Geology and rock geochemistry, Chenier property, Kelly Creek area, southern British Columbia

(tenure nos. 518428, 518429, 518430, 518431, 518432, 518434, 518435, 526693, 526697)

NTS map sheet 082E
1:20,000 trim map sheets 082E025, 035
centered at 119º07'15"N, 49º18'55"E

Greenwood and Osoyoos Mining Divisions

by
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February 2, 2007

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Kelly Creek area, southern British Columbia

Kootenay Gold Inc.

Logging on the western claims
Chenier Property.

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NTS map sheet 082E
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Introduction

The Chenier property comprises 9 claim blocks that cover an area of approximately 4591.7 hectares (45.9 square kilometers) in the Kelly Creek area north of Rock Creek in southern British Columbia (Table 1; Figure 1). Most claims are within the Greenwood Mining Division with a smaller western portion in the Osoyoos Mining Division. As shown in Table 1, two of the claim blocks are 100% owned by Kootenay Gold Inc., a mining exploration company listed on the TSX Venture Exchange, and the remaining eight are 100% owned by Tom Kennedy of Cranbrook, British Columbia.

The Chenier property is located 30 km north of the town of Rock Creek. Access to the eastern and central part of the property is 29.4 km north along Highway 39 from Rock Creek to the Chenier Main logging road, then west approximately 5 km to the central part of the property, climbing to the high land between Little Goat River in the north and Kelly River in the south. Numerous subsidiary gravel roads and logging spurs provide access to most of the claim area. The western part of the area is accessible by a long circuitous logging road that leaves Highway 3 just west of the Johnstone Creek Provincial Park, continues north and west skirting the Mount Baldy area, then east into the headwaters of the Kelly River and onto the western claims. The two access roads converge to within approximately 2 km of each other on the property, separated by a recently logged area. A large part of the area is logged and as noted above, numerous logging spurs provide access to much of the central part of the property (see Frontispiece, page 2).

The area is part of the Okanagan Highlands, located between the Thompson Plateau on the west and the Monashee Mountains in the east. Several deeply incised east-flowing rivers dissect the area, resulting in locally steep relief and elevations ranging from approximately 1000 meters in the Kelly Creek and Little Goat Rivers to approximately 1700 meters in the more mountainous central part of the property. Much of the area is covered by glacial overburden and vegetation is heavy with a diverse mixture of hemlock, spruce, fir, cedar and pine. Natural rock exposures at higher elevations are generally good, but at lower levels exposures are largely restricted to road banks or creeks or rivers.

Five days were spent mapping the central part of the claim area in July and August of 2006. This report describes the geology of the Chenier claims and the results of prospecting and sampling by Tom and Craig Kennedy. There are no recorded BC Minfile occurrences on the property, but prospecting has discovered several new occurrences. The most important zones of mineralization are areas of vein and fracture controlled copper mineralization that are related to hematite and locally intense K-spar alteration in the northern part of the area. More widespread mineralization includes numerous quartz veins containing chalcopyrite, molybdenite, sphalerite or galena. Gold occurs in quartz veins and shears in the southwest part of the claim group and is anomalous in other base metal veins. Mineralization at Chenier has many similarities to the higher levels of an alkalic porphyry copper-gold system.

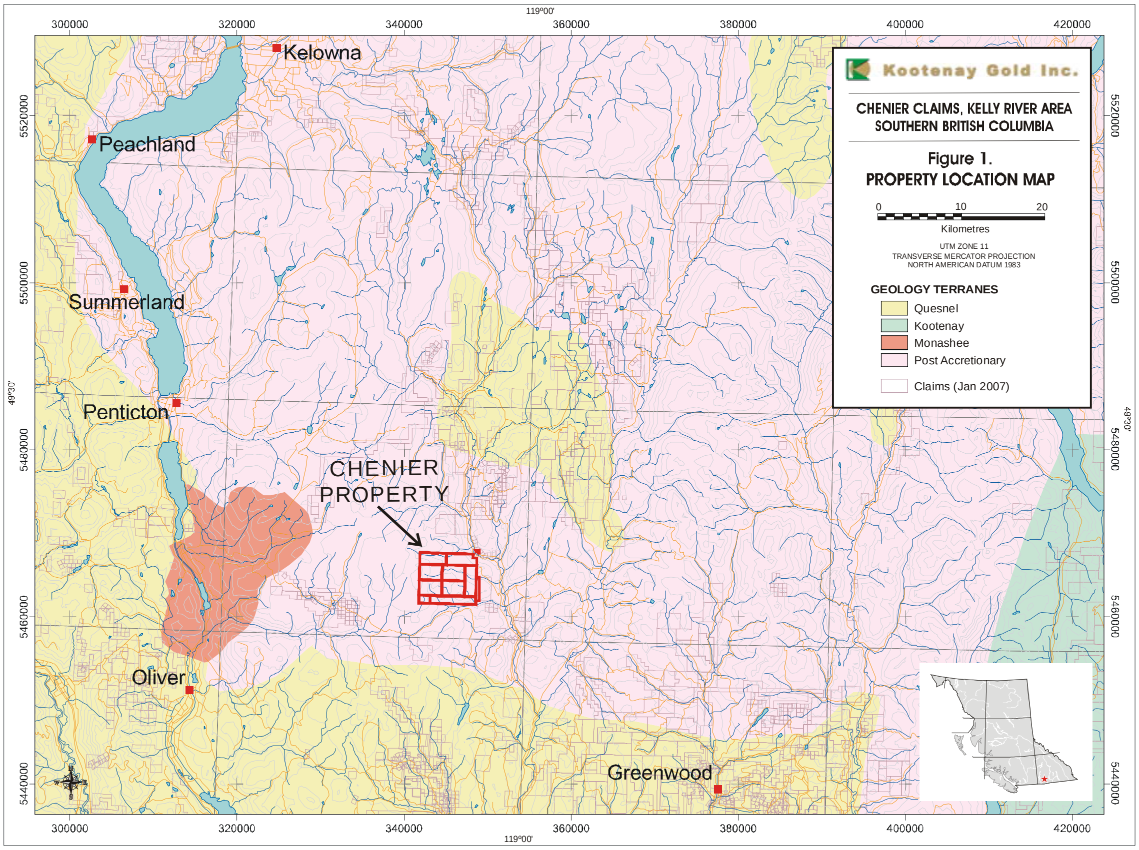

Figure 1: Regional geological map showing location of Chenier claims, Kelly River area, southern British Columbia

Tenure No.	Name	Owner	NTS	Date	Area (ha)
518428	CHENIER 1	134308 (100%)	082E	2007/June/06	505.43
518429	CHENIER 2	134308 (100%)	082E	2007/ June/06	505.44
518430	CHENIER 3	134308 (100%)	082E	2007/ June/06	505.60
518431	CHENIER 4	134308 (100%)	082E	2007/ June/06	505.60
518432	CHENIER 5	134308 (100%)	082E	2007/ June/06	505.52
518434	CHENIER 6	134308 (100%)	082E	2007/ June/06	505.72
518435	CHENIER 7	134308 (100%)	082E	2007/ June/06	126.43
526693	CHEN 106	146006 (100%)	082E	2008/jan/30	484.24
526697	CHEN 206	146006 (100%)	082E	2008/jan/30	442.13
534607	CHEN	134308 (!00%)	082E	2007/June06	505.59

Owners: 134308 - T. Kennedy; 146006: Kootenay Gold Inc.

Table 1: List of claims, Chenier property

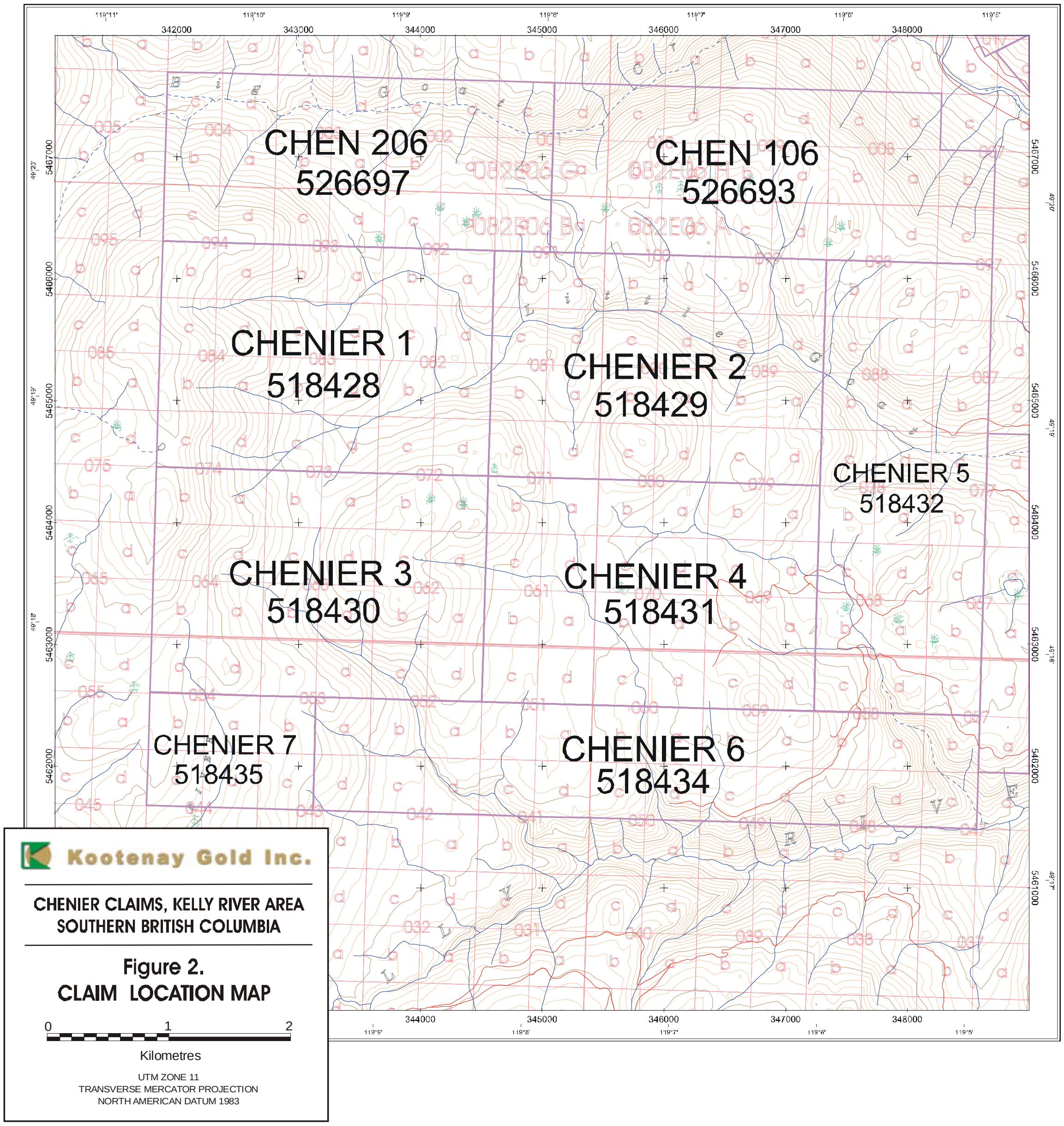

Figure 2: Map showing Chenier and Chen claims, Chenier property

Regional Geology

The Chenier property is within the 1:250,000-scale geological compilation by Tempelman-Kluit (1989) and more recently, Thompson (2006). Tempelman-Kluit (*op. cit.*) stressed the importance of extensional tectonics throughout southern British Columbia. More recently, Massey (2006) has begun examining and mapping Paleozoic rocks that extend from Greenwood west to Rock Creek. This work will provide a new compilation map of the Greenwood area, building on the mapping of Fyles (1990) and Church (1986).

The Chenier area is within the structural footwall of the Okanagan fault, interpreted by Tempelman-Kluit and Parkinson (1986) to be a large, west-dipping extensional shear. The shear is marked by a wide, diverse zone of gneissic rocks, referred to as the "Okanagan gneiss" which includes sheared equivalents of mainly Cretaceous and Jurassic granitic rocks as well as some Paleozoic metasedimentary and metavolcanic units. Lower plate rocks, including those that underlie the Chenier area, include Jurassic to Cretaceous granodiorite and granites, and Paleozoic sequences of the Anarchist Group and Knob Hill Complex. These are intruded by Eocene-age Coryell intrusive rocks, which range in composition from syenite to monzonite. Hangingwall rocks, west of the Okanagan shear are similar but also include Eocene volcanics and sediments of the Marron Group and some Late Triassic volcanics of the Nicola Group.

The Chenier area is underlain mainly by the Cretaceous-(Jurassic) Okanagan batholith, comprising medium to coarse-grained granite and granodiorite. It forms a large part of the Lower Plate of the Okanagan fault, extending eastward to the Grandby extensional fault at Grand Forks. The batholith cuts Middle Jurassic Nelson plutonic rocks and the Late Paleozoic Anarchist and Knob Hill Groups. These comprise basalt, argillite, chert and serpentinites and are interpreted to be remnants of an imbricated Devonian?-Carboniferous to Permian ophiolite complex (Höy and Dunne, 1997; Dostal *et a*l., 2001; Massey, 2006)

Regional structures include thrust faulting, well exposed in the Greenwood area as a series of stacked southwest verging thrust plates (Fyles, 1990). The plates carry Middle Triassic Brooklyn Formation and are cut by Middle Jurassic intrusive rocks (Lambert, 1989) restricting the age of thrust movement. Similar thrust faulting has been documented immediately east of Christina Lake (Höy and Jackaman, 2005a, 2005b) and in the Rossland area further east (Höy and Dunne, 2001). An earlier structural event, noted in the Late Paleozoic rocks but absent in unconformably overlying Early Triassic Nicola Group rocks may record the imbricated remnants of an accretionary complex related to Slide Mountain subduction (Höy and Dunne, 1997).

East of Chenier, a prominent narrow north-trending graben is bounded by high angle normal faults. It averages 5 km in width and extends northward for approximately 70 km forming the Kettle River valley. Graben fill includes mainly andesitic to trachytic rocks of the Marron Formation.

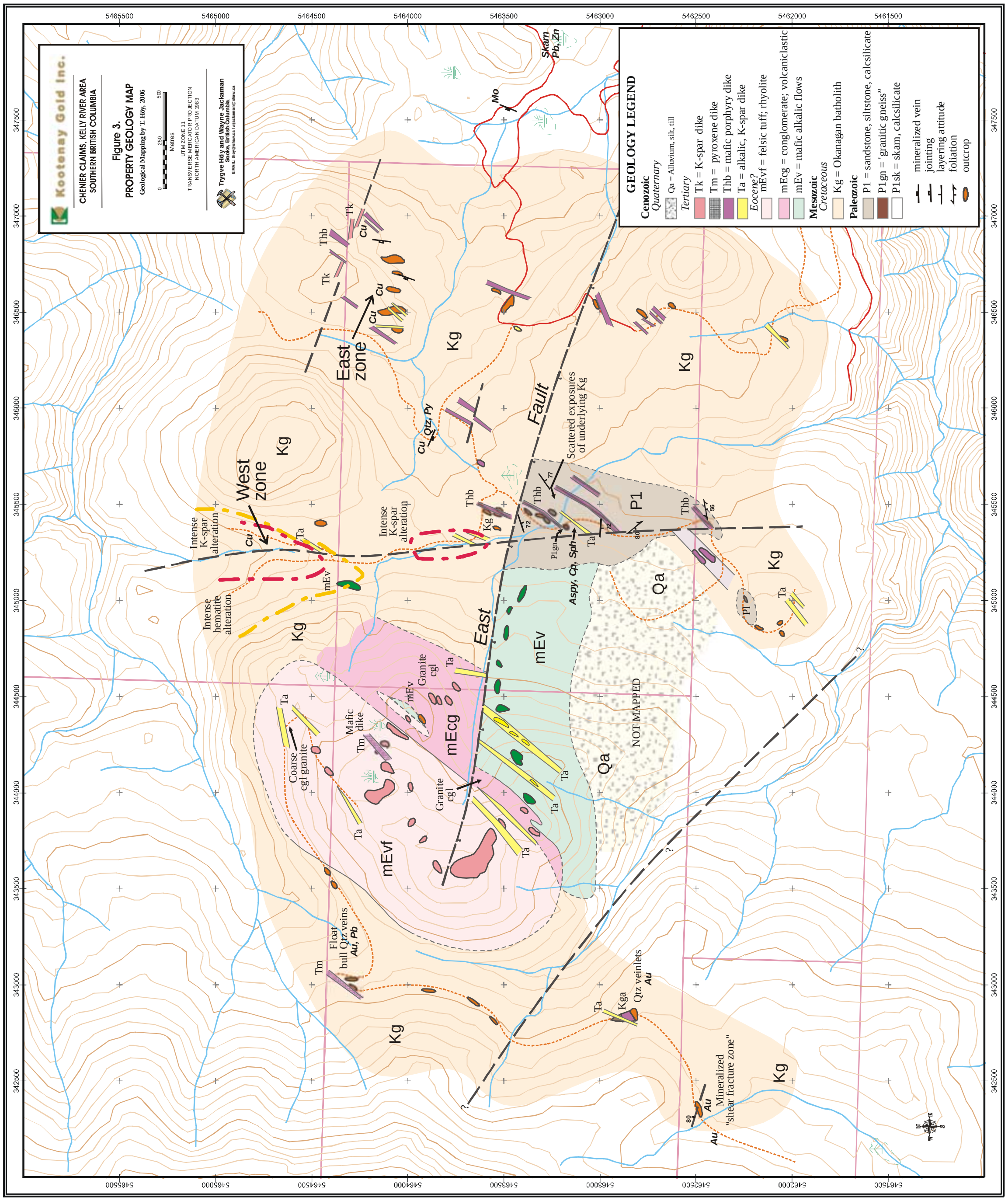

Figure 3: Geology of the Chenier property, Kelly River area; see Figure 1 for regional location map (1:10,000 map in pocket).

Local Geology

The geology of the central part of the Chenier area is shown in Figure 3. The area is underlain mainly by massive to locally porphyritic granite and granodiorite of the Okanagan batholith. These granitic rocks intrude metasedimentary rocks that are exposed in the southern part of the area. A sequence of mafic to felsic tuffaceous rocks of probable Eocene age unconformably overlie both granites and the metasedimentary succession. Northeast-trending dikes cut all units. Several late north and east trending faults offset all units, including the Eocene dike swarm.

Mineralization and alteration include several zones of vein and fracture controlled chalcopyrite in hematite and K-spar altered and brecciated Okanagan batholithic rocks in the northern part of the area. Chalcopyrite, sphalerite, galena or molybdenite veins also occur farther south throughout the area, and gold occurs as high grade veins in the southwestern part of the claim group and in anomalous amounts associated with copper mineralization.

Unit 1: Paleozoic metasediments

Unit 1 includes a variety of metamorphosed and locally deformed metasedimentary rocks. They are locally altered and intensely skarned by the Okanagan (or younger) intrusive rocks, and hence are interpreted to be the oldest rocks within the map area. The largest continuous exposure occurs near the center of the area (Figure 3) but remnant pendants? and outcrops also occur on Chenier spur 12100 to the north and in the southeastern part of the area.

A relatively large exposure of Unit 1 is inferred to underlie road and logged exposures south of the East fault that cuts through the centre of the map area. Exposures are limited and farther south are restricted to high-standing ribs of late northeast trending dikes; therefore the contacts of Unit 1 are only inferred and the total extent of the unit may be larger than is shown.

Road and isolated natural exposures within this area include fine to medium grained quartz sandstone and siltstones, fine-grained feldspathic sandstone and minor well-banded calcsilicate gneiss. These trend east-west and generally dip steeply to the south. Isolated exposures of granitic gneiss, comprising intensely foliated or banded “orthogneiss” appear to locally parallel metasedimentary layering, and are therefore included in Unit 1 (Photo 1).

Some epidote-rich skarn occurs in road cuts 300 meters north of the East fault. It is rusty weathering (jarosite with hematite) with minor pyrite. As well, some isolated exposures of Unit 1 occur near the southeast corner of the map sheet (Figure 3). They comprise foliated granitic gneiss, interlayered with well-banded epidote-diopside calcsilicate gneiss (Photo 2). The exposures are non-rusted, but contain thin epidote veins.

Many exposures of Unit 1 contain disseminated or vein pyrite or pyrrhotite. Exposures are locally heavily rusted, particularly close to contacts with Okanagan granitic rocks or near the East fault. Skarn alteration, including garnet, diopside and epidote, is common in calcareous units.

Photo 1: Granitic gneiss; note abundant pink K-spar; Unit 1? (Stn TH-64)

Photo 2: Mixed Paleozoic calcsilicate and quartz-feldspar gneiss (Stn TH-70)

The age of this “basement” unit is not known. Most Paleozoic units in the immediate area (10 to 15 km to the northeast or to the south) are included in the Carboniferous Anarchist Group or Carboniferous-Permian Knob Hill Group (Tempelman-Kluit, 1989). These are dominated by mafic volcanics, serpentinites and associated deep-water oceanic sediments, not the siliceous and calcsilicate units that characterize Unit 1. The Attwood Formation, mainly exposed farther east near Greenwood, is lithologically more similar as it does contain some siliceous clastic and calcareous units (Massey, 2006). Many exposures of Unit 1 are similar to gneissic rocks exposed in core complexes, such as the Grand Forks Complex between Christina Lake and Grand Forks (Preto, 1970; Höy and Jackaman, 2005a). However, core complex rocks are not known to be exposed west of the Grandby Fault and therefore this correlation is improbable. Hence, Unit 1 is tentatively assigned to Late Paleozoic age, and may correlate with the Attwood Formation.

Okanagan batholith (Kg): (Cretaceous and/or Late Jurassic)

The Okanagan batholith underlies most of the map area (Figure 3). It is typically a massive to locally porphyritic, white to light grey weathering granite. It varies from medium to coarse grained (Photo 3).

It is variably altered and mineralized, particularly adjacent to dikes or the North fault. Alteration includes intense K-spar overprinting, producing a pink-tinged granular-textured granite. K-spar alteration is locally associated with hematite and propylitic alteration, typically in the form of veins and commonly associated with sulphide mineralization, including chalcopyrite. Alteration and mineralization are described in more detail below.

Photo 3: Medium grained, granular biotite-hornblende “granite”, Okanagan batholith (stn TH-112).

Mafic volcanics (mEv): Eocene

A sequence of mafic volcanic flows (mEv) unconformably? overlie Okanagan batholithic rocks and the late Paleozoic metasedimentary rocks on the southwestern slope of West Hill. North of the East fault, a prominent conglomerate (described below) contains numerous subrounded clasts of the immediately underlying lithology, most typically pink to white granite. These clasts range up to several centimeters in diameter and are commonly within an altered fine-grained chlorite-epidote matrix. South of the fault, flows vary from fine-grained or aphanitic “basalt” to feldspar porphyry flows. They are overlain by a granite conglomerate that is similar to the thick conglomerate exposed to the north.

Porphyritic feldspar flows contain white to pink-tinged euhedral feldspars in a fine-grained, granular matrix. The matrix comprises largely chlorite with locally green pyroxene crystals. No analyses have been done on these flow units; however, based on probable K-spar phenocrysts, they may be alkalic phonolites or trachybasalts.

The flows are cut by numerous northeast-trending porphyritic K-feldspar dikes, and are overlain by felsic tuff.

The age and correlation of these units are not known with certainty. They are probably part of the large and varied package of Eocene volcanic rocks that are known throughout the Greenwood-Rock Creek area. It is possible that they correlate with massive, thick-bedded mafic phonolite flows of the Yellow Lake Formation, exposed immediately to the east in the Kettle River valley. These, however, are typically light coloured in contrast to the darker, more chloritic altered flows within the map-area.

Felsic volcanics (mEvf): Eocene

A thick succession of felsic tuffs caps the West Hill in the western part of the map area (Figure 3). South of the East fault, the succession is separated from the mafic flows by the granite conglomerate (mEcg). The felsic volcanics are dominantly granular, white to tan coloured quartz-feldspar crystal tuffs with occasional isolated lithic clasts and locally up to 5 % biotite (Photo 4). Coarser grained phases include heterolithic to monolithic lapilli tuff with rhyolite, bleached metasediment, and intrusive clasts.

White, argillic alteration is pervasive throughout. Occasionally, chloritic and/or sericitic alteration produces a pale tan-green to green tinge. On the north side of the hill, the tuff is cut by jarosite-coated fractures and in a piece of float, hematite breccia (Photo 5). Both mafic and K-feldspar dikes cut the felsic tuff.

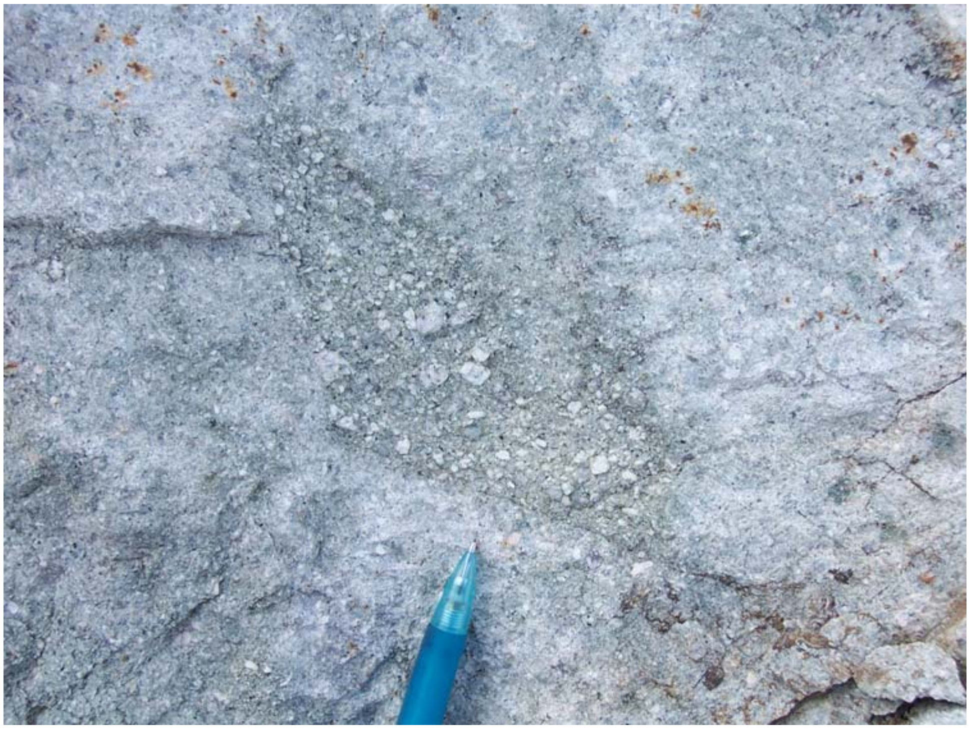

Photo 4: Quartz-feldspar crystal and lapilli tuff, felsic tuff unit (mEvf); note angular clast within a crystal tuff matrix; (stn. TH-06).

Photo 5: Highly altered felsic tuff unit; note composite clasts, intense argillic? alteration, disseminated hematite and limonitic fractures (stn. TH-08).

Granite conglomerate (mEcg)

A basal conglomerate underlies the felsic tuffs both north and south of the East fault (Photo 5). South of the fault, it separates underlying mafic volcanics from the felsic tuffs, whereas to the north, only a thick conglomerate is exposed; the underlying mafic volcanics are inferred to lie to the east or beneath the volcanics. However, it is possible that here these conglomerates rest unconformably on Okanagan batholith granite, implying that the intervening mafic package was not deposited on a tectonic high or has been eroded prior to deposition of the conglomerate.

The conglomerate is locally very coarse grained with rounded boulders of granitic rock up to several 10s of centimeters in diameter. Elsewhere it grades into granular sandstone that may be difficult to distinguish from the overlying felsic tuff. In several localities, particularly north of the East fault, it appears to be interlayered with the green volcanic flows that are similar to the “underlying” mafic volcanic unit. In several outcrops, mafic lava appears to form the matrix to large granitic clasts. As well, the top of the conglomerate appears to be locally interlayered with overlying felsic tuffs.

In summary, conglomerate clasts appear to record a regolith that developed between deposition of the mafic and felsic volcanic packages. North of the fault, it may lie directly on Okanagan batholith basement, with only minor intervening mafic volcanism or clast interstitial mafic lava. The conglomerate is locally intensely and variably altered. White argillic alteration is pervasive, and closer to its contact with the mafic flows, chloritic alteration is common.

Dikes

Numerous dikes occur throughout the map area. They are younger than all units, but are truncated by the late East and North faults. Three main types predominate: a variety of mafic hornblende-pyroxene dikes, alkalic massive to porphyritic K-spar dikes, and coarse-grained K-spar porphyry dikes.

K-spar dikes (Ta) are common in the western part of the area extending across West Hill and westward to exposures on logging access roads. They are characterized by a tan to pink tinged matrix and range from massive granular to porphyritic with abundant euhedral white feldspar phenocrysts (Photo 8). Several other dikes are similar, characterized by a granular, white feldspar-rich matrix, and these are included in the alkalic dikes of Figure 3 (Photo 9).

Northeast-trending mafic dikes (Tm) are common throughout the eastern part of the area. They are typically dark to medium green, fine grained, with abundant pyroxene or, less commonly, acicular to euhedral hornblende phenocrysts (Thb). The matrix of these dikes comprises mainly pyroxene and plagioclase.

A prominent K-spar megacrystic dike (Tk) was noted at several localities. In one exposure on a logging spur in the southeast part of the area it trended northeast, parallel to the other dikes. Several generally east trending megacrystic dikes were observed on the hill on the northeast side of the map area. The dikes are very distinctive, with large euhedral K-spar crystals in a granular feldspar-rich matrix (Photo 10). It is possible that they are younger than the mafic dikes as they locally parallel a post-mafic dike east-trending fault and possibly truncate a mafic dike in the northeast part.

Photo 6: Granite conglomerate (mEcg); variety of rounded to subrounded clasts of Okanagan batholith rocks; note alteration rims (lower left), chlorite alteration of matrix and limonitic fractures (stn. TH-40).

Photo 7: Coarse granite conglomerate (mEcg); note rare metavolcanic and porphyry clasts (stn. TH-53).

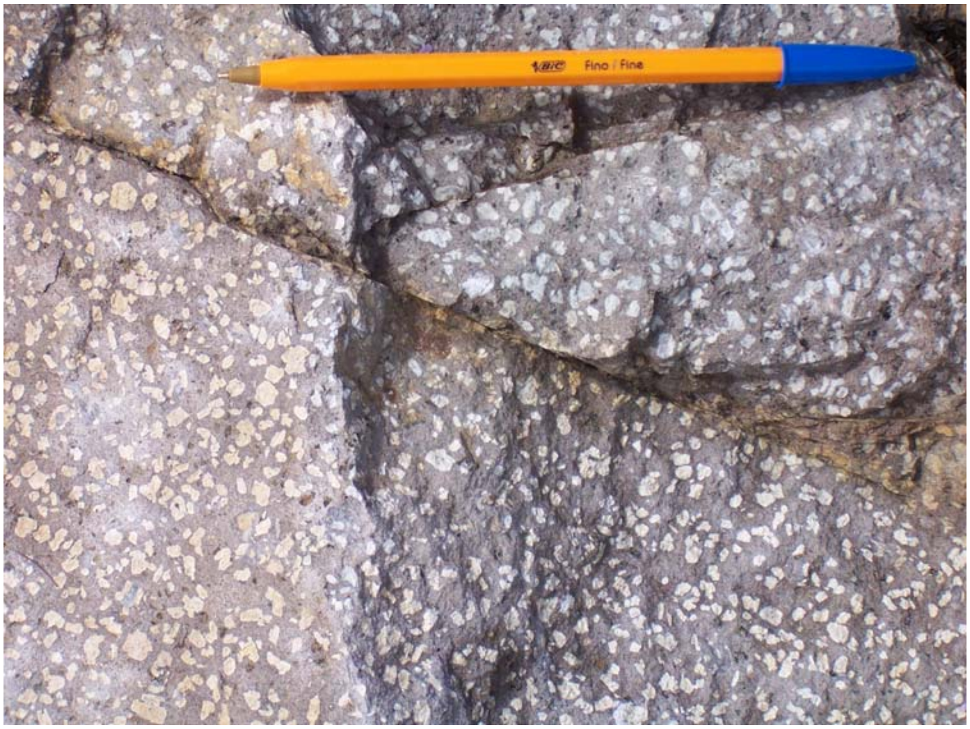

Photo 8: Tertiary feldspar porphyry dyke with fine-grained to aphanitic K-feldspar rich matrix in the western part of map area (stn. TH-25).

Photo 9: Tertiary pyroxene porphyry dike with fine grained feldspathic matrix; note also white feldspar phenocrysts (stn. TH-118).

Photo 10: K-spar megacrystic dike (Tk); note large euhedral orthoclase crystals and smaller plagioclase crystals in a granular matrix (stn. TH-110).

Lithologic summary

A schematic model for the evolution of lithologic units in the Chenier map area is shown in Figure 4. The Cretaceous Okanagan batholith intrudes clastic metasedimentary rocks of probable Late Paleozoic age that may correlate with the Attwood Formation. Skarn and disseminated pyrrhotite and minor pyrite occur within the metasediments immediately adjacent to the intrusion locally producing intensely rusted siliceous outcrops. Mafic volcanic flows appear to unconformably overlie Paleozoic metasediments in a possible structural basin south of the East fault. An Eocene hiatus with well-developed basal conglomerate underlies the felsic volcanic package. North of the East fault it separates basement granite (and possibly mafic volcanics) from the felsic tuffs whereas south of the fault, it separates the mafic flows from the overlying felsic tuff succession.

A swarm of late (Eocene) north-northeast-trending dikes cut all units. Those in the western part of the area, adjacent to or cutting the felsic tuffs, are alkalic K-spar? rich dikes whereas those further east are dominantly mafic pyroxene-hornblende dikes. Both dyke suites are cut by north and east trending, high angle normal? faults.

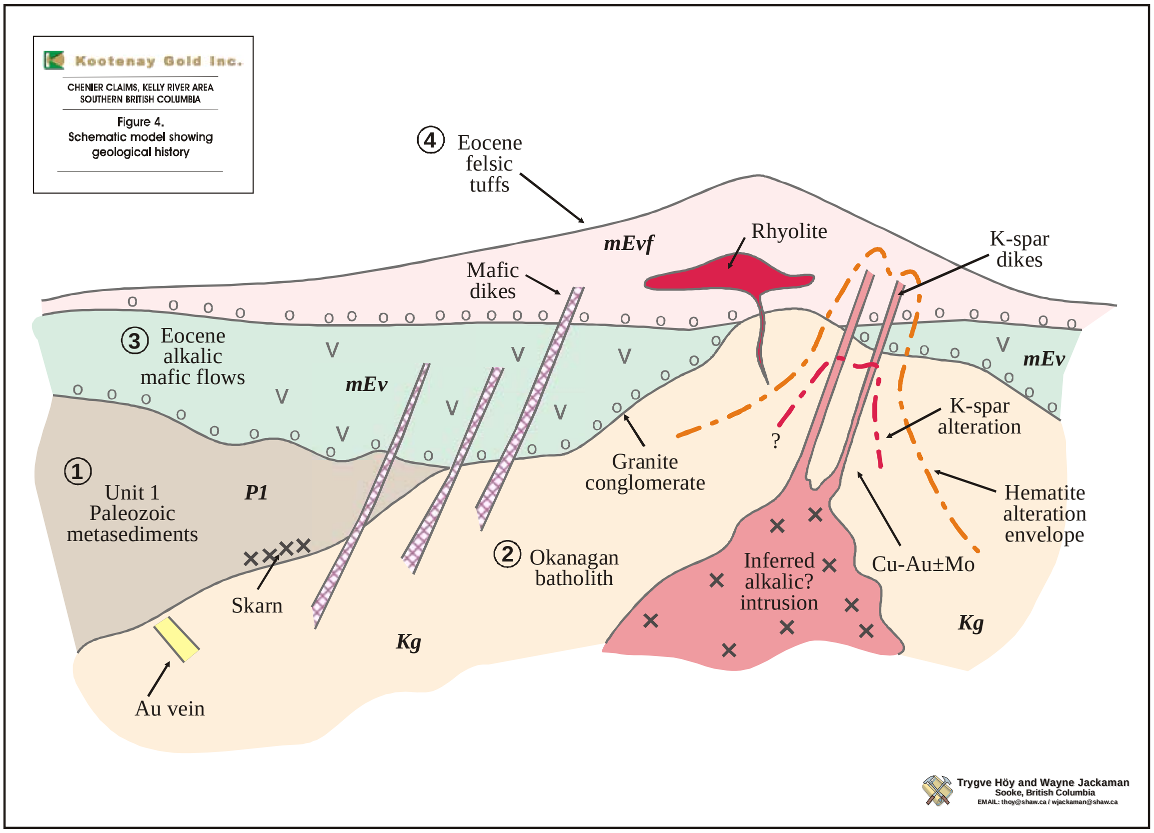

Figure 4: Schematic model showing geological history of lithologic units:

1. Host late Paleozoic metasediments
2. Intrusion of Late Cretaceous Okanagan batholith granite; minor skarn development and disseminated sulphides in Unit 1
3. Extrusion of alkalic mafic flows on granite regolith (Eocene)
4. Deposition of rhyolite tuffs |
5. Eocene dike emplacement, alteration and mineralization, probably related underlying alkalic intrusion

Structure

Exposures of basement metasediments are limited to a small area south of the East fault, and in isolated outcrops farther south and east. Locally, these have a well-developed foliation or, in some exposures, gneissic textures that are not seen in overlying mafic or felsic volcanics. They therefore record deformation in late Paleozoic to Mesozoic time.

The most obvious structures are a series of late rectilinear, high angle faults. The East fault has been traced or extrapolated through a strike length of approximately 3 km. Its south side is down dropped, preserving in the south block Paleozoic metasediments and Eocene mafic volcanics that form the roof for the underlying Okanagan batholith granite. Mafic volcanics are broken and brecciated along it, associated with some quartz and/or hematite veining, and minor chlorite. Its surface trace to the east is inferred from several aligned small creeks. To the west it is marked by a change from a thick conglomerate unit in the north block to a thin unit underlain by mafic volcanics in the south block. The fault was not observed in the felsic tuff unit, but is inferred to cut this unit as it commonly truncates dikes that intrude the tuffs.

The North fault is inferred to trace northward through the central part of the property. It is not known if it is offset by or offsets the East fault. It truncates several mafic dikes in the south and central part of the area. Intense K-spar-hematite alteration occurs as a north trending zone along the north part of the fault.

Alteration and Mineralization

There are no known BC Minfile occurrences on the property. Prospecting by Craig and Tom Kennedy discovered several new mineral showings in 2004. Continued work in 2005 and 2006 discovered several other occurrences and extensive alteration zones. Sample descriptions from these occurrences are given in Appendix 1 and analyses in Appendix 2. A prospecting report by C. Kennedy (2006) describes mineralization discovered on the property.

Several styles and possible ages of mineralization are noted in the central part of the Chenier property. As well, high-grade gold mineralization has been discovered in veins in the southwest corner. Skarn mineralization occurs in several localities within calcareous Paleozoic metasediments, mainly south of the East fault but also in scattered localities to the north and east. Several generations of vein mineralization have been discovered. Many are quartz veins that carry variable amounts of pyrite, pyrrhotite, chalcopyrite, sphalerite or arsenopyrite. Minor vein molybdenite has been noted, commonly associated with pegmatite. Common alteration assemblages include vein to disseminated hematite, potassic feldspar, quartz, chlorite, limonite and sericite.

Two zones of hematite and lesser magnetite alteration (the West and East zones) occur within broken and fractured Okanagan batholith rocks in the north and northeastern part of the property. Their surface extent has not been mapped out, but they both appear to cover areas greater than 500 by 200-300 meters. The following descriptions are based on very preliminary mapping; no staining or petrography has been done. The West zone, which is exposed in bedrock at a deeper structural level within a small north-trending valley, is associated with a central, more restricted zone of intense K-spar alteration and possibly (but poorly defined) regional propylitic alteration. Copper mineralization is closely associated with the iron oxide and K-spar alteration zones.

Hematite veining and brecciation is locally intense (Photo 11), commonly associated with chalcopyrite or malachite staining. It appears to overprint K-spar alteration at deeper levels in the West zone and propylitic alteration in the eastern exposures (East zone). Alteration is structurally controlled, occurring as aligned veins (Photo 12) or in zones of shearing and brecciation. In the West zone, it generally trends northerly, parallel to the North fault whereas in the East zone, it trends easterly, also parallel to late faults. Intense K-spar (orthoclase) alteration trends northerly parallel to the North fault. It occurs in veins or as a pervasive alteration producing a pink-coloured granite. Propylitic alteration is noted in numerous epidote-chlorite veins and pale green alteration of feldspars and mafic minerals. Associated copper mineralization occurs as mainly chalcopyrite in hematite veins and with quartz veins in K-spar altered granite. Both hematite veins and chalcopyrite mineralization locally cut north-trending hornblende porphyry dikes; therefore the age of mineralization is inferred to be Eocene.

Analyses of several samples from these zones are given in Table 2 and shown on Figure 3 (p. 9 and in pocket); complete analyses are in Appendix 2. A mineralized chalcopyrite-hematite breccia sample from the West zone (sample Chen 15), assayed 0.17% Cu, and several samples from the East zone (CHNTK 07 to 16) contained up to 0.23 % Cu with an average grade of 0.16% Cu.

Garnet-diopside skarn has developed locally in Late Paleozoic calcareous units south of the East fault. Isolated exposures of skarn mineralization also occur in scattered outcrops of metasedimentary rock farther north and east. Skarn contains variable but generally minor amounts of pyrite and/or pyrrhotite. Skarn south of the East fault contains anomalous metal values, with up to 101 ppm Cu, 170 ppm Zn and 98 ppb Au (Chen 002, Table 2). A skarn sample farther east, near the eastern edge of the map sheet (Chen 013) containing visible galena and sphalerite, assayed 0.27% Pb and 0.3% Zn.

A number of widely scattered quartz and quartz-pegmatite veins carry minor visible molybdenite. Several occur along the eastern edge of the map sheet within Okanagan batholith rocks; sample Chen 12 assayed 513 ppm Mo and farther west, a 15 cm wide quartz vein (Chen 10) assayed 1556 (0.15%) Mo. Several other veins at the same locality as Chen 10 contained sphalerite and galena, with values to 0.14% Pb and 0.14% Zn (Chen 08, 09).

Gold occurs with quartz veining and pyrite in Okanagan granite in the southwestern part of the area. All samples taken in this area were anomalous with gold content ranging from 25 to 15,900 ppm. One sample contained visible galena. Mineralization appears to be associated with steeply dipping, west to northwest trending shears. As well, gold here also appears to be spatially associated with a fine-grained, white aplitic phase of the Okanagan granite. Exposures in this area are cut by north-trending Eocene syenitic dikes.

Photo 11: Vein and massive hematite in brecciated Okanagan granitic rocks, east zone (stn. TH-94).

Photo 12: Thin east-west trending hematite veins in Okanagan granitic rocks, East zone (stn. TH-95).

Sample number	Lab number	UTM E	UTM N	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mn ppm	As ppm	Au ppm	Au* ppb
BR-001	A503039	342220	5462371	5.0	39.0	9.0	23.0	1.9	574.0	4.0	<2	728.3
BR-002	A503039	342346	5462490	3.0	10.0	-3.0	113.0	2.1	687.0	10.0	<2	25.8
BR-003	A503039	342450	5462471	3.0	6.0	64.0	46.0	13.2	145.0	12.0	<2	148.8
BR-004	A503039	342517	5462507	15.0	33.0	10000.0	272.0	100.0	20.0	11.0	15.0	15898.0
BR-005	A503039	342582	5462529	13.0	12.0	439.0	357.0	6.3	753.0	55.0	<2	143.1
BR-006	A503039	342718	5462625	22.0	622.0	182.0	160.0	52.7	988.0	140.0	<2	1270.4
CHEN-002	A405989	345393	5463133	9.0	101.0	26.0	170.0	3.3	317.0	6.0	<2	98.5
CHEN-004	A405989	345858	5463853	4.0	578.0	49.0	82.0	5.7	429.0	255.0	<2	43.5
CHEN-005	A405989	345858	5463853	7.0	1092.0	63.0	139.0	6.1	552.0	328.0	<2	27.5
CHEN-008	A405989	345952	5463983	5.0	262.0	1441.0	1403.0	6.0	264.0	13.0	<2	79.6
CHEN-009	A405989	345952	5463983	12.0	178.0	1390.0	389.0	9.9	197.0	25.0	<2	115.4
CHEN-010	A405989	345952	5463983	1556.0	24.0	44.0	61.0	<0.3	230.0	<2	<2	2.1
CHEN-011	A405989	346410	5462757	127.0	27.0	6.0	7.0	<0.3	65.0	<2	<2	1.4
CHEN-012	A405989	347589	5463471	513.0	7.0	9.0	4.0	0.6	103.0	3.0	<2	17.4
CHEN-013	A405989	348005	5463308	22.0	56.0	2709.0	8998.0	2.1	802.0	19.0	<2	4.5
CHEN-015	A405989	345340	5464660	1.0	1693.0	27.0	80.0	3.4	198.0	4.0	<2	-0.5
CHEN-017	A406317	345245	5464040	244.0	46.0	16.0	134.0	<0.3	403.0	2.0	<2	2.0
CHNCK-06	A602498	348105	5462475	51.0	36.0	249.0	183.0	1.2	76.0	13.0	<2	7.0
CHNCK-08	A602498	348001	5462494	2.0	19.0	12.0	123.0	-0.3	1047.0	<2	<2	1.2
CHNCK-09	A602498	348001	5462494	1.0	2.0	-3.0	16.0	-0.3	2163.0	<2	<2	1.2
CHNCK-10	A602498	346589	5463477	1.0	296.0	11.0	144.0	0.9	933.0	<2	<2	31.5
CHNTK-02	A602498			131.0	40.0	12.0	14.0	2.2	66.0	21.0	<2	37.4
CHNTK-04	A602498	347833	5462659	16.0	129.0	27.0	33.0	1.6	50.0	12.0	<2	6.5
CHNTK-07	A602498	346369	5464120	1.0	575.0	4.0	39.0	1.6	233.0	<2	<2	0.7
CHNTK-08	A602498	346369	5464120	1.0	554.0	4.0	38.0	1.4	239.0	<2	<2	-0.5
CHNTK-09	A602498	346369	5464120	1.0	2104.0	25.0	35.0	2.8	160.0	<2	<2	2.2
CHNTK-10	A602498	346422	5464243	<1	2364.0	20.0	75.0	2.9	283.0	<2	<2	12.4
CHNTK-11	A602498	346423	5464121	<1	2146.0	16.0	43.0	3.9	228.0	<2	<2	2.1
CHNTK-12	A602498	346434	5464108	1.0	1595.0	6.0	54.0	2.3	332.0	<2	<2	1.0
CHNTK-13	A602498	346448	5464060	<1	1118.0	<3	57.0	1.9	490.0	<2	<2	1.6
CHNTK-14	A602498	346462	5464098	<1	1308.0	<3	29.0	2.2	307.0	<2	<2	0.5
CHNTK-15	A602498	346513	5464053	<1	1976.0	21.0	71.0	4.2	467.0	<2	<2	1.6
CHNTK-16	A602498	346530	5464020	1.0	2291.0	24.0	34.0	2.4	128.0	<2	<2	1.7
CHNTK-17	A602498	346634	5463890	2.0	193.0	9.0	114.0	-0.3	1026.0	<2	<2	1.0
CHNTK-18	A602498	346967	5463802	2.0	365.0	<3	46.0	0.4	789.0	<2	<2	2.8
CHNTK-19	A602498	347061	5464099	<1	228.0	5.0	70.0	0.6	778.0	<2	<2	2.8
CHNTK-20	A602498	347031	5464157	<1	662.0	4.0	75.0	0.7	821.0	<2	<2	15.0
CHNTK-21	A602498	347178	5464321	1.0	2985.0	3.0	97.0	4.1	780.0	<2	<2	3.4
CHNTK-24	A602498	347699	5465566	3.0	33.0	134.0	255.0	3.1	622.0	24.0	<2	2.0
CHNTK-25	A602498	347699	5465566	1.0	2.0	33.0	210.0	-0.3	1723.0	4.0	<2	0.5
CHNTK-26	A602498	347699	5465566	1.0	41.0	461.0	428.0	1.5	1678.0	10.0	<2	1.3

Table 2: Analyses of mineralized hand samples. See Appendix 2 for complete analyses.

Summary

Based on preliminary mapping of the Chenier property, the geological history is summarized below:

1. Late Paleozoic sediments and associated mafic volcanism
2. Late Cretaceous intrusion of Okanagan batholithic rocks
3. Tertiary deposition of unconformably overlying mafic volcanics
4. Tertiary deposition of unconformably overlying felsic tuffs
5. Tertiary north-trending dike swarms
6. Alkalic copper-gold porphyry style alteration and mineralization.

Copper mineralization occurs in several zones of locally intense hematite and/or potassic alteration in northern exposures of the Okanagan batholith on the Chenier claims. Copper occurs as veins or in breccia zones that are related to both north and east-trending faults or shear zones. These shears and associated alteration and mineralization appear to be related to late stage, Tertiary-age alkalic porphyry dikes that generally trend northward. The mineralization at Chenier has similarities to the higher levels of alkalic copper-gold porphyry systems. Hematite veining and brecciation appear to structurally overlie potassic-altered Okanagan rocks in the West zone, and propylitic alteration appears marginal and overlapping with hematitic zones in both the West and East zones.

Alkalic copper-gold systems are typically structurally controlled and well zoned. Alteration and mineralization in the upper levels of these deposit types are commonly related to alkalic dikes aligned along prominent structures (*cf*. Ridgeway, Australia; Wilson *et al*., 2003). Alteration assemblages include an inner zone of potassic alteration, overlapping and peripheral iron oxides, and more regional propylitic alteration. Mineralization in this model typically extends from a porphyritic intrusive source into a zone of potassic alteration zone, decreasing substantially through the hematitic and propylitic alteration zones.

Proposal

Based on a comparison with the alkalic copper-gold porphyry model, considerable more work is recommended at Chenier. More detailed mapping of alteration and mineralization is needed, and regional mapping should extend towards the margins of the claim group. Further prospecting and rock and soil sampling would help define better the type and extent of mineralization.

Petrographic work and analyses of rock units are needed to better define host successions and mineralization. A geophysical survey (EM and magnetics) would help test the porphyry model. Finally, diamond drilling would also test the model and help locate mineralized zones beneath the exposed marginal alteration zones.

Acknowledgements

Gloria DeFields is thanked for her capable help in the field. Wayne Jackaman drafted all diagrams. Craig Kennedy and Tom Kennedy introduced me to the area and Jim MacDonald discussed many of the aspects of the geology with me.

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STATEMENT OF COSTS

Field mapping (T. Höy) (6 days @ 550.00/day)	$3,300.00
Field assistant (5.5 days @ 200.00/day)	1,100.00
Field expenses:	
Meals and accommodation:	820.00
Vehicle rental / expenses	800.00
Transportation to field (B.C. Ferry)	80.00
Analyses (2006): 37 samples @ 20.00 (Acme Analytical Laboratories)	740.00
Report preparation / filing (6 days @ 500.00/day)	3,000.00
Drafting: (W. Jackaman) (2 days @ 300.00/day)	600.00
Reproduction costs:	160.00
Management (15%)	$1,590.00
Total:	**$12,190.00**

STATEMENT OF QUALIFICATIONS

I, Trygve Höy, PhD., P. Eng. do hereby certify that:

1. I attained the degree of Doctor of Philosophy (PhD) in geology from Queens University, Kingston, Ontario in 1974.
2. I have an MSc. in Geology from Carleton University, Ottawa, Ontario (1970), and a BSc. in Geology from the University of British Columbia (1968).
3. I am a member of the Association of Professional Engineers and Geoscientists of BC. and a member of the Society of Economic Geologists.
4. I have worked as a geologist for a total of 32 years since my graduation from university, 27 years as a project geologist with the B.C. Geological Survey Branch and 5 years as an independent consulting geologist.
5. I spent six days geologic mapping the Chenier 1 claim area.
6. I am responsible for the preparation of this report entitled: **Geology and rock geochemistry, Chenier property, Kelly Creek area, southern British Columbia**, dated February 2, 2007.

Dated this 2nd Day of February, 2007.

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Trygve Høy

Appendix 1: Description and location of hand samples (from T. Kennedy)

Sample	UTM E	UTM N	Description
2004			
CHEN-1	349078	5462819	Quartz with Lim/Py in old granite
CHEN-2	345393	5463133	Quartz/pegmatite veins with Py/Po and some CPy
CHEN-3	345393	5463133	Altered granite along sediment contact with Py/Po, AsPy and ZnS
CHEN-4	345858	5463853	Vuggy quartz vein with some Lim/Py - attitude 110 °/ 30 ° S
CHEN-5	345858	5463853	Massive pyrite slips
CHEN-6	345952	5463983	Vuggy quartz with limonite staining
CHEN-7	345952	5463983	Same as above –more limonite
CHEN-8	345952	5463983	Quartz with Lim/Py and PbS
CHEN-9	345952	5463983	Same as above more limonite
CHEN-10	345952	5463983	Quartz material with some Lim/Py
CHEN-11	346410	5462757	Quartz with Lim/Py
CHEN-12	347589	5463471	6 inch wide quartz vein with Py/Lim and Mo; 020 ° strike
CHEN-13	348005	5463308	Skarn material with PbS, ZnS and Py in a 10 cm wide structure cutting sediment pendant; attitude: 060 °/ 60 deg.N
CHEN-14	345340	5464660	Cu staining with hematite breccia - sub-crop
CHEN-15	345340	5464660	CPy, hematite breccia in granite - sub-crop
CHEN-16	345245	5464040	Pyrite rich altered granite in structure -350 ° trend
CHEN-17	345245	5464040	Skarned sediments with Py/Lim, epidote and pink alteration within above structure
CHEN-18	345260	5463906	Above structure on strike -Py rich altered granite with epidote
CHEN-19	345302	5463781	Sub-crop of massive pyrite/quartz vein in granite
2005			
BR-1	342220	5462371	Quartz float with Lim/Py, manganese and sericite
BR-2	342346	5462490	Shear trending 110°/60° NE with quartz, Lim/Py and chlorite in granitic rocks
BR-3	342450	5462471	Narrow quartz veins with Lim/Py and some manganese
BR-4	342517	5462507	Quartz (milky) float with galena and Lim/Py
BR-5	342582	5462529	Narrow quartz shear with some Lim/Py
BR-6	342718	5462625	Chlorite rich limonitic milled zone with quartz -120 degree trend
2006			
CHNCK-01	348311	5462667	10 inch wide white quartz-pegmatite vein in older granite with rare patches of pyrite, limonite and coarse sericite
CHNCK-02	348146	5462492	Same as CHNCK-01
CHNCK-03	348132	5462471	Same as CHNCK-01 - more iron rich pegmatitic phase of granite
CHNCK-04	348132	5462471	Same material as above but more quartz
CHNCK-05	348105	5462475	Same material as above, some grey mineral (MoS)
CHNCK-06	348105	5462475	Bull quartz blow-outs in Nelson granite with patches of coarse pyrite and sericite -some blue mineral
CHNCK-07	348001	5462494	Same as Above
CHNCK-08	348001	5462494	Same as Above

CHNCK-09	348001	5462494	Same as Above
CHNCK-10	346589	5463477	Coarse grained granite and sedimentary/volcanic pendant material cut by pegmatite veins with pyrite,chlorite and chalcopyrite
CHNCK-11	345806	5464364	Weak hematite and epidote fracturing in finer grained older granite -some iron staining
CHNTK-01	347950	5462801	Quartz with limonite, pyrite and a grey sulfide -in pendant material
CHNTK-02			60 degree trending quartz vein with massive sericite, limonite, and pyrite in granodiorite
CHNTK-03	348361	5462482	0.5 meter wide quartz vein in pendant with some limonite and pyrite 040° trend
CHNTK-04	347833	5462659	Broken quartz vein material in zone of iron flooded, chloritically altered granodiorite/mix pendant host with rotted out pyrite and limonite vugs
CHNTK-05	347814	5462762	Same as Above -limonite and pyrite rich veinlets
CHNTK-06	346737	5463438	Milled breccia zone in granite/pendant contact phase with hematite and magnetite and some calcite, limonite and pyrite 030 ° trend
CHNTK-07	346369	5464120	Magnetite breccia zone in quartz rich granite with limonite, pyrite, chalcopyrite and copper staining along fractures -N/S trend to fractures
CHNTK-08	346369	5464120	Same as Above
CHNTK-09	346369	5464120	Same as Above -more copper staining with massive iron oxide fractures 080 to 100 ° trend vertically dipping
CHNTK-10	346422	5464243	Fracture zone in granite with magnetite veinlets eith chalcopyrite and copper staining over a 5 meter width 040° / 65° W
CHNTK-11	346423	5464121	Sub-crop of brecciated granite with copper staining, chalcopyrite, magnetite and hematite over 4m in width -320 ° trend?
CHNTK-12	346434	5464108	Same zone as above on strike -same type of material
CHNTK-13	346448	5464060	Brecciated granite with magnetite, hematite, limonite epidote and chalcopyrite
CHNTK-14	346462	5464098	Same as Above
CHNTK-15	346513	5464053	Fractures with copper staining and limonite with magnetite and hematite brecciation in granite -310 ° strike dip 30 ° to SW; over 2 meters wide
CHNTK-16	346530	5464020	Fractures with copper staining and limonite cutting a mafic dyke with epidote alteration -045 ° trend
CHNTK-17	346634	5463890	Chloritic milled granite with chalcpyrite , limonite and pyrite along fractures
CHNTK-18	346967	5463802	Chloritic milled fractured granite with hematite along fractures with some chalcopyrite
CHNTK-19	347061	5464099	Chloritically altered more foliated granite with platy hematite on fractures with calcite and some chalcopyrite
CHNTK-20	347031	5464157	Fractures with chalcopyrite in more chloritic/foliated granite with platy hematite along fractures
CHNTK-21	347178	5464321	Fractures with chalcopyrite and limonite in chloritic foliated granite
CHNTK-22	347107	5464513	Magnetite/hematite matrix breccia cutting white grantite with limonite and pyrite -E/W orientation with similar material over 40 meter wide zone
CHNTK-23	347403	5465939	0.5 metre wide zone of epidote altered granite with hematite, pyrite and flourite along fractures; 340° trend
CHNTK-24	347699	5465566	Series of 120° trending massive pyrite and limonite fractures cutting milled zones in coarse white granite
CHNTK-25	347699	5465566	Same as Above
CHNTK-26	347699	5465566	2 to 4 inch wide limonite rich crush zone with manganese -120° trend

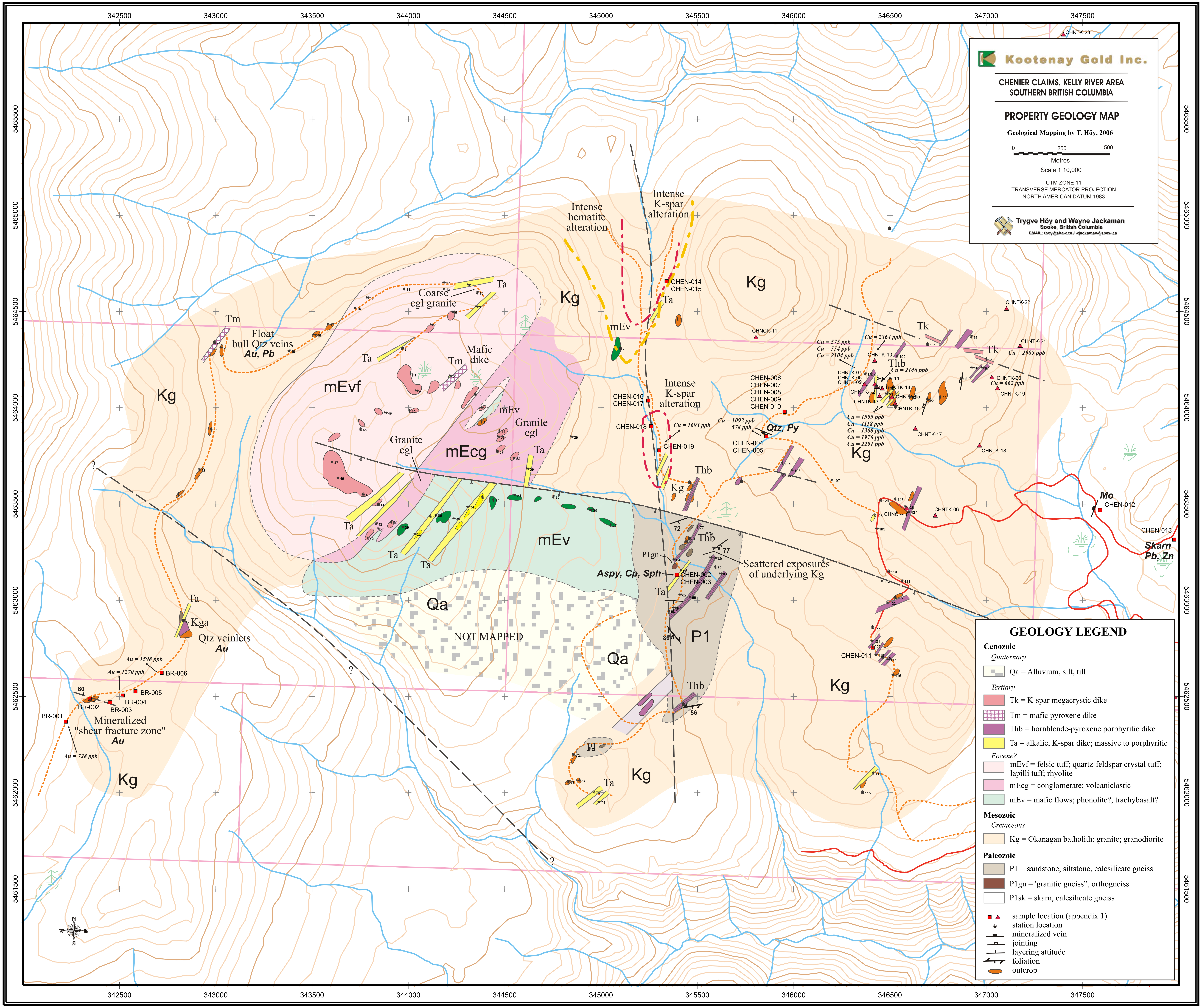
Appendix 2: Analyses of hand samples

Sample number	Analyses	Lab number	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
BR-001	ICP 1D	A503039	5.0	39.0	9.0	23.0	1.9	2.0	7.0	574.0	4.710	4.0	<8	<2	3.0	8.0	-0.5	-3.0	-3.0	11.0	0.09	0.06	7.0	9.0	0.33	70.0	0.01	-3.0	0.75	0.02	0.28	4.0	728.3
BR-002	ICP 1D	A503039	3.0	10.0	-3.0	113.0	2.1	2.0	5.0	687.0	3.350	10.0	<8	<2	7.0	7.0	-0.5	-3.0	-3.0	33.0	0.12	0.06	8.0	5.0	0.43	62.0	0.06	-3.0	1.18	0.01	0.36	-2.0	25.8
BR-003	ICP 1D	A503039	3.0	6.0	64.0	46.0	13.2	2.0	3.0	145.0	1.500	12.0	<8	<2	8.0	3.0	-0.5	-3.0	-3.0	5.0	0.04	0.02	8.0	11.0	0.07	21.0	-0.01	-3.0	0.46	-0.01	0.23	4.0	148.8
BR-004	ICP 1D	A503039	15.0	33.0	10000.0	272.0	100.0	1.0	<1	20.0	0.930	11.0	<8	15.0	<2	11.0	18.7	-3.0	35.0	2.0	-0.01	0.00	1.0	4.0	0.01	6.0	-0.01	-3.0	0.05	-0.01	0.03	-2.0	15898.0
BR-005	ICP 1D	A503039	13.0	12.0	439.0	357.0	6.3	3.0	8.0	753.0	5.220	55.0	11.0	<2	7.0	15.0	0.7	-3.0	-3.0	16.0	0.14	0.05	8.0	11.0	0.29	55.0	0.02	-3.0	1.06	-0.01	0.28	3.0	143.1
BR-006	ICP 1D	A503039	22.0	622.0	182.0	160.0	52.7	2.0	1.0	988.0	16.500	140.0	<8	<2	8.0	33.0	0.9	-3.0	-3.0	24.0	0.30	0.02	14.0	3.0	0.56	84.0	0.06	-3.0	2.02	-0.01	0.17	3.0	1270.4
CHEN-001	ICP-1D	A405490	21.0	5.0	<3	20.0	0.3	2.0	10.0	170.0	2.270		<8	<2	<2	37.0	-0.5	-3.0	-3.0	19.0	0.19	0.03	1.0	4.0	0.24	16.0	0.03	4.0	0.43	0.01	0.04	2.0	1.9
CHEN-002	ICP-1D	A405989	9.0	101.0	26.0	170.0	3.3	8.0	4.0	317.0	2.250	6.0	<8	<2	2.0	8.0	3.1	-3.0	8.0	44.0	0.14	0.03	5.0	15.0	0.33	58.0	0.03	-3.0	0.47	0.04	0.11	4.0	98.5
CHEN-003	ICP-1D	A405989	14.0	56.0	22.0	43.0	0.3	8.0	10.0	61.0	2.010	9.0	<8	<2	6.0	15.0	-0.5	-3.0	3.0	12.0	0.30	0.05	7.0	3.0	0.05	94.0	0.07	3.0	0.23	0.03	0.20	-2.0	2.7
CHEN-004	ICP-1D	A405989	4.0	578.0	49.0	82.0	5.7	3.0	5.0	429.0	12.480	255.0	<8	<2	<2	48.0	-0.5	-3.0	51.0	73.0	0.25	0.07	4.0	10.0	0.53	64.0	0.04	-3.0	1.43	0.07	0.27	3.0	43.5
CHEN-005	ICP-1D	A405989	7.0	1092.0	63.0	139.0	6.1	40.0	285.0	552.0	22.630	328.0	<8	<2	<2	11.0	-0.5	-3.0	34.0	47.0	0.14	0.07	3.0	5.0	0.45	25.0	0.02	-3.0	1.45	0.05	0.17	-2.0	27.5
CHEN-006	ICP-1D	A405989	5.0	12.0	3.0	18.0	<0.3	6.0	3.0	546.0	1.040	2.0	<8	<2	<2	7.0	-0.5	-3.0	-3.0	4.0	0.09	0.01	3.0	18.0	0.09	67.0	-0.01	6.0	0.23	0.01	0.10	6.0	-0.5
CHEN-007	ICP-1D	A405989	1.0	40.0	<3	7.0	<0.3	2.0	5.0	253.0	1.040	<2	<8	<2	<2	5.0	-0.5	-3.0	-3.0	3.0	0.06	0.02	3.0	4.0	0.06	93.0	-0.01	3.0	0.27	0.02	0.13	-2.0	-0.5
CHEN-008	ICP-1D	A405989	5.0	262.0	1441.0	1403.0	6.0	5.0	14.0	264.0	3.980	13.0	<8	<2	2.0	21.0	4.7	-3.0	-3.0	38.0	0.84	0.10	9.0	10.0	0.44	38.0	0.09	4.0	0.80	0.06	0.08	2.0	79.6
CHEN-009	ICP-1D	A405989	12.0	178.0	1390.0	389.0	9.9	<1	<1	197.0	12.930	25.0	<8	<2	5.0	38.0	0.5	-3.0	4.0	82.0	0.15	0.12	11.0	6.0	0.38	132.0	0.18	-3.0	0.74	0.07	0.25	-2.0	115.4
CHEN-010	ICP-1D	A405989	1556.0	24.0	44.0	61.0	<0.3	7.0	7.0	230.0	3.230	<2	<8	<2	3.0	76.0	-0.5	-3.0	-3.0	41.0	0.27	0.05	5.0	17.0	0.43	35.0	0.13	-3.0	0.64	0.05	0.15	5.0	2.1
CHEN-011	ICP-1D	A405989	127.0	27.0	6.0	7.0	<0.3	2.0	4.0	65.0	1.550	<2	<8	<2	2.0	502.0	-0.5	-3.0	-3.0	9.0	0.08	0.01	1.0	5.0	0.05	22.0	0.02	-3.0	0.23	0.01	0.06	-2.0	1.4
CHEN-012	ICP-1D	A405989	513.0	7.0	9.0	4.0	0.6	5.0	4.0	103.0	1.240	3.0	<8	<2	<2	7.0	-0.5	-3.0	-3.0	3.0	0.01	0.00	1.0	16.0	0.01	10.0	-0.01	-3.0	0.06	0.01	0.04	6.0	17.4
CHEN-013	ICP-1D	A405989	22.0	56.0	2709.0	8998.0	2.1	27.0	20.0	802.0	4.690	19.0	<8	<2	2.0	76.0	19.3	-3.0	-3.0	53.0	2.00	0.30	7.0	28.0	0.65	117.0	0.07	-3.0	1.03	0.10	0.05	-2.0	4.5
CHEN-014	ICP-1D	A405989	8.0	119.0	11.0	27.0	<0.3	2.0	8.0	113.0	4.610	<2	<8	<2	8.0	17.0	-0.5	-3.0	-3.0	37.0	0.14	0.05	13.0	9.0	0.08	81.0	0.07	-3.0	0.48	0.05	0.27	2.0	-0.5
CHEN-015	ICP-1D	A405989	1.0	1693.0	27.0	80.0	3.4	2.0	5.0	198.0	4.830	4.0	<8	<2	2.0	51.0	0.6	-3.0	6.0	42.0	0.27	0.03	6.0	3.0	0.27	47.0	0.05	-3.0	0.63	0.06	0.13	-2.0	-0.5
CHEN-016	ICP-1D	A406317	54.0	47.0	11.0	11.0	<0.3	2.0	2.0	47.0	1.240	3.0	<8	<2	31.0	58.0	-0.5	-3.0	-3.0	18.0	0.32	0.05	20.0	3.0	0.06	43.0	0.04	-3.0	0.32	0.06	0.11	-2.0	-1.0
CHEN-017	ICP-1D	A406317	244.0	46.0	16.0	134.0	<0.3	33.0	9.0	403.0	1.530	2.0	<8	<2	3.0	352.0	1.1	-3.0	-3.0	93.0	1.84	0.16	14.0	20.0	0.23	17.0	0.09	-3.0	0.58	0.06	0.02	-2.0	2.0
CHEN-018	ICP-1D	A406317	31.0	13.0	15.0	23.0	0.4	1.0	16.0	49.0	5.430	6.0	<8	<2	<2	65.0	-0.5	-3.0	5.0	18.0	0.53	0.04	4.0	1.0	0.07	24.0	0.01	3.0	0.30	0.06	0.09	-2.0	3.0
CHEN-019	ICP-1D	A406317	45.0	82.0	10.0	33.0	0.8	2.0	4.0	324.0	4.520	20.0	<8	<2	2.0	31.0	-0.5	-3.0	-3.0	36.0	0.33	0.05	3.0	5.0	0.36	15.0	0.02	3.0	0.70	0.03	0.06	-2.0	3.0
CHNCK-01	1D	A602498	38.0	14.0	50.0	17.0	15.1	1.0	2.0	292.0	2.000	<2	<8	<2	<2	9.0	-0.5	-3.0	116.0	13.0	0.07	0.01	1.0	5.0	0.28	42.0	0.01	-3.0	0.51	0.01	0.18	-2.0	1.5
CHNCK-02	1D	A602498	12.0	53.0	9.0	18.0	0.6	<1	17.0	62.0	3.380	15.0	<8	<2	<2	15.0	-0.5	-3.0	-3.0	9.0	0.07	0.02	2.0	4.0	0.04	29.0	0.06	-3.0	0.20	0.02	0.10	-2.0	4.7
CHNCK-03	1D	A602498	1.0	7.0	9.0	56.0	-0.3	1.0	4.0	449.0	2.530	2.0	<8	<2	2.0	12.0	-0.5	-3.0	-3.0	36.0	0.27	0.05	4.0	5.0	0.39	41.0	0.11	-3.0	0.60	0.02	0.14	-2.0	1.2
CHNCK-04	1D	A602498	2.0	26.0	<3	11.0	-0.3	1.0	2.0	28.0	2.010	2.0	<8	<2	<2	3.0	-0.5	-3.0	-3.0	5.0	0.02	0.01	-1.0	8.0	0.02	8.0	0.02	-3.0	0.08	-0.01	0.02	-2.0	-0.5
CHNCK-05	1D	A602498	3.0	15.0	32.0	25.0	-0.3	<1	1.0	95.0	4.720	14.0	<8	<2	3.0	98.0	-0.5	-3.0	-3.0	39.0	0.14	0.05	4.0	6.0	0.17	132.0	0.14	-3.0	0.33	0.07	0.20	-2.0	2.5
CHNCK-06	1D	A602498	51.0	36.0	249.0	183.0	1.2	2.0	39.0	76.0	11.580	13.0	<8	<2	2.0	28.0	-0.5	-3.0	-3.0	21.0	0.07	0.05	2.0	6.0	0.08	37.0	0.05	6.0	0.25	0.02	0.14	-2.0	7.0
CHNCK-07	1D	A602498	1.0	6.0	3.0	38.0	-0.3	1.0	4.0	243.0	2.530	3.0	<8	<2	3.0	9.0	-0.5	-3.0	-3.0	19.0	0.12	0.04	4.0	6.0	0.30	19.0	0.03	-3.0	0.49	0.02	0.07	-2.0	-0.5
CHNCK-08	1D	A602498	2.0	19.0	12.0	123.0	-0.3	7.0	17.0	1047.0	5.470	<2	<8	<2	3.0	119.0	-0.5	3.0	-3.0	141.0	2.01	0.09	6.0	14.0	1.93	247.0	0.09	4.0	3.60	0.14	1.19	-2.0	1.2
CHNCK-09	1D	A602498	1.0	2.0	-3.0	16.0	-0.3	<1	<1	2163.0	1.990	<2	<8	<2	<2	48.0	-0.5	-3.0	-3.0	5.0	1.90	0.00	2.0	6.0	0.20	44.0	-0.01	3.0	0.29	-0.01	0.03	-2.0	1.2
CHNCK-10	1D	A602498	1.0	296.0	11.0	144.0	0.9	11.0	8.0	933.0	3.510	<2	<8	<2	5.0	26.0	0.5	-3.0	-3.0	102.0	0.97	0.10	9.0	25.0	1.10	128.0	0.19	3.0	1.46	0.05	0.94	-2.0	31.5
CHNCK-11	1D	A602498	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.000	0.0	<8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.00	0.0	0.00	0.0	0.00	0.00	0.00	0.0	0.0
CHNTK-01	1D	A602498	1.0	16.0	6.0	64.0	0.4	6.0	3.0	240.0	1.150	795.0	<8	<2	4.0	8.0	-0.5	4.0	-3.0	13.0	0.08	0.01	2.0	9.0	0.35	16.0	0.01	-3.0	0.46	0.04	0.09	-2.0	5.6
CHNTK-02	1D	A602498	131.0	40.0	12.0	14.0	2.2	5.0	18.0	66.0	17.720	21.0	<8	<2	3.0	244.0	-0.5	-3.0	-3.0	102.0	0.10	0.19	11.0	18.0	0.21	97.0	0.12	-3.0	0.61	0.14	0.48	-2.0	37.4
CHNTK-03	1D	A602498	20.0	14.0	84.0	75.0	2.6	3.0	3.0	60.0	1.370	6.0	<8	<2	<2	5.0	-0.5	-3.0	26.0	10.0	0.02	0.01	1.0	9.0	0.17	5.0	-0.01	-3.0	0.21	-0.01	0.04	-2.0	10.4
CHNTK-04	1D	A602498	16.0	129.0	27.0	33.0	1.6	5.0	5.0	50.0	9.900	12.0	<8	<2	2.0	4.0	-0.5	-3.0	-3.0	41.0	0.01	0.02	-1.0	12.0	0.07	13.0	0.02	3.0	0.20	0.01	0.03	-2.0	6.5
CHNTK-05	1D	A602498	5.0	11.0	7.0	12.0	-0.3	1.0	1.0	103.0	3.150	5.0	<8	<2	3.0	12.0	-0.5	-3.0	-3.0	12.0	0.06	0.03	8.0	4.0	0.09	42.0	-0.01	-3.0	0.42	0.03	0.17	-2.0	2.8
CHNTK-06	1D	A602498	1.0	16.0	5.0	63.0	-0.3	6.0	6.0	839.0	2.960	3.0	<8	<2	4.0	174.0	-0.5	3.0	4.0	51.0	2.52	0.11	18.0	21.0	0.85	34.0	0.17	-3.0	0.92	0.04	0.06	-2.0	1.3
CHNTK-07	1D	A602498	1.0	575.0	4.0	39.0	1.6	1.0	5.0	233.0	1.720	<2	<8	<2	3.0	27.0	-0.5	-3.0	-3.0	16.0	0.33	0.03	8.0	4.0	0.28	76.0	0.02	-3.0	0.56	0.04	0.16	-2.0	0.7
CHNTK-08	1D	A602498	1.0	554.0	4.0	38.0	1.4	<1	12.0	239.0	5.080	<2	<8	<2	5.0	17.0	-0.5	-3.0	-3.0	31.0	0.12	0.03	4.0	4.0	0.26	56.0	0.02	-3.0	0.60	0.04	0.15	-2.0	-0.5
CHNTK-09	1D	A602498	1.0	2104.0	25.0	35.0	2.8	1.0	20.0	160.0	2.400	<2	<8	<2	4.0	27.0	-0.5	-3.0	-3.0	20.0	0.16	0.03	12.0	4.0	0.25	48.0	0.03	-3.0	0.58	0.05	0.14	-2.0	2.2
CHNTK-10	1D	A602498	<1	2364.0	20.0	75.0	2.9	1.0	6.0	283.0	3.230	<2	<8	<2	2.0	11.0	-0.5	-3.0	9.0	34.0	0.08	0.02	5.0	5.0	0.18	41.0	0.02	-3.0	0.39	0.04	0.08	7.0	12.4
CHNTK-11	1D	A602498	<1	2146.0	16.0	43.0	3.9	1.0	4.0	228.0	1.460	<2	<8	<2	3.0	13.0	-0.5	-3.0	3.0	12.0	0.11	0.03	7.0	2.0	0.18	44.0	0.01	-3.0	0.46	0.03	0.14	-2.0	2.1
CHNTK-12	1D	A602498	1.0	1595.0	6.0	54.0	2.3	1.0	6.0	332.0	3.650	<2	<8	<2	3.0	21.0	-0.5	-3.0	-3.0	28.0	0.31	0.03	5.0	3.0	0.26	53.0	0.04	4.0	0.59	0.04	0.15	2.0	1.0
CHNTK-13	1D	A602498	<1	1118.0	<3	57.0	1.9	2.0	5.0	490.0	2.500	<2	<8	<2	9.0	96.0	-0.5	-3.0	-3.0	41.0	1.11	0.07	14.0	8.0	0.82	43.0	0.07	-3.0	0.97	0.03	0.10	-2.0	1.6
CHNTK-14	1D	A602498	<1	1308.0	<3	29.0	2.2	1.0	13.0	307.0	1.720	<2	<8	<2	4.0	17.0	-0.5	-3.0	-3.0	13.0	0.16	0.03	4.0	3.0	0.22	44.0	0.02	-3.0	0.57	0.04	0.16	-2.0	0.5
CHNTK-15	1D	A602498	<1	1976.0	21.0	71.0	4.2	1.0	6.0	467.0	3.720	<2	<8	<2	6.0	21.0	-0.5	-3.0	-3.0	42.0	0.79	0.05	9.0	5.0	0.31	52.0	0.03	-3.0	0.62	0.04	0.16	-2.0	1.6
CHNTK-16	1D	A602498	1.0	2291.0	24.0	34.0	2.4	1.0	4.0	128.0	1.730	<2	<8	<2	5.0	41.0	-0.5	3.0	-3.0	18.0	0.36	0.03	11.0	5.0	0.26	70.0	0.03	-3.0	0.47	0.06	0.11	-2.0	1.7
CHNTK-17	1D	A602498	2.0	193.0	9.0	114.0	-0.3	2.0	10.0	1026.0	4.030	<2	<8	<2	33.0	74.0	-0.5	3.0	-3.0	81.0	2.00	0.09	22.0	12.0	1.34	49.0	0.12	-3.0	1.92	0.03	0.12	-2.0	1.0
CHNTK-18	1D	A602498	2.0	365.0	<3	46.0	0.4	3.0	8.0	789.0	4.320	<2	<8	<2	6.0	32.0	-0.5	-3.0	-3.0	72.0	2.51	0.09	10.0	11.0	1.29	44.0	0.01	-3.0	2.01	0.03	0.18	-2.0	2.8
CHNTK-19	1D	A602498	<1	228.0	5.0	70.0	0.6	3.0	6.0	778.0	7.610	<2	<8	<2	10.0	25.0	-0.5	-3.0	-3.0	153.0	1.34	0.13	21.0	6.0	1.58	35.0	0.04	3.0	2.27	0.03	0.13	-2.0	2.8
CHNTK-20	1D	A602498	<1	662.0	4.0	75.0	0.7	6.0	18.0	821.0	6.320	<2	<8	<2	4.0	20.0	-0.5	3.0	-3.0	135.0	1.25	0.13	9.0	25.0	2.00	152.0	0.12	4.0	2.74	0.04	0.55	-2.0	15.0
CHNTK-21	1D	A602498	1.0	2985.0	3.0	97.0	4.1	3.0	24.0	780.0	4.980	<2	<8	<2	6.0	45.0	-0.5	-3.0	-3.0	80.0	2.07	0.17	8.0	8.0	0.97	58.0	0.15	-3.0	1.38	0.05	0.11	-2.0	3.4
CHNTK-22	1D	A602498	3.0	18.0	6.0	23.0	0.3	1.0	22.0	73.0	4.880	<2	<8	<2	2.0	16.0	-0.5	-3.0	-3.0	23.0	0.04	0.02	2.0	3.0	0.06	59.0	0.02	-3.0	0.27	0.04	0.10	-2.0	0.5
CHNTK-23	1D	A602498	<1	4.0	4.0	18.0	-0.3	1.0	1.0	219.0	1.220	<2	<8	<2	14.0	252.0	-0.5	-3.0	-3.0	12.0	1.37	0.04	54.0	9.0	0.17	12.0	0.02	-3.0	0.47	0.09	0.05	-2.0	1.0
CHNTK-24	1D	A602498	3.0	33.0	134.0	255.0	3.1	<1	2.0	622.0	4.850	24.0	<8	<2	9.0	47.0	-0.5	-3.0	4.0	9.0	0.05	0.03	16.0	9.0	0.04	384.0	0.04	-3.0	0.53	0.01	0.32	3.0	2.0
CHNTK-25	1D	A602498	1.0	2.0	33.0	210.0	-0.3	<1	1.0	1723.0	3.540	4.0	<8	<2	20.0	24.0	-0.5	-3.0	-3.0	12.0	0.11	0.05	23.0	6.0	0.04	108.0	0.09	-3.0	0.71	0.06	0.43	4.0	0.5
CHNTK-26	1D	A602498	1.0	41.0	461.0	428.0	1.5	<1	<1	1678.0	3.140	10.0	<8	<2	12.0	10.0	-0.5	-3.0	5.0	7.0	0.05	0.04	23.0	7.0	0.05	91.0	0.07	-3.0	0.76	0.01	0.49	2.0	1.3

Notes: Lab: Acme Analytical Laboratories Ltd. 852 E. Hastings St., Vancouver, B.C., V6A 1R6

Analysis: Group 1D - 0.50 gm sample leached with 3 ML 2-2-2 HCl-HNO3-H2O at 95 deg C for one hour, diluted to 10 ml, analysed by ICP-ES.

Au* Analysis: Group 3A - ignited, acid leached, analyzed by ICP-MS (15 gm); <3, -3: "less than"


Kootenay Gold Inc.
CHENIER CLAIMS, KELLY RIVER AREA
SOUTHERN BRITISH COLUMBIA
PROPERTY GEOLOGY MAP
Geological Mapping by T. Höy, 2006
0 250 500
Metres
Scale 1:10,000
UTM ZONE 11
TRANSVERSE MERCATOR PROJECTION
NORTH AMERICAN DATUM 1983
Trygve Höy and Wayne Jackaman
Sooke, British Columbia
GEOLOGY LEGEND
Cenozoic
Quaternary
Qa = Alluvium, silt, till
Tertiary
Tk = K-spar megacrystic dike
Tm = mafic pyroxene dike
Thb = hornblende-pyroxene porphyritic dike
Ta = alkalic, K-spar dike; massive to porphyritic
Eocene?
mEvf = felsic tuff; quartz-feldspar crystal tuff; lapilli tuff; rhyolite
mEcg = conglomerate; volcaniclastic
mEv = mafic flows; phonolite?, trachybasalt?
Mesozoic
Cretaceous
Kg = Okanagan batholith: granite; granodiorite
Paleozoic
P1 = sandstone, siltstone, calcsilicate gneiss
P1gn = 'granitic gneiss", orthogneiss
P1sk = skarn, calcsilicate gneiss
sample location (appendix 1)
station location
mineralized vein
jointing
layering attitude
foliation
outcrop
Intense hematite alteration
Intense K-spar alteration
Coarse cgl granite
Float bull Qtz veins
Au, Pb
Mafic dike
Granite cgl
Scattered exposures of underlying Kg
Aspy, Cp, Sph
Qtz, Py
Qtz veinlets
Au
Mineralized "shear fracture zone"
Au
NOT MAPPED
Skarn
Pb, Zn
Mo
Au = 1598 ppb
Au = 1270 ppb
Au = 728 ppb
Cu = 1693 ppb
Cu = 2364 ppb
Cu = 2985 ppb
Cu = 2146 ppb
Cu = 662 ppb
342500 343000 343500 344000 344500 345000 345500 346000 346500 347000 347500
5465500 5465000 5464500 5464000 5463500 5463000 5462500 5462000 5461500