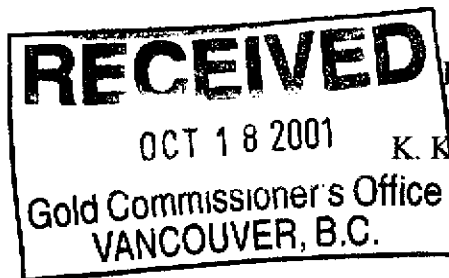


**GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT ON THE K.
KING CLAIMS**



K. KING PROPERTY

K. KING 1 through 10, 17 to 22

NTS 82G/12

Latitude 49° 44'N Longitude 115° 35' 30"

Owner – Klondike Gold Corp.

675 W.Hastings St.

Ste 1000

Vancouver, B.C. V6B 1N2

Operator – same as above

Consultant - Anderson Minsearch Consultants Ltd.

3205 6th. St. South

Cranbrook, B.C.

V1C 6K1

Authors – Douglas Anderson, P.Eng.

Craig Kennedy, Prospector

Submitted – October 15, 2001

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

26,682

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Rock Sample Descriptions

GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT ON THE K KING CLAIMS

1.0 Introduction

The K.King claims cover an area peripheral to and south of the old Kootenay King mine, on the east flank of the front range of the Rocky Mountains. The portion of the property of interest to this report is centered about 28 kilometres northeast of Cranbrook, B.C.(see Figure 1). The claims are of moderate to extreme relief between elevations of 1400 and 2500 metres. High elevation evergreen forest and azalea bush cover and barren above-treeline conditions apply. Access is via the main Wild Horse Creek logging road, then branching off on the Lakit Mountain road.

2.0 Property Definition, History, and Background Information

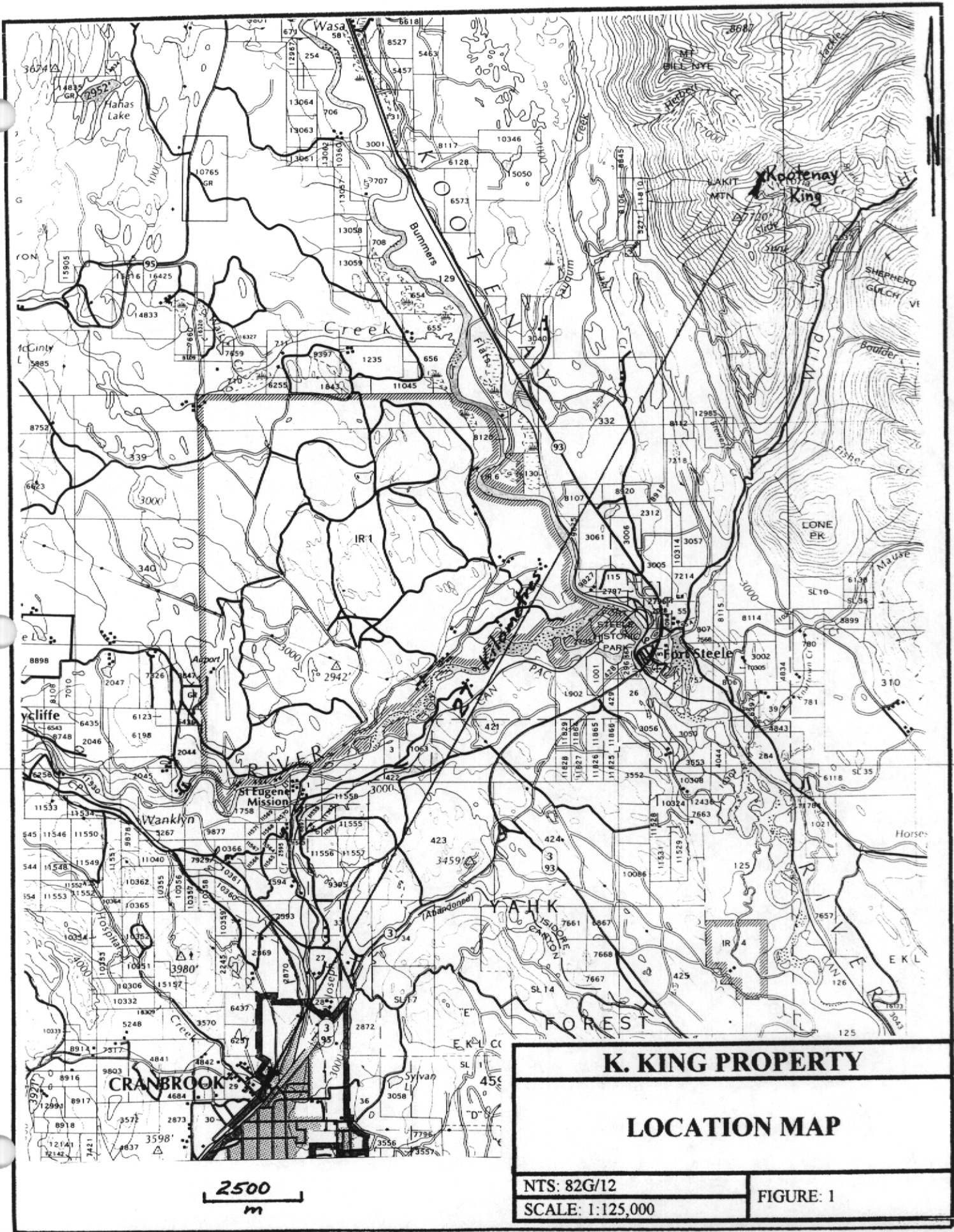
The K King property of concern to this report includes the following claims:

<u>K King Claim</u>	<u>Units</u>	<u>Record#</u>	<u>Anniv. Date</u>
K King 1	4	353886	2002/07/15
K King 2	20	353887	2002/07/15
K King 18	1	363183	2002/07/15
K King 19	1	363184	2002/07/15
K King 20	1	363185	2002/07/15
K King 21	1	363186	2002/07/15
K King 22	1	363187	2002/07/15
K King 3	18	354753	2002/07/15
K King 4	6	354754	2002/07/15
K King 5	1	363170	"
K King 6	1	363171	"
K King 7	1	363172	"
K King 8	1	363173	"
K King 9	1	363174	"
K King 10	1	363175	"
K King 17	1	363182	2002/07/15

The current owner is Klondike Gold Corp of Vancouver, B.C. (See Figure 2)

2.10 History

The exploration history of the Kootenay King/Victoria creek area dates from the turn of the century but is not well known. In the early 1950's Kootenay Base Metals developed the Kootenay King Mine and mill, mining and processing 14,613 tons at 5.3%Pb, 6.6%Zn, 1.9oz/t Ag, and minor gold. This was about one-half the known reserve so the deposit is small. In 1969, the mining lease lapsed and Cominco took over the ground. Over the following decade, underground and surface mapping, rock and soil geochem, and geophysics were completed. The two mining leases remain under Cominco control. In the 1990's several juniors have done some exploration work in the area, principally along strike to the south.



2.20 Summary of Work Done

The 2001 work program included prospecting and geological mapping at and around the Kootenay King mine and to the south, attempting to gain more insight into the setting for the orebody and define exploration potential. For further definition of the development of mineralization, prospecting and a rock sampling/description program was also undertaken.

3.00 Rock Geochemistry-Prospecting Report for the Kootenay King Property

A combination rock geochemistry-prospecting program was conducted on the Kootenay King property during the early summer of 2001. The objective of the program was to provide information which could indicate potential exploration targets within the immediate area of the Kootenay King mineral deposit. The Kootenay King is acknowledged to be a *sedex deposit of similar size and grade to that of the world class mine at Kimberly, B.C.* The small (23,000 tons) Kootenay King is interpreted to occur in rocks which correspond with those existing 1300 metres above the Sullivan deposit at Kimberley.

Exploration priority was given to the following three features:

1. Kootenay King deposit horizon.
2. Kootenay King footwall stratigraphy.
3. Possible footwall feeder structure.

1. Kootenay King deposit horizon

The Kootenay King mineralization occupies a zone within the hanging wall of the upper band of coarse white quartzite known as the Kootenay King quartzites. Banded mineralization is found in both the quartzite and a conspicuous thin bedded, green dolomitic siltstone. It is also noted that alteration adjoining and in the area of the existing Kootenay King deposit is very subtle and short-lived. The obvious alteration is quartz veining, brecciation, and patchy pyrite flooding. Vein alteration is accompanied by carbonate, pyrite and limonite, and is most prominent in the Kootenay King quartzite. Veins close to the deposit host blebs and disseminations of galena and sphalerite. A narrow breccia fragmental zone on the hanging wall of the deposit is also very iron rich and contains narrow veins which host carbonate, along with grains and disseminations of galena and sphalerite.

The 2001 exploration program located two areas within the Kootenay King quartzite which require more follow-up work. Both areas have abundant iron and quartz veining alteration. The area on traverse #3 has a caved old working, quartz float around this working contains patches of coarse galena. Another feature of interest in this area is wide-spaced sericite alteration in adjoining hangingwall argillites and siltstones, this alteration could be related to hydrothermal activity. The other area of potential importance was encountered on traverse #4. Although no base metals were noted in this zone it still rates high for follow-up work. The formation of interest is a mixed fragmental-quartzite which is iron-rich and punky. This formation is in excess of 3 metres wide and can be traced for 30 metres before being lost in overburden. Due to patch

exposure in both traverse area #3 and #4, soil sampling could greatly enhance exploration opportunities.

2. Kootenay King Footwall Stratigraphy

With the same model in mind a logical place to be looking for *sedex mineral opportunities is in the footwall of known occurrences*. Two good indicators of major disruption during the time of sedimentation can be seen in the footwall of traverse #1 and #2. The above situation is important because it provides the opportunity to focus hydrothermal activity along with helping develop a potentially protective environment for orebody development. Traverse #1 was conducted along the hanging wall contact of a fairly wide gabbro-diorite sill (100+ metres wide). The sill is fairly consistent in nature until you are west of the upper switchback on the Kootenay King road. At this point, the sill seems to widen, it begins to dyke and sill out in a number of areas. Epidote, chlorite and quartz veining become a common alteration within the wider sill portion. The veins reach a metre in width, are vuggy and contain blebs of limonite, chalcopyrite and coarse chlorite. Ramping-up or arching of the gabbro-diorite sill complex in this area would indicate active sub-basin building prior to creation of the Kootenay King deposit. The sediments on the hanging wall and east of the sill complex in this area are iron-rich, thinner bedded and more argillaceous in composition than in other areas. Another important feature is the existence of tourmaline alteration in a number of locations at and adjacent to the sill contact. On traverse #2 a zone of disrupted sediments can be found at the contact of iron-rich, thin-bedded rocks and dolomitic siltstones. No base metals were noted in this area but further north on traverse #2 disseminated sphalerite and galena was seen in altered dolomitic siltstone within this horizon. The mineralization is in a 0.5 metre wide bed surrounded by slope talus. This package of rocks is a good target horizon for future, more detailed work.

3. Possible Footwall Feeder Structure

On traverse #2 a strong system of northwest structures occurs east and along the contact of the ramping sill complex. Tourmalinized sediments within this structural zone are brecciated having narrow quartz-carbonate veins, these veins commonly have blebs of galena, chalcopyrite, and sphalerite. In one area, a narrow highly sheared carbonate-rich mafic dyke occupies part of the structure. This dyke hosts pyrite, limonite, and rare amounts of galena, sphalerite and chalcopyrite. Narrow quartz veins within the northwest structural zones often contain grains or blebs of galena and limonite. This structural zone could be part of a complex feeder system within the footwall stratigraphy of the Kootenay King deposit.

4.00 Geological Mapping

Part A – Kootenay King Area

The Hughes Range which includes the Kootenay King mine area has been mapped by T.Hoy of the Geological Survey of B.C. In a generalized, regional context he describes a change in the sediments occurring near the stratigraphic level of the Kootenay King quartzites from brown siltstones below to grey argillites above. The sediments at this stratigraphic level represent a shelf type of depositional environment of fairly shallow

water, with very quiet to periodically active sections. The coarse quartzites represent coarse sand foreign to the depositional environment, probably localized channel facies. The package is overlain on the east by an interval of Purcell-style turbidites, typically more quartzitic and medium bedded.

A preliminary attempt was made to sub-divide the stratigraphy which is possible but a lot more detail would need to be acquired before reliably doing so. The sequence is divided as shown on the geology map and legend (Figure 3). Thin-bedded and irregularly laminated silty argillites and argillites seem to change to more medium-bedded silty argillites with erratic quartzite presence beneath the Kootenay King quartzite. The KKQ is a very coarse-grained, rounded grain quartzite with some included argillite intervals or lenses. Above it is a dark grey to black argillite which is rusty weathering due to the presence of pyrite. Above are cycles of grey and orangey weathering argillite/silty argillites which are thin-bedded to planar laminated. Capping this succession of dominantly fine-grained argillaceous rocks are more quartzitic turbidites of the Purcell style.

Intrusions are of varied ages and compositions. Noted in the Kootenay King area are the Proterozoic Moyie intrusions of gabbroic sills and dykes. The principal body is a sill footwall to Kootenay King stratigraphy. Its contacts are erratic, particularly so in the structural block containing the mine. There are numerous occurrences of albite/chlorite alteration along its hangingwall contact and abundant quartz veins within. Contrasting are the light-colored, much younger (Cretaceous?) syenites (feldspar porphyritic) and fine-grained felsites which form irregular cross-cutting bodies within the sediments. The structure of the area is complex. T.Hoy (GSB, Prel. Map 54) identifies a regional scale recumbent, anticlinal fold dominating the area. The Kootenay King area to several kilometres south is apparently on the upright limb of this major structure. However, there are numerous small scale folds within the area with overturned limbs reflecting the larger regional fold as dragfolds. The Kootenay King fold is such a structure. They can be difficult to recognize if contained solely within the thin-bedded and laminated sediments. There are cross-faults both east-west and northwest trending. There are likely more than those shown on Figure 3 because they are subtle and detailed mapping would be necessary.

Mineralization noted to date is restricted to the Kootenay King mine and minor lead-zinc occurrences in quartz veins. The laminated nature of the Kootenay King galena-sphalerite-pyrite mineralization is intriguing. It is localized within a carbonate-hosting green argillite which itself is contained within coarse grained, white quartzites. The sulfides are concentrated within a tight anticlinal fold axis which plunges shallowly to the north. Several local and minor occurrences of galena (lesser sphalerite/pyrite) occur in cross-cutting and crudely bedding parallel quartz veins.

Other geological features of note include the following. An east-west fault in Victoria creek is interpreted as an early (syn-Aldridge) structure because it has influenced the intrusion of the Moyie "sill" which has very irregular contacts. Albite/chlorite alteration is quite common along the hangingwall of the intrusion. The fault also offsets the

intrusion indicating a later component of movement. In the north basin to Victoria creek, a northwest-trending fault represented by shearing, quartz veining with siderite and calcite appears to control Moyie gabbro dyking. It is proximal to this fault that a thin, brown tourmalinite horizon was located in outcrop and as a float train in the upper portion of the basin.

Part B – Area South of the Kootenay King Mine

Mapping is incomplete for this 12 square kilometre area. The stratigraphy is similar to that at the Kootenay King mine with some lower stratigraphy exposed to the northwest. The Kootenay King quartzite dominates the section and is the chief focus for several reasons including: it preferentially outcrops due to its massive nature; it is uncharacteristic of the sedimentary section encompassing it; and it hosts significant lead-zinc mineralization at the mine. Dark grey to black to lighter grey argillites and silty argillites with minor quartzite are present well below the Kootenay King quartzite (KKQ). Included with the KKQ locally are green argillites to silty argillites which can be dolomitic. Immediately beneath and above the KKQ are distinct rusty weathering, grey to dark grey argillites interbedded with orange weathering silty argillites (iron carbonate-rich). These packages are overlain by paler grey, shaley beds with some included coarse grained quartzite units much thinner than the KKQ.

Moyie intrusions were not mapped but reportedly occur to the north (T.Hoy) and to the south (viewed but not mapped). On the southwest, some highly altered greenstones were noted but cannot be correlated with the Moyie event necessarily.

The most significant new data indicates northwest-oriented faults offset the stratigraphy to the northwest up to 750 metres horizontally. This block may represent a synsedimentary graben structure as some subtle changes in stratigraphy occur across it with footwall stratigraphy not directly comparable. Further evidence of the nature of this structural block is the apparent absence of the footwall Moyie sill within it. At the very least it seems the sill occupies a different stratigraphic level. There appears to be a local abundance of the green argillite with pyrite which has heretofore only been noted in abundance at the Kootenay King mine, as the primary host for the sulfides.

5.00 Geology - Summary and Conclusions

The Kootenay King area mapping has identified some stratigraphic details, to varying degrees established by others. The mineralization at the mine is unique in form and its hosting situation. Whether the sulfides represent replacement in the nose of a fold or a folded sedex-type body is open to question. This interpretation directly affects where and how an exploration program should proceed. The presence in the footwall sequences of early (syn-Aldridge) faulting and alteration of a type footwall to the Sullivan orebody lends some credence to the exploration potential of the area. The area northwest of the mine in footwall stratigraphy should be looked at more thoroughly.

The area south of the mine requires more detailed mapping and mapping over a larger area to establish the overall setting. The exploration focus should be the area within and

bounding the northwest-trending structural block. Soil geochem could be used effectively and ground EM geophysics surveys employed to test for conductors.

5.00 Itemized Cost Statement

Rock Geochemistry-Prospecting Report

Prospecting and rock collection activities by the Kennedy prospecting team plus transportation costs (4x4 truck) and support:

Field time in 2001- 7 days	=	\$2800.00
Report writing time/map work- 1 day	=	<u>\$ 400.00</u>
Total costs	=	\$3200.00

Geology – geological mapping costs include daily rates of \$330 per day plus truck transportation costs set at \$45/d and \$0.45 per kilometre.

Mapping – 9 field days+ plus truck costs		\$3791.20
Office work – research and report writing - 3 days		<u>\$1263.74</u>
Total costs	=	\$5054.94

Total costs for 2001 work = **\$8254.94**

6.00 Author's Qualifications

I, Douglas Anderson, Consulting Geological Engineer, have my office at 3205 6th St. South in Cranbrook, B.C., V1C 6K1.

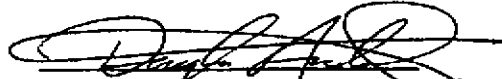
I graduated from the University of British Columbia in 1969 with a Bachelor of Applied Science in Geological Engineering.

I have practiced my profession since 1969, predominantly with one large mining company, in a number of capacities all over Western Canada.

I am a Registered Professional Engineer and member of the Association of Professional Engineers and Geoscientists of B.C., and I am authorized to use their seal which has been affixed to this report.

I am also a Fellow of the Geological Association of Canada.

Dated this 10th day April, 2001



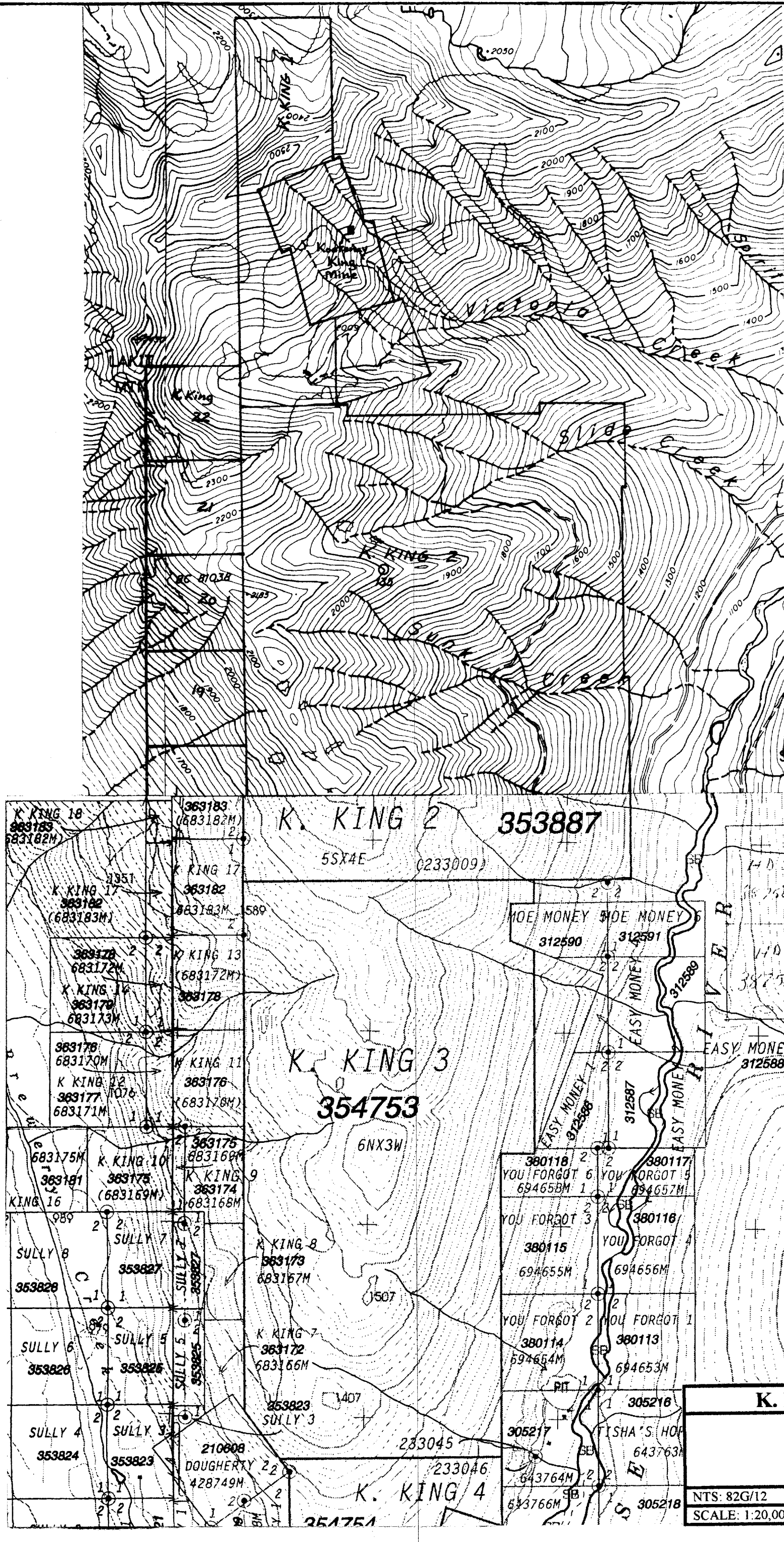
Douglas Anderson, P.Eng., B.A.Sc., FGAC
Consulting Geological Engineer

Appendix

Rock Sample Description

- KG-01 - Brown grey rock part sericite, some very hard zones rare-pbs, carbonate
- KG-02 Brown grey rock very hard weak Fe stain
- KG-03 Carbonate quartz breccia - hard angular fragments, some limonite
- KG-04 Dolomitic siltstone fractures hosting Pbs, Zns, Cupy - cream green color
- KG-05 Black thin bedded rock - micaceous, graphitic in part
- KG-06 Fragmental iron stained sericite rich matrix - grey fragments
- KG-07 Fragmental grey sericite rich matrix, black fragments
- KG-08 Black grey siltstone heavy disseminated pyrite, sericite rich
- KG-09 Coarse aplite? some chlorite, white cream rock black mineral?
- KG-10 fine aplite? chlorite, black mineral? cream white-yellow
- KG-11 Fragmental brown grey sericite matrix, black argillite fragments
- KG-12 Carbonate rich quartzite?, sericite some limonite (could be intrusive)
- KG-13 Green dike material sericite - quartz carbonate some limonite
- KG-14 Brecciated siltstone iron rich - sericite and carbonate
- KG-15 Iron rich breccia blebs of limonite - some quartz carbonate
- KG-16 Grey green sericite rich siltstone
- KG-17 Sericite rich pink grey dolomitic siltstone narrow quartz veins
- KG-18 Disrupted bed material, argillite fragments - sericite - some pyrite
- KG-19 Thin bedded grey dolomitic siltstone some pyrite
- KG-20 Fragmental - iron rich, grey fragments lots of sericite
- KG-21 Limonite rich breccia fragmental cream orange fragments
- KG-22 Grey dolomitic siltstone blebs of limonite - sericite rich - Pb, Zns

Note: All samples have been sent to Vancouver for analysis



GEOLOGICAL SURVEY BRANCH

26,682

K. KING PROPERTY	
CLAIM MAP	
NTS: 82G/12	FIGURE: 2
SCALE: 1:20,000	

Prospecting and Rock Sample location
MAP Kootenay King Property

LEGEND

- Rock Sample location
- ▬ LAVA Gabbro - diorite sill
- ▬ Mafic dike
- ⊙ Tourmaline Occurrence
- × PbS-Zns Occurrence
- ① Traverse Routes
- ⊞ Breccia or Fragmental
- ⋈ Disrupted Zone
- ▬▬ Feeder System

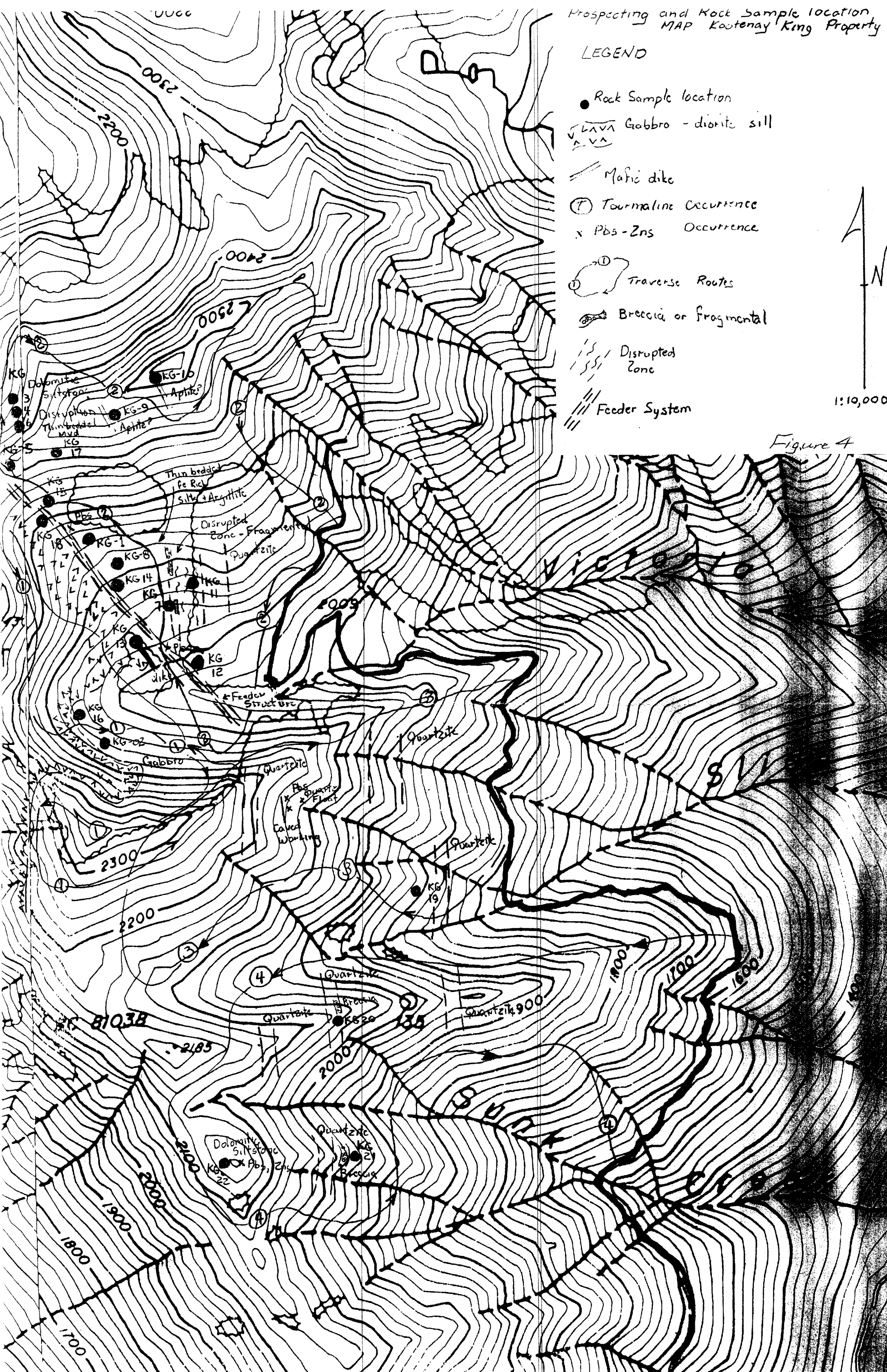
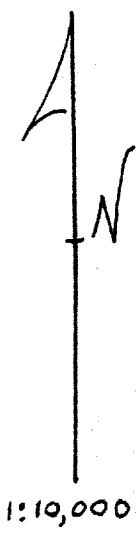
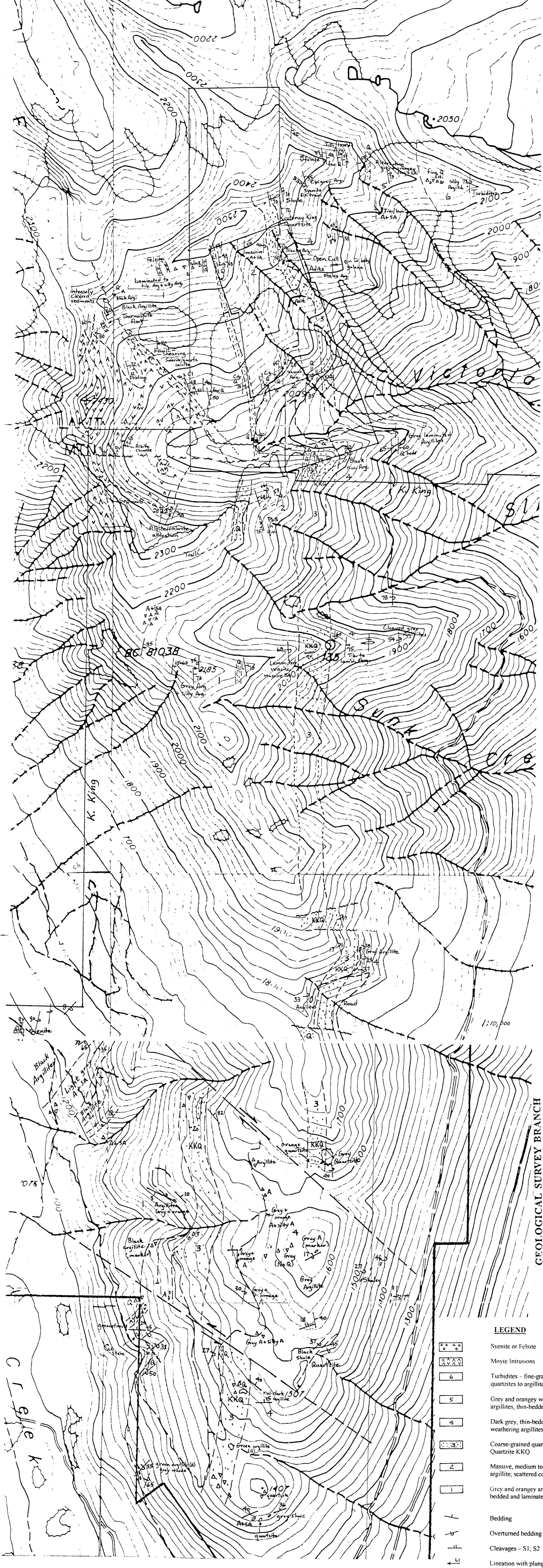


Figure 4



GEOLOGICAL SURVEY BRANCH
MINISTRY OF ENERGY

26,682

LEGEND

- Syenite or Felsite
- Mafic Intrusions
- Turbidites - fine-grained, medium-bedded quartzites to argillites
- Grey and orangey weathering argillite/silty argillites, thin-bedded and laminated
- Dark grey, thin-bedded to laminated rusty weathering argillites with pyrite clots
- Coarse-grained quartzites - Kootenay King Quartzite KKQ
- Massive, medium to thin bedded silty argillite and argillite, scattered coarse-grained quartzites
- Grey and orangey argillites and silty argillites, thin-bedded and laminated
- Bedding
- Overturned bedding
- Cleavages - S1, S2
- Lamination with plunge
- Faults

KLONDIKE GOLD CORP.

K. KING CLAIMS - GEOLOGY

Scale: 1:10,000
By: DA

Date: July, 2001
Figure: 3

500m

1