4.62	4	2	ND	5	48	1	2	2	46	.60	.13	25	66	1.02	106	.05	7	1.37	.02	.13	2	5	1
DF-547	1	31	17	56	.1	40	23	449	3.78	8	2	ND	4	45	1	2	2	46	.77	.11	14	42	.83	368	.09	6	1.03	.02	.23	3	1010	1
DF-549	1	15	11	34	.1	16	11	311	1.76	3	2	ND	6	41	1	2	2	29	.63	.10	17	30	.53	133	.09	3	.80	.03	.23	7	5	1
DF-551	1	19	24	52	.1	31	17	417	2.66	6	2	ND	4	49	1	2	2	43	.56	.10	18	48	.80	148	.10	6	1.14	.04	.25	2	5	1
DF-553	1	5	5	23	.1	5	3	288	1.18	2	2	ND	23	30	1	2	2	22	.63	.1[illegible]	89	29	.35	78	.07	6	.74	.05	.23	17	-	1
DF-555	1	8	8	20	.2	6	6	195	1.50	3	2	ND	42	26	1	2	2	23	.99	.34	176	10	.32	39	.07	2	.85	.03	.17	4	-	1
DF-557	1	5	9	15	.5	4	4	168	1.16	6	22	ND	91	15	1	2	3	15	.89	.37	306	20	.12	22	.05	3	.38	.02	.09	2	-	2
DF-559	1	3	5	31	.2	3	3	338	1.21	3	3	ND	40	29	1	2	2	18	.44	.12	118	4	.32	112	.08	2	.61	.04	.28	3	-	1
DF-561	1	4	8	38	.1	4	3	430	1.22	2	3	ND	22	15	1	2	2	13	.24	.06	54	19	.18	51	.04	5	.88	.02	.23	2	-	2
DF-563	1	6	7	30	.1	5	4	339	1.54	5	2	ND	18	36	1	2	2	26	.53	.09	75	11	.42	93	.09	6	1.15	.04	.26	2	-	3
DF-565	1	2	5	19	.2	2	2	277	.96	2	3	ND	26	18	1	2	2	11	.34	.10	77	2	.19	63	.05	4	.47	.03	.18	2	-	1
STD A-1/AU 0.5/	1	30	39	183	.3	36	13	991	2.88	10	2	ND	2	37	1	2	2	57	.62	.11	7	76	.77	282	.08	8	2.06	.02	.21	2	485	24

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
SN# ANALYSIS BY AA FROM 1.00 GRAM SAMPLE.   SAMPLE TYPE - P1-2 PAN-CON P3-4 STREAM SED

DATE RECEIVED AUG 19 1983   DATE REPORTS MAILED Aug 27/83 ASSAYER D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK   PROJECT # 908   FILE # 83-1722

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm
DF-567	2	11	6	36	.1	9	4	230	1.24	5	2	ND	23	22	1	2
DF-569	1	13	5	42	.1	9	5	242	1.53	2	2	ND	14	49	1	3
DF-571	14	15	6	20	.1	6	3	229	1.22	2	2	ND	56	25	1	2
DF-573	2	9	3	20	.1	7	4	169	1.31	2	2	ND	20	69	1	2
DF-575	1	10	4	19	.1	7	4	245	1.37	2	2	ND	46	57	1	2
DF-577	1	6	6	19	.2	6	3	255	1.38	4	2	ND	48	47	1	2
DF-579	1	10	3	14	.1	6	3	225	1.22	6	2	ND	15	34	1	2
DF-581	1	11	4	27	.1	10	5	179	1.66	4	4	ND	4	33	1	2
DF-583	1	10	6	16	.1	7	4	196	1.45	2	2	ND	5	34	1	2
DF-585	5	8	6	13	.4	6	4	240	1.48	7	2	ND	23	41	1	4
DF-587	1	15	6	14	.2	6	4	419	1.93	15	2	ND	21	15	1	3
DF-589	1	11	4	22	.1	53	6	346	1.86	2	2	ND	17	11	1	2
DF-593	3	59	22	167	1.5	118	25	401	6.04	27	3	ND	4	19	1	2
DF-595	2	52	32	86	.7	99	39	505	5.81	21	2	ND	2	22	1	2
DF-597	2	67	34	94	.6	69	40	665	5.84	28	2	ND	2	39	1	2
DF-599	2	67	47	71	.4	76	49	652	5.73	24	7	ND	2	78	1	2
DF-601	1	43	22	70	.3	57	21	676	4.04	5	2	ND	2	45	1	2
DF-603	2	46	30	97	.2	104	29	499	4.59	13	2	ND	2	20	1	2
DF-609	1	24	29	37	.4	31	17	327	2.59	2	2	ND	6	38	1	2
DF-611	1	23	10	27	.3	44	23	428	2.98	2	3	ND	8	26	1	2
STD A-1/SN	1	30	39	185	.3	36	13	1045	2.82	10	2	ND	2	37	1	2

SAMPLE #	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sn# ppm
DF-567	2	19	.31	.04	67	38	.26	35	.10	2	.63	.03	.18	2	2
DF-569	2	28	.51	.08	44	34	.38	40	.12	2	.72	.05	.22	2	1
DF-571	2	16	.47	.10	128	15	.28	30	.07	2	.57	.03	.18	14	1
DF-573	2	17	.49	.12	50	14	.41	44	.10	2	.64	.03	.29	20	1
DF-575	2	18	.59	.14	107	15	.32	30	.10	2	.59	.04	.21	36	1
DF-577	2	18	.63	.13	118	15	.30	27	.10	2	.57	.04	.18	30	1
DF-579	2	15	.71	.12	31	12	.34	45	.07	3	1.07	.04	.25	7	1
DF-581	2	24	.63	.04	9	23	.70	81	.10	3	1.65	.05	.49	2	1
DF-583	2	15	.70	.07	17	13	.41	50	.07	3	1.20	.04	.30	5	2
DF-585	4	14	.66	.13	175	11	.25	35	.07	3	.59	.03	.16	6	1
DF-587	17	16	.64	.11	69	11	.20	32	.07	2	.73	.03	.13	24	1
DF-589	2	21	.28	.05	61	55	.94	48	.06	2	.83	.02	.14	2	1
DF-593	2	32	.13	.06	21	37	.24	462	.01	4	.64	.01	.16	2	1
DF-595	2	36	.35	.07	11	45	.63	267	.02	4	.86	.01	.12	2	2
DF-597	2	52	.91	.08	9	55	.79	113	.02	3	1.01	.01	.12	2	1
DF-599	2	31	3.05	.08	5	37	.80	150	.02	2	.69	.01	.08	2	1
DF-601	2	63	.96	.11	14	75	1.41	166	.06	2	1.55	.02	.13	2	1
DF-603	2	35	.36	.07	9	68	.84	171	.01	3	.90	.01	.10	2	1
DF-609	2	34	.63	.08	19	46	.67	92	.07	2	.95	.03	.13	7	1
DF-611	2	36	.42	.06	29	70	.70	54	.06	2	1.01	.03	.09	17	1
STD A-1/SN	2	58	.58	.10	8	74	.76	285	.07	6	2.06	.02	.21	2	[illegible]

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
SN# ANALYSIS BY AA FROM 1.00 GRAM SAMPLE. SAMPLE TYPE - P1-2 PAN-CONC P3-4 STREAM SED P5-ROCK

DATE RECEIVED AUG 30 1983 DATE REPORTS MAILED Sept 6/83 ASSAYER [signature] DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINES PROJECT # 908 FILE # 83-1913

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sn# ppm
DF-613	1	25	9	48	.1	8	3	224	1.14	2	2	ND	8	9	1	3	2	11	.16	.05	25	11	.23	64	.03	24	.50	.02	.08	23	3
DF-615	1	9	18	28	.1	5	5	238	1.69	2	2	ND	60	20	1	2	2	31	.70	.29	165	10	.29	67	.05	31	.52	.02	.09	5	1
DF-617	1	14	16	138	.1	13	3	189	1.42	2	2	ND	10	6	1	2	2	18	.11	.03	20	17	.33	64	.03	31	.60	.01	.10	13	1
DF-619	1	2	8	20	.1	2	1	126	.60	2	2	ND	12	6	1	2	2	8	.09	.03	25	5	.10	38	.01	30	.30	.02	.03	2	2
DF-621	1	19	19	99	.1	20	7	406	2.06	2	7	ND	7	39	1	2	2	34	.38	.07	22	26	.84	208	.08	32	1.31	.03	.21	6	3
DF-623	1	5	5	26	.1	6	2	268	.89	2	2	ND	8	7	1	3	2	12	.11	.03	25	11	.22	55	.03	25	.49	.02	.08	26	2
DF-625	1	2	6	16	.1	2	1	145	.60	2	2	ND	9	7	1	2	2	9	.10	.03	24	6	.09	37	.01	23	.31	.02	.05	4	1
DF-627	1	6	11	39	.2	6	2	187	1.12	2	2	ND	22	7	1	2	2	15	.12	.03	47	10	.18	45	.02	29	.42	.02	.06	18	1
DF-629	1	15	15	64	.1	13	5	214	1.22	2	2	ND	9	20	1	2	2	16	.27	.06	21	15	.39	100	.04	26	.60	.02	.09	69	3
DF-631	1	5	5	22	.1	8	4	230	1.29	2	2	ND	7	13	1	2	2	20	.16	.03	21	11	.22	79	.03	24	.72	.02	.07	6	1
DF-633	1	5	7	39	.1	9	3	301	1.60	2	2	ND	18	9	1	2	2	24	.15	.04	39	14	.23	60	.03	23	.62	.02	.06	16	1
DF-635	1	6	7	21	.1	7	3	182	1.00	3	2	ND	8	6	1	2	2	11	.13	.03	18	11	.18	51	.02	26	.47	.02	.06	7	1
DF-637	1	8	6	66	.2	12	10	577	2.88	4	2	ND	11	35	1	2	2	62	.62	.22	53	18	.83	186	.10	25	1.27	.03	.22	8	1
DF-639	1	9	8	72	.1	11	12	766	3.08	4	2	ND	11	33	1	2	2	63	.55	.20	51	15	.79	208	.10	34	1.27	.03	.23	2	1
DF-647	6	12	17	16	.3	3	3	168	.89	3	2	ND	127	20	1	2	172	16	.98	.39	154	7	.18	35	.07	28	.42	.02	.06	570	1
DF-649	5	10	11	27	.2	3	4	205	1.03	7	12	ND	179	21	1	2	125	17	.79	.31	126	9	.27	37	.08	26	.52	.02	.11	776	2
DF-651	2	10	7	22	.3	2	2	130	.80	2	2	ND	41	9	1	2	8	10	.13	.04	58	6	.09	36	.04	34	.36	.02	.05	139	2
DF-653	1	3	7	22	.1	3	3	172	1.06	2	2	ND	47	14	1	2	2	21	.33	.10	82	10	.28	55	.09	35	.50	.02	.13	12	1
DF-655	1	3	5	15	.2	3	2	179	1.00	2	2	ND	39	19	1	2	2	22	.44	.14	59	10	.22	45	.10	33	.47	.03	.07	9	1
DF-671	1	16	3	28	.1	10	8	260	2.18	2	2	ND	6	6	1	2	2	43	.31	.03	13	11	.49	67	.09	33	.91	.05	.29	5	4
DF-673	1	12	6	27	.2	9	7	183	1.92	2	3	ND	5	5	1	2	2	16	.10	.03	13	13	.46	69	.07	34	.82	.02	.30	6	3
STD A-1/MP-1000	1	29	40	184	.3	36	13	1027	2.84	8	2	ND	3	35	1	2	2	61	.61	.11	8	63	.87	284	.09	9	2.07	.01	.21	2	22

ASSAYER __________ DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK PROJECT # 908 FILE # 83-1161 PAGE# 2

SAMPLE	AU** PPB
DF - 5	3
DF - 7	2
DF - 9	1
DF - 11	1
DF - 47	1180
DF 235 PAN-CON	8500
DF 237 PAN-CON	160
DF 239 PAN-CON	41
DF 241 PAN-CON	1
DF 243 PAN-CON	3
DF 249 PAN-CON	430
DF 251 PAN-CON	3
DF 253 PAN-CON	3
DF 236	6
DF 238	7
DF 240	14
DF 242	3
DF 248	34
DF 250	1
DF 252	1
DF 254	2

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

DATE RECEIVED JULY 27 1983

DATE REPORTS MAILED Aug 8/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PAN-CONC
AU** - INCLUDING PD, PT 10 GM, FIRE ASSAY CONCENTRATION, HNO3 LEACH OFF AS,
AQUA REGIA DIGESTION, GRAPHITE AA ANALYSIS.
SN - 1.00 GM NH4I FUSION, HCL LEACH, MIBK EXTRACTION, AA ANALYSIS.

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

FILE # 83-1375   PROJECT # 908

SAMPLE	AU** PPB
DF-359	1060
DF-397	80
DF-399	7
DF-401	1
DF-403	12
DF-405	2
DF-407	5
DF-409	6
DF-411	8
DF-413	315
DF-415	1

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

DATE RECEIVED AUG 19 1983

DATE REPORTS MAILED Aug 27/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PAN-CONC
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.
W - 1.00 GM, KCL, KNO3, NA2CO3 FUSION, WATER LEACH, ICP ANALYSIS.
SN - 1.00 GM NH4I FUSION, HCL LEACH, MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINES PROJECT # 908 FILE # 83-1722 PAGE# 2

SAMPLE	AU* PPB	SN PPM	W PPM
DF-591	5	1	-
DF-605	40	1	-
DF-607	5	1	2
DF-641	5		
DF-643	2		
DF-645	13		
DF-657	27		
DF-659	310		
DF-661	14		
DF-663	105		
DF-665	9		
DF-667	70		
DF-669	8		
DF-675	1		
DF-677	1		
DF-679	3		
DF-683	3		
DF-685	9		
DF-687	6		
DF-689	5		
DF-691	6		
DF-693	15		
DF-695	21		

b) STREAM SILTS

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

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM 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.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
SAMPLE TYPE - P1-STREAM SEDS -80 mesh / P2-PAN CONC - 40 mesh [illegible]

DATE RECEIVED JUNE 16 1983 DATE REPORTS MAILED June 21/83 ASSAYER [illegible] DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK FILE # 83-0813 PAGE # 1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
DF-2	1	48	13	76	.1	22	21	906	4.22	9	3	ND	2	54	1	2	2	101	.66	.12	13	42	1.15	161	.11	3	2.20	.02	.14	2
DF-12	1	18	81	314	.3	19	6	253	1.92	5	2	ND	9	28	2	2	2	56	.57	.13	27	22	.60	122	.06	2	1.07	.03	.18	23
DF-14	1	11	8	41	.1	9	6	231	1.71	2	2	ND	3	15	1	2	2	21	.32	.06	9	14	.64	158	.09	2	1.27	.02	.32	2
DF-16	1	7	5	25	.1	11	7	199	2.71	2	2	ND	2	95	1	2	2	41	.64	.27	21	16	.46	243	.08	2	.74	.02	.29	3
DF-18	1	10	3	19	.1	6	4	97	1.03	2	2	ND	4	4	1	2	2	11	.08	.03	11	6	.28	45	.05	2	.54	.01	.23	2
DF-20	4	25	25	433	.6	34	7	372	1.70	13	2	ND	3	156	8	2	2	29	13.96	.15	8	14	.53	232	.02	2	.69	.01	.07	2
DF-22	1	27	28	163	.4	35	12	542	2.48	15	2	ND	5	78	2	2	2	24	9.39	.09	10	18	.39	194	.02	2	.88	.01	.05	2
DF-24	2	38	21	207	.2	38	13	578	3.01	13	2	ND	5	43	4	2	2	46	1.22	.13	18	31	.74	215	.05	3	1.34	.01	.12	2
DF-26	11	48	21	519	1.1	51	7	237	1.83	19	2	ND	4	50	8	4	2	64	1.77	.22	14	10	.26	233	.01	3	.54	.01	.12	2
DF-28	1	14	66	194	.2	16	7	228	2.96	9	2	ND	26	29	1	3	4	54	.77	.20	105	21	.49	84	.08	2	.83	.03	.16	114
DF-30	6	41	111	770	1.4	57	6	289	1.61	20	2	ND	3	105	10	8	2	50	9.40	.19	10	10	.53	205	.02	2	.60	.01	.09	2
DF-32	2	18	21	411	.4	32	7	173	1.77	4	2	ND	2	119	6	2	2	22	12.15	.10	7	15	1.09	79	.02	3	.91	.01	.06	2
DF-34	1	6	2	17	.1	8	4	124	1.03	3	2	ND	3	12	1	2	2	11	.14	.03	12	10	.42	62	.07	2	.78	.01	.31	2
DF-36	1	8	4	19	.1	6	4	93	1.09	2	2	ND	4	4	1	2	2	10	.05	.02	11	6	.35	42	.06	2	.71	.01	.27	2
DF-38	1	6	3	17	.1	6	4	168	1.00	2	2	ND	3	5	1	2	2	11	.04	.02	11	8	.34	58	.06	2	.86	.01	.23	2
DF-40	1	5	3	14	.1	6	3	110	.78	2	2	ND	3	4	1	2	2	8	.04	.02	10	5	.26	42	.05	2	.58	.01	.17	2
DF-42	1	7	4	21	.1	6	4	127	1.11	2	2	ND	3	4	1	2	2	10	.04	.02	13	5	.31	45	.04	2	.71	.01	.18	2
DF-44	1	13	6	37	.1	8	4	104	1.40	2	2	ND	4	5	1	2	2	14	.05	.02	11	8	.33	54	.06	2	.82	.01	.24	2
STD A-1	1	29	38	180	.2	35	13	1028	2.87	10	2	ND	2	37	1	2	2	60	.63	.11	9	75	.77	302	.08	6	1.95	.02	.21	2

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
DF-96	6	4	6	36	.1	7	4	441	1.35	2	15	ND	12	15	1	3	2	14	.22	.05	23	10	.23	63	.04	7	.73	.01	.16	4
DF-98	11	3	6	38	.1	6	4	569	1.32	2	36	ND	7	14	1	2	2	12	.18	.05	20	7	.20	57	.03	3	.70	.01	.15	3
DF-100	8	3	7	30	.1	6	4	459	1.61	2	13	ND	8	12	1	2	2	16	.21	.06	22	7	.18	46	.03	2	.58	.01	.14	3
DF-102	2	22	8	55	.1	23	10	302	2.22	4	8	ND	4	26	1	2	2	38	.88	.15	12	40	.89	147	.09	4	1.42	.03	.40	6
DF-104	1	31	3	35	.1	25	12	197	2.40	2	5	ND	3	13	1	2	2	51	.72	.21	6	52	1.15	156	.10	3	1.35	.02	.47	2
DF-106	2	21	12	73	.1	25	10	368	2.43	2	6	ND	5	27	1	2	2	42	.83	.16	16	42	.97	180	.09	3	1.58	.03	.39	3
DF-108	1	9	29	66	.2	14	8	245	4.13	4	2	ND	49	34	1	2	2	55	.96	.29	201	22	.39	63	.11	6	.77	.03	.20	231
DF-110	1	18	30	111	.1	23	10	489	2.52	9	4	ND	6	29	1	2	2	37	1.42	.27	17	38	.99	172	.10	3	1.88	.03	.40	6
DF-112	1	22	9	41	.1	20	7	189	1.86	2	6	ND	5	22	1	2	2	32	.81	.16	14	27	.64	118	.06	12	1.04	.02	.28	7
DF-114	2	25	12	73	.1	26	11	372	2.51	2	6	ND	5	28	1	2	2	43	.71	.13	15	43	1.06	146	.10	4	1.71	.03	.43	2
DF-116	5	19	13	90	.1	21	9	412	2.14	6	11	ND	4	30	1	2	2	35	.58	.11	19	30	.68	125	.07	2	1.45	.02	.25	2
DF-118	1	21	8	46	.1	26	12	322	2.77	8	13	ND	8	41	1	2	2	30	.50	.14	26	29	.81	105	.10	4	1.53	.02	.53	4
DF-120	1	12	6	23	.1	15	7	171	1.99	4	2	ND	6	20	1	2	2	22	.32	.10	18	17	.45	80	.09	5	1.02	.01	.40	2
DF-122	3	9	12	28	.1	14	7	270	1.97	2	2	ND	4	31	1	2	2	23	.34	.09	16	22	.50	89	.10	6	1.44	.01	.41	2
DF-124	1	25	12	47	.1	27	14	375	2.79	8	10	ND	8	33	1	2	2	32	.64	.14	28	35	.97	134	.11	4	1.67	.03	.63	9
DF-126	2	15	10	49	.1	19	10	387	2.48	5	12	ND	7	31	1	2	2	28	.54	.13	21	27	.72	93	.09	4	1.49	.02	.39	4
DF-128	1	8	15	43	.2	14	8	246	4.35	6	2	ND	58	35	1	2	2	54	.98	.30	220	22	.38	59	.11	4	.75	.03	.20	245
DF-130	3	12	9	34	.1	14	9	422	2.02	2	15	ND	12	17	1	2	2	20	.27	.07	24	17	.42	79	.06	3	1.11	.01	.35	2
DF-132	5	10	20	94	.1	20	9	428	2.31	5	6	ND	6	30	1	2	2	26	.63	.11	19	26	.82	67	.07	2	1.58	.02	.29	11
DF-134	1	19	4	34	.1	17	9	260	2.93	2	2	ND	10	26	1	2	2	38	.86	.25	25	28	.55	74	.07	2	1.07	.02	.31	19
DF-136	1	20	6	36	.1	17	9	223	2.41	2	6	ND	5	23	1	3	2	41	.94	.30	10	29	.67	113	.10	5	1.21	.02	.38	5

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
DF-138	1	29	146	244	.6	25	12	620	2.53	10	2	ND	3	15	2	2	2	10	.39	.04	20	11	.40	58	.02	22	.99	.01	.05	10	-
DF-140	1	20	14	42	.1	21	8	339	1.85	6	2	ND	4	12	1	2	2	5	.71	.04	9	10	.68	24	.01	18	.59	.01	.02	6	-
DF-142	1	21	10	34	.1	26	9	264	1.93	8	2	ND	4	10	1	2	2	9	.22	.03	9	12	.48	30	.04	22	.79	.01	.13	2	-
DF-144	1	18	14	57	.3	26	10	284	2.72	8	2	ND	5	25	1	2	2	10	.48	.05	13	12	.37	37	.02	23	.75	.01	.08	2	-
DF-146	1	27	36	91	.2	27	12	425	2.29	11	2	ND	4	12	1	2	2	8	.34	.04	14	9	.42	40	.02	22	.73	.01	.06	2	-
DF-148	1	12	30	83	.2	11	5	180	2.38	16	2	ND	32	22	1	2	8	30	.83	.27	114	13	.34	66	.05	24	.55	.02	.14	205	-
DF-150	1	3	19	39	.1	2	2	121	1.28	2	2	ND	4	13	1	2	2	21	.24	.09	12	4	.05	36	.01	22	.24	.01	.03	8	-
DF-152	1	4	17	60	.1	3	2	426	.86	5	2	ND	4	38	1	3	2	12	.26	.06	11	5	.15	115	.03	21	.56	.01	.11	2	-
DF-154	1	4	13	40	.1	2	2	276	.82	11	2	ND	3	16	1	2	2	10	.13	.04	9	3	.10	69	.02	22	.31	.01	.08	2	-
DF-156	1	7	35	26	.1	3	3	268	1.49	8	2	ND	10	10	1	2	5	24	.24	.10	14	5	.11	50	.02	25	.28	.01	.08	2	-
DF-158	1	6	12	29	.1	2	2	291	1.01	5	2	ND	4	45	1	2	2	19	.34	.10	18	6	.21	76	.04	22	.70	.01	.12	2	-
DF-160	1	4	14	28	.1	4	3	230	1.01	20	2	ND	17	14	1	2	2	19	.31	.12	18	10	.23	54	.03	24	.48	.01	.11	2	-
DF-162	1	6	6	16	.1	3	4	115	.69	2	2	ND	4	4	1	2	2	9	.13	.05	11	7	.22	54	.02	22	.43	.01	.10	2	-
DF-166	1	6	5	22	.1	5	3	139	1.02	4	2	ND	2	4	1	2	2	13	.09	.02	9	6	.37	88	.04	24	.81	.01	.13	2	-
DF-168	1	9	39	93	.4	10	5	171	2.46	17	2	ND	36	22	1	2	6	31	.80	.27	118	14	.34	70	.05	23	.56	.02	.14	185	-
DF-170	1	3	7	16	.1	3	3	128	1.24	2	5	ND	24	10	1	2	3	24	.49	.22	40	12	.16	47	.02	26	.41	.01	.05	6	-
DF-172	2	6	9	32	.2	3	3	314	1.11	2	17	ND	22	24	1	2	2	23	.50	.17	33	10	.28	71	.04	22	.79	.01	.11	17	-
DF-174	3	5	6	26	.1	2	2	293	.77	2	5	ND	7	9	1	2	2	12	.14	.04	14	4	.13	38	.02	22	.43	.01	.05	13	-
DF-176	10	18	7	20	.1	1	1	187	.55	3	5	ND	5	3	1	2	4	5	.06	.02	8	4	.06	35	.01	24	.31	.01	.05	26	-
DF-178	9	23	5	14	.1	1	1	84	.43	2	2	ND	5	3	1	2	4	4	.08	.03	8	3	.04	30	.01	25	.27	.01	.04	39	-
DF-182	4	4	12	31	.1	2	2	327	.55	2	17	ND	4	5	1	2	2	5	.07	.02	8	4	.07	40	.01	20	.46	.01	.04	3	-
DF-186	14	7	17	26	.1	2	2	323	.89	2	83	ND	2	7	1	2	3	12	.12	.04	11	4	.07	46	.02	21	.83	.01	.05	17	-
DF-188	1	14	55	200	.3	14	6	220	2.12	7	2	ND	19	21	1	2	3	39	.66	.19	65	17	.40	86	.04	26	.72	.02	.13	102	-
DF-190	2	3	5	23	.1	3	3	279	1.19	7	3	ND	45	12	1	2	2	25	.45	.18	51	14	.20	52	.03	27	.53	.01	.09	36	-
DF-192	1	3	9	16	.1	2	2	177	1.52	2	3	ND	58	9	1	2	9	31	.18	.07	34	16	.15	45	.03	26	.42	.01	.07	33	-
DF-194	1	3	4	20	.1	3	4	296	1.43	4	6	ND	63	16	1	2	2	30	.55	.24	33	11	.26	71	.04	22	.67	.01	.16	2	-
DF-196	8	6	7	27	.1	2	2	242	.87	2	2	ND	7	8	1	2	2	15	.12	.04	15	8	.15	41	.02	24	.40	.01	.07	25	-
DF-198	1	5	5	20	.2	3	3	171	1.65	6	8	ND	75	12	1	5	2	35	.68	.29	46	18	.17	49	.03	23	.49	.01	.08	15	-
DF-200	3	5	4	23	.1	2	3	223	1.03	2	8	ND	17	10	1	2	2	19	.21	.07	19	8	.18	46	.03	22	.48	.01	.07	18	-
DF-202	2	3	11	31	.2	3	3	374	1.30	2	45	ND	30	28	1	2	2	29	.72	.26	59	13	.24	64	.03	23	.77	.01	.05	3	-
DF-204	1	3	8	28	.1	3	3	339	1.11	2	19	ND	43	19	1	2	2	22	.48	.19	34	9	.25	62	.03	25	.67	.01	.09	15	-
DF-206	1	3	7	23	.1	3	3	239	1.14	2	4	ND	26	16	1	2	2	24	.51	.22	40	12	.25	66	.04	24	.74	.01	.09	5	-
DF-208	1	10	51	141	.3	11	5	172	2.32	14	2	ND	30	20	1	2	6	31	.77	.23	98	13	.37	67	.05	25	.57	.02	.13	158	-
DF-210	1	3	6	25	.2	3	4	327	1.40	3	9	ND	29	21	1	2	2	29	.56	.22	57	11	.26	86	.04	23	.82	.01	.08	8	-
DF-212	1	4	4	14	.1	2	2	195	.70	2	2	ND	8	9	1	2	2	12	.13	.05	19	7	.14	49	.02	23	.40	.01	.08	3	-
DF-214	1	7	11	40	.1	17	7	224	1.92	9	2	ND	4	11	1	2	2	7	.16	.04	4	14	.34	58	.01	19	.91	.01	.02	3	11
DF-216	1	15	15	55	.1	17	9	368	2.23	14	2	ND	3	10	1	2	2	9	.26	.06	4	13	.37	67	.01	16	.91	.01	.02	2	5
STD A-1	1	30	39	185	.3	35	13	1019	2.85	10	2	ND	2	36	1	2	2	59	.62	.10	8	76	.76	304	.08	7	2.09	.02	.21	2	-

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
DF-218	1	16	18	56	.1	20	9	428	2.57	14	2	ND	4	9	1	2	2	9	.17	.05	4	17	.39	70	.01	18	.97	.01	.03	2	4
DF-222	1	9	29	57	.2	7	4	469	.97	2	2	ND	2	6	1	2	2	13	.35	.03	9	15	.42	81	.03	26	1.00	.01	.09	8	-
DF-224	1	4	9	42	.1	4	4	346	1.04	2	2	ND	5	7	1	2	2	16	.19	.06	13	10	.31	132	.03	27	.65	.02	.11	3	-
DF-226	2	9	16	25	.1	4	7	80	1.16	5	2	ND	2	3	1	2	2	19	.02	.02	7	6	.18	40	.05	16	1.45	.01	.04	2	2
DF-228	1	9	31	90	.3	11	5	182	2.42	17	2	ND	33	23	1	2	3	32	.76	.26	116	16	.35	74	.06	28	.64	.03	.16	198	37
DF-230	1	4	11	22	.1	4	6	478	.88	3	2	ND	2	2	1	2	2	12	.02	.01	4	6	.35	39	.04	25	.76	.01	.13	2	2
DF-232	1	4	12	29	.1	4	4	332	.79	2	16	ND	2	12	1	2	2	10	.14	.05	9	6	.20	69	.02	22	.77	.01	.08	2	3
DF-234	1	2	7	23	.2	3	3	214	1.00	2	15	ND	74	33	1	2	2	20	1.11	.45	60	8	.30	62	.04	25	.60	.01	.16	4	-
DF-244	2	2	5	12	.1	2	2	204	.99	2	11	ND	15	6	1	2	4	19	.17	.06	23	9	.18	42	.02	28	.27	.01	.06	3	-
DF-246	1	3	14	60	.1	3	3	167	.93	2	6	ND	20	9	1	2	2	17	.47	.19	33	7	.47	73	.03	27	.55	.01	.06	12	1
STD A-1	1	30	40	183	.3	35	13	1012	2.87	10	2	ND	2	36	1	2	2	59	.62	.10	7	76	.75	298	.08	7	2.02	.02	.21	3	-

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
DF-256	1	7	20	33	.4	11	7	321	3.25	6	35	ND	22	45	1	2	2	64	.96	.04	27	36	.59	317	.09	6	1.74	.01	.15	2	-
DF-258	3	2	4	16	.1	3	2	192	1.05	2	22	ND	59	9	1	2	2	21	.32	.12	34	9	.19	33	.03	4	.45	.01	.05	14	-
DF-260	1	17	14	31	.2	9	6	570	1.80	15	2	ND	9	9	1	3	2	31	.52	.07	20	23	1.20	97	.05	16	1.24	.01	.23	3	-
DF-264	4	6	12	36	.1	5	3	274	1.63	2	41	ND	20	11	1	2	2	33	.37	.13	42	17	.61	56	.03	6	.80	.01	.07	6	-
DF-266	1	25	13	20	.1	11	10	527	2.08	17	2	ND	8	5	1	2	2	22	.31	.05	20	14	.76	210	.04	6	.96	.01	.21	2	-
DF-268	1	9	63	114	.1	16	7	245	3.71	14	2	ND	42	31	1	2	2	51	.93	.28	170	21	.43	65	.08	5	.80	.03	.19	188	-
DF-270	2	31	19	48	.4	13	7	488	2.17	72	30	ND	6	16	1	2	3	35	.45	.09	31	23	1.18	120	.08	5	2.98	.02	.14	5	-
DF-272	1	9	11	24	.1	10	5	397	1.53	8	2	ND	7	3	1	2	2	11	.11	.02	25	9	.43	71	.01	3	.87	.01	.15	2	-
DF-274	1	11	7	26	.1	12	7	517	1.66	8	9	ND	4	15	1	2	2	13	.30	.04	17	17	.40	46	.01	4	.87	.01	.09	2	-
DF-276	1	24	39	64	.1	20	12	454	3.05	43	2	ND	10	10	1	3	2	13	.10	.04	30	13	.45	35	.01	4	1.03	.01	.13	2	-
DF-278	1	23	13	41	.1	16	10	558	2.54	14	2	ND	5	19	1	2	2	11	.26	.05	20	9	.34	51	.01	6	.96	.01	.09	2	-
DF-282	1	22	17	41	.2	19	11	489	3.31	22	3	ND	9	14	1	2	3	11	.15	.04	27	11	.54	38	.01	4	1.17	.01	.10	2	-
DF-284	2	4	6	17	.1	3	2	257	.93	2	2	ND	12	7	1	2	2	16	.13	.05	18	6	.17	30	.02	4	.45	.01	.09	2	-
DF-286	1	23	25	98	.1	42	17	787	4.85	13	3	ND	7	16	1	2	2	15	.27	.09	6	27	.53	85	.01	3	1.71	.01	.06	2	-
DF-288	1	19	68	269	.3	20	6	294	1.84	2	2	ND	10	25	2	2	2	59	.52	.12	21	24	.55	106	.04	2	1.12	.02	.17	11	-
DF-290	1	11	17	40	.1	14	6	493	1.99	13	2	ND	7	5	1	2	2	8	.15	.04	20	9	.27	64	.01	3	.61	.01	.09	2	-
DF-292	1	23	24	87	.2	30	12	460	3.45	25	2	ND	7	14	1	2	2	18	.26	.06	18	24	.61	45	.01	5	1.69	.01	.05	2	-
DF-294	1	25	22	96	.1	43	16	539	4.43	13	2	ND	9	13	1	2	2	17	.36	.09	8	33	.91	44	.01	3	2.24	.01	.03	3	-
DF-296	1	18	17	77	.3	40	19	600	3.86	15	2	ND	6	27	1	2	2	17	.52	.09	12	36	.66	42	.01	3	2.43	.01	.04	2	-
DF-298	1	11	12	34	.1	15	8	521	1.85	4	2	ND	5	14	1	2	2	7	.21	.06	15	10	.25	161	.01	3	.78	.01	.05	2	2
STD A-1	1	30	41	180	.3	36	13	1030	2.84	9	2	ND	4	36	1	2	2	60	.61	.10	8	71	.73	283	.07	7	2.09	.01	.21	2	-

KIDD CREEK PROJECT # 908 FILE # 83-1303

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
DF 302	4	16	26	252	.6	22	4	644	1.05	2	27	ND	2	35	12	2	2	67	.70	.07	15	21	.21	83	.02	4	.98	.01	.04	2	-
DF 304	2	17	21	178	.4	22	5	251	1.82	3	2	ND	7	37	2	2	2	49	4.15	.13	14	18	2.56	50	.03	3	1.07	.02	.08	2	-
DF 306	3	14	12	47	.2	12	7	569	2.15	2	9	ND	6	35	1	2	2	23	.54	.10	23	17	.59	77	.08	2	1.06	.02	.30	8	-
DF 308	1	9	29	68	.2	13	7	247	3.81	6	2	ND	42	31	1	2	2	46	.96	.31	181	25	.40	61	.09	8	.71	.03	.19	162	-
DF 310	2	10	8	23	.2	11	6	188	1.85	2	4	ND	5	14	1	2	2	21	.28	.11	12	18	.51	78	.08	2	.83	.01	.44	2	-
DF 312	2	20	10	43	.2	20	9	224	1.80	2	15	ND	2	14	1	2	2	27	.36	.04	9	28	.47	69	.11	4	1.84	.01	.10	2	-
DF 318	1	14	63	176	.4	21	7	514	3.91	4	6	ND	3	20	1	2	2	23	.79	.09	22	20	.66	68	.10	3	1.74	.02	.22	2	-
DF 320	1	3	6	13	.1	3	1	54	.42	2	2	ND	2	3	1	2	2	5	.06	.03	4	6	.07	34	.02	6	.40	.01	.04	2	-
DF 322	1	14	7	24	.3	12	5	230	1.77	2	2	ND	5	19	1	2	2	20	.54	.15	15	18	.39	64	.06	5	.74	.02	.29	2	1
DF 324	1	13	15	71	.1	15	6	356	1.80	4	14	ND	6	15	1	2	2	20	.39	.08	19	21	.39	95	.08	5	1.21	.01	.28	2	1
DF 326	2	7	9	46	.3	8	4	224	1.36	3	5	ND	6	9	1	2	2	15	.39	.11	13	14	.26	43	.06	7	.70	.01	.19	4	1
DF 328	1	10	45	81	.4	14	7	232	3.84	8	2	ND	40	29	1	2	2	48	.96	.30	169	23	.42	61	.09	6	.70	.03	.18	161	-
DF 330	1	13	42	500	.2	17	6	1062	2.05	2	5	ND	5	18	1	2	2	21	.63	.06	26	25	.72	98	.08	7	1.88	.02	.22	2	-
DF 332	4	14	18	85	.3	16	7	515	2.16	7	41	ND	4	16	1	2	2	25	.72	.12	14	28	.55	81	.11	6	1.36	.01	.38	4	-
DF 334	1	7	11	41	.1	8	4	367	1.18	2	4	ND	3	9	1	2	2	13	.35	.07	10	15	.30	44	.05	2	.63	.01	.13	2	1
DF 336	1	34	13	51	.1	43	11	337	2.42	7	2	ND	4	63	1	2	2	36	.87	.11	9	61	.99	178	.08	6	.99	.01	.14	2	-
STD A-1	1	30	40	181	.3	35	12	1017	2.86	10	2	ND	2	35	1	2	2	58	.63	.10	8	79	.78	293	.08	9	1.96	.02	.21	2	1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sn# ppm	Wt ppm
DF-336	5	17	27	107	.6	14	5	542	2.34	4	56	ND	2	40	1	2	2	28	.59	.05	55	20	.43	75	.04	4	1.51	.01	.15	2	4	2
DF-338	1	20	5	40	.2	14	9	473	1.86	8	3	ND	2	14	1	2	2	29	.29	.06	15	25	.61	54	.05	3	1.22	.01	.11	2	3	2
DF-340	2	12	6	53	.2	16	6	473	2.17	3	12	ND	7	22	1	2	2	29	.21	.05	25	25	.47	100	.07	4	1.14	.01	.13	8	2	10
DF-342	7	16	18	82	.2	12	5	407	2.01	4	20	ND	3	31	1	2	3	21	.45	.05	25	18	.36	44	.06	3	1.19	.01	.16	2	1	2
DF-346	2	11	12	68	.5	12	4	593	1.61	5	73	ND	2	51	1	2	2	20	.83	.06	88	19	.33	65	.04	3	1.15	.01	.12	2	1	2
DF-348	1	17	59	264	.3	19	6	294	2.55	8	2	ND	17	30	1	2	3	58	.67	.15	66	28	.58	102	.12	4	1.09	.02	.19	50	1	58
DF-350	1	27	19	107	.2	21	8	442	2.22	5	12	ND	5	44	1	2	3	37	.47	.10	25	32	.79	224	.11	4	1.40	.01	.23	8	1	6
DF-352	1	13	7	34	.2	6	3	276	2.27	7	2	ND	22	14	1	2	3	46	.48	.19	58	18	.22	42	.04	3	.54	.01	.09	2	1	2
DF-354	1	20	19	105	.2	33	10	508	2.61	10	6	ND	4	69	1	5	2	48	.50	.12	29	45	1.04	465	.15	5	1.56	.02	.31	2	2	2
DF-356	1	11	11	63	.2	15	6	431	1.84	4	18	ND	4	29	1	2	2	26	.33	.08	27	24	.48	117	.07	3	1.13	.01	.13	9	1	10
DF-358	1	8	7	49	.1	12	5	284	1.46	5	3	ND	6	32	1	2	2	25	.40	.11	28	20	.43	96	.07	3	.94	.01	.10	2	1	2
DF-362	1	14	11	44	.1	13	8	361	1.74	10	3	ND	3	15	1	3	2	24	.27	.08	14	21	.47	64	.05	3	.92	.01	.14	3	1	2
DF-364	1	13	6	33	.1	10	6	231	1.68	3	2	ND	5	13	1	2	2	27	.29	.10	24	16	.32	48	.04	3	.60	.01	.09	4	1	4
DF-366	1	14	8	43	.2	13	7	333	1.81	6	2	ND	4	18	1	2	2	28	.30	.09	20	23	.48	75	.05	3	.93	.01	.13	2	1	2
DF-368	1	15	49	215	.2	17	5	272	2.63	6	2	ND	19	29	1	2	4	55	.67	.15	73	25	.53	96	.11	4	1.02	.02	.18	59	2	114
DF-370	1	11	8	45	.1	10	5	309	1.54	6	2	ND	4	16	1	2	2	21	.27	.08	20	13	.33	64	.04	3	.72	.01	.10	2	1	4
DF-372	1	10	6	38	.1	10	5	275	1.59	8	2	ND	4	16	1	2	2	25	.32	.10	20	16	.39	62	.05	3	.74	.01	.10	2	1	2
DF-374	1	8	8	49	.2	10	6	494	2.15	10	7	ND	5	40	1	3	2	40	.51	.12	32	19	.68	130	.09	4	1.28	.01	.17	2	1	2
DF-376	1	8	3	28	.2	5	3	239	.92	5	3	ND	4	10	1	2	2	15	.21	.06	15	8	.23	26	.02	2	.58	.01	.07	2	1	2
DF-378	2	30	1	19	.2	5	4	182	.83	4	2	ND	6	18	1	3	2	17	.33	.12	15	9	.30	24	.04	2	.62	.01	.12	2	1	2
DF-380	2	21	4	17	.3	4	3	189	.76	4	2	ND	6	18	1	3	2	16	.33	.12	17	9	.25	22	.04	2	.57	.01	.11	2	2	2
DF-382	1	4	2	22	.2	4	2	154	.70	2	5	ND	4	22	1	2	2	11	.30	.09	17	8	.17	26	.03	2	.63	.01	.07	2	4	2
DF-384	1	4	5	34	.1	7	3	203	1.15	4	3	ND	4	23	1	2	2	16	.21	.04	14	14	.29	27	.04	2	.82	.01	.09	2	2	2
DF-386	1	10	2	35	.2	7	4	333	1.32	6	3	ND	13	83	1	2	2	28	.62	.09	17	17	.56	26	.05	3	1.36	.01	.16	2	2	2
DF-388	1	8	18	64	.3	14	6	255	4.33	4	2	ND	51	33	1	2	8	54	.95	.26	195	25	.40	54	.18	6	.76	.02	.19	174	1	272
DF-390	1	15	5	71	.1	46	12	384	3.04	17	4	ND	4	51	1	2	2	62	.71	.10	19	53	1.14	283	.25	5	2.33	.04	.18	2	1	2
DF-392	1	11	4	38	.1	27	7	228	1.83	11	2	ND	5	37	1	2	2	37	.53	.08	24	34	.69	248	.12	3	1.17	.02	.19	2	1	2
DF-394	1	20	7	85	.1	58	16	551	3.70	19	2	ND	4	79	1	2	2	55	.95	.11	16	62	1.76	368	.28	6	2.66	.07	.30	2	1	2
DF-396	1	12	5	55	.1	13	7	503	2.04	7	3	ND	4	32	1	2	2	37	.47	.10	29	24	.69	141	.09	4	1.55	.01	.17	2	1	2
DF-418	1	35	7	65	.1	34	12	400	3.14	13	2	ND	6	25	1	2	2	34	.51	.14	18	39	.71	92	.08	5	1.22	.01	.26	2	1	4
DF-420	1	15	7	54	.2	18	8	401	2.23	12	3	ND	4	38	1	2	2	38	.52	.12	19	29	.73	86	.08	4	1.35	.01	.25	2	2	8
DF-422	1	12	3	40	.1	16	7	298	2.06	6	4	ND	7	27	1	3	2	35	.63	.20	20	29	.63	89	.08	4	1.14	.01	.19	5	1	4
DF-424	1	9	7	40	.1	13	6	277	1.89	8	2	ND	8	15	1	2	2	24	.33	.12	20	20	.36	66	.04	3	.76	.01	.12	9	1	10
DF-426	1	10	9	62	.2	14	6	517	2.31	4	4	ND	6	17	1	2	2	22	.18	.05	22	18	.43	81	.03	4	1.09	.01	.11	2	1	2
DF-428	1	10	42	139	.4	15	6	246	4.22	7	2	ND	39	31	1	2	6	59	.93	.22	166	24	.47	57	.17	5	.78	.02	.17	151	1	160
DF-430	1	16	9	81	.2	20	7	469	2.47	2	2	ND	7	15	1	2	2	29	.22	.06	22	22	.61	74	.05	4	1.15	.01	.15	2	1	2
DF-432	1	4	6	60	.3	7	3	392	1.55	4	6	ND	5	21	1	2	3	16	.25	.07	25	10	.26	81	.03	3	.90	.01	.11	2	1	2
DF-434	1	11	6	49	.2	16	8	309	2.18	11	3	ND	6	30	1	2	2	39	.63	.20	19	30	.68	75	.09	4	1.17	.01	.23	4	1	6
STD A-1/W-50/MP	1	30	39	186	.3	35	12	1043	2.85	10	2	ND	2	36	1	2	2	58	.61	.10	8	74	.78	284	.09	8	2.08	.01	.21	2	22	50

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
DF-436	1	27	16	79	.1	49	15	912	3.20	9	2	ND	4	72	1	2	2	48	.71	.13	14	76	1.07	169	.07	5	1.60	.01	.12	2	-
DF-438	1	19	12	68	.1	53	15	468	3.09	15	2	ND	3	60	1	2	2	54	.59	.15	14	89	1.25	137	.10	6	1.76	.01	.16	2	-
DF-440	1	37	20	71	.1	47	23	856	4.57	16	2	ND	6	27	1	2	2	39	.37	.11	20	72	.90	69	.02	3	1.58	.01	.05	2	10
DF-442	1	26	11	52	.1	30	13	663	3.00	12	2	ND	4	20	1	2	2	28	.28	.08	18	42	.64	64	.02	3	1.33	.01	.04	2	5
DF-444	1	28	15	67	.1	39	18	729	4.17	22	3	ND	4	68	1	2	2	44	1.44	.10	9	54	1.23	47	.03	3	1.66	.01	.07	2	5
DF-446	1	23	12	56	.1	34	15	492	3.52	21	2	ND	4	33	1	2	2	46	.54	.14	13	55	.95	65	.03	6	1.46	.01	.07	2	5
DF-448	1	14	59	177	.2	17	6	266	2.94	6	2	ND	33	31	1	2	3	50	.73	.21	122	24	.46	78	.09	4	.93	.03	.17	99	30
DF-450	1	22	14	42	.2	34	11	486	2.34	9	2	ND	7	34	1	2	2	41	.50	.08	23	50	.65	63	.06	3	1.03	.02	.07	2	5
DF-452	1	41	16	64	.1	42	18	512	3.63	14	3	ND	3	46	1	2	2	71	1.52	.12	10	79	1.71	119	.09	2	1.56	.02	.11	2	5
DF-454	1	22	9	54	.1	31	11	409	2.35	7	2	ND	4	28	1	2	2	34	.31	.08	17	39	.53	126	.07	4	1.26	.02	.22	2	-
DF-456	1	18	7	46	.1	26	9	306	2.42	6	2	ND	5	45	1	2	2	46	.45	.13	19	43	.53	195	.09	3	1.24	.03	.21	2	-
DF-458	1	19	8	42	.1	24	9	518	2.19	8	2	ND	3	57	1	2	2	38	.48	.09	17	38	.54	186	.08	3	1.48	.03	.20	2	-
DF-460	1	12	6	44	.1	18	8	428	2.20	4	2	ND	4	39	1	2	2	35	.37	.09	17	28	.51	112	.05	4	1.16	.03	.13	2	5
DF-462	1	9	6	40	.1	17	7	320	1.77	3	2	ND	5	38	1	2	2	31	.37	.11	22	28	.48	115	.06	5	1.27	.02	.11	2	-
DF-464	1	3	3	23	.1	6	3	231	.97	2	2	ND	3	57	1	2	2	20	.25	.07	20	9	.20	93	.04	5	1.09	.01	.07	2	-
DF-466	1	5	6	37	.1	9	5	462	1.32	2	2	ND	7	35	1	2	2	25	.33	.11	22	13	.32	118	.05	3	1.03	.02	.11	2	-
DF-468	1	18	63	273	.1	18	6	273	2.27	7	2	ND	19	31	2	2	2	54	.67	.16	64	25	.58	98	.08	4	1.13	.03	.18	42	-
DF-470	1	8	5	45	.1	18	7	434	1.93	4	2	ND	4	37	1	2	2	30	.37	.10	16	29	.45	112	.05	3	.90	.03	.17	2	-
DF-472	1	10	11	49	.1	15	6	371	1.87	5	3	ND	6	21	1	2	2	32	.22	.09	28	24	.31	142	.04	3	1.50	.01	.13	3	-
DF-474	1	41	19	77	.2	57	21	845	4.34	8	2	ND	3	36	1	2	2	86	.67	.14	12	100	1.61	221	.09	5	2.01	.01	.23	2	5
DF-476	1	23	8	38	.1	27	12	457	2.51	2	2	ND	3	38	1	2	2	47	.94	.12	15	49	.92	116	.06	4	1.08	.02	.10	2	5
DF-478	1	28	19	46	.1	39	18	511	3.27	5	2	ND	3	32	1	2	2	61	.64	.10	15	73	.96	114	.07	2	1.18	.01	.09	2	5
DF-480	1	38	24	151	.1	65	19	580	3.70	14	2	ND	2	53	1	2	2	74	.51	.10	16	126	1.49	242	.13	4	1.90	.02	.25	2	5
DF-482	1	41	10	66	.1	79	21	688	3.60	9	2	ND	3	48	1	2	2	67	.47	.10	19	155	1.55	181	.12	4	1.94	.02	.38	2	5
DF-484	1	45	12	61	.4	64	20	592	3.80	12	2	ND	3	35	1	2	2	64	.49	.11	18	112	1.20	119	.07	6	1.54	.01	.11	2	5
DF-486	1	44	11	54	.1	54	17	556	3.17	10	2	ND	4	36	1	2	2	57	.49	.11	17	90	1.11	142	.08	4	1.59	.02	.16	2	5
DF-488	1	11	29	101	.2	16	6	264	3.33	8	2	ND	42	32	1	2	6	48	.80	.25	160	23	.43	65	.09	4	.85	.03	.18	122	5
DF-490	1	32	19	62	.3	33	15	344	2.87	7	2	ND	5	47	1	2	2	46	.65	.11	16	50	.78	91	.07	4	1.21	.03	.15	4	5
DF-492	1	23	12	64	.1	24	10	531	2.38	5	2	ND	4	29	1	2	2	43	.45	.09	13	39	.83	105	.07	3	1.37	.02	.22	2	5
DF-494	1	6	6	30	.1	10	5	217	1.32	5	2	ND	4	21	1	2	2	22	.34	.08	15	18	.29	54	.03	2	.59	.01	.06	2	5
DF-496	1	39	11	59	.1	62	18	592	3.51	9	2	ND	3	41	1	2	2	69	.52	.10	17	109	1.32	146	.09	3	1.76	.02	.16	2	5
DF-498	1	30	13	56	.1	19	8	473	2.77	6	2	ND	4	50	1	2	2	36	.59	.06	16	28	.58	95	.07	2	1.34	.03	.11	2	5
DF-500	1	9	11	38	.1	13	6	293	1.53	2	2	ND	4	24	1	2	2	25	.38	.09	17	22	.36	78	.04	7	.74	.02	.09	2	5
DF-502	1	17	11	61	.2	16	8	480	2.05	4	2	ND	4	31	1	2	2	33	.49	.09	20	23	.51	93	.04	6	1.41	.01	.10	2	5
DF-504	1	17	5	50	.1	30	11	473	2.17	5	2	ND	2	24	1	3	2	39	.42	.07	11	47	.76	90	.07	2	1.39	.02	.13	2	5
DF-506	1	29	14	55	.1	28	10	580	2.53	3	2	ND	6	42	1	2	2	38	.81	.09	15	40	.70	79	.06	4	1.11	.03	.13	2	5
DF-508	1	8	13	45	.3	14	7	258	3.83	8	2	ND	53	34	1	2	7	47	.92	.30	210	22	.39	53	.09	4	.77	.03	.20	170	10
STD A-1/AU 0.5	1	30	38	185	.3	36	13	1041	2.81	10	2	ND	2	37	1	2	2	58	.59	.11	8	78	.77	278	.08	8	2.10	.02	.20	2	500

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
DF-510	1	37	51	102	.1	28	11	444	2.54	3	2	ND	5	48	1	2	2	41	1.11	.10	13	43	.77	94	.06	4	1.23	.04	.20	2	5
DF-512	1	36	19	57	.1	36	15	414	2.57	3	2	ND	3	38	1	4	2	44	.61	.10	11	54	.81	73	.06	4	1.17	.02	.15	2	5
DF-514	1	27	9	45	.1	32	14	377	2.83	7	2	ND	6	48	1	2	2	43	.75	.12	19	45	.71	80	.05	6	1.04	.02	.11	2	5
DF-516	1	29	17	39	.2	20	9	358	2.19	2	6	ND	4	119	1	2	2	38	2.59	.09	13	30	.62	77	.07	2	1.19	.05	.17	2	5
DF-518	1	39	21	77	.1	60	20	667	4.18	5	2	ND	5	71	1	2	2	64	1.03	.20	22	86	1.23	169	.07	7	1.65	.02	.19	2	50
DF-520	1	19	9	31	.1	17	9	347	1.94	6	2	ND	6	36	1	2	2	34	.52	.11	19	25	.47	82	.05	4	.85	.03	.11	2	5
DF-522	1	50	20	68	.1	58	23	844	4.36	8	9	ND	2	56	1	2	2	66	2.20	.15	12	70	1.26	159	.05	5	1.39	.01	.06	2	5
DF-524	3	77	37	122	.1	85	26	1177	5.24	33	2	ND	3	31	1	2	2	60	.72	.12	16	63	.93	225	.02	8	1.35	.01	.08	2	5
DF-526	2	61	40	93	.2	69	26	950	4.70	17	2	ND	3	34	1	2	2	64	.90	.11	16	68	1.03	215	.03	5	1.30	.01	.08	2	5
DF-528	1	16	45	188	.2	18	6	274	2.67	3	2	ND	26	29	1	2	2	51	.71	.19	95	23	.49	81	.08	3	.94	.03	.17	77	20
DF-530	1	48	27	64	.1	58	22	835	3.82	10	6	ND	3	53	1	2	2	68	1.15	.13	14	86	1.22	145	.06	7	1.47	.01	.06	2	5
DF-532	1	55	31	81	.1	69	23	874	4.60	9	7	ND	2	55	1	2	2	79	1.42	.14	12	116	1.93	154	.08	7	1.93	.02	.10	2	5
DF-534	3	68	31	166	.1	80	24	1596	4.50	10	5	ND	4	21	1	3	2	52	.30	.11	15	64	.56	324	.01	5	.97	.01	.10	2	5
DF-536	1	48	15	104	.1	80	25	817	5.36	5	2	ND	3	41	1	3	2	100	.56	.15	20	148	2.22	203	.11	4	2.61	.02	.11	2	5
DF-538	1	62	23	74	.3	159	26	892	4.63	17	2	ND	2	52	1	5	2	99	.83	.09	8	337	2.58	126	.10	4	2.54	.01	.15	2	5
DF-540	1	42	10	59	.1	57	19	634	3.72	8	2	ND	4	38	1	2	2	54	.60	.11	20	91	1.07	95	.05	5	1.31	.01	.06	2	5
DF-542	1	53	18	85	.1	76	23	1322	5.04	10	5	ND	5	43	1	2	2	62	.59	.13	23	112	1.27	143	.04	4	1.66	.01	.08	2	25
DF-544	1	49	18	81	.1	60	20	1322	4.81	6	2	ND	6	34	1	2	2	47	.48	.13	23	59	.92	116	.03	7	1.27	.01	.08	2	5
DF-546	1	36	20	69	.1	52	18	547	4.02	10	2	ND	3	38	1	2	2	60	.96	.13	14	61	1.07	121	.05	4	1.13	.01	.06	2	5
DF-548	1	11	22	75	.1	15	7	269	3.57	2	2	ND	44	33	1	2	3	48	.86	.28	179	20	.42	67	.09	9	.84	.03	.20	148	250
DF-550	1	26	15	50	.1	33	12	377	2.48	6	2	ND	4	40	1	2	2	44	.61	.09	14	53	.84	105	.07	4	1.17	.02	.17	2	5
DF-552	1	33	21	90	.1	53	18	666	3.55	7	2	ND	3	45	1	2	2	62	.55	.10	19	88	1.07	146	.06	6	1.57	.02	.09	2	10
DF-554	1	8	8	39	.1	7	5	491	1.66	9	2	ND	11	29	1	2	2	31	.43	.11	30	15	.47	65	.06	6	1.10	.01	.23	2	-
DF-556	1	7	6	35	.1	5	4	269	1.56	4	2	ND	11	38	1	2	2	29	.54	.09	27	10	.51	61	.08	7	1.51	.01	.30	2	-
DF-558	1	5	5	29	.1	4	3	242	1.13	3	2	ND	21	15	1	2	2	17	.45	.17	46	6	.21	33	.04	6	.58	.01	.13	2	-
DF-560	1	4	1	12	.1	2	2	148	.67	7	2	ND	10	9	1	2	2	12	.23	.08	25	6	.14	24	.03	4	.38	.01	.08	2	-
DF-562	1	11	10	50	.2	8	6	505	1.93	5	15	ND	10	67	1	2	2	35	.73	.08	55	16	.55	115	.09	6	2.11	.03	.30	2	-
DF-564	1	3	9	45	.1	4	3	532	1.30	3	2	ND	27	15	1	2	2	15	.24	.07	46	6	.20	50	.04	3	.92	.01	.20	2	-
STD A-1/AU 0.5	1	30	37	186	.3	36	13	1047	2.83	9	2	ND	3	36	1	2	2	58	.60	.11	8	76	.77	280	.08	8	2.09	.02	.20	2	485

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	k ppm
DF-566	3	16	7	62	.2	9	7	750	1.55	2	6	ND	9	23	1	2	2	21	.27	.07	43	16	.30	70	.08	2	1.18	.01	.23	2
DF-568	1	11	44	105	.2	14	7	267	3.21	2	2	ND	38	30	1	2	6	41	.83	.27	155	21	.41	64	.08	3	.80	.02	.17	161
DF-570	2	27	8	55	.1	9	6	341	1.76	4	4	ND	7	215	1	2	2	32	.92	.40	46	12	.34	52	.08	3	1.03	.01	.17	2
DF-572	1	11	4	18	.1	7	4	135	1.48	2	10	ND	25	26	1	2	2	23	.59	.24	53	17	.22	29	.05	3	.48	.01	.16	3
DF-574	2	32	10	55	.1	23	9	327	2.38	3	2	ND	9	105	1	2	2	36	.63	.18	35	37	1.27	123	.15	3	1.54	.02	.56	2
DF-576	1	12	3	25	.1	8	4	157	1.32	2	2	ND	17	43	1	4	2	19	.42	.14	33	16	.40	50	.08	4	.73	.01	.29	2
DF-578	1	7	1	16	.1	5	3	107	.91	2	2	ND	18	44	1	2	2	14	.51	.20	43	13	.22	29	.05	2	.45	.01	.13	2
DF-580	1	11	3	20	.1	7	3	106	.97	2	2	ND	9	38	1	2	2	16	.74	.12	7	15	.47	53	.07	2	1.40	.03	.29	2
DF-582	1	15	8	30	.1	11	5	161	1.48	2	2	ND	3	41	1	2	2	25	.85	.11	7	24	.78	81	.10	2	1.93	.04	.48	2
DF-584	1	8	2	12	.1	5	2	91	.69	2	4	ND	5	37	1	2	2	10	.59	.10	16	9	.23	37	.04	2	.57	.01	.13	2
DF-586	1	12	2	18	.1	6	4	119	.92	10	5	ND	7	25	1	2	14	12	.63	.18	19	11	.22	46	.05	2	.76	.02	.16	2
DF-588	1	9	21	61	.2	13	6	226	3.48	2	2	ND	40	29	1	2	7	41	.86	.30	174	19	.35	55	.08	4	.69	.02	.16	178
DF-590	1	30	6	60	.1	106	17	336	2.71	2	2	ND	3	24	1	2	2	45	.32	.06	12	109	1.32	171	.16	2	2.05	.01	.36	2
DF-594	3	57	19	185	.8	116	22	505	5.06	24	2	ND	3	22	1	2	2	27	.17	.07	16	34	.24	96	.01	3	.51	.01	.03	2
DF-596	2	51	30	96	.2	86	26	860	4.46	15	2	ND	2	26	1	2	2	39	.54	.09	9	48	.66	146	.02	2	.96	.01	.04	2
DF-598	2	62	29	105	.1	90	31	955	5.01	27	2	ND	2	47	1	2	2	49	1.16	.10	7	51	.68	107	.01	2	.98	.01	.03	2
DF-600	2	57	30	80	.4	65	28	914	4.30	21	2	ND	2	63	1	2	2	30	2.52	.09	5	37	.76	94	.01	2	.68	.01	.01	2
DF-602	2	54	37	121	.2	130	29	926	4.91	18	2	ND	2	23	1	2	2	38	.52	.09	7	79	.75	110	.01	3	.92	.01	.03	2
DF-608	1	12	37	105	.1	15	7	254	3.49	2	2	ND	39	31	1	2	7	44	.89	.29	164	22	.41	66	.08	3	.78	.02	.16	181
DF-610	1	44	19	90	.1	99	24	1114	4.48	9	2	ND	2	31	1	2	2	77	.84	.09	12	171	1.89	227	.07	3	2.15	.01	.07	2
DF-612	1	34	10	43	.1	59	16	479	2.64	3	2	ND	2	29	1	2	2	48	.41	.08	11	113	1.04	94	.06	2	1.39	.01	.10	2
STD A-1	1	30	38	185	.3	36	13	1049	2.82	9	2	ND	2	36	1	2	2	57	.58	.10	8	75	.75	284	.07	6	2.08	.01	.20	2

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
DF-614	1	5	14	35	.2	7	5	422	3.29	2	2	ND	44	21	1	2	2	73	.72	.30	95	24	.29	55	.03	4	.67	.01	.09	2
DF-616	1	47	39	422	.5	36	8	476	2.55	2	6	ND	5	25	2	2	2	38	.46	.06	18	47	.68	149	.07	3	1.59	.01	.23	2
DF-618	1	4	8	50	.2	6	4	461	1.21	2	2	ND	7	10	1	2	2	17	.15	.04	20	12	.23	48	.03	2	.75	.01	.08	2
DF-622	1	10	9	53	.1	11	6	394	1.32	5	2	ND	4	12	1	2	2	21	.18	.06	15	20	.32	68	.04	2	.95	.01	.12	2
DF-624	1	2	6	48	.1	6	4	598	1.21	4	2	ND	7	15	1	2	2	16	.17	.04	18	14	.20	45	.02	3	.71	.01	.07	2
DF-626	1	7	11	64	.3	8	3	351	1.06	4	2	ND	9	13	1	2	2	16	.27	.07	31	13	.20	39	.02	2	.62	.01	.08	2
DF-628	1	18	65	252	.1	19	6	271	2.05	2	2	ND	11	23	1	2	3	52	.55	.12	34	23	.52	98	.06	3	1.02	.02	.14	21
DF-630	1	25	36	132	.2	25	10	532	2.53	4	6	ND	7	48	1	2	2	42	.56	.12	28	38	.82	232	.09	2	1.57	.02	.22	4
DF-632	1	18	12	72	.3	24	10	1089	2.76	2	2	ND	5	55	1	2	2	46	.47	.08	57	32	.47	319	.07	4	2.92	.01	.22	2
DF-634	1	15	10	76	.1	19	9	535	2.56	2	2	ND	6	16	1	2	2	36	.21	.07	28	30	.45	156	.07	3	1.73	.01	.16	2
DF-636	1	17	14	69	.2	19	9	835	2.40	2	2	ND	5	18	1	2	2	31	.26	.05	30	28	.42	156	.05	3	1.70	.01	.14	2
DF-638	1	14	12	109	.2	18	13	1359	3.73	7	2	ND	5	70	1	2	2	74	1.03	.28	49	31	.97	273	.10	4	1.85	.01	.29	2
DF-640	1	17	12	124	.1	17	14	2460	3.92	7	2	ND	8	69	1	2	2	73	1.01	.29	59	24	.85	300	.09	5	1.82	.01	.29	2
DF-646	8	17	17	43	.3	6	5	421	3.45	2	49	ND	71	36	1	2	44	67	.65	.22	48	35	.31	51	.05	4	.90	.01	.14	37
DF-648	1	16	64	200	.2	17	7	236	3.23	7	2	ND	23	24	1	2	5	53	.77	.17	80	23	.49	71	.07	3	.79	.02	.13	81
DF-650	7	12	10	49	.4	6	4	354	2.97	2	46	ND	147	38	1	2	7	55	.65	.20	43	31	.27	37	.05	3	.72	.01	.12	35
DF-652	3	17	21	50	.2	4	3	451	1.56	2	15	ND	24	25	1	2	2	26	.27	.09	40	14	.16	46	.03	3	1.04	.01	.08	33
DF-654	1	4	9	35	.1	5	4	339	2.06	2	20	ND	76	24	1	2	2	45	.52	.20	41	21	.28	50	.05	3	.80	.01	.12	18
DF-656	2	5	11	36	.1	8	5	476	2.71	3	9	ND	44	34	1	2	2	60	.43	.13	39	26	.38	68	.09	4	1.16	.01	.13	6
DF-672	1	10	4	22	.1	6	4	140	1.16	2	2	ND	5	6	1	2	2	14	.12	.04	12	13	.28	47	.05	3	.65	.01	.21	2
DF-674	1	8	4	27	.1	7	5	153	1.29	2	2	ND	5	5	1	2	2	13	.08	.03	13	12	.35	56	.06	2	.79	.01	.27	2
STD A-1	1	30	38	185	.3	36	12	1025	2.80	9	2	ND	2	33	1	2	2	59	.59	.10	7	74	.73	270	.08	7	2.07	.01	.20	2

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : STREAM SED AND PAN-CONC
AU** - INCLUDING PD, PT 10 GM, FIRE ASSAY CONCENTRATION, HNO3 LEACH OFF AG,
AQUA REGIA DIGESTION, GRAPHITE AA ANALYSIS.

ASSAYER ______ DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK   PROJECT # 908   FILE # 83-0813   PAGE# 1

SAMPLE	AU** PPB
DF - 4	2
DF - 6	1
DF - 8	1
DF - 10	1
DF - 46	1

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DATE RECEIVED JULY 27 1983

DATE REPORTS MAILED Aug 3/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : STREAM SED
AU** - INCLUDING PD, PT 10 GM, FIRE ASSAY CONCENTRATION, HNO3 LEACH OFF AG,
AQUA REGIA DIGESTION, GRAFHITE AA ANALYSIS.

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

KIDD CREEK FILE # 83-1375 PROJECT # 908 PAGE# 4

SAMPLE	AU** PPB
DF-360	1
DF-398	1
DF-400	1
DF-402	2
DF-404	1
DF-406	1
DF-408	6
DF-410	2
DF-412	2
DF-414	1
DF-416	2

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DATE RECEIVED AUG 19 1983

DATE REPORTS MAILED Aug 27/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : STREAM SED
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.
W - 1.00 GM, KCL, KNO3, NA2CO3 FUSION, WATER LEACH, ICP ANALYSIS.

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

KIDD CREEK MINES PROJECT # 908 FILE # 83-1722 PAGE# 4

SAMPLE	AU* PPB	W PPM
DF-592	5	-
DF-604	5	-
DF-606	5	2
DF-642	6	
DF-644	18	
DF-658	8	
DF-660	4	
DF-662	46	
DF-664	2	
DF-666	2	
DF-668	43	
DF-670	5	
DF-676	1	
DF-678	1	
DF-680	4	
DF-682	2	
DF-684	9	
DF-686	6	
DF-688 F	150	
DF-690	6	
DF-692	6	
DF-694	1	
DF-696	90	

c) SOILS AND ROCK SAMPLES

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	Sn* ppm
SF-3	7	53	29	547	1.3	52	9	446	2.78	2	7	ND	3	9	1	2	2	189	.12	.12	13	34	.47	91	.07	5	3.34	.01	.07	7	1	1
SF-4	9	36	17	290	.2	35	8	359	2.95	2	6	ND	2	10	1	2	2	104	.07	.14	12	23	.44	60	.08	5	3.60	.01	.08	2	2	1
SF-5	8	31	20	527	.1	46	6	228	3.74	5	3	ND	4	8	1	2	2	123	.06	.10	10	27	.47	66	.11	5	3.45	.01	.07	3	2	3
SF-6	4	33	26	432	.7	31	7	455	2.77	2	6	ND	5	7	1	2	2	110	.16	.17	9	32	.45	111	.08	4	3.27	.01	.06	9	1	1
SF-7	10	25	10	337	.6	38	4	108	3.62	2	6	ND	5	12	1	2	2	136	.09	.10	6	21	.36	89	.10	2	3.54	.01	.05	3	1	1
SF-8	13	24	16	373	.3	29	4	260	2.56	2	37	ND	5	8	1	2	2	151	.08	.07	11	29	.32	46	.15	5	4.39	.01	.05	2	1	2
SF-9	6	26	13	479	.4	34	9	251	2.80	2	3	ND	4	9	1	2	2	109	.10	.09	8	18	.29	115	.11	5	3.64	.01	.06	3	1	1
SF-10	4	22	17	285	.4	51	9	302	2.78	2	5	ND	3	10	1	2	2	111	.10	.08	12	31	.58	137	.08	5	3.37	.01	.06	3	1	1
STD A-1	1	30	40	178	.3	35	12	996	2.82	9	2	ND	2	35	1	2	2	57	.61	.10	7	75	.76	293	.08	9	2.10	.02	.19	2	1	1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb	SN ppm
073735	5	52	15	93	.4	40	13	219	3.53	9	19	ND	5	211	1	2	2	82	2.16	.05	14	77	1.15	169	.12	6	5.31	.37	1.04	2	1	
073736	1	20	7	16	.1	23	8	195	3.77	2	2	ND	5	19	1	2	2	72	.18	.04	20	55	1.06	222	.20	5	2.55	.05	1.31	11	1	
073816	3	76	2	31	.2	22	11	1190	3.78	5	5	ND	2	15	1	2	4	10	1.87	.05	3	10	.06	14	.03	5	.70	.01	.01	272	1	
73814	1	166	7	140	.4	17	17	4453	5.57	8	2	ND	4	36	2	2	2	18	10.73	.14	14	9	.63	34	.04	42	2.68	.19	.07	3	2	2
73815	3	119	13	195	.6	14	10	2447	4.86	11	4	ND	5	31	2	2	2	21	9.88	.03	23	26	.61	33	.11	45	2.73	.35	.10	7	2	3
73767 ROCK	66	236	6	43	.4	36	31	347	4.32	3	8	ND	3	88	1	2	2	8	2.22	.03	4	8	.13	21	.04	7	2.56	.41	.06	661		
73768 ROCK	1	3	3	305	.1	7	2	2446	1.57	3	2	3	5	133	1	2	25	30	12.50	.03	8	7	.38	13	.12	3	2.75	.05	.02	16		
73769 ROCK	1	3	2	25	.1	2	1	206	.35	2	7	ND	3	6	1	2	2	2	.34	.05	3	4	.01	9	.01	4	.22	.06	.07	2		

SAMPLE	PB PPM	ZN PPM	AG PPM	W PPM	AU** PPB	SN PPM
JT-00003	–	–	–	2	–	1
JT-00004	–	–	–	91	1	1
JT-00005	–	–	–	2	1	1
JT-00006	–	–	–	172	1	1
JT-00007	–	–	–	5	1	1
JT-00008	6	15	.1	–	1	–
JT-00009	16	37	.2	–	1	–
JT-00010	4	5	.1	–	1	–
JT-00011	7	26	.2	–	2	–
JT-00012	9	37	.2	–	1	–
JT-00013	9	12	.1	–	1	–

SAMPLE	CU PPM	PB PPM	ZN PPM	AG PPM	AU** PPB
73777	7640	84	116	.8	240
73778	115	22	19	.1	2

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DATE RECEIVED JUNE 3 1983

DATE REPORTS MAILED June 8/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
W - 1.00 GM, KCL, KNO3, NA2CO3 FUSION, WATER LEACH, ICP ANALYSIS.
SN - 1.00 GM NH4I FUSION, HCL LEACH, MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK PROJECT # 908 FILE # 83-0698 PAGE# 1

SAMPLE	W PPM	SN PPM
STAND	215	5
RE-RUN STAND	230	6

d) GOLD, 1982 PULPS

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DATE REPORTS MAILED June 2/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0394B

SAMPLE	AU* PPB
AW28-82-169	5
AW28-82-171	5
AW28-82-173	5
AW28-82-175	5
AW28-82-179	160
AW28-82-181	35
AW28-82-183	5
AW28-82-185	5
AW28-82-187	5
AW28-82-189	35
AW28-82-193	5
AW28-82-195	90
AW28-82-197	9360
AW28-82-199	55
AW28-82-201	50
AW28-82-203	60
AW28-82-205	20
AW28-82-209	5
AW28-82-211	80
AW28-82-213	560
AW28-82-215	20
AW28-82-217	20
AW28-82-219	2330
AW28-82-221	35
AW28-82-223	1670
RE AW28-82-197	4500
RE AW28-82-219	55
RE AW28-82-223	3500

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DATE REPORTS MAILED May 27/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0716B PROJECT # 28 PAGE# 1

SAMPLE	AU* PPB
AW28-82-491	5
AW28-82-493	5
AW28-82-495	5
AW28-82-497	5
AW28-82-501	5
AW28-82-503	5
AW28-82-505	5
AW28-82-507	5
AW28-82-509	5
AW28-82-511	5
AW28-82-515	5
AW28-82-517	5
AW28-82-521	5
AW28-82-523	5
AW28-82-525	5
AW28-82-529	5
AW28-82-531	5
AW28-82-533	50
AW28-82-535	80
AW28-82-537	5
AW28-82-539	5
AW28-82-541	5
AW28-82-543	5
AW28-82-545	5
AW28-82-547	5
AW28-82-549	5
AW28-82-551	5
AW28-82-553	5
AW28-82-555	50
AW28-82-557	200
AW28-82-559	5
AW28-82-561	5
AW28-82-563	5
AW28-82-565	5
AW28-82-567	5
AW28-82-567A	5
AW28-82-569	5
AW28-82-571	5

SAMPLE	AU* PPB
AW28-82-573	5
AW28-82-575	5
AW28-82-577	5
AW28-82-579	5
AW28-82-581	5
AW28-82-583	5
AW28-82-585	5
AW28-82-587	5
AW28-82-589	5
AW28-82-591	5
AW28-82-593	5
AW28-82-595	660
AW28-82-597	1220
AW28-82-599	5
AW28-82-601	5
AW28-82-603	5
CL28-82-421	5
CL28-82-423	5
CL28-82-425	5
CL28-82-427	5
CL28-82-429	5
CL28-82-431	5
CL28-82-433	475
CL28-82-435	5
CL28-82-437	5
CL28-82-601	5
CL28-82-603	5
CL28-82-605	5
CL28-82-607	5
CL28-82-611	5
CL28-82-613	5
CL28-82-617	5
CL28-82-619	5
CL28-82-621	5
CL28-82-623	5
CL28-82-625	810
RE AW28-82-597	1380

SAMPLE	AU* PPB
CL28-82-627	5
CL28-82-629	5
CL28-82-631	5
CL28-82-633	5
CL28-82-635	5
CL28-82-639	5
CL28-82-641	5
CL28-82-643	5
CL28-82-645	5
CL28-82-647	5
CL28-82-651	5
MC28-82-299	5
MC28-82-301	1550
MC28-82-303	5
MC28-82-305	5
MC28-82-307	5
MC28-82-309	5
MC28-82-311	20
MC28-82-313	5
MC28-82-315	5
MC28-82-319	5
MC28-82-321	5
MC28-82-323	5
MC28-82-325	5
MC28-82-327	5
MC28-82-331	5
MC28-82-333	85
MC28-82-335	5
MC28-82-337	5
MC28-82-339	5
MC28-82-341	5
MC28-82-343	5
MC28-82-345	5
MC28-82-347	5
MC28-82-349	5
MC28-82-353	5
MC28-82-355	1600
RE MC28-82-301	275
RE MC28-82-355	610

SAMPLE	AU* PPB
MC28-82-357	5
MC28-82-361	5
MC28-82-363	5
MC28-82-365	5
MC28-82-503	5
MC28-82-511	5
MC28-82-513	5
MC28-82-515	5
MC28-82-519	5
MC28-82-521	5
MC28-82-523	5
MC28-82-527	5
MC28-82-529	5
MC28-82-531	5
MC28-82-533	5
MC28-82-537	5
MC28-82-539	5
MC28-82-541	5
MC28-82-543	5
MC28-82-545	5
MC28-82-547	5
MC28-82-549	5
MC28-82-551	5
MC28-82-553	5

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0640B PROJECT # 28 PAGE# 1

SAMPLE	AU* PPB
CL28-82-101	5
CL28-82-103	5
CL28-82-105	830
CL28-82-107	5
CL28-82-109	5
CL28-82-111	320
CL28-82-113	910
CL28-82-115	2060
CL28-82-119	5
CL28-82-121	5
CL28-82-123	5
CL28-82-125	5
CL28-82-127	5
CL28-82-129	5
CL28-82-131	10
CL28-82-133	5
CL28-82-135	350
CL28-82-137	5
CL28-82-139	5
CL28-82-171	5
CL28-82-173	5
CL28-82-175	5
CL28-82-177	5
CL28-82-179	5
CL28-82-183	5
CL28-82-185	5
CL28-82-187	5
CL28-82-189	5
CL28-82-191	5
CL28-82-193	5
CL28-82-197	5
CL28-82-199	5
CL28-82-201	5
CL28-82-203	5
CL28-82-205	5
CL28-82-207	5
RE CL28-82-115	5
RE CL28-82-135	1100

SAMPLE	AU* PPB
CL28-82-209	5
CL28-82-211	5
CL28-82-215	5
CL28-82-217	5
CL28-82-219	10
CL28-82-221	620
CL28-82-223	5
CL28-82-225	5
CL28-82-229	5
CL28-82-231	5
CL28-82-233	5
CL28-82-235	5
CL28-82-237	10
CL28-82-239	5
CL28-82-245	5
CL28-82-249	5
CL28-82-251	5
CL28-82-253	5
CL28-82-259	5

SAMPLE	AU* PPB
MC-28-82-265	5
MC-28-82-267	760
MC-28-82-269	2150
MC-28-82-271	950
MC-28-82-273	5
MC-28-82-277	5
MC-28-82-279	2080
MC-28-82-281	5
MC-28-82-283	5
MC-28-82-285	5
MC-28-82-287	5
MC-28-82-289	5
MC-28-82-291	5
MC-28-82-293	5
MC-28-82-295	5
MC-28-82-297	5
RE MC-28-82-265	5
RE MC-28-82-267	1900
RE MC-28-82-269	20
RE MC-28-82-271	2640
RE MC-28-82-273	5
RE MC-28-82-277	5
RE MC-28-82-279	15
RE MC-28-82-281	40

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0394B PROJECT # 28 PAGE# 1

SAMPLE	AU* PPB
AW28-82-69	5
AW28-82-71	5
AW28-82-73	15
AW28-82-75	5
AW28-82-77	155
AW28-82-79	40
AW28-82-81	230
AW28-82-83	9100
AW28-82-87	15
AW28-82-89	595
AW28-82-91	480
AW28-82-95	20
AW28-82-99	5
AW28-82-101	865
AW28-82-103	390
AW28-82-105	5
AW28-82-107	5
AW28-82-109	900
AW28-82-111	30
AW28-82-113	5
AW28-82-115	465
AW28-82-117	20
AW28-82-119	5
AW28-82-121	835
AW28-82-123	365
AW28-82-125	5
AW28-82-127	5
AW28-82-129	855
AW28-82-133	30
AW28-82-137	5
AW28-82-139	465
AW28-82-141	5
AW28-82-143	5
AW28-82-145	5
AW28-82-147	5
AW28-82-151	3060
AW28-82-161	5
RE AW28-82-83	1360
RE AW28-82-151	140

SAMPLE	AU* PPB
AW28-82-163	5
AW28-82-165	5
AW28-82-167	5
PL28-82-47	5
PL28-82-49	5
PL28-82-53	5
PL28-82-55	80
PL28-82-57	5
PL28-82-59	5
PL28-82-61	50
PL28-82-63	10

SAMPLE	AU* PPB	
PL28-82-65	5	
PL28-82-67	5	
PL28-82-69	260	#73 NS
PL28-82-75	5	
PL28-82-77	5	
PL28-82-79	5	
PL28-82-81	10	
PL28-82-83	5	
PL28-82-85	5	
PL28-82-87	5	
PL28-82-89	290	
PL28-82-91	5	
PL28-82-93	5	
PL28-82-95	5	
PL28-82-97	5	
PL28-82-99	5	
PL28-82-103	100	
PL28-82-105	1720	
PL28-82-107	430	
PL28-82-109	5	
PL28-82-111	420	
PL28-82-113	10	
PL28-82-115	5	
PL28-82-117	5	
PL28-82-119	5	
PL28-82-121	200	
PL28-82-123	5	
PL28-82-125	5	
PL28-82-127	5	
PL28-82-129	65	
PL28-82-131	5	
PL28-82-133	5	
PL28-82-135	5	
PL28-82-141	5	
PL28-82-143	5	
PL28-82-145	5	
RE PL28-82-105	5	
RE PL28-82-89	1030	

SAMPLE	AU* PPB
PL28-82-147	5
PL28-82-149	5
PL28-82-151	5
PL28-82-153	5
PL28-82-155	5
PL28-82-157	5
PL28-82-159	5
PL28-82-163	5
PL28-82-167	15
PL28-82-169	5
PL28-82-173	5
PL28-82-175	5
PL28-82-179	5
PL28-82-181	5
PL28-82-183	15
PL28-82-185	5
PL28-82-187	50
PL28-82-193	5
PL28-82-195	10
PL28-82-201	5
PL28-82-203	5
PL28-82-205	5
PL28-82-211	5
PL28-82-213	10
PL28-82-215	780
PL28-82-217	5
PL28-82-219	5
PL28-82-221	10
PL28-82-225	5
MC28-82-71	15
MC28-82-75	20

SAMPLE	AU* PPB
MC28-82-77	130
MC28-82-83	15
MC28-82-85	190
MC28-82-85B	5
MC28-82-87	80
SE28-82-51	10
SE28-82-53	5
SE28-82-61	140
SE28-82-63	5
SE28-82-69	280
AW28-82-41	170
AW28-82-43	5
AW28-82-45	5
AW28-82-47	5
AW28-82-51	5
AW28-82-53	5
AW28-82-55	2230
AW28-82-57	5
AW28-82-61	5
RE AW28-82-55	1650

#81 NS

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0434B PROJECT # 28

SAMPLE	AU* PPB
AW-28-82-249	5
AW-28-82-253	5
AW-28-82-255	5
AW-28-82-257	5
AW-28-82-259	290
AW-28-82-261	5
AW-28-82-263	5
AW-28-82-265	5
AW-28-82-267	5
AW-28-82-269	5
AW-28-82-273	5
AW-28-82-275	5
AW-28-82-277	5
AW-28-82-279	5
AW-28-82-281	5
AW-28-82-283	5
AW-28-82-285	90
AW-28-82-291	35
AW-28-82-293	20
AW-28-82-297	10
AW-28-82-299	5
AW-28-82-301	5
AW-28-82-303	5
AW-28-82-305	5
AW-28-82-307	5
AW-28-82-311	5
AW-28-82-313	5
AW-28-82-319	5
AW-28-82-321	5
AW-28-82-323	5

SAMPLE	AU* PPB
AW-28-82-325	5
AW-28-82-331	5
AW-28-82-333	5
AW-28-82-337	5
AW-28-82-339	5
AW-28-82-343	5
AW-28-82-345	5
AW-28-82-347	40
AW-28-82-349	5
AW-28-82-351	5
AW-28-82-353	5
AW-28-82-355	5
AW-28-82-357	5
AW-28-82-359	5
AW-28-82-361	5
AW-28-82-367	5
AW-28-82-369	5
AW-28-82-371	1680
MC-28-82-93	5
MC-28-82-95	5
MC-28-82-99	5
SE-28-82-105	2460
SE-28-82-107	220
SE-28-82-109	5
SE-28-82-113	5
RE AW-28-82-371	5
RE SE-28-82-105	1050

SAMPLE	AU* PPB
SE-28-82-115	5
SE-28-82-117	5
SE-28-82-119	5
SE-28-82-121	5
SE-28-82-123	5
SE-28-82-125	5
SE-28-82-127	5
SE-28-82-131	5
SE-28-82-137	5
SE-28-82-139	5
SE-28-82-141	5
SE-28-82-143	5
SE-28-82-147	5
PL-28-82-227	5
PL-28-82-229	5
PL-28-82-237	5
PL-28-82-239	5
PL-28-82-245	5
PL-28-82-247	5
PL-28-82-255	5
PL-28-82-257	5
PL-28-82-259	5
PL-28-82-261	5
PL-28-82-263	5
PL-28-82-265	5
PL-28-82-267	5
PL-28-82-269	5
PL-28-82-271	5
PL-28-82-273	20
PL-28-82-275	5
PL-28-82-277	5
PL-28-82-279	5
PL-28-82-281	5
PL-28-82-283	5
PL-28-82-287	5

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
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ASSAYER [signature] DEAN TOYE, CERTIFIED B.C. ASSAYER

KIDD CREEK MINE FILE # 82-0488B

SAMPLE	AU* PPB
AW-28-82-391	5
AW-28-82-393	5
AW-28-82-395	5
AW-28-82-399	5
AW-28-82-401	5
AW-28-82-403	5
AW-28-82-405	5
AW-28-82-407	2900
AW-28-82-409	5
AW-28-82-411	5
AW-28-82-413	5
AW-28-82-415	5
AW-28-82-417	5
AW-28-82-419	30
AW-28-82-421	5
AW-28-82-425	5
AW-28-82-427	5
AW-28-82-429	5
AW-28-82-431	5
AW-28-82-433	5
AW-28-82-437	20
AW-28-82-443	5
AW-28-82-445	5
AW-28-82-447	5
AW-28-82-461	5
AW-28-82-465	5
AW-28-82-467	2850
AW-28-82-469	290
AW-28-82-473	15
AW-28-82-475	5
AW-28-82-477	5
AW-28-82-479	5
AW-28-82-481	5
AW-28-82-485	5
RE AW-28-82-407	4900
RE AW-28-82-467	2640

SAMPLE	AU* PPB
CL-28-82-51	10
CL-28-82-53	5
CL-28-82-55	5
CL-28-82-57	5
CL-28-82-59	5
CL-28-82-61	5
CL-28-82-63	5
CL-28-82-65	5
CL-28-82-67	5
CL-28-82-69	5
CL-28-82-71	80
CL-28-82-73	285
CL-28-82-77	20
CL-28-82-79	9250
CL-28-82-81	5
CL-28-82-83	20
CL-28-82-85	50
CL-28-82-87	30
CL-28-82-89	5
CL-28-82-91	5
CL-28-82-93	5
CL-28-82-95	5
CL-28-82-97	5
CL-28-82-99	5
MC-28-82-149	340
MC-28-82-151	5
SE-28-82-177	5
SE-28-82-179	5
SE-28-82-181	5
SE-28-82-183	5
SE-28-82-185	5
RE CL-28-82-79	2100

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0596B PROJECT # 28 PAGE# 1

SAMPLE	AU* PPB
CL-28-82-301	5
CL-28-82-303	5
CL-28-82-305	10
CL-28-82-307	5
CL-28-82-309	5
CL-28-82-311	15
CL-28-82-313	5
CL-28-82-317	5
CL-28-82-325	5
CL-28-82-327	5
CL-28-82-329	5
CL-28-82-353	5
CL-28-82-355	10
CL-28-82-357	5
CL-28-82-359	5
CL-28-82-361	5
CL-28-82-363	10
CL-28-82-365	5
CL-28-82-367	5
CL-28-82-369	5
CL-28-82-371	5
CL-28-82-373	5
CL-28-82-375	5
CL-28-82-377	5
CL-28-82-379	5
CL-28-82-381	5
CL-28-82-385	5
CL-28-82-387	5
CL-28-82-389	70
CL-28-82-391	5
CL-28-82-393	5

SAMPLE	AU* PPB
CL-28-82-397	5
CL-28-82-399	5
CL-28-82-401	5
CL-28-82-403	5
CL-28-82-405	5
CL-28-82-407	5
CL-28-82-409	5
CL-28-82-411	5
CL-28-82-413	5
CL-28-82-417	5
MC-28-82-217	5
MC-28-82-219	5
MC-28-82-221	5
MC-28-82-223	5
MC-28-82-225	5
MC-28-82-227	5
MC-28-82-229	10
MC-28-82-231	5
MC-28-82-257	5
MC-28-82-263	5

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE   FILE # 82-0368B   PAGE# 1

SAMPLE	AU* PPB
MC-28-82-1	10
MC-28-82-3	5
MC-28-82-7	15
MC-28-82-9	5
MC-28-82-13	5
#5 - NS	
MC-28-82-19	5
MC-28-82-21	10
MC-28-82-27	5
AW-28-82-1	5
AW-28-82-3	5
AW-28-82-5	5
AW-28-82-7	5
AW-28-82-9	5
PL-28-82-37	10
PL-28-82-39	5
PL-28-82-41	15
PL-28-82-43	10
PL-28-82-45	130
SE-28-82-19	20

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0838B

SAMPLE	AU* PPB
CL-28-82-749	5
CL-28-82-753	5
CL-28-82-755	5
CL-28-82-757	5
CL-28-82-759	5
CL-28-82-763	5
CL-28-82-765	760
CL-28-82-775	5
CL-28-82-777	5
CL-28-82-783	5
CL-28-82-785	5
CL-28-82-787	5
CL-28-82-789	5
GH-28-82-21	5
GH-28-82-25	5
GH-28-82-69	5
GH-28-82-71	5
GH-28-82-79	5
GH-28-82-81	5
GH-28-82-83	5
GH-28-82-85	5
GH-28-82-87	5
GH-28-82-127	5
GH-28-82-131	5
GH-28-82-137	330
GH-28-82-139	5
GH-28-82-141	5

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0780B PROJECT # 28

SAMPLE	AU* PPB
AW-28-82-1003	5
AW-28-82-1005	5
AW-28-82-1007	5
CL-28-82-1695	5
CL-28-82-1697	5

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GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # 82-0938B PROJECT # 28 PAGE# 1

SAMPLE	AU* PPB
AW-28-82-907	5
CL-28-82-689	5
CL-28-82-791	1980
CL-28-82-793	5
CL-28-82-795	5
CL-28-82-797	5
CL-28-82-799	630
CL-28-82-801	5
CL-28-82-803	15
CL-28-82-805	25
CL-28-82-903	5
GH-28-82-205	5
RE CL-28-82-791	5

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PH:253-3158 TELEX:04-53124

DATE RECEIVED

DATE REPORTS MAILED May 22/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

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

KIDD CREEK MINE FILE # RE-RUN

SAMPLE	AU* PPB	
PL-28-82-1	1500	
PL-28-82-3	950	
PL-28-82-13	720	2.5 gm
MC-28-82-205	325	
MC-28-82-255	480	*
MC-28-82-255 -Rerun	940	
GH-28-82-61	280	
GH-28-82-63	75	
CL-28-82-713	5	
CL-28-82-915	5	
CL-28-82-1683	8200	
SE-28-82-75	30	
SE-28-82-85	800	
SE-28-82-167	5	

LEGEND

TERTIARY

- **23** TILL, Unconsolidated recent sediments
- **22** Volcanic flow rocks with interbedded sedimentary rocks; conglomerate, sandstone, shale and tuff, plateau basalts, olivine basalts
- **21** SHEPPARD PLUTONIC ROCKS: leuco-granite; CORYELL PLUTONIC ROCKS: syenite, minor granite, monzonite, shonkinite

MESOZOIC

- **20** VALHALLA PLUTONIC ROCKS: granodiorite, minor pegmatite; NELSON PLUTONIC ROCKS: porphyritic granite, quartz diorite, syenite, diorite, monzonite, mylonite
- **19** Undifferentiated unit; may include parts of unit 16 through 18; Basaltic and andesitic lavas, greenstone, tuff, quartzite, limestone and argillite
- **18** ROSSLAND FORMATION: andesite, latite, basalt flow breccia, augite porphyry, agglomerate tuff, minor shale
- **17** HALL FORMATION: argillite, sandstone, conglomerate; SINEMURIAN BEDS: quartzite, slate, minor flows and pyroclastic rocks
- **16** KASLO GROUP: greenstone, meta-basalt and meta-andesitic flows

PALEOZOIC

- **15** SLOCAN GROUP: slate, argillite, quartzite, limestone, conglomerate, tuff, phyllite; YMIR GROUP: Argillite, slate, quartzite, paragneiss; MILFORD GROUP: chert, phyllite, sandstone, limestone, greenstone
- **14** Gneiss, argillite, quartzite, greywacke, conglomerate, minor flows, pyroclastic rocks and limestone
- **13** EAGER FORMATION: shale, gritty limestone, argillite; CHANCELOR GROUP: shale, limestone
- **12** CRANBROOK FORMATION: quartzite, conglomerate, grit
- **11** Schist, quartzite, phyllite, limestone-LARDEAU GROUP: paragneiss, greenstone, amphibolite, marble; MILFORD GROUP: conglomerate, metabasalt flows; MOHICAN FORMATION: greenstone, amphibolite
- **10** MOUNT ROBERTS, ACTIVE and LAIB FORMATIONS: slate, argillite, quartzite, limestone, dolomite, phyllite, schist
- **9** NELWAY, BADSHOT-MOHICAN and JUBILEE FORMATIONS: limestone, dolomite, phyllite, schist
- **8** HAMILL GROUP, MARSH ADAMS, MOUNT GAINER, RENO and QUARTZITE RANGE FORMATIONS: argillaceous quartzite schist, quartzite, minor limestone

PROTEROZOIC

Windermere
- **7** THREE SISTERS FORMATION, HORSETHIEF CREEK GROUP: slate, argillite, conglomerate, quartzite, grit, sandstone, arkose, limestone; MONK FORMATION: phyllite, schist
- **6** IRENE VOLCANIC FORMATION: greenstone, minor argillite, limestone; HORSETHIEF CREEK SERIES: andesitic volcanic rocks
- **5** TOBY FORMATION: conglomerate, minor argillite, limestone

Purcell
- **4** MOUNT NELSON FORMATION: dolomite, argillite, shale, quartzite
- **3** DUTCH CREEK and KITCHENER-SIYETH FORMATIONS: argillite, dolomite, quartzite
- **2** CRESTON and ALDRIDGE FORMATIONS: argillaceous quartzite, quartzite, argillite

- **1** SHUSWAP METAMORPHIC COMPLEX: gneiss, quartzite, schist, marble, amphibolite, pegmatite

GEOLOGICAL BOUNDARY . . . .

FAULT . . . .

Sample locality

Anomalous sample, upstream indicated, anomalous values W, Sn, (ppm) Au, (ppb) N=not detected

Anomaly priority designation: A

B

C

Kidd Creek Mines Ltd.

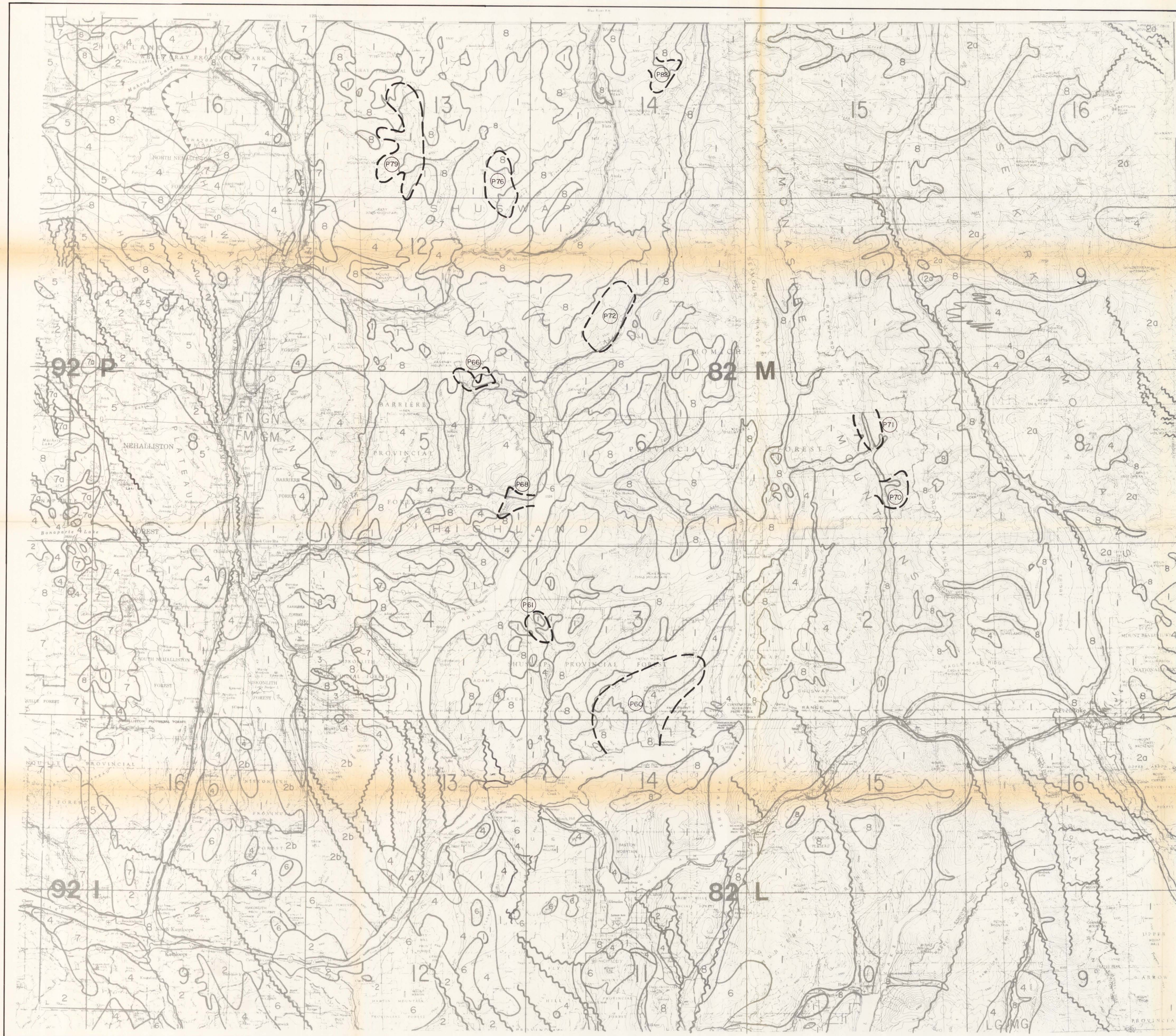
ANOMALY LOCATION MAP
KOOTENAY SHEET

WORK BY	DRAWN BY	DATE: FEBRUARY 20, 1984

0 5 10 20 KM

SCALE 1:250,000

Figure: 18



LEGEND

QUATERNARY

8	Glacial till, lacustrine and fluviatile gravel, sand, silt and clay.

TERTIARY

7	Plateau basalts, olivine basalt
7a	Kamloops Group
6	Volcanic flows with interbedded sedimentary rocks;
6a	Conglomerate, sandstone, shale and tuff

JURASSIC

5	Arenite, siltstones, conglomerate, sandstone

JURASSIC-CRETACEOUS

4	NELSON-VALHALLA: and equivalent granitic plutonic rocks

JURASSIC

3	Mafic and ultramafic intrusive rocks, pyroxenite, hornblendite, serpentinite

PALEOZOIC (including Upper PROTEROZOIC and TRIASSIC)

2	Basaltic and andesitic lavas, greenstone, tuff, quartzite, limestone and argillite; includes Eagle Bay Formation and Sicamous Formation
2b	CacheCreek Group
2a	Quartzite, argillites, limestone, slate, schist, phyllite, sandstone and conglomerate

PROTEROZOIC (SHUSWAP TERRANE)

1	Gneiss, schist, quartzite, marble, slate, argillite. Upper part includes Tshinakin Limestone.

GEOLOGICAL BOUNDARY . . . .

FAULT . . . .

Sample locality

Anomalous sample, upstream indicated, anomalous values W, Sn,(ppm) Au,(ppb) N=not detected

Anomaly priority designation: A

B

C

Kidd Creek Mines Ltd.

ANOMALY LOCATION MAP
ADAMS PLATEAU SHEET

WORK BY	DRAWN BY	DATE: FEBRUARY 20/1984

0 5 10 20 KM
SCALE 1:250,000

Figure: 19