



**ASSESSMENT REPORT ON A 1993  
PROSPECTING, SOIL SAMPLING, HAND  
TRENCHING AND MAPPING PROGRAM**

HMS 3 - 25 (YB30485 - YB30507)  
HMS 31 - 63 (YB30508 - YB30540)

**'093 1 83**

DAWSON MINING DISTRICT, YUKON TERRITORY

NTS MAPSHEET 116 B/3

LATITUDE 64° 20' N  
LONGITUDE 139° 04' W

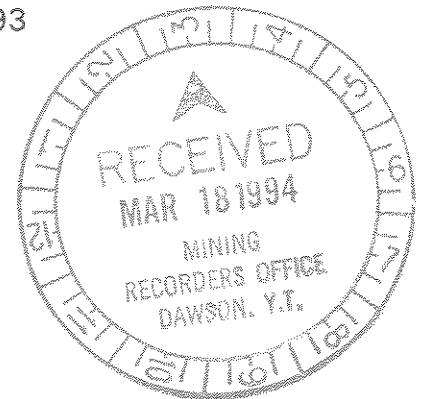
Work Conducted: May 23 - May 30, 1993

**OWNER:**

Wayne Hawkes,  
Box 371,  
Dawson, YT  
Y0B 1G0

**OPERATOR:**

KENNECOTT CANADA INC.  
354 - 200 Granville Street  
Vancouver, B.C.  
V6C 1S4



Prepared by: R. Cranswick  
A. Doyle

March 16, 1994

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## 1.0 INTRODUCTION

The HMS property covers a large portion of an Eocene quartz feldspar porphyry intrusion located north of Hunker Creek. The claims were staked by Wayne Hawkes in May of 1990 and were optioned in 1991 by Arbor Resources Inc. from a numbered Yukon company. Through an option agreement with Arbor Resources, Kennecott Canada Inc. had the opportunity to earn an interest in the claims and explored the property in 1993. Due to the limited amount of previous work on the property, the 1993 program consisted of ridge and spur soil sampling, prospecting, mapping and hand trenching as well as mapping and sampling of previously excavated trenches. Assessment requirements were fulfilled between May 23 and May 30 and follow-up work was completed by July 30.

## 2.0 LOCATION, ACCESS AND TOPOGRAPHY

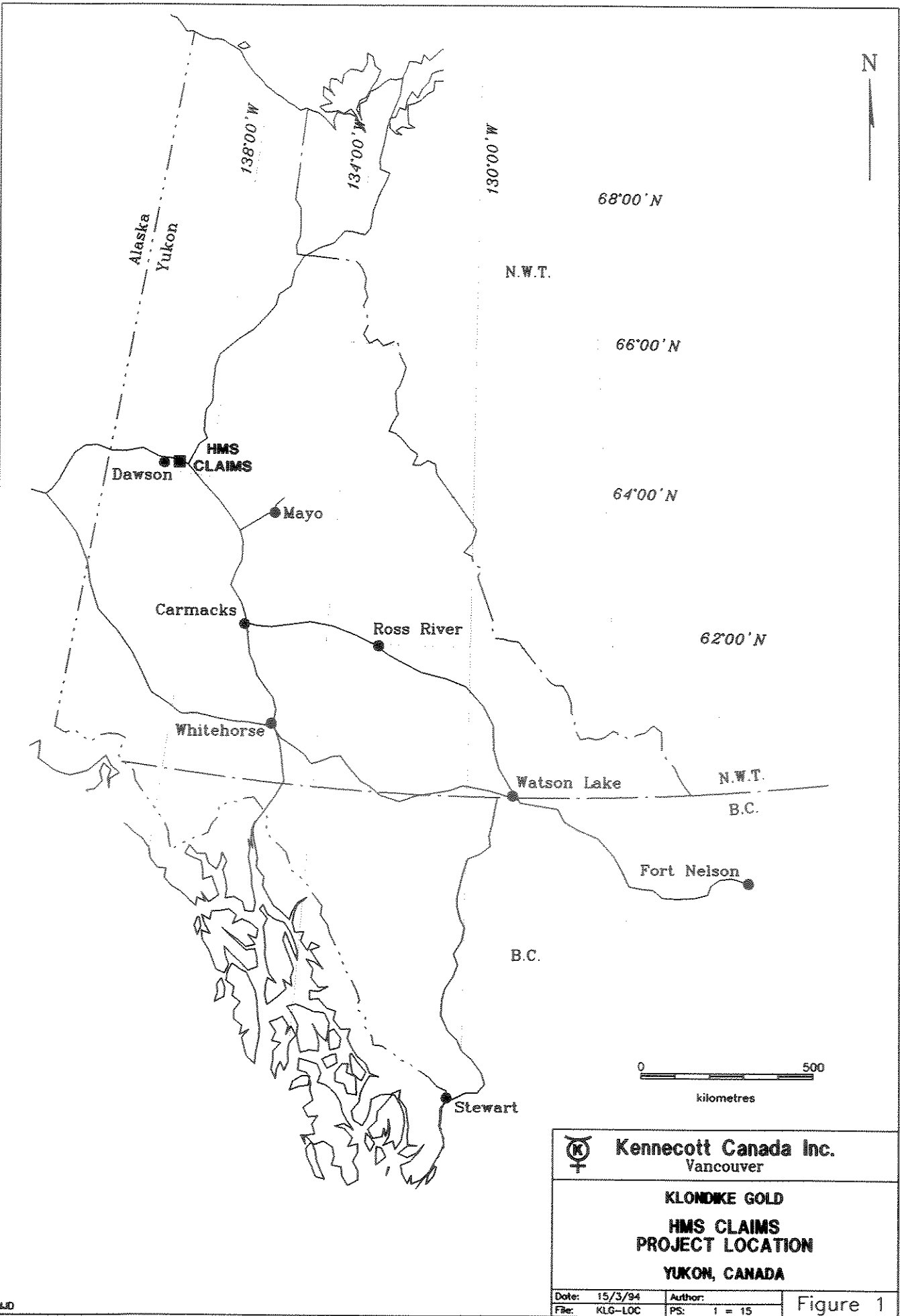
The HMS property is located in west-central Yukon, approximately 15km east of Dawson City (Figure 1). The claims cover a northwest-trending ridge between the Klondike River and Hunker Creek in the Klondike placer gold district. The property is centred at 64°20' N latitude and 139°04' W longitude and is located within NTS map area 116B/3. Dawson City serves as the main service and supply centre for the area.

The property area is accessed from the Klondike Highway by a three season gravel road which follows Hunker Creek. From the Hunker Creek road, a cat trail up a gulch north of Hunker Creek accesses the trenched area in the southwest corner of the claims.


The HMS property is situated within the Klondike Plateau. Gentle rolling hills predominate and relief is moderate. Elevations range from 500m in creek bottoms to 800m on ridges. The district was not subjected to Pleistocene glaciation and is mantled with deeply weathered rubble. Natural outcrop is uncommon and is largely confined to ridges. Artificial exposures in the district are created by mechanical trenching and placer mining activities. Frost heave is common on north facing slopes and provides displaced bedrock material for sampling.

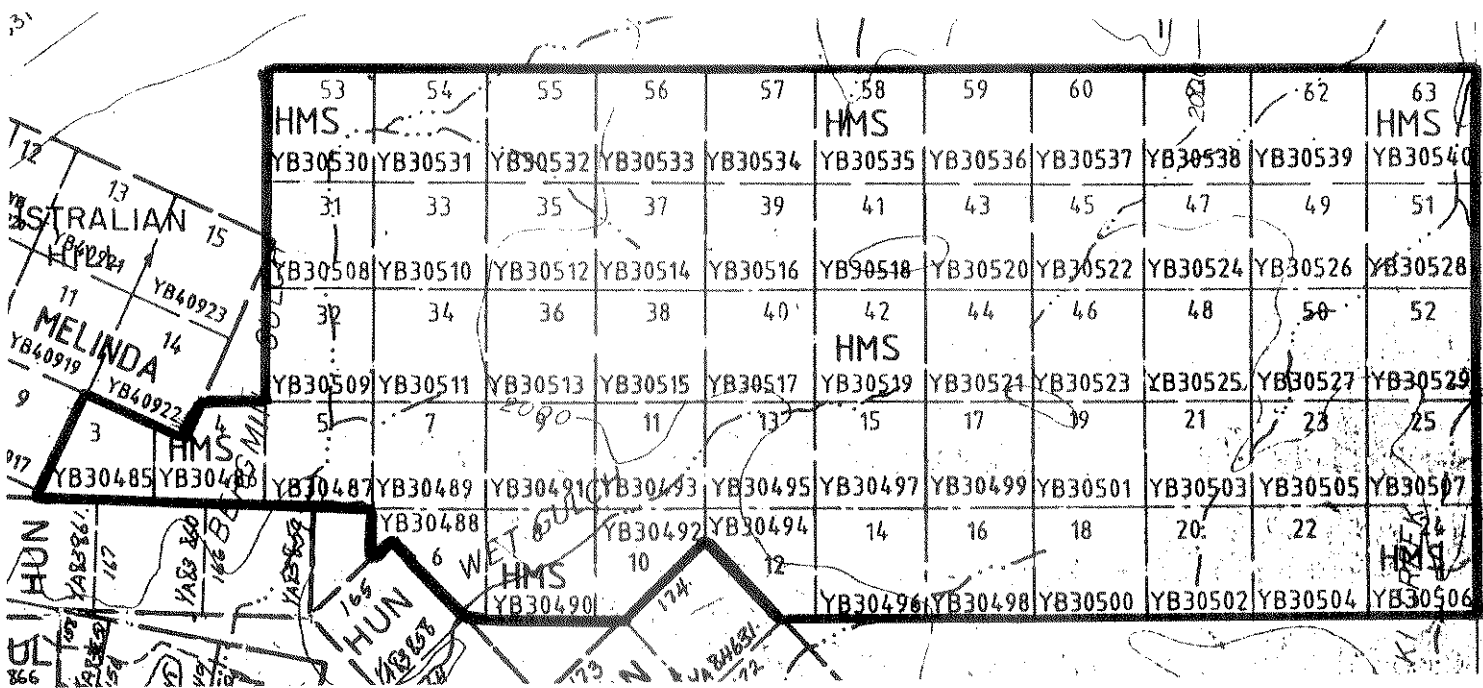
## 3.0 PROPERTY STATUS

The HMS property is located in the Dawson Mining District of Yukon Territory. The property comprises 56 ungranted Quartz claims covering 1,140 hectares (Figure 2). Table 1 is a list of HMS claims with updated expiry dates. At the time 1993 field work was performed, Kennecott held an option on the claims from a numbered Yukon company via an underlying agreement with Arbor Resources Inc. The claims have since been returned to the vendor.

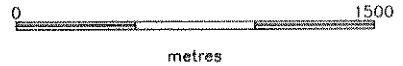


NLD

 <b>Kennecott Canada Inc.</b> Vancouver	
<b>KLONDIKE GOLD</b> <b>HMS CLAIMS</b> <b>PROJECT LOCATION</b> <b>YUKON, CANADA</b>	
Date: 15/3/94 File: KLG-LOC	Author: PS. 1 = 15
<b>Figure 1</b>	



scale 1:31,680




	<b>Kennecott Canada Inc.</b> Vancouver	
	<b>KLONDIKE GOLD</b> <b>HMS CLAIMS</b> <b>CLAIMS</b> <b>YUKON, CANADA</b>	
Date: 3/3/94	Author: AD	Figure 2
File: KLG-FRM	PS: F	

Table 1 - List of Claims

Claim Name	Claim Number	Expiry Date
HMS 3	YB30485	May 30, 1996
HMS 4	YB30486	May 30, 1996
HMS 5	YB30487	May 30, 1996
HMS 6	YB30488	May 30, 1996
HMS 7	YB30489	May 30, 1996
HMS 8	YB30490	May 30, 1996
HMS 9	YB30491	May 30, 1996
HMS 10	YB30492	May 30, 1996
HMS 11	YB30493	May 30, 1996
HMS 12	YB30494	May 30, 1996
HMS 13	YB30495	May 30, 1996
HMS 14	YB30496	May 30, 1996
HMS 15	YB30497	May 30, 1996
HMS 16	YB30498	May 30, 1996
HMS 17	YB30499	May 30, 1996
HMS 18	YB30500	May 30, 1996
HMS 19	YB30501	May 30, 1996
HMS 20	YB30502	May 30, 1996
HMS 21	YB30503	May 30, 1996
HMS 22	YB30504	May 30, 1996
HMS 23	YB30505	May 30, 1996
HMS 24	YB30506	May 30, 1996
HMS 25	YB30507	May 30, 1996
HMS 31	YB30508	May 30, 1996
HMS 32	YB30509	May 30, 1996
HMS 33	YB30510	May 30, 1996
HMS 34	YB30511	May 30, 1996

HMS 35	YB30512	May 30, 1996
HMS 36	YB30513	May 30, 1996
HMS 37	YB30514	May 30, 1996
HMS 38	YB30515	May 30, 1996
HMS 39	YB30516	May 30, 1996
HMS 40	YB30517	May 30, 1996
HMS 41	YB30518	May 30, 1996
HMS 42	YB30519	May 30, 1996
HMS 43	YB30520	May 30, 1996
HMS 44	YB30521	May 30, 1996
HMS 45	YB30522	May 30, 1996
HMS 46	YB30523	May 30, 1996
HMS 47	YB30524	May 30, 1996
HMS 48	YB30525	May 30, 1996
HMS 49	YB30526	May 30, 1996
HMS 50	YB30527	May 30, 1996
HMS 51	YB30528	May 30, 1996
HMS 52	YB30529	May 30, 1996
HMS 53	YB30530	May 30, 1996
HMS 54	YB30531	May 30, 1996
HMS 55	YB30532	May 30, 1996
HMS 56	YB30533	May 30, 1995
HMS 57	YB30534	May 30, 1995
HMS 58	YB30535	May 30, 1995
HMS 59	YB30536	May 30, 1995
HMS 60	YB30537	May 30, 1995
HMS 61	YB30538	May 30, 1995
HMS 62	YB30539	May 30, 1995
HMS 63	YB30540	May 30, 1995

## 4.0 REGIONAL GEOLOGY

### 4.1 Tectonic Environment

The Klondike district is located on the northeastern edge of the Paleozoic Yukon-Tanana tectonostratigraphic terrane (Mortensen, 1990; Figure 3). This allochthonous terrane is separated from thrust-stacked parautochthonous rocks of the North American miogeocline by the Tintina Fault Zone, a major suture which has accommodated relative movement between the two crustal blocks. Initial docking of the Yukon-Tanana terrane with the North American continental margin probably occurred in Early to Middle Jurassic times (Mortensen, pers. comm., 1994). Docking was accompanied by obduction of interposed oceanic lithosphere, now represented by ophiolitic rocks of the Slide Mountain terrane.

Major relative movement between the Yukon-Tanana terrane and the North American continental margin occurred in Late Paleogene and Neogene times (Mortensen, pers. comm., 1994). A net dextral strike-slip displacement of 450km was originally suggested by Templeman-Kluit (1974) and this estimate is still endorsed by most workers. Strike-slip movement along Tintina Fault Zone appears to have been immediately preceded by an episode of bimodal basalt and topaz rhyolite volcanism. Products of this Paleocene - Eocene magmatic event are present in both the Klondike district and the Grew Creek area 400km to the southeast.

### 4.2 Stratigraphy

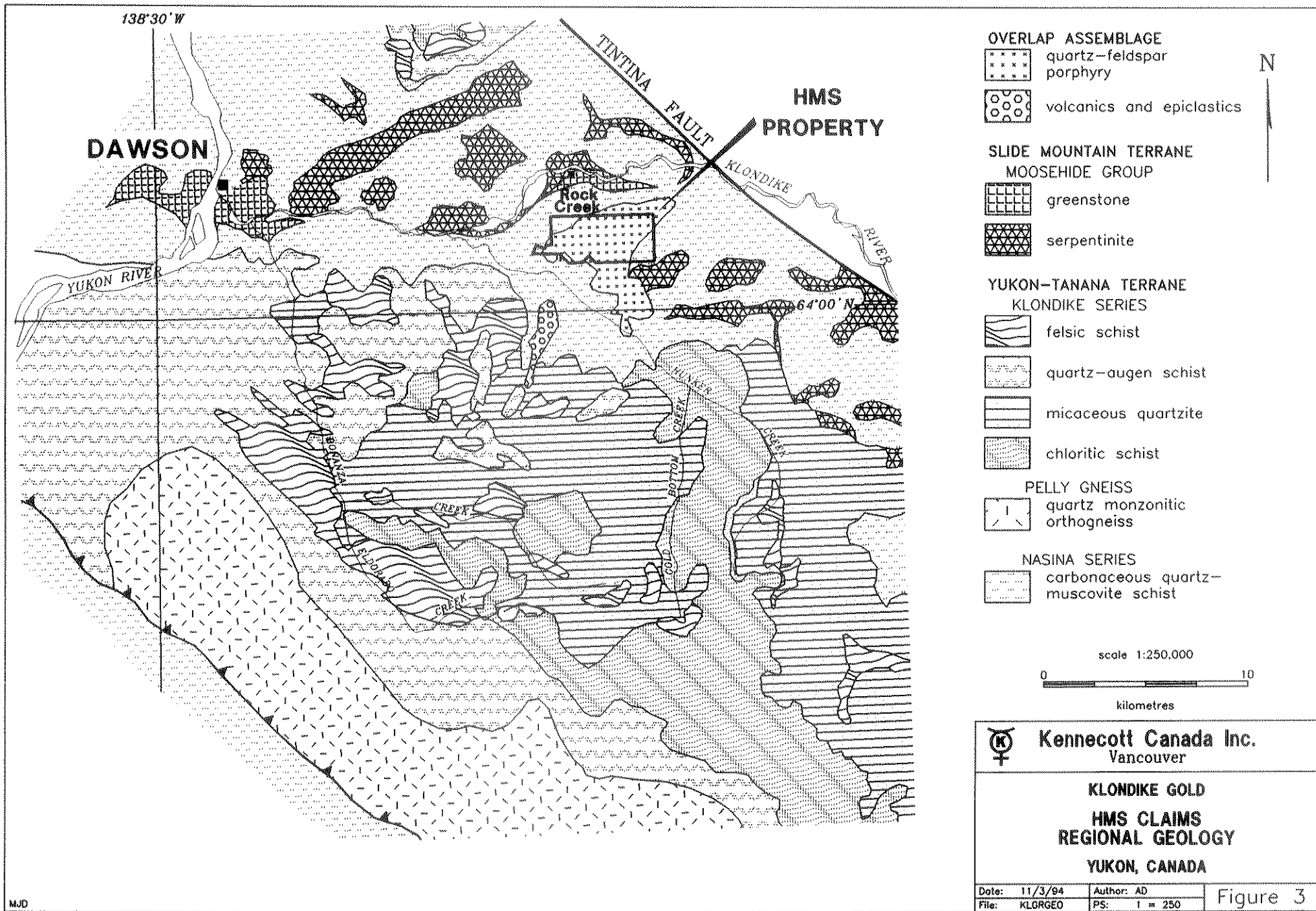
Brief descriptions of rock units found in the vicinity of the HMS claims are provided below, using the tectonostratigraphic nomenclature of Mortensen (1990) and the original stratigraphic nomenclature of McConnell (1905). Units are grouped into the Yukon-Tanana terrane, the Slide Mountain terrane and a post-amalgamation overlap assemblage (Figure 3). Units within each group have been described in what is believed to be the order of diminishing age.

#### 4.2.1 Yukon-Tanana terrane

The Yukon-Tanana terrane is an assemblage of tectonically interleaved Paleozoic rock units. Mortensen (1990) has outlined three thrust-stacked assemblages within the terrane, two of which occur in the vicinity of the HMS claims. One of these assemblages equates to the Nasina Series of McConnell (1905), the other to McConnell's (ibid.) Pelly Gneiss and Klondike Series.

#### Nasina Series

This unit is comprised largely of medium to dark grey carbonaceous quartz-muscovite schist and carbonaceous metaquartzite. Thin horizons of medium to dark grey marble



occur locally. Recent U-Pb zircon dating indicates a Devonian-Mississippian age for the unit (Mortensen, pers. comm., 1994). Protoliths were predominantly carbonaceous siliciclastic sedimentary rocks.

#### Pelly Gneiss

This unit is comprised of biotite-bearing quartz monzonitic orthogneiss. The rock probably represents a deformed granitic intrusion. Recent U-Pb zircon dating by Mortensen (1990) indicates a Mid-Permian age for the Pelly Gneiss.

#### Klondike Series

Several lithostratigraphic units have been identified within the Klondike Series. The lowest stratigraphic unit is comprised of **quartz-chlorite-actinolite schist** and associated metadiabase. Protoliths were probably mafic to intermediate volcanics and consanguineous sub-volcanic intrusions. This unit grades upward into **micaceous and chloritic metaquartzite**, which represents a terrigenous clastic sequence containing a minor component of mafic to intermediate volcanic lithogenous material. Cross-cutting these two units is a **quartz-feldspar augen schist** (Mortensen, 1990). Work by McConnell (1905), Metcalfe (1981) and Mortensen (1990) suggests that this rock type constitutes a deformed quartz-feldspar porphyry. **Felsic schist** overlies the quartz-feldspar augen schist and may be its extrusive equivalent (Mortensen, 1990). The felsic schist unit, which is thin and recessively weathering, includes a minor component of carbonaceous quartz-muscovite schist and contains small occurrences of possible volcanogenic massive sulphide mineralisation. The protolith may have been a felsic tuff (Mortensen, 1990). Recent U-Pb zircon dating by Mortensen (ibid.) indicates a Mid-Permian age for the Klondike Series, identical to the age deduced for the Pelly Gneiss.

#### 4.2.2. Slide Mountain terrane

The rocks of the Slide Mountain terrane are Paleozoic in age and comprise greenstone and serpentinite. They occur as tectonic slices caught up in regional structures and form discontinuous lenses and slabs ranging from less than 1m to 150m thick (Mortensen, 1990). These rocks equate to the Moosehide Group of McConnell (1905).

The greenstones consist of seafloor-altered pyroxene-phyric basalt, fine grained mafic tuff, diabase and minor gabbro. These rocks form substantial tectonic bodies which are well exposed along the Klondike highway immediately east of Dawson. Serpentinite is found as smaller, sheared and carbonate-altered tectonic slivers, sometimes wholly enclosed within Nasina Series rocks.

#### 4.2.3 Overlap assemblage

The younger, post-amalgamation rock units include volcanics, volcanogenic sediments and intrusions of Late Cretaceous to Paleogene age. As the volcanics and volcanogenic sediments occur only locally, they may be preserved within down-dropped fault blocks or in subsidence structures related to volcanism and intrusion.

Massive andesite flows and sills are interbedded with thinly-bedded epiclastics and tuffs along Last Chance Creek (Mortensen, 1990; Debicki, 1984). A Late Cretaceous age for these rocks has been suggested by Mortensen (1990) on the basis of regional lithostratigraphic correlation with Carmacks Group volcanics in the Sixty Mile area.

A fine to medium grained equigranular hornblende-biotite granodiorite crops out in Hunker Creek 1km upstream of the mouth of Gold Bottom Creek. Debicki (pers. comm. to J.K. Mortensen, 1985) reports a Palaeocene K-Ar age for this intrusion, which may therefore be genetically related to the Last Chance Creek volcanics.

Well-bedded felsic lapilli tuff and coarse volcanic breccia containing quartz-feldspar porphyry and country rock lithic fragments are mapped along Germaine Creek, immediately adjacent to the Tintina Fault Zone (Mortensen, 1990). These rocks are correlated lithostratigraphically with Eocene volcanics found in the Grew Creek area 400 km to the southeast.

Quartz-feldspar porphyry occurs as a large intrusive body north of Hunker Creek. Debicki (pers. comm. to J.K. Mortensen, 1985) reports an Eocene K-Ar age for this intrusion. The rock is presumably the intrusive equivalent of the felsic lapilli tuff. Small bodies of brown-weathering plagioclase, hornblende and/or pyroxene-phyric mafic porphyry, diabase and rare olivine gabbro are closely associated with the quartz-feldspar porphyry (Mortensen, 1990).

A bimodal suite of dykes occurs throughout the Klondike district as thin composite or single phase intrusions. Field relations suggest that the composite dykes formed by initial intrusion of a mafic phase and subsequent intrusion of a felsic phase. Felsic dykes "split" earlier mafic ones, suggesting incomplete cooling of the mafic dykes at the time of felsic dyke intrusion. The relationship between the bimodal dyke suite and the quartz-feldspar porphyry intrusion is uncertain, though both have returned Eocene K-Ar ages (Mortensen, pers. comm., 1994).

## 5.0 PREVIOUS EXPLORATION

Limited exploration had been conducted on the HMS claims prior to Kennecott's involvement in 1993. Two rock samples had been collected from six previously excavated bulldozer trenches, but none of this work had been documented.

## 6.0 1993 EXPLORATION PROGRAM

During the 1993 field season, eight days were spent performing physical work on the HMS claims. Work consisted of reconnaissance mapping, prospecting and ridge and spur soil sampling over the entire property (Figures 4 and 5). In addition to this reconnaissance work, two of the previously excavated trenches were mapped at a scale of 1:250 and one was systematically chip sampled (Figure 6).

Following the receipt of first pass results, one additional day was spent on the claims to follow up a soil sample with elevated gold geochemistry. Seventeen soil samples were collected at 25m intervals surrounding the anomalous sample and two additional rock samples were collected from the area (Figure 7).

A total of 15 rock samples and 230 soil samples were collected on the HMS claims for assessment purposes. An additional 5 rock samples and 14 additional soil samples are also reported.

## 7.0 PROPERTY GEOLOGY, ALTERATION AND MINERALIZATION

The HMS property is largely underlain by fresh, magnetite-bearing, quartz-feldspar porphyry (Figure 4). Graphitic quartzite and quartz-muscovite schist crop out along the southern boundary of the claims. No Plio-Quaternary (?) White Channel Gravel cover is present.

The quartz-feldspar porphyry (QFP) is white to grey in colour on fresh surfaces and weathers to a light buff colour. It contains approximately 5% by volume euhedral and/or partially resorbed smoky quartz phenocrysts and 5% euhedral, lath-shaped feldspar phenocrysts set in a fine-grained groundmass. It also contains pristine, 2-5mm euhedral magnetite grains. The rock is unaltered and forms the more resistant ridges on the property.

To the south, graphitic quartzite and related rocks of the Nasina Series predominate. The graphitic quartzite is dark grey in colour and weakly to strongly foliated. Minor interbedded units of quartz muscovite schist and marble occur within the graphitic quartzite. Quartz-muscovite schists are muscovite-rich and likely have sedimentary protoliths. The marble is white with dark grey impurities throughout. A diabase dyke observed to crosscut the graphitic quartzite is presumably related to the Late Cretaceous-Paleogene volcanic and intrusive rocks described above.

None of the rocks encountered on the property are altered, with the possible exception of a 2m wide exposure of quartz-sericite schist in trench HMS-1. This rock type may represent a bleached equivalent of the graphitic schist. The only sulphides encountered on the property were the 2-3% metamorphically recrystallised diagenetic pyrite found disseminated within the graphitic quartzite. No other mineralization was

N

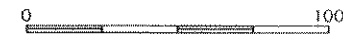
7 101,000m N

594,500m E

△VR2858A FLOAT SAMPLE

∕VR5672A SOIL SAMPLE

scale 1:2,500



metres



**Kennecott Canada Inc.**  
Vancouver

**KLONDIKE GOLD  
HMS CLAIMS  
FOLLOW-UP SAMPLING  
YUKON, CANADA**

Date: 3/3/94

Author: AD

File: HMSBLUP

PS: 1 = 2.5

Figure 7

observed.

Of the six previously excavated trenches, two were mapped in detail at 1:250 scale (Figure 6). Trench HMS-1 is most likely located along a fault, or in close proximity to one, as evidenced by brecciation, dolomite veining and gouge development within the graphitic quartzite. This trench was systematically chip sampled. The other trench, HMS-2, exposes similar geology and only one float sample, of a "mariposite" bearing quartz vein, was collected.

## **8.0 GEOCHEMISTRY**

### **8.1 Rock Geochemistry**

A total of 20 rock samples were collected on the property. Rock samples were collected from trenches, outcrop, float and frost heaved material. Sample locations are plotted on Figures 5, 6 and 7 and sample descriptions are provided in Appendix A.

Samples were shipped to Chemex Labs in Vancouver and were analyzed for gold by 30 gram fire assay with an AA finish, and for an additional 32 elements by ICP-ES. Analytical procedures and results are provided in Appendix B.

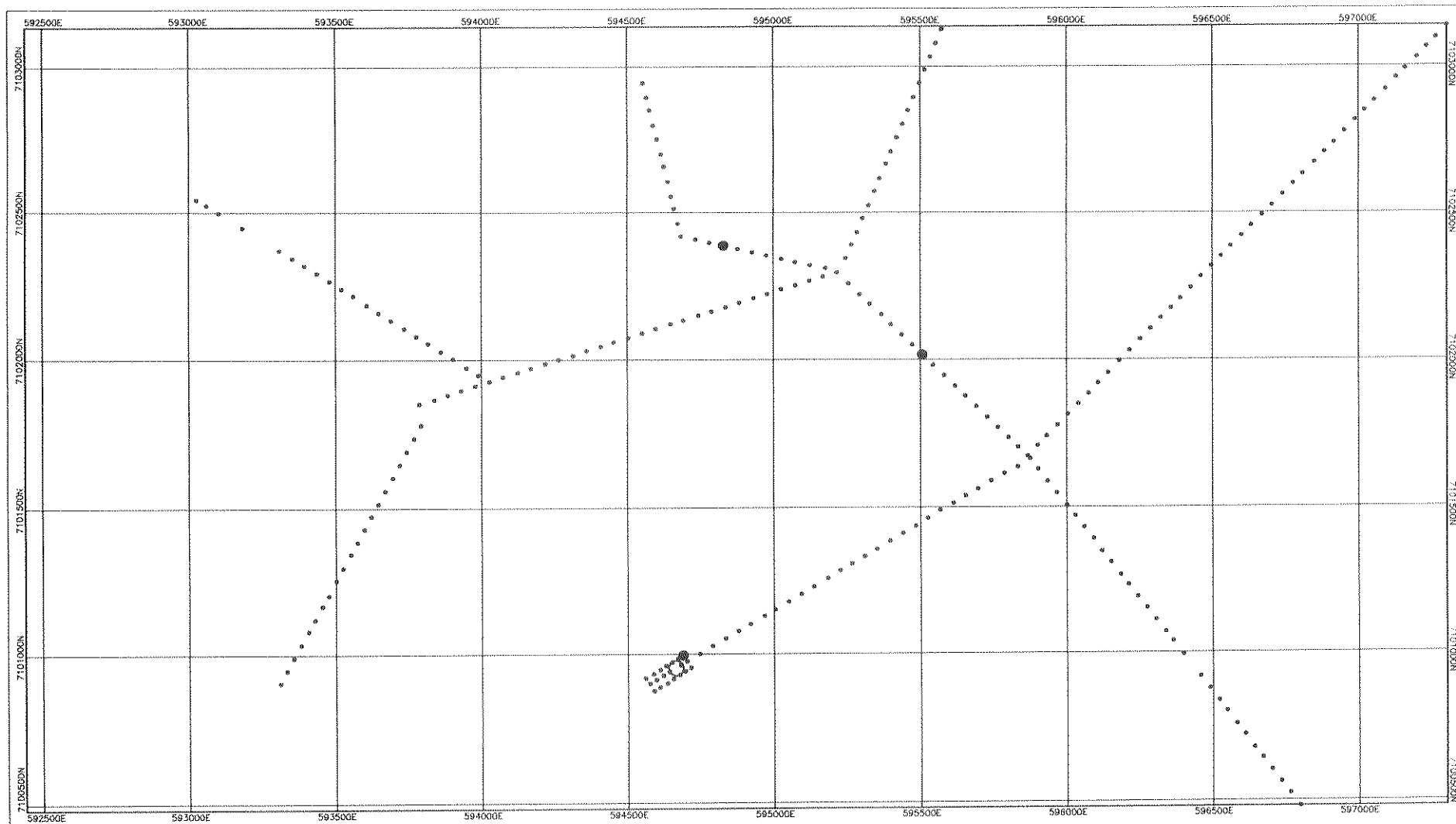
No values of economic significance were encountered during rock sampling. The only sample with gold above detection limit is VR2859A, which contains 10 ppb gold and 48 ppm arsenic.

Other samples weakly anomalous in arsenic (but not gold) include VR2863A with 120 ppm arsenic and VR2869A with 48 ppm arsenic. Both these samples were collected from quartz-sericite schist exposed in trench HMS-1.

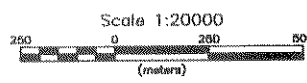
### **8.2 Soil Geochemistry**

Soil samples on the HMS property were collected at 50m intervals along the main northeast-trending ridge and along subsidiary spurs. Within the soil profile on the ridges, the B-horizon sample is generally poorly developed and is within 30cm of surface. Though the B-horizon was the preferred sample medium, C-horizon soils were collected at sites where no B-horizon was present. In total, 244 soil samples were collected during the program.

Samples were shipped to Chemex Labs in Vancouver and were analyzed for gold by 30 gram fire assay with an AA finish, and for an additional 32 elements by ICP-ES. Sample descriptions can be found in Appendix C, analytical procedures and results are provided in Appendix D and bubble plots of results are depicted on Figures 8 to 12.



- 0 - 5 ppb Au
- 6 - 20 ppb Au
- 21 - 40 ppb Au
- > 41 ppb Au

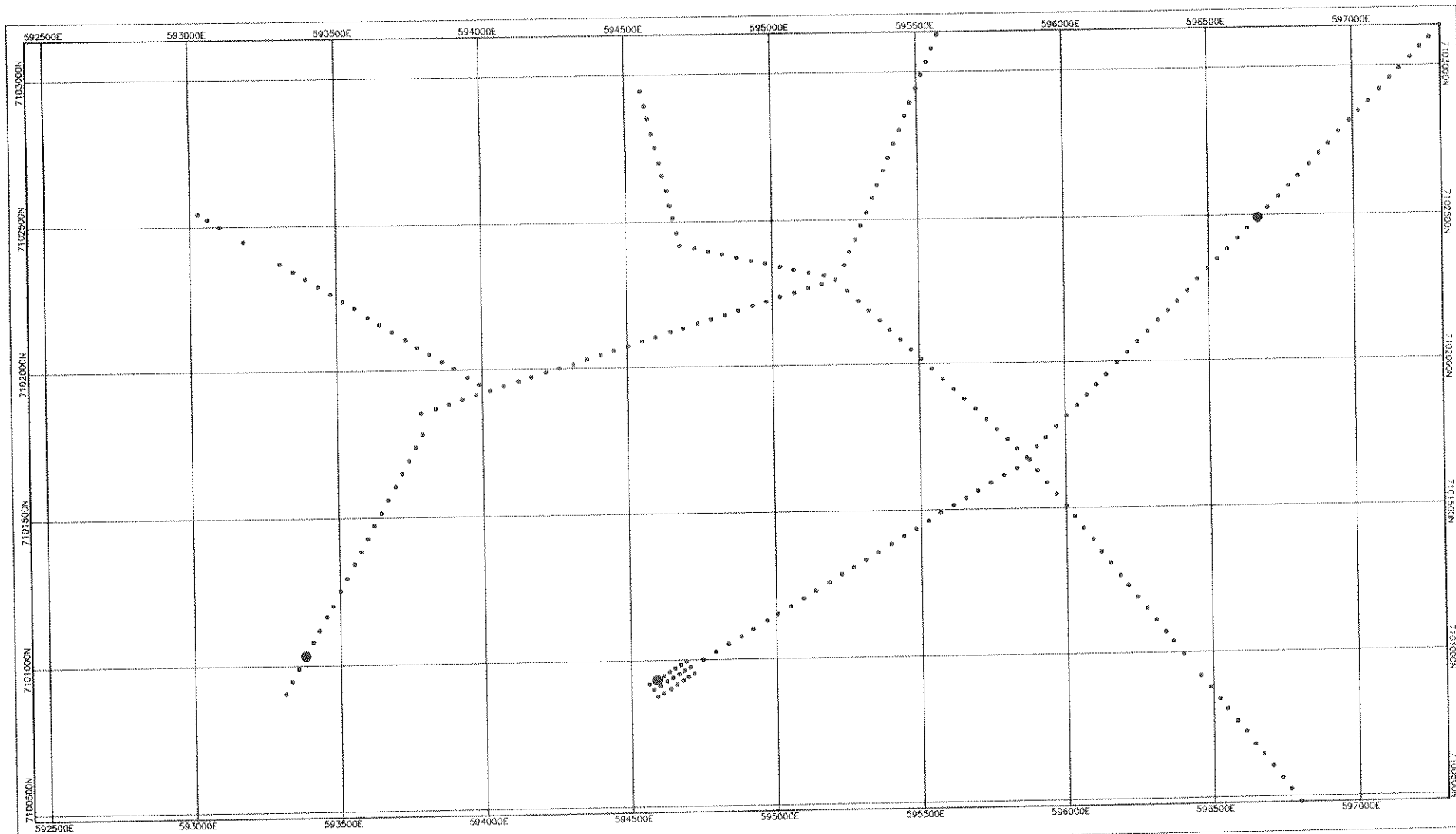


 **Kennecott Canada Inc.**  
Vancouver

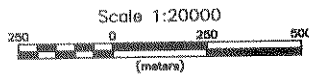
**HMS CLAIMS**  
**SOIL GEOCHEMISTRY GOLD PPB**  
**YUKON, CANADA**

Date: 07/05/93 Author:  
File: HMSAU-F PS:

**Figure 8**



- 0 - .4 ppm Ag
- .5 - 1.0 ppm Ag
- 1.1 - 1.9 ppm Ag
- > 2.0 ppm Ag



**Kennecott Canada Inc.**  
Vancouver

**HMS CLAIMS**

**SOIL GEOCHEMISTRY SILVER PPM**

**YUKON, CANADA**

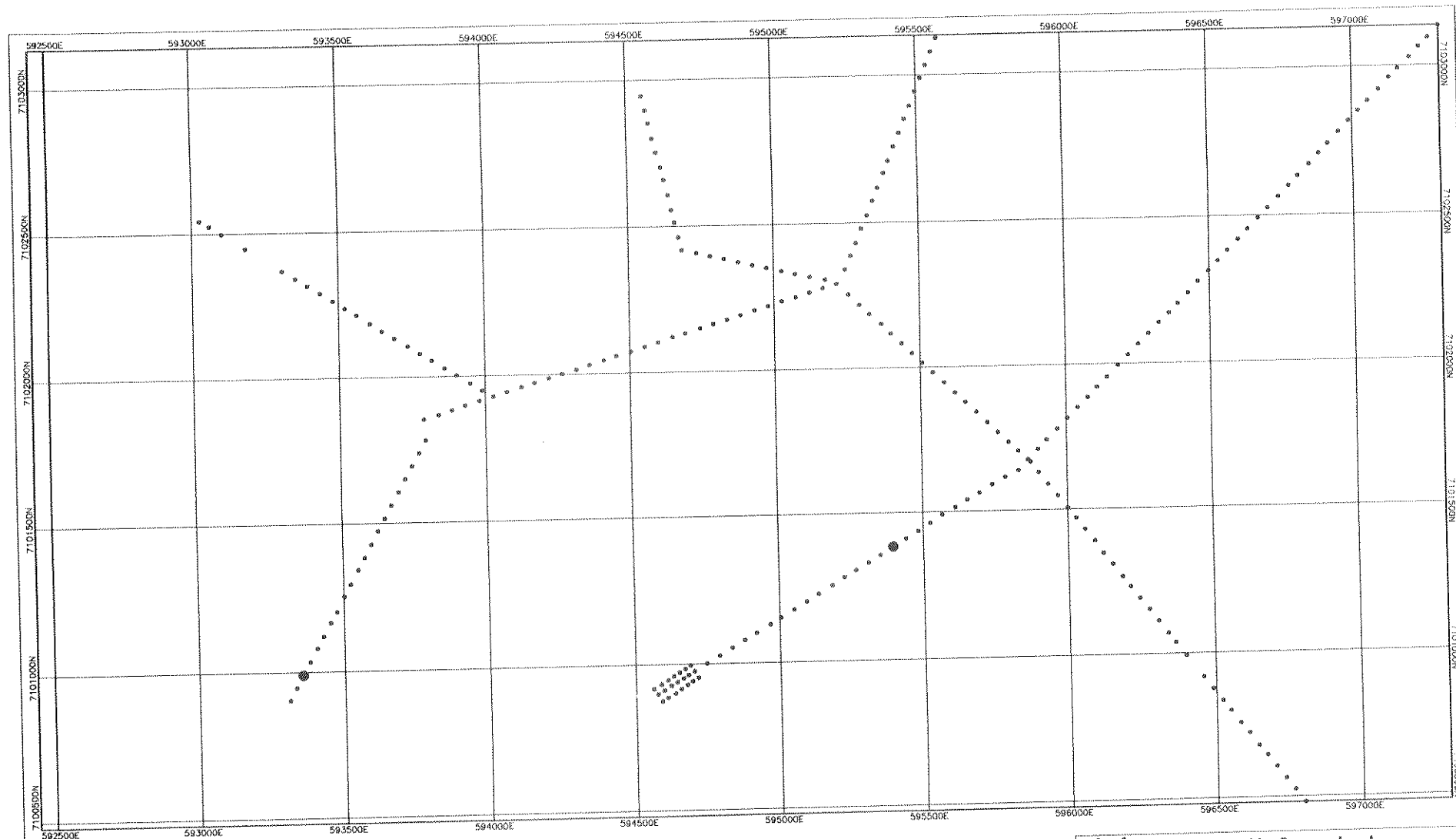
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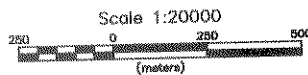
File: HMSAG-F

PS:

**Figure 9**



- 0 - 30 ppm As
- 31 - 100 ppm As
- 101 - 150 ppm As
- 151 - 200 ppm As



**Kennecott Canada Inc.**  
Vancouver

**HMS CLAIMS**

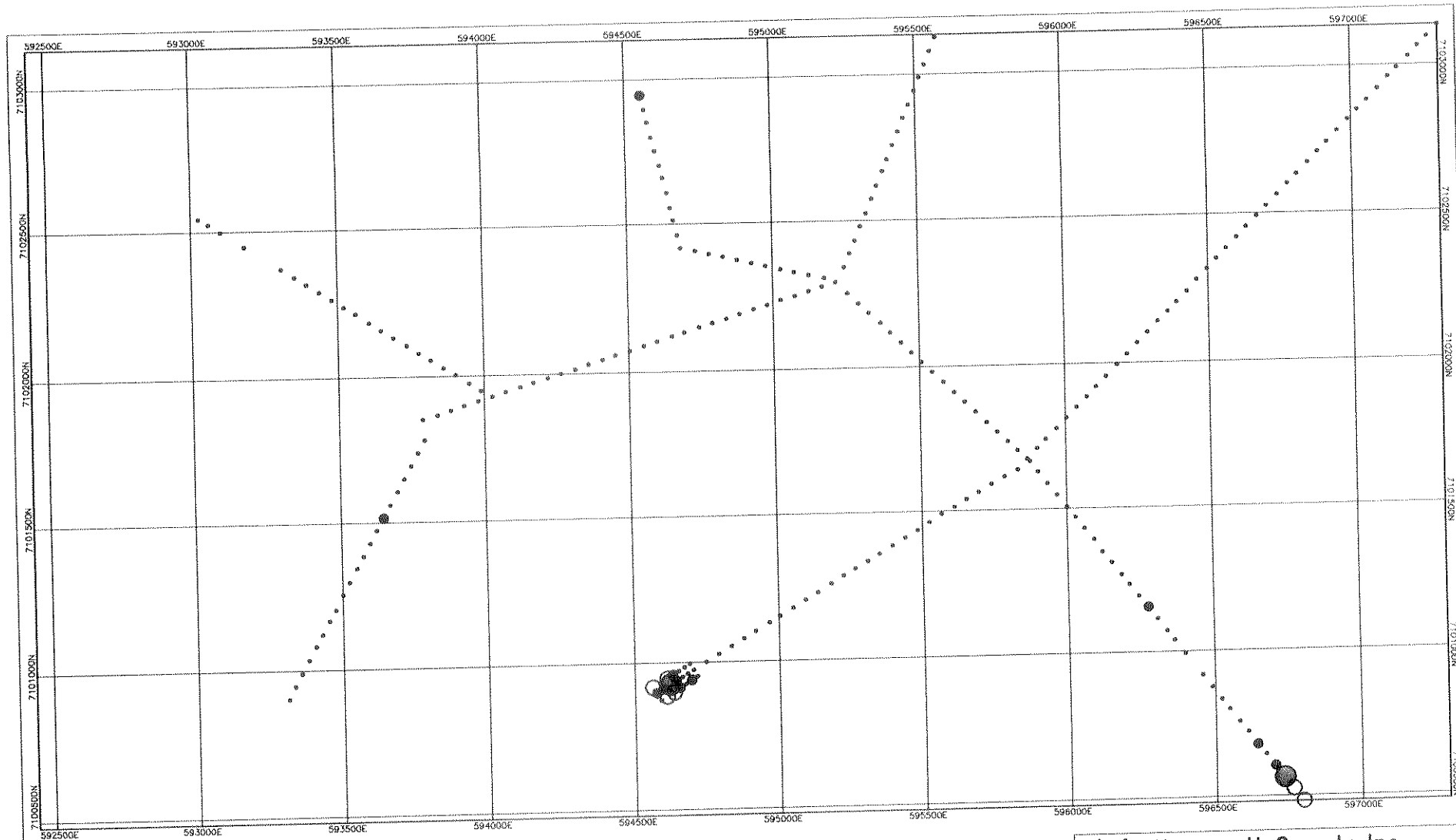
**SOIL GEOCHEMISTRY ARSENIC PPM**

**YUKON, CANADA**

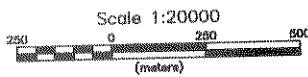
Date: 07/05/03  
File: HMSAS-F

Author:  
PS:

**Figure 10**



- 0 - 45 ppm Cr
- 46 - 100 ppm Cr
- 101 - 250 ppm Cr
- (large) > 251 ppm Cr



**Kennecott Canada Inc.**  
Vancouver

**HMS CLAIMS**

**SOIL GEOCHEMISTRY CHROMIUM PPM**

**YUKON, CANADA**

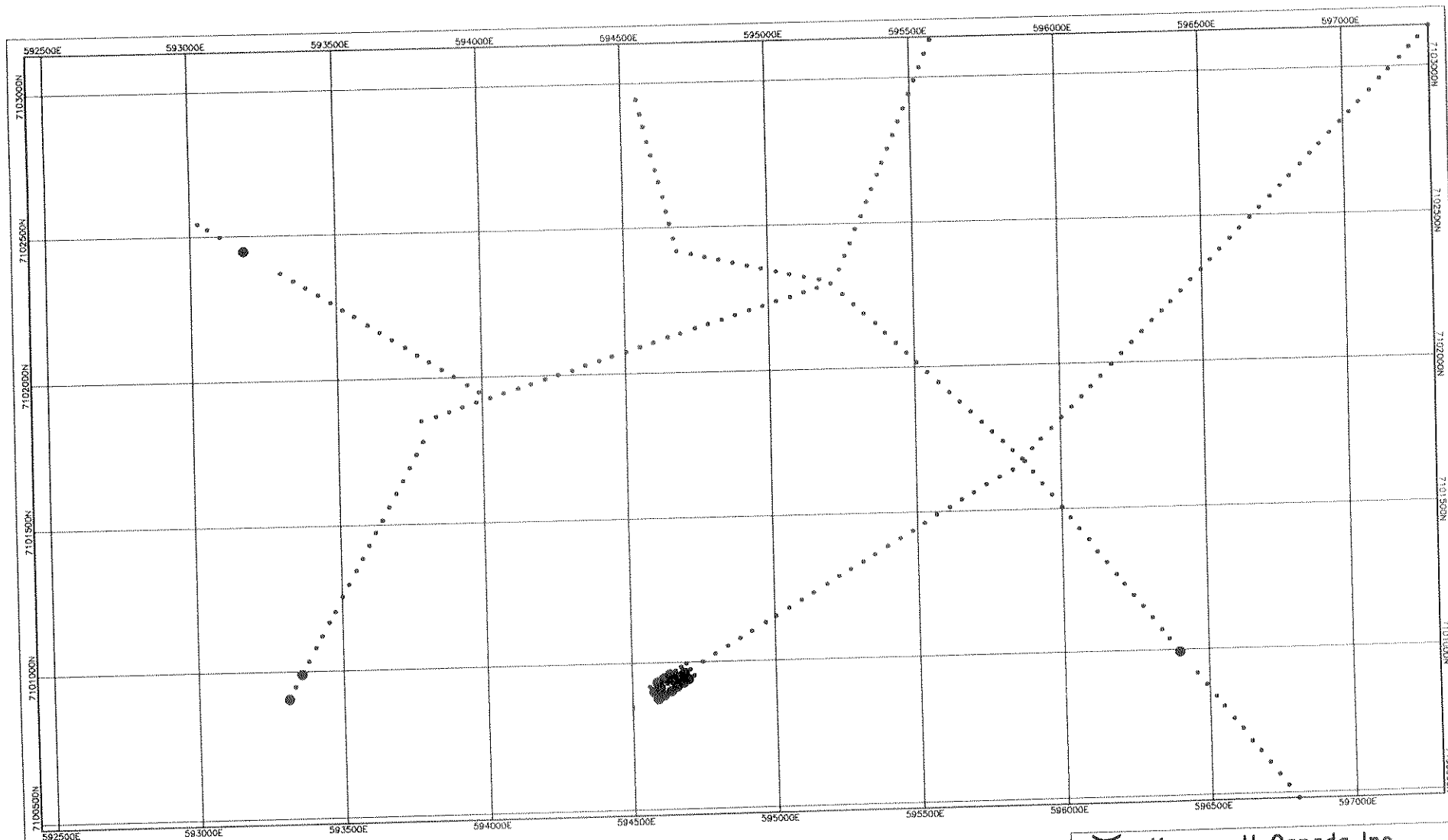
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Author:

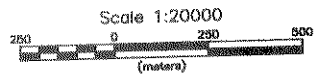
File: HMSCR-F

PS:

**Figure 11**



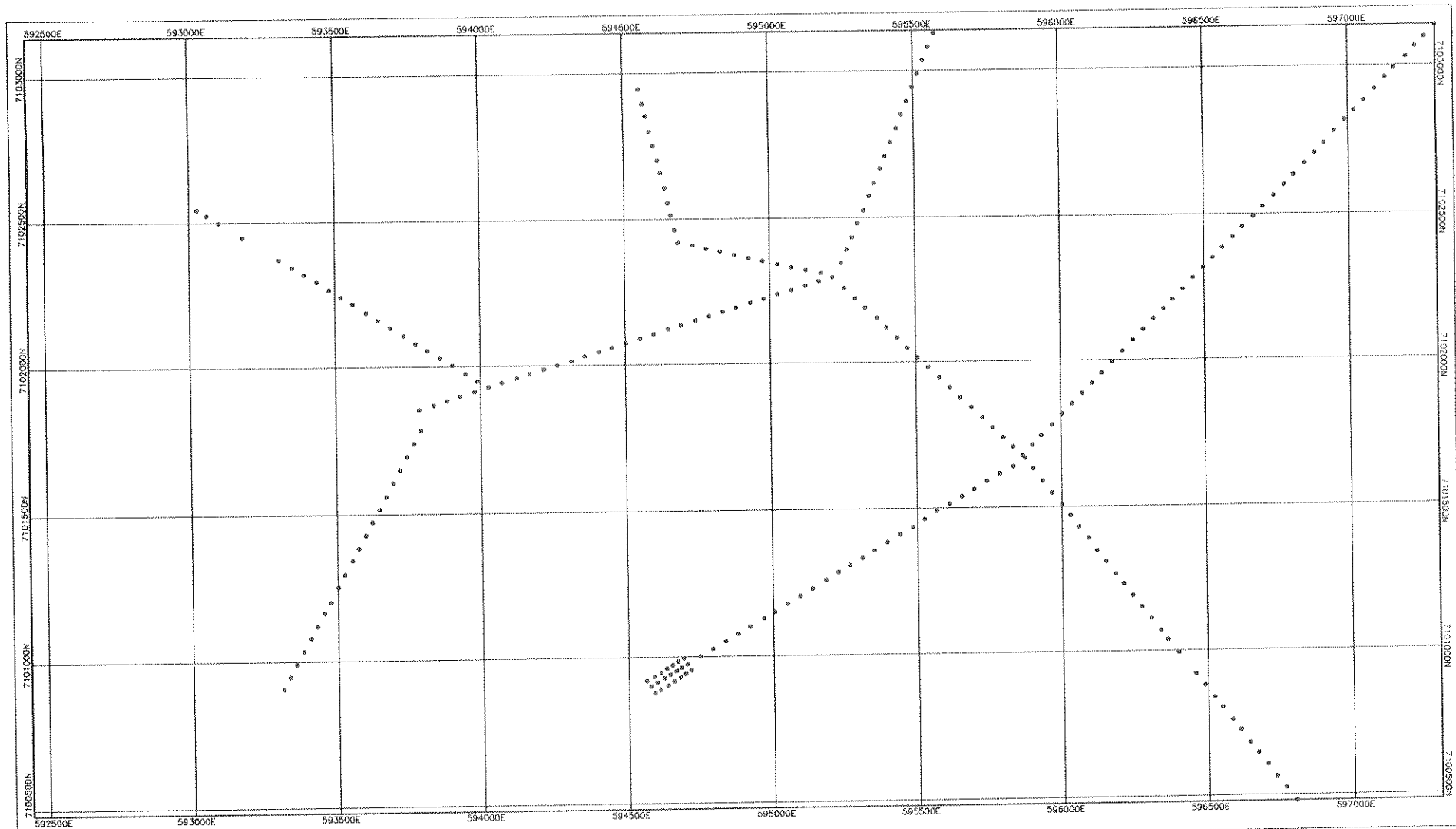
- 0 - 30 ppm Cu
- 31 - 100 ppm Cu
- 101 - 150 ppm Cu
- (large) > 151 ppm Cu



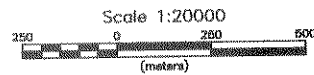
**Kennecott Canada Inc.**  
 Vancouver  
**HMS CLAIMS**  
**SOIL GEOCHEMISTRY COPPER PPM**  
**YUKON, CANADA**

Date: 07/05/03	Author:
File: HMSCU-F	PS:

**Figure 12**



- 0 - 30 ppm Pb
- 31 - 60 ppm Pb
- 61 - 150 ppm Pb
- > 151 ppm Pb



**Kennecott Canada Inc.**  
Vancouver

**HMS CLAIMS**  
**SOIL GEOCHEMISTRY LEAD PPM**  
**YUKON, CANADA**

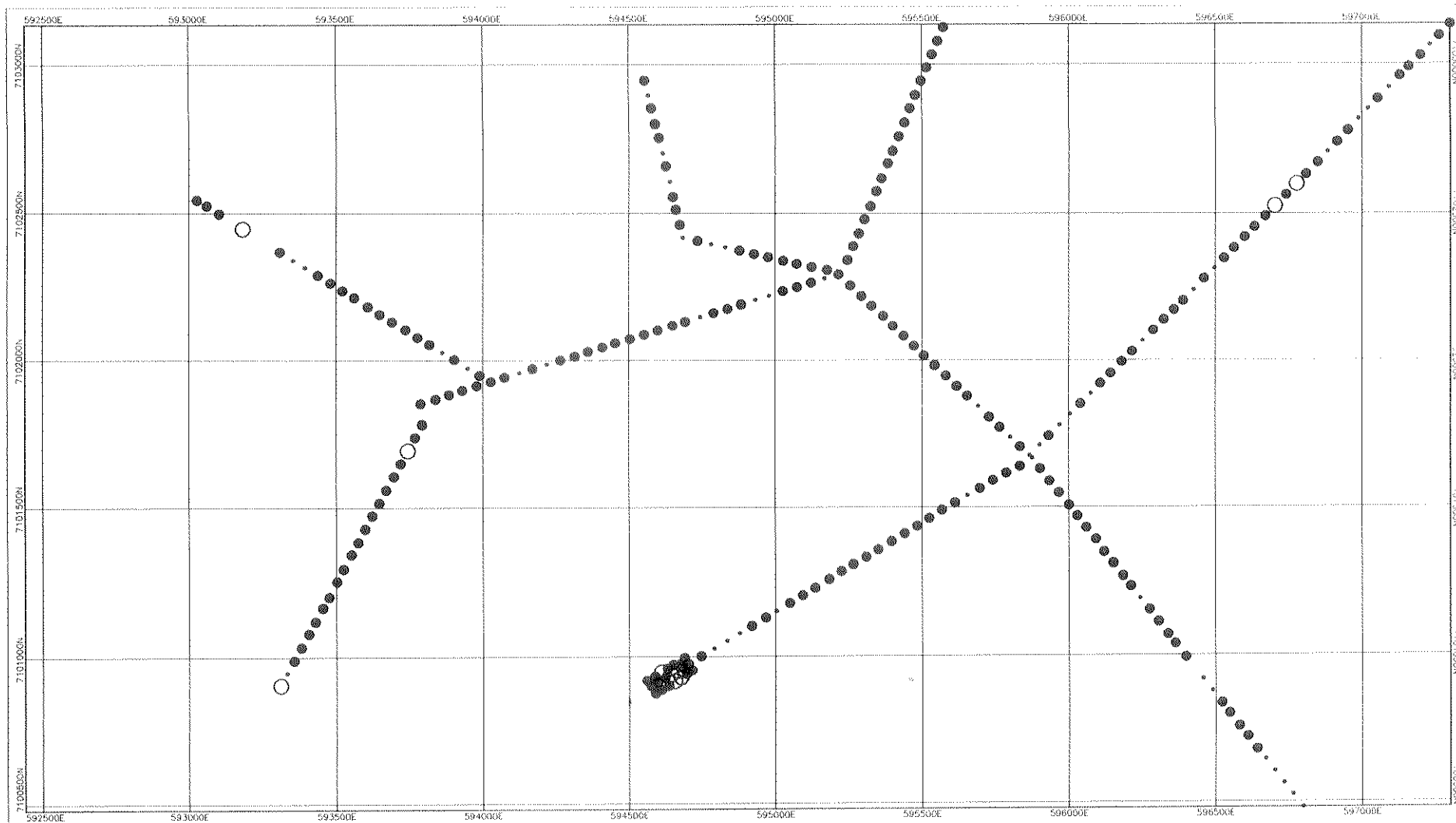
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Author:

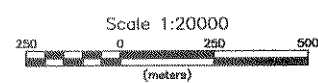
File: HMSPB-F


PS:

**Figure 13**



- 0 - 50 ppm Zn
- 51 - 100 ppm Zn
- 101 - 150 ppm Zn
- > 151 ppm Zn



 **Kennecott Canada Inc.**  
Vancouver

**HMS CLAIMS**

**SOIL GEOCHEMISTRY ZINC PPM**

**YUKON, CANADA**

Date: 07/05/93	Author:	<b>Figure 14</b>
File: SHRZN-F	PS:	

A 40 ppb single sample gold anomaly coincident with elevated chromium, copper and zinc was identified near the southern edge of the property (Figures 8, 11, 12 & 14). Follow-up work on the anomaly included more closely spaced soil sampling and minor hand trenching (Figure 7). Samples were collected at 25 metre intervals on two parallel, 150 metre long soil lines located 25m on either side of the original line. In-fill soil samples were also collected on the original line. With the exception of one sample containing 20ppb gold, all gold values obtained from follow-up samples were below detection.

## **9.0 DISCUSSION**

The HMS claims are underlain by a quartz-feldspar porphyry intrusive, graphitic quartzite and minor quartz-muscovite schist. Due to the lack of any alteration and the paucity of sulphide encountered, it is unlikely that the property has the potential to host economic mineralization.

Rock samples were collected from all rock types on the HMS claim block and the results are considered representative of the whole property. Gold was low to undetected in all rock samples collected.

Ridge-and-spur soil sampling is an effective means to test the HMS claims on a property-wide scale. The thin, but near surface development of B-horizon soils on the ridge tops was especially conducive to this method of exploration. However, after follow-up of one gold anomaly, no other areas worthy of additional work were identified on the property.

## **10.0 CONCLUSIONS AND RECOMMENDATIONS**

The HMS claim block does not appear to have the potential to host an economic gold deposit. It has been recommended that no further work be performed on the property.

## 11.0 REFERENCES


- DEBICKI, R.L. 1984. Bedrock geology and mineralization of the Klondike area (west), 115O/14, 15 and 116B/2,3. Indian and Northern Affairs, Canada, Whitehorse, Y.T. Open file map with marginal notes.
- GREEN, L.H. 1972. Geology of Nash Creek, Larson Creek, and Dawson map-areas, Operation Ogilvie. Geological Survey of Canada, Memoir 364.
- McCONNELL, R.G. 1905. Report on the Klondike gold fields. Geological Survey of Canada, Annual Report 14, pp. B1-B17
- METCALFE, P. 1981., Petrogenesis of the Klondike Formation, Yukon Territory. Unpublished M.Sc. thesis, University of Manitoba, Winnipeg, Manitoba.
- MORTENSEN, J.K., 1990. Geology and U-Pb geochronology of the Klondike District, west-central Yukon Territory. Canadian Journal of Earth Sciences, Volume 27, pp. 903-914.
- TEMPLEMAN-KLUIT, D.J. 1974. Reconnaissance geology of Aishihik Lake, Snag, and part of Stewart River map-areas, west-central Yukon. Geology Survey of Canada, Paper 73-41.


## STATEMENT OF QUALIFICATIONS

I, Russ Cranswick, with business address at 354 - 200 Granville Street, Vancouver, B.C., V6C 1S4, and residence at P6 - 2455 York Avenue, Vancouver, B.C., V6K 1C9, hereby certify that:

- 1) I graduated from the University of British Columbia in 1987 with a B.Sc. in Geology.
- 2) I am a licensed Professional Geologist (L607) with the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories.
- 3) I am a member of the Society of the Economic Geologists.
- 4) For the past seven years as a geologist, and the three years prior as a student, I have been actively engaged in mineral exploration in British Columbia, Yukon Territory, Northwest Territories and Ontario.
- 5) I have no interest, nor do I expect to receive any interest, in the property or any related securities.
- 6) This report is based on the work conducted by, and the personal observations of, my co-author. My contributions to this report are based on a review of the data and my familiarity with the project area.

Dated at Vancouver, British Columbia, this 16<sup>th</sup> day of March, 1994.

  
R. L. Cranswick - P. Geol.



The seal is circular with the text "REGISTERED PROFESSIONAL GEOLOGIST" around the top edge and "N.W.T." at the bottom. In the center, it reads "R.L. CRANSWICK" and "LICENSEE".

STATEMENT OF COSTS - HMS  
23 May - 30 May, 1993

Salaries

Geologists	14 man days	@	\$250.00	\$ 3,500.00
Assistants	8 man days	@	\$135.00	\$ 1,080.00

Support

Truck 1 rental	7 days	@	\$60.00	\$ 420.00
Truck 2 rental	7 days	@	\$60.00	\$ 420.00
ATV rental	7 days	@	\$24.00	\$ 168.00
Fax rental	7 days	@	\$10.00	\$ 70.00

Meals and Accomodations

Meals	22 man days	@	\$40.00	\$ 880.00
House Rental	7 days	@	\$37.00	\$ 259.00

Analytical Costs

Rock	15 samples	@	\$16.00	\$ 240.00
Soil	230 samples	@	\$11.00	\$ 2,530.00

Supplies

\$ 383.00

Communications/Reproductions

\$ 280.00

Report

\$ 1,400.00

Drafting

\$ 400.00

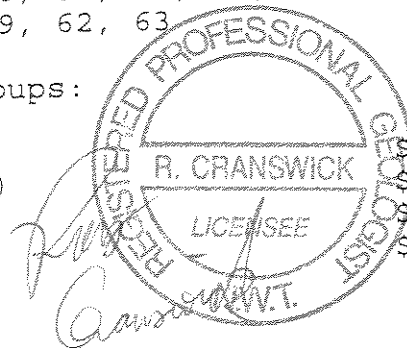
TOTAL

\$ 12,030.00

Work performed on: HMS 5, 6, 8, 9, 12, 14, 17, 19, 20-22,  
33, 35, 36, 38, 40, 41, 43, 44, 46-49,  
54, 57, 59, 62, 63

Costs allotted to the following groups:

DA03186	HMS 56-63 (8)	\$1,718.57
DA03187	HMS 3-9, 31-36, 53 55 (16)	\$3,437.14
DA03188	HMS 10-17, 37-44 (16)	\$3,437.14
DA03189	HMS 18-25, 45-52 (16)	\$3,437.14



**Appendix A**  
Rock Sample Descriptions

## Rock Sample Descriptions: Table of Abbreviations

### PROJECT (PROJ.)

*KG* Klondike Gold      *LS* Lonestar

### GEOLOGIST (GEOL.)

— Geologist's Initials

### SAMPLE TYPE (S-TYPE)

<i>CH</i>	Channel	<i>CO</i>	Drill Core
<i>CU</i>	Drill Cuttings	<i>DG</i>	Dump, Grab
<i>DH</i>	Dump, High-Grade	<i>FL</i>	Float
<i>GR</i>	Grab	<i>RC</i>	Rock-Chip from outcrop

### ROCK TYPE MODIFIERS (MOD1, MOD2, MOD3)

<i>AZU</i>	Azurite	<i>CHL</i>	Chlorite
<i>DIB</i>	Diabase	<i>FEL</i>	Feldspathic
<i>FSP</i>	Feldspar	<i>GRA</i>	Graphite
<i>INT</i>	Intermediate	<i>MAG</i>	Magnetite
<i>MAL</i>	Malachite	<i>MUS</i>	Muscovite
<i>SEC</i>	Sericite	<i>SLC</i>	Silicified
<i>QTZ</i>	Quartz		

### ROCK TYPE (R-TYPE)

<i>AND</i>	Andesite	<i>BRX</i>	Breccia
<i>CLY</i>	Clay	<i>DIK</i>	Dike
<i>GRD</i>	Granodiorite	<i>LIM</i>	Limonite
<i>MAR</i>	Mariposite	<i>POR</i>	Porphyry
<i>PYY</i>	Pyrite concentrate	<i>QTE</i>	Quartzite
<i>SCH</i>	Schist	<i>ULM</i>	Ultramafic
<i>VEN</i>	Vein		

## HMS Rock Sample Descriptions

SAMPLE #	CERTIF. #	PROJ.	PROPERTY	NTS	UTM N	UTM E	CLAIM	DATE	GEOL	S-TYPE	MOD 1	MOD 2	MOD 3	R-TYPE	NOTES
VR2852A	A9315298	KG	HMS	1168/3	7,101,148	593,732	HMS 8	05/23/93	PFL	GR				QTE	
VR2853A	A9315298	KG	HMS	1168/3	7,101,500	594,100	HMS 11	05/24/93	PFL	GR	QTZ	FEL		POR	
VR2857A	A9315298	KG	HMS	1168/3	7,101,288	592,858	HMS 4	05/24/93	PFL	GR				GRD	80% SMOKEY EUHEDRAL QTZ, 35% FSP, 1% MAG, 5% PYY
VR2858A	A9315298	KG	HMS	1168/3	7,100,950	594,865	HMS 12	05/24/93	PFL	FL	QTZ			VEN	WITH 10-15% Fb-CARB
VR2859A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			QTE	GRAPHITIC QUARTZITE, IN TRENCH
VR2860A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			QTE	IN TRENCH
VR2861A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			QTE	IN TRENCH
VR2862A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			QTE	AT CONTACT WITH QMS, IN TRENCH
VR2863A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	QTZ	MUS		SCH	IN TRENCH
VR2864A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			QTE	CONTACT WITH GRAPHITIC BRECCIA, IN TRENCH
VR2865A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			BRX	IN TRENCH
VR2866A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			BRX	IN TRENCH
VR2867A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			BRX	IN TRENCH
VR2868A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	GRA			BRX	IN TRENCH
VR2869A	A9315298	KG	HMS	1168/3	7,101,205	593,480	HMS 7	05/30/93	PFL	RC	QTZ	SEC		SCH	QTZ SERICITE SCHIST, VERY NARROW BAND, IN TRENCH
VR2870A	A9315298	KG	HMS	1168/3	7,101,020	593,470	HMS 6	05/30/93	ALD	FL	MUS			SCH	QTZ VEIN IN MS W/ MARIPOSITE ON MARGINS
VR2951A	A9315298	KG	HMS	1168/3	7,102,268	595,134	HMS 41	05/23/93	ALD	GR	QTZ	FEL	MAG	POR	
VR5888A	A9317084	KG	HMS	1168/3	7,100,953	594,864	HMS 12	06/30/93	KC	FL	GRA			SCH	GRA SCH AT SOIL STATION VR3183A
VR5889A	A9317084	KG	HMS	1168/3	7,100,928	594,821	HMS 12	06/30/93	KC	FL	GRA			SCH	GRA SCH AT SOIL STATION VR3184A

**Appendix B**

Rock Sample Results



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

J: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
VANCOUVER, BC  
V6C 1S4

A9315296

Comments: ATTN: ANN DOYLE

CERTIFICATE

A9315296

KENNECOTT CANADA, INC.

Project: HMS  
P.O. #: 05-428

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 15-JUN-93.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205		Geochem ring to approx 150 mesh
274		0-15 lb crush and split
229		ICP - AQ Digestion charge

\* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983		Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118		Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2119		Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120		As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121		Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122		Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123		Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124		Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125		Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2126		Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127		Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128		Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150		Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130		Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131		Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132		K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151		La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134		Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135		Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136		Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137		Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
2138		Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139		P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140		Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141		Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142		Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143		Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144		Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
2145		Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146		U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147		V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148		W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149		Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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 British Columbia, Canada V7J 2C1  
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KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project: HMS  
 Comments: ATTN: ANN DOYLE

Page No. : 1-B  
 Total Pages : 1  
 Certificate Date: 15-JUN-93  
 Invoice No. : 19315296  
 P.O. Number : 05-428  
 Account : KAVA

## CERTIFICATE OF ANALYSIS A9315296

SAMPLE	PREP CODE		Mo	Na	Mi	P	Pb	Sb	Sc	Br	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
VR2852A	205	274	< 1	0.01	< 1	30	4	4	< 1	431	< 0.01	< 10	< 10	6	< 10	16
VR2853A	205	274	1	0.04	< 1	30	8	2	2	5	0.01	< 10	10	1	< 10	120
VR2858A	205	274	< 1	0.01	5	120	14	2	1	26	< 0.01	< 10	< 10	9	< 10	8
VR2859A	205	274	2	< 0.01	42	520	4	< 2	2	28	< 0.01	< 10	< 10	27	< 10	98
VR2860A	205	274	2	< 0.01	49	610	6	< 2	2	20	< 0.01	< 10	< 10	35	< 10	150
VR2861A	205	274	2	< 0.01	45	1400	16	< 2	1	25	< 0.01	< 10	< 10	42	< 10	142
VR2862A	205	274	1	< 0.01	73	2060	8	< 2	1	33	< 0.01	< 10	< 10	21	< 10	204
VR2863A	205	274	1	< 0.01	55	1060	38	2	1	33	< 0.01	< 10	< 10	17	< 10	158
VR2864A	205	274	< 1	< 0.01	37	2180	< 2	2	1	36	< 0.01	< 10	< 10	38	< 10	126
VR2865A	205	274	< 1	< 0.01	8	260	< 2	2	< 1	228	< 0.01	< 10	< 10	13	< 10	68
VR2866A	205	274	< 1	< 0.01	8	60	< 2	4	< 1	214	< 0.01	< 10	< 10	11	< 10	40
VR2867A	205	274	< 1	< 0.01	9	50	20	2	< 1	195	< 0.01	< 10	< 10	12	< 10	60
VR2868A	205	274	< 1	< 0.01	11	270	12	4	1	211	< 0.01	< 10	< 10	15	< 10	64
VR2869A	205	274	< 1	< 0.01	23	2980	< 2	4	1	49	< 0.01	< 10	< 10	52	< 10	82
VR2870A	205	274	< 1	< 0.01	39	160	4	< 2	< 1	10	< 0.01	< 10	< 10	3	< 10	38
VR2951A	205	274	< 1	0.06	< 1	< 10	10	< 2	1	5	0.01	< 10	< 10	1	< 10	140

CERTIFICATION: Jan Buehler



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 804-984-0221

o: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project : HMS  
 Comments: ATTN: ANN DOYLE

Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 15-JUN-93  
 Invoice No. : 19315296  
 P.O. Number : 05-428  
 Account : KAVA

## CERTIFICATE OF ANALYSIS A9315296

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Bs ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR2852A	205 274	< 5	< 0.2	0.03	< 2	40	< 0.5	4	>15.00	0.5	1	23	1	0.15	< 10	< 1	< 0.01	< 10	1.73	105
VR2853A	205 274	< 5	0.4	0.49	< 2	30	< 0.5	2	0.35	< 0.5	1	98	3	1.04	< 10	< 1	0.21	10	0.02	125
VR2858A	205 274	< 5	< 0.2	0.15	< 2	20	< 0.5	2	1.68	< 0.5	2	241	2	0.82	< 10	< 1	< 0.01	< 10	0.52	565
VR2859A	205 274	10	< 0.2	0.37	48	480	< 0.5	< 2	0.03	< 0.5	5	140	56	2.01	< 10	< 1	0.11	< 10	0.83	30
VR2860A	205 274	< 5	0.2	0.43	24	540	< 0.5	< 2	0.08	< 0.5	7	222	42	2.09	< 10	< 1	0.14	10	0.04	40
VR2861A	205 274	< 5	0.2	0.39	16	490	< 0.5	2	0.27	0.5	6	141	88	1.97	< 10	< 1	0.13	< 10	0.03	40
VR2862A	205 274	< 5	0.2	0.35	22	500	< 0.5	2	0.46	2.0	14	127	64	1.60	< 10	< 1	0.09	< 10	0.03	820
VR2863A	205 274	< 5	0.6	0.38	18	530	< 0.5	< 2	0.47	< 0.5	13	121	170	1.80	< 10	< 1	0.09	< 10	0.06	1585
VR2864A	205 274	< 5	0.4	0.36	120	440	< 0.5	2	1.35	< 0.5	6	94	63	1.19	< 10	< 1	0.13	< 10	0.44	405
VR2865A	205 274	< 5	< 0.2	0.03	4	50	< 0.5	2	>15.00	0.5	5	10	6	0.50	< 10	< 1	< 0.01	< 10	10.80	1035
VR2866A	205 274	< 5	< 0.2	0.06	< 2	40	< 0.5	4	>15.00	< 0.5	1	28	8	0.32	< 10	< 1	< 0.01	< 10	10.40	685
VR2867A	205 274	< 5	< 0.2	0.03	2	60	< 0.5	< 2	>15.00	0.5	2	35	11	0.35	< 10	< 1	< 0.01	< 10	10.40	475
VR2868A	205 274	< 5	< 0.2	0.09	2	80	< 0.5	< 2	14.15	1.0	3	55	7	0.66	< 10	< 1	0.02	< 10	7.31	845
VR2869A	205 274	< 5	0.2	0.39	48	660	< 0.5	< 2	2.18	< 0.5	2	144	71	0.68	< 10	< 1	0.14	< 10	0.38	135
VR2870A	205 274	< 5	< 0.2	0.10	2	270	< 0.5	< 2	1.81	< 0.5	5	128	17	1.02	< 10	< 1	0.02	< 10	0.06	460
VR2951A	205 274	< 5	0.4	0.78	4	30	< 0.5	< 2	0.19	< 0.5	1	118	3	1.07	< 10	< 1	0.21	20	0.03	180

CERTIFICATION: *Hart Bickler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project: HMS  
 Comments: ATTN: A.DOYLE

Page Number: 1-A  
 Total Pages: 1  
 Certificate Date: 19-JUL-97  
 Invoice No.: 19317064  
 P.O. Number: 05-428  
 Account: KAVA

## CERTIFICATE OF ANALYSIS

A9317064

SAMPLE	PREP CODE		Au ppb	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn
	FA+AA		ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm
VR 5688 A	205	274	< 5	< 0.2	0.70	< 2	70	< 0.5	< 2	2.94	1.0	6	171	12	1.88	< 10	< 1	0.07	< 10	0.61	1060
VR 5689 A	205	274	< 5	< 0.2	0.78	< 2	120	< 0.5	< 2	1.01	0.5	35	979	17	2.69	< 10	< 1	< 0.01	< 10	7.66	800

CERTIFICATION: *Stuart Bickler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
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Page Number: 1-B  
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P.O. Number: 05-428  
Account: KAVA

## CERTIFICATE OF ANALYSIS

A9317064

SAMPLE	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
VR 5688 A	205	274	< 1	0.02	14	250	14	< 2	2	79	< 0.01	< 10	< 10	12	< 10	42
VR 5689 A	205	274	1	0.01	559	170	8	2	3	45	< 0.01	< 10	< 10	22	< 10	42

CERTIFICATION: *Paul Buchler*

Appendix C  
Soil Sample Descriptions

## Soil Sample Descriptions: List of Abbreviations

### PROJECT (PROJ.)

*LS* Lonestar

*KG* Klondike Gold

### SAMPLER

— Sampler's Initials

### SAMPLE TYPE (TYPE)

*SL* Soil

### ORGANIC CONTENT (ORG)

— Given as %

### SOIL HORIZON (HOR)

Based upon USGS classification

#### 1) Organic Soils

*O* Organic (humic to fibric organic layer)

#### 2) Mineral Soils

*A* Zone of clay and sesquioxide depletion and/or insitu organic carbon concentration.

*B* Zone of sesquioxide, organic carbon, and clay enrichment

*C* Mineral soil unefected by the above pedogenic processes

*R* Insitu weathered rock (too hard to break with hands)

### COLOR

*BK* Black

*BL* Blue

*BN* Brown

*BF* Buff

*GY* Grey

*OL* Olive

*OR* Orange

*PP* Purple

*RD* Red

*TA* Tan

*WT* White

*YW* Yellow

### DEPTH

Given in centimetres

### CLAY CONTENT

*L* Low

*M* Medium

*H* High

# HMS Claims - Soil Sample Descriptions

SAMPLE #	CERTIF. #	PROJ.	PROPERTY	UTM N	UTM E	CLAIM	DATE	SAMPLER	TYPE	ORG	HOR	COLOUR	DEPTH	CLAY	MOISTURE	COMMENTS
VR2901A	A9316295	KG	HMS	7,102,294	595,215	HMS 41	05/23/93	KC	SL	NA	B	BN	20	M	WET	CLOSE TO BEDROCK
VR2902A	A9316295	KG	HMS	7,102,268	595,255	HMS 41	05/23/93	KC	SL	NA	B	N	20	M	WET	BEDROCK NEAR
VR2903A	A9316295	KG	HMS	7,102,220	595,293	HMS 41	05/23/93	KC	SL	NA	B	BN	30	M	WET	
VR2904A	A9316295	KG	HMS	7,102,187	595,327	HMS 43	05/23/93	KC	SL	NA	B	BN	35	M	WET	
VR2905A	A9316295	KG	HMS	7,102,152	595,367	HMS 43	05/23/93	KC	SL	NA	B	BN	25	M	MOIST	
VR2906A	A9316295	KG	HMS	7,102,118	595,400	HMS 44	05/23/93	KC	SL	NA	B	BN	30	M	WET	
VR2907A	A9316295	KG	HMS	7,102,084	595,437	HMS 44	05/23/93	KC	SL	NA	B	BN	25	M	WET	BEARING CHANGE FOR 60M (64)
VR2908A	A9316295	KG	HMS	7,102,049	595,472	HMS 44	05/23/93	KC	SL	NA	B	BN	25	M	WET	RETURN TO ORIGINAL BEARING (133)
VR2909A	A9316295	KG	HMS	7,102,018	595,507	HMS 44	05/23/93	KC	SL	NA	B	BN	30	M	MOIST	
VR2910A	A9316295	KG	HMS	7,101,982	595,543	HMS 44	05/23/93	KC	SL	NA	B	BN	25	M	MOIST	
VR2911A	A9316295	KG	HMS	7,101,947	595,582	HMS 44	05/23/93	KC	SL	NA	B	BN	25	M	MOIST	
VR2912A	A9316295	KG	HMS	7,101,911	595,618	HMS 44	05/23/93	KC	SL	NA	B	BN	30	M	MOIST	
VR2913A	A9316295	KG	HMS	7,101,878	595,654	HMS 44	05/23/93	KC	SL	NA	B	BN	10	M	MOIST	
VR2914A	A9316295	KG	HMS	7,101,842	595,691	HMS 44	05/23/93	KC	SL	NA	B	BN	15	M	MOIST	
VR2915A	A9316295	KG	HMS	7,101,806	595,729	HMS 44	05/23/93	KC	SL	NA	B	BN	30	M	MOIST	
VR2916A	A9316295	KG	HMS	7,101,772	595,764	HMS 44	05/23/93	KC	SL	NA	B	BN-GY	30	M	MOIST	
VR2917A	A9316295	KG	HMS	7,101,737	595,800	HMS 46	05/23/93	KC	SL	NA	B	BN-GY	30	H	MOIST	FROZEN
VR2918A	A9316295	KG	HMS	7,101,706	595,834	HMS 46	05/23/93	KC	SL	NA	B	BN-GY	20	H	MOIST	FROZEN
VR2919A	A9316295	KG	HMS	7,101,676	595,867	HMS 19	05/23/93	KC	SL	NA	B	GY-BN	15	M	MOIST	FROZEN
VR2920A	A9316295	KG	HMS	7,101,667	595,876	HMS 19	05/24/93	KC	SL	NA	B	GY-BN	10	M	MOIST	FROZEN
VR2921A	A9316295	KG	HMS	7,101,631	595,902	HMS 19	05/24/93	KC	SL	NA	B	GY-BN	20	M	MOIST	FROZEN
VR2922A	A9316295	KG	HMS	7,101,589	595,934	HMS 19	05/24/93	KC	SL	NA	B	GY-BN	20	M	MOIST	FROZEN
VR2923A	A9316295	KG	HMS	7,101,549	595,966	HMS 19	05/24/93	KC	SL	NA	B	GY-BN	30	M	MOIST	FROZEN
VR2924A	A9316295	KG	HMS	7,101,506	596,000	HMS 18	05/24/93	KC	SL	NA	B	RD-BN	10	M	DRY	
VR2925A	A9316295	KG	HMS	7,101,470	596,029	HMS 19	05/24/93	KC	SL	NA	B	BN-RD	25	M	DRY	
VR2926A	A9316295	KG	HMS	7,101,431	596,058	HMS 19	05/24/93	KC	SL	NA	B	BN	15	M	DRY	
VR2927A	A9316295	KG	HMS	7,101,392	596,092	HMS 19	05/24/93	KC	SL	NA	B	BN-GY	20	L	WET	
VR2928A	A9316295	KG	HMS	7,101,349	596,120	HMS 19	05/24/93	KC	SL	NA	B	BN	20	M	WET	
VR2929A	A9316295	KG	HMS	7,101,312	596,151	HMS 19	05/24/93	KC	SL	NA	B	BN-RD	10	M	WET	
VR2930A	A9316295	KG	HMS	7,101,269	596,184	HMS 19	05/24/93	KC	SL	NA	B	DK GY	25	H	WET	FROZEN
VR2931A	A9316295	KG	HMS	7,101,236	596,211	HMS 18	05/24/93	KC	SL	NA	B	LT BN	30	H	WET	
VR2932A	A9316295	KG	HMS	7,101,195	596,242	HMS 18	05/24/93	KC	SL	NA	B	LT BN	30	H	WET	FROZEN
VR2933A	A9316295	KG	HMS	7,101,156	596,274	HMS 20	05/24/93	KC	SL	NA	B	LT BN	20	M	WET	
VR2934A	A9316295	KG	HMS	7,101,115	596,305	HMS 20	05/24/93	KC	SL	NA	B	GY	25	H	WET	FROZEN
VR2935A	A9316295	KG	HMS	7,101,072	596,337	HMS 20	05/24/93	KC	SL	NA	B	GY-BN	30	H	WET	FROZEN
VR2936A	A9316295	KG	HMS	7,101,040	596,363	HMS 20	05/24/93	KC	SL	NA	B	GY-BN	10	H	WET	FROZEN
VR2937A	A9316295	KG	HMS	7,100,994	596,398	HMS 20	05/24/93	KC	SL	NA	B	GY	30	H	WET	FROZEN
VR2938A	A9316295	KG	HMS	7,100,919	596,457	HMS 20	05/24/93	KC	SL	NA	B	GY-BN	25	H	WET	FROZEN
VR2940A	A9316295	KG	HMS	7,100,878	596,488	HMS 20	05/24/93	KC	SL	NA	B	DK GY	30	H	WET	FROZEN
VR2941A	A9316295	KG	HMS	7,100,836	596,521	HMS 20	05/24/93	KC	SL	NA	B	BN	35	M	WET	
VR2942A	A9316295	KG	HMS	7,100,801	596,547	HMS 20	05/24/93	KC	SL	NA	B	GY-BN	20	H	WET	
VR3001A	A9316295	KG	HMS	7,102,294	595,215	HMS 41	05/26/93	KC	SL	NA	B	BN-GY	25	M	WET	
VR3002A	A9316295	KG	HMS	7,102,280	595,168	HMS 41	05/26/93	KC	SL	NA	B	LT BN	25	H	WET	
VR3003A	A9316295	KG	HMS	7,102,286	595,122	HMS 41	05/26/93	KC	SL	NA	B	BN-RD	10	L	WET	VERY NICE SOIL
VR3004A	A9316295	KG	HMS	7,102,250	595,074	HMS 41	05/26/93	KC	SL	NA	C	LT BN	15	L	WET	
VR3005A	A9316295	KG	HMS	7,102,237	595,028	HMS 41	05/26/93	KC	SL	NA	B	BN-RD	20	M	WET	VERY NICE SOIL
VR3006A	A9316295	KG	HMS	7,102,221	594,979	HMS 41	05/26/93	KC	SL	NA	B	BN-RD	30	H	WET	FROZEN
VR3007A	A9316295	KG	HMS	7,102,208	594,932	HMS 41	05/26/93	KC	SL	NA	B	BN-RD	30	M	MOIST	
VR3008A	A9316295	KG	HMS	7,102,192	594,883	HMS 41	05/26/93	KC	SL	NA	B	BN-RD	25	M	WET	
VR3009A	A9316295	KG	HMS	7,102,177	594,837	HMS 39	05/26/93	KC	SL	NA	B	LT BN	25	L	MOIST	
VR3010A	A9316295	KG	HMS	7,102,163	594,789	HMS 39	05/26/93	KC	SL	NA	B	RD-BN	20	L	MOIST	
VR3011A	A9316295	KG	HMS	7,102,149	594,743	HMS 39	05/26/93	KC	SL	NA	B	BN-RD	20	L	MOIST	
VR3012A	A9316295	KG	HMS	7,102,133	594,692	HMS 40	05/26/93	KC	SL	NA	B	RD-BN	20	L	MOIST	
VR3013A	A9316295	KG	HMS	7,102,120	594,648	HMS 40	05/26/93	KC	SL	NA	B	BN-RD	15	M	WET	
VR3014A	A9316295	KG	HMS	7,102,104	594,598	HMS 40	05/26/93	KC	SL	NA	B	RD-BN	16	M	WET	
VR3015A	A9316295	KG	HMS	7,102,089	594,551	HMS 40	05/26/93	KC	SL	NA	B	RD-BN	16	M	WET	
VR3016A	A9316295	KG	HMS	7,102,074	594,503	HMS 40	05/26/93	KC	SL	NA	B	RD-BN	25	M	WET	RD BETWEEN VR3016A & 16A
VR3017A	A9316295	KG	HMS	7,102,060	594,463	HMS 40	05/26/93	KC	SL	NA	B	RD-BN	20	M	WET	
VR3018A	A9316295	KG	HMS	7,102,045	594,408	HMS 40	05/26/93	KC	SL	NA	B	RD-BN	5	L	WET	
VR3019A	A9316295	KG	HMS	7,102,030	594,359	HMS 38	05/26/93	KC	SL	NA	B/C	BN-RD	15	L	WET	
VR3020A	A9316295	KG	HMS	7,102,014	594,314	HMS 38	05/26/93	KC	SL	NA	B	RD/BN	20	M	WET	

SAMPLE #	CERTIF. #	PROJ.	PROPERTY	UTM N	UTM E	CLAIM	DATE	SAMPLER	TYPE	ORG	HOR	COLOUR	DEPTH	CLAY	MOISTURE	COMMENTS
VR3021A	A9315295	KG	HMS	7,102,001	594,265	HMS 38	05/26/93	KC	SL	NA	C	BN	15	L	MOIST	
VR3022A	A9315295	KG	HMS	7,101,987	594,219	HMS 38	05/26/93	KC	SL	NA	B	BN	25	M	WET	
VR3023A	A9315295	KG	HMS	7,101,972	594,169	HMS 38	05/26/93	KC	SL	NA	B/C	RD-BN	20	M	WET	
VR3024A	A9315295	KG	HMS	7,101,867	594,125	HMS 38	05/26/93	KC	SL	NA	A/B	BK-BN	25	H	WET	FROZEN
VR3025A	A9315295	KG	HMS	7,101,942	594,074	HMS 38	05/26/93	KC	SL	NA	B	BN-RD	15	M	WET	
VR3026A	A9315295	KG	HMS	7,101,927	594,027	HMS 38	05/26/93	KC	SL	NA	B	RD-BN	25	M	WET	
VR3027A	A9315295	KG	HMS	7,101,913	593,979	HMS 38	05/26/93	KC	SL	NA	B	RD-BN	30	H	WET	
VR3028A	A9315295	KG	HMS	7,101,898	593,930	HMS 36	05/26/93	KC	SL	NA	B	BN-YW	30	H	WET	
VR3029A	A9315295	KG	HMS	7,101,883	593,885	HMS 36	05/26/93	KC	SL	NA	B	BN-RD	30	M	WET	
VR3030A	A9315295	KG	HMS	7,101,867	593,839	HMS 36	05/26/93	KC	SL	NA	B/C	BN-RD	25	L	WET	
VR3031A	A9315295	KG	HMS	7,101,853	593,787	HMS 36	05/26/93	KC	SL	NA	B	DK BN	25	M	WET	
VR3032A	A9315295	KG	HMS	7,101,948	593,989	HMS 38	05/26/93	KC	SL	NA	B	RD-BN	30	M	WET	
VR3033A	A9315295	KG	HMS	7,101,974	593,949	HMS 38	05/27/93	KC	SL	NA	B	GY-BN	35	H	WET	
VR3034A	A9315295	KG	HMS	7,102,003	593,903	HMS 36	05/27/93	KC	SL	NA	B	LT BN	30	M	WET	
VR3035A	A9315295	KG	HMS	7,102,028	593,861	HMS 36	05/27/93	KC	SL	NA	B	GY	30	H	WET	
VR3036A	A9315295	KG	HMS	7,102,055	593,818	HMS 36	05/27/93	KC	SL	NA	B	GY-BN	30	H	WET	
VR3037A	A9315295	KG	HMS	7,102,079	593,777	HMS 36	05/27/93	KC	SL	NA	B	LT BN	25	H	WET	
VR3038A	A9315295	KG	HMS	7,102,106	593,736	HMS 36	05/27/93	KC	SL	NA	B	BN-GY	30	H	WET	
VR3039A	A9315295	KG	HMS	7,102,132	593,691	HMS 36	05/27/93	KC	SL	NA	B	LT BN	35	H	WET	
VR3040A	A9315295	KG	HMS	7,102,159	593,648	HMS 36	05/27/93	KC	SL	NA	B	GY-BN	20	H	WET	
VR3041A	A9315295	KG	HMS	7,102,186	593,608	HMS 36	05/27/93	KC	SL	NA	B	BN-GY	25	H	WET	
VR3042A	A9315295	KG	HMS	7,102,215	593,562	HMS 36	05/27/93	KC	SL	NA	B	GY	15	H	WET	FROZEN
VR3043A	A9315295	KG	HMS	7,102,239	593,522	HMS 36	05/27/93	KC	SL	NA	B	GY-BN	25	H	WET	
VR3044A	A9315295	KG	HMS	7,102,265	593,481	HMS 36	05/27/93	KC	SL	NA	B	GY-BN	25	H	WET	FROZEN
VR3045A	A9315295	KG	HMS	7,102,291	593,438	HMS 33	05/27/93	KC	SL	NA	B	GY	25	H	WET	
VR3046A	A9315295	KG	HMS	7,102,318	593,395	HMS 33	05/27/93	KC	SL	NA	B	GY	30	H	WET	
VR3047A	A9315295	KG	HMS	7,102,342	593,354	HMS 33	05/27/93	KC	SL	NA	B	BN-GY	35	M	WET	
VR3048A	A9315295	KG	HMS	7,102,370	593,309	HMS 33	05/27/93	KC	SL	NA	B	GY	30	H	WET	
VR3049A	A9315295	KG	HMS	7,102,369	593,263	HMS 33	05/27/93	KC	SL	NA	B	GY-BK	15	H	WET	FROZEN
VR3101A	A9315295	KG	HMS	7,102,343	595,246	HMS 41	05/26/93	AD/PL	SL	NA	B	BN	30	M	WET	
VR3102A	A9315295	KG	HMS	7,102,389	595,266	HMS 41	05/26/93	AD/PL	SL	NA	B	BN	40	H/M	WET	
VR3103A	A9315295	KG	HMS	7,102,433	595,284	HMS 41	05/26/93	AD/PL	SL	2%	B	LT BN	25	M	WET	
VR3104A	A9315295	KG	HMS	7,102,481	595,304	HMS 41	05/26/93	AD/PL	SL	NA	B	OR-BN	?	H	WET	
VR3105A	A9315295	KG	HMS	7,102,525	595,324	HMS 43	05/26/93	AD/PL	SL	2%	B	GN-BN	30	H	WET	
VR3106A	A9315295	KG	HMS	7,102,574	595,344	HMS 43	05/26/93	AD/PL	SL	NA	B	BN	20	M	WET	
VR3107A	A9315295	KG	HMS	7,102,618	595,361	HMS 59	05/26/93	AD/PL	SL	<1%	B	GY-BN	15	M	WET	
VR3108A	A9315295	KG	HMS	7,102,668	595,382	HMS 59	05/26/93	AD/PL	SL	2%	B/C	GY-BN	20	L	WET	SMALL ANGULAR INTRUSIVE FRAGS
VR3109A	A9315295	KG	HMS	7,102,709	595,399	HMS 59	05/26/93	AD/PL	SL	NA	B	OR-BN	30	L	WET	
VR3110A	A9315295	KG	HMS	7,102,758	595,420	HMS 59	05/26/93	AD/PL	SL	NA	B	GY-BN	40	L	WET	CROSS RD 8 M AFTER SAMPLE
VR3111A	A9315295	KG	HMS	7,102,804	595,440	HMS 59	05/26/93	AD/PL	SL	NA	B/C	LT BN	25	L	DRY	BOULDERS OF GRANODIORITE
VR3112A	A9315295	KG	HMS	7,102,851	595,459	HMS 59	05/26/93	AD/PL	SL	NA	B	YW-BN	20	M	WET	
VR3113A	A9315295	KG	HMS	7,102,895	595,478	HMS 59	05/26/93	AD/PL	SL	NA	B	LT BN	15	M	WET	QUITE PEBBLY
VR3114A	A9315295	KG	HMS	7,102,944	595,497	HMS 59	05/26/93	AD/PL	SL	NA	B/C	LT BN	15	?	MOIST	
VR3115A	A9315295	KG	HMS	7,102,989	595,516	HMS 59	05/26/93	AD/PL	SL	NA	B	OR-BN	20	M	WET	
VR3116A	A9315295	KG	HMS	7,103,034	595,535	HMS 59	05/26/93	AD/PL	SL	NA	B/C	LT BN	25	M	WET	GRITTY/PEBBLY/ROCK FRAGS
VR3117A	A9315295	KG	HMS	7,103,079	595,554	HMS 59	05/26/93	AD/PL	SL	NA	B	OR-BN	20	H	WET	
VR3127A	A9315295	KG	HMS	7,102,309	595,177	HMS 41	05/27/93	AD/PL	SL	NA	B	BN-OR	10	H	DRY	
VR3128A	A9315295	KG	HMS	7,102,319	595,124	HMS 41	05/27/93	AD/PL	SL	NA	B	BN-OR	20	H	MOIST	PARTIALLY FROZEN
VR3129A	A9315295	KG	HMS	7,102,330	595,073	HMS 41	05/27/93	AD/PL	SL	NA	B	BN	20	H/M	WET	FROZEN
VR3130A	A9315295	KG	HMS	7,102,340	595,026	HMS 41	05/27/93	AD/PL	SL	NA	B/C	GY-BN	20	L	WET	TRENCH (202)
VR3131A	A9315295	KG	HMS	7,102,353	594,975	HMS 41	05/27/93	AD/PL	SL	NA	B	LT BN	25	L	MOIST	
VR3132A	A9315295	KG	HMS	7,102,363	594,928	HMS 41	05/27/93	AD/PL	SL	NA	B/C	GY-BN	25	L	WET	
VR3133A	A9315295	KG	HMS	7,102,375	594,878	HMS 41	05/27/93	AD/PL	SL	NA	B	OR-BN	20	L	WET	RD @ 372M (60)
VR3134A	A9315295	KG	HMS	7,102,387	594,829	HMS 39	05/27/93	AD/PL	SL	NA	B	OR-BN	25	H	WET	FROZEN
VR3135A	A9315295	KG	HMS	7,102,397	594,782	HMS 39	05/27/93	AD/PL	SL	NA	B	OR-BN	20	M	DRY	
VR3136A	A9315295	KG	HMS	7,102,408	594,734	HMS 39	05/27/93	AD/PL	SL	NA	B/C	OR-BN	20	L	WET	
VR3137A	A9315295	KG	HMS	7,102,419	594,684	HMS 39	05/27/93	AD/PL	SL	NA	B	OR-BN	25	L	WET	CHANGED BEARING TO 348
VR3138A	A9315295	KG	HMS	7,102,463	594,673	HMS 39	05/27/93	AD/PL	SL	NA	B	BN	15	M	WET	
VR3139A	A9315295	KG	HMS	7,102,514	594,660	HMS 39	05/27/93	AD/PL	SL	NA	B	BN	15	M	WET	SLIGHTLY SANDY
VR3140A	A9315295	KG	HMS	7,102,556	594,649	HMS 67	05/27/93	AD/PL	SL	NA	B	DK BN	25	M	MOIST	
VR3141A	A9315295	KG	HMS	7,102,607	594,639	HMS 67	05/27/93	AD/PL	SL	NA	B	DK BN	20	M	WET	FROZEN
VR3142A	A9315295	KG	HMS	7,102,659	594,626	HMS 67	05/27/93	AD/PL	SL	NA	B	LT BN	25	M	DRY	

SAMPLE #	CERTIF. #	PROJ.	PROPERTY	UTM N	UTM E	CLAIM	DATE	SAMPLER	TYPE	ORG	HOR	COLOUR	DEPTH	CLAY	MOISTURE	COMMENTS
VR3143A	A9315295	KG	HMS	7,102,702	594,615	HMS 57	05/27/93	AD/PL	SL	NA	B	RD-BN	20	M	WET	
VR3144A	A9315295	KG	HMS	7,102,753	594,601	HMS 57	05/27/93	AD/PL	SL	NA	B	LT BN	20	M	WET	
VR3146A	A9315295	KG	HMS	7,102,800	594,588	HMS 57	05/27/93	AD/PL	SL	NA	B	RD-BN	25	M	WET	RD @ 348
VR3146A	A9315295	KG	HMS	7,102,852	594,576	HMS 57	05/27/93	AD/PL	SL	NA	B	RD-BN	15	M	MOIST	
VR3147A	A9315295	KG	HMS	7,102,896	594,566	HMS 57	05/27/93	AD/PL	SL	NA	B	LT BN	15	M	WET	
VR3148A	A9315295	KG	HMS	7,102,946	594,554	HMS 57	05/27/93	AD/PL	SL	NA	C	LT BN	35	M	MOIST	
VR3151A	A9315295	KG	HMS	7,102,448	593,183	HMS 33	05/27/93	KC	SL	NA	B	DK BN	30	H	WET	FROZEN
VR3153A	A9315295	KG	HMS	7,102,489	593,102	HMS 33	05/27/93	KC	SL	NA	B	GY-BK	20	H	WET	FROZEN
VR3154A	A9315295	KG	HMS	7,102,545	593,027	HMS 33	05/27/93	KC	SL	NA	B	GY	25	H	WET	
VR3155A	A9315295	KG	HMS	7,102,526	593,060	HMS 33	05/27/93	KC	SL	NA	B	BK-GY	25	H	WET	WATER FREE IN HOLE
VR3156A	A9315295	KG	HMS	7,101,639	595,833	HMS 19	05/27/93	KC/PL	SL	NA	B	OR-BN	20	H	WET	
VR3157A	A9315295	KG	HMS	7,101,616	595,787	HMS 19	05/29/93	KC/PL	SL	NA	B	OR-BN	25	H	WET	
VR3158A	A9315295	KG	HMS	7,101,591	595,741	HMS 17	05/29/93	KC/PL	SL	NA	B	DK BN	20	H	MOIST	
VR3159A	A9315295	KG	HMS	7,101,564	595,697	HMS 17	05/29/93	KC/PL	SL	NA	B	OR-BN	20	M	MOIST	
VR3160A	A9315295	KG	HMS	7,101,540	595,654	HMS 17	05/29/93	KC/PL	SL	NA	B	BN	20	M	WET	
VR3161A	A9315295	KG	HMS	7,101,515	595,613	HMS 17	05/29/93	KC/PL	SL	NA	B	RD-BN	5	M	MOIST	
VR3162A	A9315295	KG	HMS	7,101,491	595,668	HMS 17	05/29/93	KC/PL	SL	NA	B	OR-BN	15	M	MOIST	
VR3163A	A9315295	KG	HMS	7,101,463	595,625	HMS 17	05/29/93	KC/PL	SL	NA	B	OR-BN	10	L	MOIST	GRITTY
VR3164A	A9315295	KG	HMS	7,101,437	595,483	HMS 17	05/29/93	KC/PL	SL	NA	B	OR-BN	5	M	MOIST	
VR3165A	A9315295	KG	HMS	7,101,412	595,441	HMS 17	05/29/93	KC/PL	SL	NA	B	RD-BN	10	M	WET	
VR3166A	A9315295	KG	HMS	7,101,386	595,396	HMS 17	05/29/93	KC/PL	SL	NA	B	RD-BN	15	L	MOIST	
VR3167A	A9315295	KG	HMS	7,101,368	595,350	HMS 17	05/29/93	KC/PL	SL	NA	B	RD-BN	10	M	MOIST	
VR3168A	A9315295	KG	HMS	7,101,334	595,309	HMS 16	05/29/93	KC/PL	SL	NA	B	OR-BN	10	L	DRY	
VR3168A	A9315295	KG	HMS	7,101,309	595,266	HMS 16	05/29/93	KC/PL	SL	NA	B	LT BN	10	L	DRY	SLIGHTLY GRITTY
VR3170A	A9315295	KG	HMS	7,101,287	595,225	HMS 15	05/29/93	KC/PL	SL	NA	B	RD-BN	10	L	DRY	GRITTY
VR3171A	A9315295	KG	HMS	7,101,260	595,183	HMS 15	05/29/93	KC/PL	SL	NA	B	RD-BN	20	M	MOIST	POWER LINE (100) 26-30 YRS OLD
VR3172A	A9315295	KG	HMS	7,101,231	595,135	HMS 16	05/29/93	KC/PL	SL	NA	B	RD-BN	10	M	MOIST	OCCASIONAL ROCK FRAGMENT
VR3173A	A9315295	KG	HMS	7,101,207	595,093	HMS 14	05/29/93	KC/PL	SL	NA	B	RD-BN	10	M	DRY	SLIGHTLY GRITTY
VR3174A	A9315295	KG	HMS	7,101,180	595,049	HMS 14	05/29/93	KC/PL	SL	NA	B	RD-BN	10	L	MOIST	
VR3175A	A9315295	KG	HMS	7,101,154	595,003	HMS 14	05/29/93	KC/PL	SL	NA	B	LT BN	15	H	MOIST	
VR3176A	A9315295	KG	HMS	7,101,132	594,967	HMS 12	05/29/93	KC/PL	SL	NA	B	RD-BN	10	L	MOIST	
VR3177A	A9315295	KG	HMS	7,101,104	594,919	HMS 12	05/29/93	KC/PL	SL	NA	B	BN	15	M	MOIST	
VR3178A	A9315295	KG	HMS	7,101,080	594,878	HMS 12	05/29/93	KC/PL	SL	NA	B	BN	15	M	WET	SLIGHTLY GRITTY
VR3179A	A9315295	KG	HMS	7,101,054	594,836	HMS 12	05/29/93	KC/PL	SL	NA	B	LT BN	10	H	WET	
VR3180A	A9315295	KG	HMS	7,101,028	594,790	HMS 12	05/29/93	KC/PL	SL	NA	B	BN	15	M	MOIST	
VR3181A	A9315295	KG	HMS	7,101,002	594,746	HMS 12	05/29/93	KC/PL	SL	NA	B	BN	20	L	WET	
VR3182A	A9315295	KG	HMS	7,100,976	594,702	HMS 12	05/29/93	KC/PL	SL	NA	B	BN	15	L	DRY	VERY GRITTY
VR3183A	A9315295	KG	HMS	7,100,953	594,664	HMS 12	05/29/93	KC/PL	SL	NA	B	DK GY	35	H	WET	GRAPHITIC/QTZ FLT/RK SAMPLE VR02858A
VR3184A	A9315295	KG	HMS	7,100,928	594,621	HMS 12	05/29/93	KC/PL	SL	NA	B	GN-BN	15	L	MOIST	ROCK CHIPS/ CHLORITE + FUCHSITE?
VR3185A	A9315295	KG	HMS	7,100,901	594,574	HMS 12	05/29/93	KC/PL	SL	NA	B	GY-GN	15	L	MOIST	SIMILAR TO VR3183A BUT GREENER
VR3192A	A9315295	KG	HMS	7,101,738	593,768	HMS 36	05/11/93	AD/KC	SL	NA	B	OR-BN	5	M	MOIST	
VR3193A	A9315295	KG	HMS	7,101,782	593,793	HMS 36	05/11/93	AD/KC	SL	NA	B	OR-BN	5	M/L	DRY	PEBBLY
VR3194A	A9315295	KG	HMS	7,101,738	593,768	HMS 36	05/11/93	AD/KC	SL	2%	B	OR-BN	10	L	DRY	
VR3195A	A9315295	KG	HMS	7,101,694	593,744	HMS 36	05/11/93	AD/KC	SL	1%	B	OR-BN	5	M	MOIST	
VR3196A	A9315295	KG	HMS	7,101,650	593,720	HMS 36	05/11/93	AD/KC	SL	1%	B	OR-BN	5	M	MOIST	
VR3197A	A9315295	KG	HMS	7,101,606	593,697	HMS 8	05/11/93	AD/KC	SL	1%	B	OR-BR	15	M	MOIST	
VR3198A	A9315295	KG	HMS	7,101,560	593,670	HMS 8	05/11/93	AD/KC	SL	NA	B	OR-BN	20	L	DRY	ABUNDANT INTRUSIVE ROCK FRAGS
VR3199A	A9315295	KG	HMS	7,101,516	593,647	HMS 8	05/11/93	AD/KC	SL	<1%	B	OR-BN	10	M	MOIST	ABUNDANT INTRUSIVE ROCK FRAGS
VR3200A	A9315295	KG	HMS	7,101,474	593,622	HMS 9	05/11/93	AD/KC	SL	NA	B	OR-BN	?	M/L	MOIST	
VR3201A	A9315295	KG	HMS	7,101,711	595,901	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	20	M	WET	
VR3202A	A9315295	KG	HMS	7,101,742	595,931	HMS 46	05/29/93	AD/LH	SL	NA	B	GY-BN	25	M	WET	FROZEN WITH SOME ORGANICS
VR3203A	A9315295	KG	HMS	7,101,779	595,968	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	25	H	WET	FROZEN
VR3204A	A9315295	KG	HMS	7,101,816	596,004	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	20	M	WET	FROZEN
VR3205A	A9315295	KG	HMS	7,101,851	596,039	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	30	H/M	WET	FROZEN
VR3206A	A9315295	KG	HMS	7,101,886	596,075	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	25	M	WET	FROZEN/TRENCH /PARALLEL TO RD
VR3207A	A9315295	KG	HMS	7,101,920	596,107	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	?	H	WET	PARTIALLY FROZEN
VR3208A	A9315295	KG	HMS	7,101,955	596,142	HMS 46	05/29/93	AD/LH	SL	NA	B	BN	20	M	WET	
VR3209A	A9315295	KG	HMS	7,101,995	596,180	HMS 46	05/29/93	AD/LH	SL	NA	B	GY-BN	25	H/M	WET	
VR3210A	A9315295	KG	HMS	7,102,030	596,215	HMS 46	05/29/93	AD/LH	SL	NA	B	LT BN	30	M	DRY	
VR3211A	A9315295	KG	HMS	7,102,068	596,252	HMS 48	05/29/93	AD/LH	SL	NA	B	BN	25	M/L	WET	
VR3212A	A9315295	KG	HMS	7,102,104	596,287	HMS 48	05/29/93	AD/LH	SL	NA	B	BN	20	H/M	WET	FROZEN
VR3213A	A9315295	KG	HMS	7,102,140	596,323	HMS 48	05/29/93	AD/LH	SL	NA	B	BN	20	M	WET	FROZEN

SAMPLE #	CERTIF. #	PROJ.	PROPERTY	UTM N	UTM E	CLAIM	DATE	SAMPLER	TYPE	ORG	HOR	COLOUR	DEPTH	CLAY	MOISTURE	COMMENTS
VR3214A	A9316296	KG	HMS	7,102,174	696,368	HMS 48	05/29/93	AD/LH	SL	NA	B	GY-BN	30	L	WET	SWAMPY REGION
VR3215A	A9316296	KG	HMS	7,102,206	696,389	HMS 47	05/29/93	AD/LH	SL	NA	B	LT BN	40	M	MOIST	
VR3216A	A9316296	KG	HMS	7,102,241	696,426	HMS 47	05/29/93	AD/LH	SL	NA	B	BN	20	L	WET	
VR3217A	A9316296	KG	HMS	7,102,280	696,460	HMS 47	05/29/93	AD/LH	SL	NA	B	LT BN	25	H	DRY	
VR3218A	A9316296	KG	HMS	7,102,315	696,486	HMS 47	05/29/93	AD/LH	SL	NA	B	BN	20	M/L	DRY	
VR3219A	A9316296	KG	HMS	7,102,349	696,529	HMS 47	05/29/93	AD/LH	SL	NA	B	BN	16	L	WET	PEBBLY WITH SOME OXIDIZED FRAGS
VR3220A	A9316296	KG	HMS	7,102,384	696,563	HMS 47	05/29/93	AD/LH	SL	NA	B	BN	25	L	MOIST	
VR3221A	A9316296	KG	HMS	7,102,421	696,600	HMS 47	05/29/93	AD/LH	SL	NA	C	GY-BN	?	L	MOIST	NO "B" PRESENT
VR3222A	A9316296	KG	HMS	7,102,456	696,633	HMS 47	05/29/93	AD/LH	SL	NA	B	LT BN	20	L	WET	
VR3223A	A9316296	KG	HMS	7,102,492	696,670	HMS 48	05/29/93	AD/LH	SL	NA	B	BN	35	H	WET	
VR3224A	A9316296	KG	HMS	7,102,528	696,703	HMS 49	05/29/93	AD/LH	SL	NA	B	RD-BN	20	L	DRY	
VR3225A	A9316296	KG	HMS	7,102,564	696,741	HMS 49	05/29/93	AD/LH	SL	NA	B	GY-BN	25	M	WET	FROZEN/ABUNDANT DK GREY CLAY
VR3226A	A9316296	KG	HMS	7,102,601	696,777	HMS 49	05/29/93	AD/LH	SL	NA	B	BN	30	L	DRY	LARGE ROCK FRAGS
VR3227A	A9316296	KG	HMS	7,102,634	696,809	HMS 49	05/29/93	AD/LH	SL	NA	B	BN	20	L	WET	
VR3228A	A9316296	KG	HMS	7,102,673	696,848	HMS 62	05/29/93	AD/LH	SL	NA	B	DK BN	25	L	WET	LARGE ROCKS
VR3229A	A9316296	KG	HMS	7,102,709	696,883	HMS 62	05/29/93	AD/LH	SL	NA	B	OR-BN	30	M	WET	
VR3230A	A9316296	KG	HMS	7,102,741	696,915	HMS 62	05/29/93	AD/LH	SL	NA	B	BN-OR	25	M	WET	
VR3231A	A9316296	KG	HMS	7,102,779	696,952	HMS 62	05/29/93	AD/LH	SL	NA	B	RD-BN	30	M	DRY	PEBBLES
VR3232A	A9316296	KG	HMS	7,102,817	696,989	HMS 62	05/29/93	AD/LH	SL	NA	B	BN	20	M	MOIST	PEBBLES
VR3236A	A9316296	KG	HMS	7,102,960	697,130	HMS 62	05/29/93	AD/LH	SL	NA	B	BN	25	M	WET	FROZEN
VR3233A	A9316296	KG	HMS	7,102,849	697,022	HMS 63	05/29/93	AD/LH	SL	NA	B	BN	25	M	MOIST	
VR3234A	A9316296	KG	HMS	7,102,882	697,056	HMS 63	05/29/93	AD/LH	SL	NA	B	GY-BN	26	H/M	WET	FROZEN
VR3235A	A9316296	KG	HMS	7,102,921	697,093	HMS 63	05/29/93	AD/LH	SL	NA	B	BN	30	M	MOIST	ELONGATED PEBBLES
VR3237A	A9316296	KG	HMS	7,102,990	697,160	HMS 63	05/29/93	AD/LH	SL	NA	B	BN	30	M	WET	FROZEN
VR3238A	A9316296	KG	HMS	7,103,029	697,201	HMS 63	05/29/93	AD/LH	SL	NA	B	BN	20	M/L	WET	BOULDERS FROZEN IN GROUND
VR3239A	A9316296	KG	HMS	7,103,064	697,234	HMS 63	05/29/93	AD/LH	SL	NA	B	BN	25	L	WET	SANDY AND PEBBLY
VR3240A	A9316296	KG	HMS	7,103,096	697,266	HMS 63	05/29/93	AD/LH	SL	NA	B	RD-BN	20	H/M	DRY	PEBBLY
VR3241A	A9316296	KG	HMS	7,103,135	697,302	HMS 63	05/29/93	AD/LH	SL	NA	B	RD-BN	20	H/M	DRY	
VR3251A	A9316296	KG	HMS	7,101,430	693,699	HMS 9	05/11/93	AD/KC	SL	NA	B	LT BN	10	L	DRY	
VR3252A	A9316296	KG	HMS	7,101,385	693,576	HMS 9	05/11/93	AD/KC	SL	NA	B/C	BN	15	L	MOIST	ABNDT ANGULAR INTRUSIVE FRAGS
VR3253A	A9316296	KG	HMS	7,101,345	693,552	HMS 9	05/11/93	AD/KC	SL	NA	B/C	GY	20	L	MOIST	ABUNDANT INTRUSIVE ROCK FRAGS
VR3254A	A9316296	KG	HMS	7,101,297	693,525	HMS 9	05/11/93	AD/KC	SL	5%	B/C	DK GY	20	L	WET	SMALL ANGULAR GRAPHITE FRAGS
VR3255A	A9316296	KG	HMS	7,101,266	693,502	HMS 9	05/11/93	AD/KC	SL	NA	B	DK GY	16	H	WET	GRAPHITE IN TRENCH @ 676M
VR3256A	A9316296	KG	HMS	7,101,204	693,476	HMS 7	05/11/93	AD/KC	SL	2%	B	BN	10	H	WET	TRENCH @ 730 TO 745M
VR3257A	A9316296	KG	HMS	7,101,168	693,454	HMS 6	05/11/93	AD/KC	SL	NA	B	BN	20	M/L	MOIST	RD AND TRENCH CROSSING
VR3258A	A9316296	KG	HMS	7,101,121	693,428	HMS 6	05/11/93	AD/KC	SL	NA	B	OR-BN	15	L	DRY	TRENCH #3 @ 830M
VR3259A	A9316296	KG	HMS	7,101,081	693,406	HMS 6	05/11/93	AD/KC	SL	NA	B	LT BN	10		DRY	
VR3260A	A9316296	KG	HMS	7,101,035	693,381	HMS 6	05/11/93	AD/KC	SL	NA	B	GY-BN	15	M	DRY	PARALLEL TO RD @ EAST
VR3261A	A9316296	KG	HMS	7,100,990	693,366	HMS 6	05/11/93	AD/KC	SL	NA	B	OR-BN	25	L	MOIST	CROSS RD (324)/TRENCH(268)
VR3262A	A9316296	KG	HMS	7,100,948	693,333	HMS 6	05/11/93	AD/KC	SL	NA	B	DK GY	25	M	MOIST	
VR3263A	A9316296	KG	HMS	7,100,906	693,311	HMS 6	05/11/93	AD/KC	SL	5%	B	DK BN	20		DRY	
VR3264A	A9316296	KG	HMS	7,100,861	693,284	HMS 6	05/11/93	AD/KC	SL	NA	B	DK GY	25	L	DRY	SMALL ROCK FRAGS
VR5671A	A9317065	KG	HMS	7,100,964	694,681	HMS 12	6/30/93	KC	SL	NA	B	GY-BN	25	L	WET	
VR5672A	A9317065	KG	HMS	7,100,940	694,642	HMS 12	6/30/93	KC	SL	NA	B	DK-GY	25	H	MOIST	
VR5673A	A9317065	KG	HMS	7,100,914	694,597	HMS 12	6/30/93	KC	SL	NA	B	GY	20	H	WET	
VR5674A	A9317065	KG	HMS	7,100,876	694,589	HMS 12	6/30/93	KC	SL	NA	B	GY	25	H	WET	
VR5675A	A9317065	KG	HMS	7,100,888	694,609	HMS 12	6/30/93	KC	SL	NA	B	GY	20	H	WET	
VR5676A	A9317065	KG	HMS	7,100,902	694,635	HMS 12	6/30/93	KC	SL	NA	B	GY	25	H	WET	
VR5677A	A9317065	KG	HMS	7,100,917	694,655	HMS 12	6/30/93	KC	SL	NA	B	GY	20	H	WET	
VR5678A	A9317065	KG	HMS	7,100,931	694,677	HMS 12	6/30/93	KC	SL	NA	B	GY	20	H	WET	
VR5679A	A9317065	KG	HMS	7,100,942	694,696	HMS 12	6/30/93	KC	SL	NA	B	GY	20	H	WET	
VR5680A	A9317065	KG	HMS	7,100,955	694,716	HMS 12	6/30/93	KC	SL	NA	B	LT-BN	15	M-L	MOIST	
VR5681A	A9317065	KG	HMS	7,100,997	694,688	HMS 12	6/30/93	KC	SL	NA	B	GY-BN	30	M-L	WET	
VR5682A	A9317065	KG	HMS	7,100,985	694,669	HMS 12	6/30/93	KC	SL	NA	B	LT-BN	20	M-L	MOIST	
VR5683A	A9317065	KG	HMS	7,100,873	694,650	HMS 12	6/30/93	KC	SL	NA	NA	GY	25	H-M	MOIST	
VR5684A	A9317065	KG	HMS	7,100,960	694,630	HMS 12	6/30/93	KC	SL	NA	B	GY	25	H-M	MOIST	
VR5685A	A9317065	KG	HMS	7,100,948	694,610	HMS 12	6/30/93	KC	SL	NA	B	GY	26	H	WET	
VR5686A	A9317065	KG	HMS	7,100,933	694,587	HMS 12	6/30/93	KC	SL	NA	B	GY	30	H	WET	
VR5687A	A9317065	KG	HMS	7,100,919	694,560	HMS 12	6/30/93	KC	SL	NA	NA	NA	NA	NA	NA	

**Appendix D**  
Soil Sample Results



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
VANCOUVER, BC  
V6C 1S4

Project: HMS  
Comments: ATTN: ANN DOYLE

Page Number : 1-A  
Total Pages : 7  
Certificate Date: 17-JUN-93  
Invoice No. : 19315295  
P.O. Number : 05-428  
Account : KAVA

## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP		Au ppb	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn
	CODE		FA+AA	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm
VR2901A	201	229	< 5	< 0.2	2.11	8	250	0.5	< 2	0.08	< 0.5	8	34	20	2.25	< 10	< 1	0.06	10	0.42	225
VR2902A	201	229	< 5	< 0.2	2.32	2	250	0.5	< 2	0.08	< 0.5	8	26	11	3.36	< 10	< 1	0.06	10	0.37	185
VR2903A	201	229	< 5	< 0.2	2.54	12	260	0.5	< 2	0.08	< 0.5	10	36	18	3.65	< 10	1	0.07	10	0.47	240
VR2904A	201	229	< 5	< 0.2	1.61	< 2	140	1.0	< 2	0.07	< 0.5	3	16	9	2.09	10	< 1	0.11	20	0.18	170
VR2905A	201	229	< 5	< 0.2	2.07	12	210	0.5	< 2	0.07	< 0.5	5	25	11	3.38	< 10	< 1	0.10	10	0.33	220
VR2906A	201	229	< 5	< 0.2	1.98	18	210	0.5	< 2	0.08	< 0.5	7	32	19	3.00	< 10	< 1	0.05	10	0.42	200
VR2907A	201	229	< 5	< 0.2	2.19	12	230	0.5	< 2	0.08	< 0.5	8	38	23	3.21	< 10	< 1	0.06	10	0.50	210
VR2908A	201	229	< 5	< 0.2	2.06	6	260	0.5	< 2	0.10	< 0.5	8	34	12	2.94	< 10	1	0.04	10	0.46	175
VR2909A	201	229	15	0.2	2.00	8	230	0.5	< 2	0.07	< 0.5	8	26	11	2.98	< 10	< 1	0.06	10	0.38	225
VR2910A	201	229	< 5	0.2	2.23	12	260	2.5	< 2	0.13	< 0.5	7	34	18	3.04	10	< 1	0.06	20	0.44	210
VR2911A	201	229	< 5	< 0.2	2.28	12	190	0.5	< 2	0.08	< 0.5	8	24	10	3.25	< 10	< 1	0.05	< 10	0.32	195
VR2912A	201	229	< 5	< 0.2	2.20	< 2	250	1.0	< 2	0.07	< 0.5	7	34	16	3.01	< 10	< 1	0.04	10	0.42	200
VR2913A	201	229	< 5	< 0.2	2.26	20	260	0.5	< 2	0.08	< 0.5	9	34	19	3.15	< 10	< 1	0.04	10	0.44	255
VR2914A	201	229	< 5	< 0.2	2.01	12	200	0.5	< 2	0.07	< 0.5	6	27	10	3.24	< 10	< 1	0.03	< 10	0.32	175
VR2915A	201	229	< 5	< 0.2	1.55	12	130	0.5	< 2	0.08	< 0.5	4	21	8	2.31	10	< 1	0.04	10	0.26	140
VR2916A	201	229	< 5	< 0.2	1.52	12	200	< 0.5	< 2	0.17	< 0.5	4	22	13	2.31	< 10	< 1	0.04	10	0.35	130
VR2917A	201	229	< 5	< 0.2	1.46	14	310	0.5	< 2	0.21	< 0.5	7	24	17	2.35	< 10	< 1	0.04	10	0.38	160
VR2918A	201	229	< 5	< 0.2	2.04	8	280	0.5	< 2	0.16	< 0.5	6	27	16	2.78	< 10	< 1	0.04	10	0.37	140
VR2919A	201	229	< 5	< 0.2	1.42	6	160	< 0.5	< 2	0.11	< 0.5	5	23	13	2.08	< 10	< 1	0.03	10	0.34	130
VR2920A	201	229	< 5	< 0.2	1.42	6	210	< 0.5	< 2	0.09	< 0.5	5	17	4	2.00	< 10	< 1	0.02	10	0.26	140
VR2921A	201	229	< 5	< 0.2	1.94	18	270	0.5	< 2	0.09	< 0.5	8	30	18	2.93	< 10	< 1	0.04	10	0.41	195
VR2922A	201	229	< 5	< 0.2	2.19	8	210	0.5	< 2	0.10	< 0.5	7	31	11	2.95	10	< 1	0.05	10	0.40	210
VR2923A	201	229	< 5	< 0.2	2.22	10	180	0.5	< 2	0.10	< 0.5	8	31	11	2.95	10	< 1	0.08	10	0.39	220
VR2924A	201	229	< 5	< 0.2	1.57	4	130	< 0.5	< 2	0.10	< 0.5	4	21	3	2.21	< 10	< 1	0.04	10	0.24	145
VR2925A	201	229	< 5	< 0.2	2.12	8	150	0.5	< 2	0.07	< 0.5	7	33	13	3.01	< 10	< 1	0.06	10	0.37	170
VR2926A	201	229	< 5	< 0.2	1.41	4	130	< 0.5	< 2	0.07	< 0.5	3	17	4	2.01	< 10	< 1	0.04	10	0.23	135
VR2927A	201	229	< 5	< 0.2	1.29	14	110	< 0.5	< 2	0.08	< 0.5	3	15	7	2.02	< 10	< 1	0.08	10	0.26	135
VR2928A	201	229	< 5	0.2	2.28	8	260	0.5	< 2	0.11	< 0.5	7	31	18	3.12	< 10	< 1	0.04	10	0.44	175
VR2929A	201	229	< 5	0.2	2.51	< 2	260	0.5	< 2	0.10	< 0.5	8	28	17	2.92	10	< 1	0.04	10	0.37	200
VR2930A	201	229	< 5	0.2	1.57	2	180	< 0.5	< 2	0.15	< 0.5	5	25	11	2.33	< 10	< 1	0.05	10	0.39	135
VR2931A	201	229	< 5	< 0.2	2.33	18	230	< 0.5	< 2	0.12	< 0.5	9	41	29	3.17	< 10	< 1	0.03	10	0.60	225
VR2932A	201	229	< 5	0.2	2.28	10	230	< 0.5	< 2	0.12	< 0.5	10	42	15	3.28	< 10	< 1	0.02	10	0.69	250
VR2933A	201	229	< 5	< 0.2	2.64	< 2	220	< 0.5	< 2	0.14	< 0.5	12	50	26	3.55	< 10	< 1	0.03	10	0.73	230
VR2934A	201	229	< 5	< 0.2	1.70	10	170	< 0.5	< 2	0.10	< 0.5	5	28	13	2.63	< 10	< 1	0.04	10	0.38	160
VR2935A	201	229	< 5	< 0.2	1.73	4	200	< 0.5	< 2	0.15	< 0.5	5	32	16	2.43	< 10	< 1	0.06	10	0.40	125
VR2936A	201	229	< 5	0.2	1.63	8	270	0.5	< 2	0.16	0.5	6	28	24	2.43	< 10	< 1	0.06	10	0.33	135
VR2937A	201	229	< 5	< 0.2	2.07	14	390	0.5	< 2	0.23	0.5	9	29	39	2.86	< 10	< 1	0.07	10	0.35	180
VR2939A	201	229	< 5	< 0.2	0.84	6	110	< 0.5	< 2	0.24	< 0.5	6	20	16	1.93	< 10	< 1	0.10	10	0.37	140
VR2940A	201	229	< 5	< 0.2	0.94	4	180	< 0.5	< 2	0.21	0.5	6	20	14	1.85	< 10	< 1	0.05	10	0.32	145
VR2941A	201	229	< 5	< 0.2	1.32	2	310	< 0.5	< 2	0.27	< 0.5	8	28	18	2.48	< 10	< 1	0.06	10	0.40	240

CERTIFICATION: *Hautsichler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.  
354 - 200 GRANVILLE ST.  
VANCOUVER, BC  
V6C 1S4

Page Number : 1-B  
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Certificate Date: 17-JUN-93  
Invoice No. : 19315295  
P.O. Number : 05-428  
Account : KAVA

Project : HMS  
Comments : ATTN: ANN DOYLE

## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
VR2901A	201 229	< 1	< 0.01	19	170	6	< 2	3	9	0.04	< 10	< 10	47	< 10	66
VR2902A	201 229	< 1	< 0.01	18	280	12	< 2	2	8	0.05	< 10	< 10	53	< 10	68
VR2903A	201 229	1	< 0.01	22	220	12	4	3	10	0.07	< 10	< 10	62	< 10	68
VR2904A	201 229	1	0.01	9	80	14	< 2	2	7	0.06	< 10	< 10	30	< 10	96
VR2905A	201 229	1	< 0.01	14	220	10	< 2	3	8	0.06	< 10	< 10	52	< 10	96
VR2906A	201 229	< 1	< 0.01	18	180	10	< 2	3	9	0.06	< 10	< 10	52	< 10	62
VR2907A	201 229	< 1	< 0.01	22	160	10	< 2	3	10	0.06	< 10	< 10	53	< 10	60
VR2908A	201 229	< 1	< 0.01	17	150	8	< 2	3	11	0.06	< 10	< 10	53	< 10	56
VR2909A	201 229	< 1	< 0.01	17	190	8	< 2	2	8	0.05	< 10	< 10	45	< 10	92
VR2910A	201 229	< 1	< 0.01	18	130	12	< 2	3	11	0.04	< 10	< 10	50	< 10	62
VR2911A	201 229	1	< 0.01	15	240	12	< 2	2	8	0.04	< 10	< 10	44	< 10	78
VR2912A	201 229	< 1	0.01	17	180	10	< 2	3	8	0.05	< 10	< 10	50	< 10	62
VR2913A	201 229	< 1	< 0.01	23	230	12	< 2	2	8	0.05	< 10	< 10	54	< 10	74
VR2914A	201 229	< 1	< 0.01	15	200	6	< 2	2	6	0.06	< 10	< 10	53	< 10	50
VR2915A	201 229	< 1	< 0.01	11	160	12	< 2	2	9	0.07	< 10	< 10	46	< 10	52
VR2916A	201 229	< 1	< 0.01	15	250	8	< 2	2	14	0.06	< 10	< 10	44	< 10	52
VR2917A	201 229	< 1	< 0.01	16	440	6	2	3	16	0.05	< 10	< 10	41	< 10	48
VR2918A	201 229	1	< 0.01	18	290	8	< 2	3	16	0.07	< 10	< 10	57	< 10	54
VR2919A	201 229	< 1	< 0.01	14	110	12	< 2	2	11	0.06	< 10	< 10	41	< 10	42
VR2920A	201 229	< 1	< 0.01	10	110	12	< 2	1	9	0.04	< 10	< 10	38	< 10	36
VR2921A	201 229	< 1	< 0.01	21	160	12	< 2	2	11	0.06	< 10	< 10	53	< 10	56
VR2922A	201 229	< 1	< 0.01	16	150	14	< 2	2	10	0.07	< 10	< 10	58	< 10	56
VR2923A	201 229	< 1	< 0.01	17	290	12	< 2	2	10	0.07	< 10	< 10	57	< 10	84
VR2924A	201 229	1	< 0.01	9	140	14	< 2	2	9	0.06	< 10	< 10	45	< 10	54
VR2925A	201 229	< 1	< 0.01	17	170	14	< 2	2	8	0.05	< 10	< 10	51	< 10	62
VR2926A	201 229	< 1	< 0.01	8	180	12	< 2	1	6	0.04	< 10	< 10	36	< 10	58
VR2927A	201 229	< 1	< 0.01	10	100	12	< 2	2	8	0.04	< 10	< 10	31	< 10	74
VR2928A	201 229	1	< 0.01	18	220	14	2	3	12	0.07	< 10	< 10	57	< 10	54
VR2929A	201 229	< 1	< 0.01	21	160	12	< 2	3	12	0.08	< 10	< 10	55	< 10	56
VR2930A	201 229	2	< 0.01	14	270	12	< 2	2	14	0.06	< 10	< 10	48	< 10	52
VR2931A	201 229	< 1	< 0.01	20	150	10	< 2	3	11	0.08	< 10	< 10	60	< 10	52
VR2932A	201 229	< 1	< 0.01	20	160	8	2	4	11	0.07	< 10	< 10	74	< 10	46
VR2933A	201 229	< 1	< 0.01	27	170	4	< 2	4	12	0.08	< 10	< 10	67	< 10	56
VR2934A	201 229	2	< 0.01	13	260	6	< 2	2	11	0.06	< 10	< 10	55	< 10	56
VR2935A	201 229	1	0.01	19	280	8	< 2	3	15	0.06	< 10	< 10	49	< 10	54
VR2936A	201 229	1	0.01	19	680	10	< 2	1	18	0.01	< 10	< 10	38	< 10	58
VR2937A	201 229	2	0.01	27	590	8	< 2	3	26	0.04	< 10	< 10	42	< 10	80
VR2939A	201 229	< 1	0.01	18	430	2	< 2	2	17	0.05	< 10	< 10	32	< 10	48
VR2940A	201 229	< 1	< 0.01	19	560	4	< 2	2	18	0.04	< 10	< 10	33	< 10	42
VR2941A	201 229	1	0.01	22	460	6	< 2	3	18	0.06	< 10	< 10	45	< 10	62

CERTIFICATION:

*Hart Bickler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project: HMS  
 Comments: ATTN: ANN DOYLE

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 Invoice No.: 19315295  
 P.O. Number: 05-428  
 Account: KAVA

## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR2942A	201 229	< 5	0.2	1.58	6	310	< 0.5	< 2	0.26	< 0.5	6	34	13	2.18	< 10	< 1	0.04	20	0.46	145
VR2943A	201 229	< 5	< 0.2	1.54	4	310	< 0.5	< 2	0.24	< 0.5	7	45	17	2.35	< 10	< 1	0.04	20	0.55	170
VR3001A	201 229	< 5	< 0.2	1.95	2	130	< 0.5	< 2	0.04	< 0.5	7	29	16	2.79	< 10	< 1	0.04	< 10	0.39	160
VR3002A	201 229	< 5	< 0.2	1.77	10	170	< 0.5	< 2	0.07	< 0.5	6	27	10	2.78	< 10	< 1	0.03	10	0.33	165
VR3003A	201 229	< 5	< 0.2	2.46	10	270	0.5	< 2	0.08	< 0.5	9	39	20	3.26	< 10	1	0.06	10	0.45	270
VR3004A	201 229	< 5	< 0.2	0.84	4	90	< 0.5	< 2	0.09	< 0.5	2	8	2	1.35	< 10	< 1	0.11	10	0.10	140
VR3005A	201 229	< 5	< 0.2	2.30	14	230	0.5	< 2	0.07	< 0.5	9	37	18	3.14	< 10	< 1	0.04	10	0.45	225
VR3006A	201 229	< 5	< 0.2	1.05	2	140	< 0.5	< 2	0.08	< 0.5	3	16	6	1.93	< 10	< 1	0.03	10	0.20	125
VR3007A	201 229	< 5	< 0.2	1.56	10	210	< 0.5	< 2	0.16	< 0.5	6	23	7	2.54	< 10	< 1	0.04	10	0.36	200
VR3008A	201 229	< 5	< 0.2	1.55	4	210	< 0.5	< 2	0.10	< 0.5	6	24	9	2.35	< 10	< 1	0.03	10	0.37	175
VR3009A	201 229	< 5	< 0.2	1.94	8	250	0.5	< 2	0.10	< 0.5	8	31	18	2.80	< 10	< 1	0.04	10	0.43	205
VR3010A	201 229	< 5	< 0.2	2.10	14	230	0.5	< 2	0.11	< 0.5	7	30	10	3.02	< 10	< 1	0.07	10	0.40	210
VR3011A	201 229	< 5	< 0.2	1.50	6	200	< 0.5	< 2	0.10	< 0.5	6	23	7	2.59	< 10	< 1	0.05	< 10	0.36	155
VR3012A	201 229	< 5	< 0.2	1.66	8	230	0.5	< 2	0.07	< 0.5	8	28	13	2.65	< 10	< 1	0.04	< 10	0.36	210
VR3013A	201 229	< 5	< 0.2	1.57	8	190	0.5	< 2	0.09	< 0.5	6	21	8	2.34	< 10	< 1	0.06	< 10	0.31	175
VR3014A	201 229	< 5	< 0.2	1.48	14	160	0.5	< 2	0.09	< 0.5	6	21	7	2.35	< 10	< 1	0.04	< 10	0.31	150
VR3015A	201 229	< 5	< 0.2	1.70	14	170	0.5	< 2	0.11	< 0.5	6	24	6	2.44	< 10	< 1	0.05	< 10	0.32	140
VR3016A	201 229	< 5	< 0.2	1.74	10	170	0.5	< 2	0.12	< 0.5	6	23	6	2.54	< 10	< 1	0.05	10	0.33	155
VR3017A	201 229	< 5	< 0.2	2.03	14	200	0.5	< 2	0.11	< 0.5	7	30	10	2.81	< 10	< 1	0.06	10	0.36	150
VR3018A	201 229	< 5	< 0.2	1.96	12	220	0.5	< 2	0.12	< 0.5	7	28	9	2.79	< 10	< 1	0.07	10	0.37	185
VR3019A	201 229	< 5	< 0.2	1.62	14	160	0.5	< 2	0.12	< 0.5	4	22	8	2.20	< 10	< 1	0.07	10	0.28	155
VR3020A	201 229	< 5	< 0.2	2.01	6	270	0.5	< 2	0.13	< 0.5	8	33	14	2.64	< 10	< 1	0.04	10	0.44	195
VR3021A	201 229	< 5	< 0.2	1.99	6	210	0.5	< 2	0.15	< 0.5	6	26	6	2.86	< 10	< 1	0.06	10	0.31	175
VR3022A	201 229	< 5	< 0.2	1.44	6	180	0.5	< 2	0.13	< 0.5	3	20	6	1.95	< 10	< 1	0.04	10	0.23	115
VR3023A	201 229	< 5	< 0.2	2.04	20	190	< 0.5	< 2	0.14	< 0.5	6	28	7	3.11	< 10	< 1	0.10	10	0.34	185
VR3024A	201 229	< 5	0.2	1.26	12	190	< 0.5	< 2	0.10	< 0.5	4	22	14	1.97	< 10	< 1	0.05	10	0.24	95
VR3025A	201 229	< 5	0.2	2.01	6	230	0.5	< 2	0.09	< 0.5	7	34	15	2.83	< 10	< 1	0.04	10	0.40	190
VR3026A	201 229	< 5	0.2	2.07	8	190	0.5	< 2	0.06	< 0.5	7	37	18	3.10	< 10	< 1	0.05	10	0.41	185
VR3027A	201 229	< 5	< 0.2	1.71	14	200	0.5	< 2	0.07	< 0.5	7	32	16	2.91	< 10	< 1	0.04	10	0.40	150
VR3028A	201 229	< 5	< 0.2	1.79	14	210	< 0.5	< 2	0.07	< 0.5	8	32	19	3.02	< 10	1	0.04	10	0.42	170
VR3029A	201 229	< 5	0.2	2.45	14	280	0.5	< 2	0.08	< 0.5	10	40	19	3.38	< 10	1	0.07	10	0.48	265
VR3030A	201 229	< 5	0.2	1.59	8	170	< 0.5	< 2	0.10	< 0.5	4	25	7	2.51	< 10	< 1	0.06	10	0.31	150
VR3031A	201 229	< 5	< 0.2	1.95	8	220	< 0.5	< 2	0.11	< 0.5	7	35	14	2.80	< 10	1	0.05	10	0.45	190

CERTIFICATION:

*Hant Beckler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
VANCOUVER, BC  
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## CERTIFICATE OF ANALYSIS

### A9315295

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
VR2942A	201 229	< 1	0.01	28	420	6	2	3	21	0.07	10	< 10	42	< 10	54
VR2943A	201 229	< 1	0.01	34	360	4	< 2	3	20	0.08	10	< 10	43	< 10	56
VR3001A	201 229	< 1	< 0.01	18	180	8	< 2	2	4	0.04	< 10	< 10	39	< 10	52
VR3002A	201 229	< 1	< 0.01	14	170	14	< 2	2	7	0.05	< 10	< 10	45	< 10	46
VR3003A	201 229	< 1	< 0.01	21	190	6	2	3	10	0.06	10	< 10	54	< 10	58
VR3004A	201 229	< 1	0.01	4	60	8	< 2	2	7	0.04	10	< 10	17	< 10	90
VR3005A	201 229	< 1	< 0.01	20	180	8	< 2	2	8	0.06	10	< 10	52	< 10	60
VR3006A	201 229	< 1	< 0.01	8	200	8	< 2	1	8	0.06	< 10	< 10	43	< 10	36
VR3007A	201 229	< 1	< 0.01	14	220	6	< 2	2	14	0.06	10	< 10	46	< 10	46
VR3008A	201 229	< 1	< 0.01	16	170	4	< 2	2	10	0.04	< 10	< 10	39	< 10	52
VR3009A	201 229	< 1	< 0.01	20	170	12	< 2	2	11	0.06	10	< 10	48	< 10	52
VR3010A	201 229	< 1	< 0.01	18	250	4	< 2	2	11	0.07	10	< 10	55	< 10	72
VR3011A	201 229	< 1	< 0.01	13	160	6	< 2	1	9	0.03	< 10	< 10	37	< 10	46
VR3012A	201 229	< 1	< 0.01	16	180	10	< 2	2	8	0.02	< 10	< 10	39	< 10	54
VR3013A	201 229	< 1	< 0.01	14	160	10	2	1	7	0.02	< 10	< 10	34	< 10	52
VR3014A	201 229	< 1	< 0.01	13	120	12	< 2	1	8	0.03	< 10	< 10	37	< 10	54
VR3015A	201 229	< 1	< 0.01	13	130	6	2	2	8	0.03	< 10	< 10	39	< 10	52
VR3016A	201 229	< 1	< 0.01	12	170	12	< 2	2	10	0.04	< 10	< 10	43	< 10	58
VR3017A	201 229	< 1	< 0.01	16	170	8	2	2	10	0.04	< 10	< 10	44	< 10	54
VR3018A	201 229	< 1	< 0.01	17	190	14	< 2	2	10	0.04	< 10	< 10	44	< 10	64
VR3019A	201 229	< 1	< 0.01	12	110	12	< 2	1	9	0.03	< 10	< 10	34	< 10	56
VR3020A	201 229	< 1	< 0.01	19	140	12	< 2	2	13	0.04	< 10	< 10	44	< 10	56
VR3021A	201 229	< 1	< 0.01	14	300	10	2	2	12	0.04	< 10	< 10	48	< 10	56
VR3022A	201 229	< 1	< 0.01	7	140	10	2	2	11	0.06	< 10	< 10	40	< 10	50
VR3023A	201 229	< 1	0.01	14	220	12	< 2	2	10	0.04	< 10	< 10	46	< 10	74
VR3024A	201 229	< 1	0.01	11	190	4	< 2	1	12	0.04	10	< 10	39	< 10	32
VR3025A	201 229	< 1	< 0.01	17	150	6	< 2	3	9	0.05	10	< 10	48	< 10	52
VR3026A	201 229	< 1	< 0.01	17	150	8	< 2	2	8	0.05	10	< 10	50	< 10	60
VR3027A	201 229	< 1	< 0.01	19	110	4	< 2	4	10	0.06	10	< 10	47	< 10	54
VR3028A	201 229	< 1	< 0.01	19	160	8	< 2	2	9	0.06	10	< 10	51	< 10	56
VR3029A	201 229	< 1	< 0.01	23	220	8	< 2	3	10	0.07	10	< 10	60	< 10	78
VR3030A	201 229	< 1	< 0.01	11	160	8	< 2	2	11	0.07	10	< 10	48	< 10	56
VR3031A	201 229	< 1	< 0.01	17	160	4	< 2	2	13	0.08	10	< 10	53	< 10	56

CERTIFICATION: *Hart Bickler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project : HMS  
 Comments: ATTN: ANN DOYLE

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## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR3032A	201 229	< 5	< 0.2	2.28	8	250	< 0.5	< 2	0.11	< 0.5	8	40	21	3.04	10	< 1	0.04	10	0.48	205
VR3033A	201 229	< 5	0.2	1.29	6	220	< 0.5	< 2	0.23	< 0.5	4	22	11	1.97	10	< 1	0.04	20	0.35	115
VR3034A	201 229	< 5	0.2	1.27	8	190	< 0.5	< 2	0.22	< 0.5	5	21	14	2.05	10	< 1	0.09	20	0.33	160
VR3035A	201 229	< 5	< 0.2	1.24	6	190	< 0.5	< 2	0.19	< 0.5	4	22	10	1.82	10	< 1	0.04	10	0.32	110
VR3036A	201 229	< 5	< 0.2	1.34	14	230	< 0.5	< 2	0.21	< 0.5	4	20	15	2.00	10	< 1	0.06	20	0.32	140
VR3037A	201 229	< 5	< 0.2	1.16	4	240	< 0.5	< 2	0.24	< 0.5	6	24	19	2.09	10	< 1	0.04	10	0.35	165
VR3038A	201 229	< 5	< 0.2	1.38	12	360	< 0.5	< 2	0.28	< 0.5	7	29	23	2.45	< 10	< 1	0.04	10	0.41	175
VR3039A	201 229	< 5	< 0.2	1.31	12	300	< 0.5	< 2	0.27	< 0.5	7	29	24	2.38	10	< 1	0.04	10	0.40	190
VR3040A	201 229	< 5	< 0.2	1.27	6	300	< 0.5	< 2	0.28	< 0.5	6	27	19	2.19	< 10	< 1	0.03	10	0.41	145
VR3041A	201 229	< 5	< 0.2	1.28	6	330	< 0.5	< 2	0.30	< 0.5	7	28	18	2.22	10	< 1	0.04	10	0.40	185
VR3042A	201 229	< 5	< 0.2	1.34	10	230	< 0.5	< 2	0.26	< 0.5	6	22	15	2.34	< 10	< 1	0.03	10	0.41	145
VR3043A	201 229	< 5	< 0.2	1.34	4	320	< 0.5	< 2	0.37	< 0.5	8	25	16	2.27	< 10	< 1	0.05	10	0.41	345
VR3044A	201 229	< 5	< 0.2	1.36	10	300	< 0.5	< 2	0.47	< 0.5	6	26	13	2.12	< 10	< 1	0.08	10	0.43	180
VR3045A	201 229	< 5	< 0.2	1.42	6	290	< 0.5	< 2	0.40	< 0.5	7	29	12	2.22	< 10	< 1	0.05	10	0.45	280
VR3046A	201 229	< 5	< 0.2	1.24	6	290	< 0.5	< 2	0.37	< 0.5	6	22	15	2.03	< 10	< 1	0.03	10	0.40	180
VR3047A	201 229	< 5	< 0.2	1.17	4	270	< 0.5	< 2	0.34	< 0.5	6	24	12	2.06	< 10	< 1	0.04	10	0.38	170
VR3048A	201 229	< 5	< 0.2	1.25	8	330	< 0.5	< 2	0.41	< 0.5	7	20	16	2.15	< 10	< 1	0.03	10	0.42	215
VR3049A	201 229	< 5	< 0.2	1.32	8	320	< 0.5	< 2	0.49	< 0.5	8	23	15	2.11	< 10	< 1	0.06	10	0.44	340
VR3101A	201 229	< 5	< 0.2	2.30	12	260	< 0.5	< 2	0.14	< 0.5	8	34	16	3.05	10	< 1	0.03	10	0.44	225
VR3102A	201 229	< 5	< 0.2	1.94	6	140	< 0.5	< 2	0.10	< 0.5	6	30	15	2.97	< 10	< 1	0.03	10	0.42	150
VR3103A	201 229	< 5	< 0.2	1.18	4	130	< 0.5	< 2	0.12	< 0.5	4	17	10	1.71	10	< 1	0.08	10	0.27	125
VR3104A	201 229	< 5	< 0.2	1.82	6	130	< 0.5	2	0.08	< 0.5	7	24	12	3.25	10	< 1	0.08	< 10	0.30	345
VR3105A	201 229	< 5	0.2	1.89	6	220	< 0.5	2	0.15	< 0.5	6	27	13	2.67	10	< 1	0.09	20	0.33	185
VR3106A	201 229	< 5	0.2	1.33	< 2	130	< 0.5	2	0.14	< 0.5	4	22	8	1.83	10	< 1	0.08	10	0.29	135
VR3107A	201 229	< 5	0.4	1.06	2	130	< 0.5	< 2	0.19	< 0.5	3	17	9	1.56	10	< 1	0.09	20	0.24	130
VR3108A	201 229	< 5	0.4	1.30	4	160	< 0.5	2	0.14	< 0.5	3	16	10	2.07	10	< 1	0.11	20	0.20	190
VR3109A	201 229	< 5	< 0.2	1.52	14	130	< 0.5	2	0.10	< 0.5	4	21	8	2.74	10	< 1	0.10	10	0.30	150
VR3110A	201 229	< 5	< 0.2	1.11	< 2	80	< 0.5	< 2	0.08	< 0.5	2	9	4	1.44	10	< 1	0.13	< 10	0.10	145
VR3111A	201 229	< 5	< 0.2	0.89	< 2	80	< 0.5	< 2	0.06	< 0.5	2	12	4	1.33	10	< 1	0.08	10	0.12	125
VR3112A	201 229	< 5	< 0.2	1.75	4	150	< 0.5	< 2	0.12	< 0.5	4	24	12	2.38	10	< 1	0.07	10	0.31	115
VR3113A	201 229	< 5	0.2	1.34	2	140	< 0.5	< 2	0.13	< 0.5	2	14	8	1.68	10	< 1	0.09	20	0.15	115
VR3114A	201 229	< 5	< 0.2	1.73	6	110	< 0.5	< 2	0.10	< 0.5	4	22	9	2.26	10	< 1	0.09	10	0.27	145
VR3115A	201 229	< 5	< 0.2	2.04	14	140	< 0.5	< 2	0.12	< 0.5	5	29	10	3.03	10	< 1	0.07	10	0.30	165
VR3116A	201 229	< 5	0.2	1.01	< 2	100	< 0.5	< 2	0.11	< 0.5	3	16	7	1.58	10	< 1	0.11	10	0.19	175
VR3117A	201 229	< 5	< 0.2	2.52	4	180	< 0.5	< 2	0.11	< 0.5	6	30	14	3.16	10	< 1	0.06	10	0.37	170

CERTIFICATION: *Hart Buchler*



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To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

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## CERTIFICATE OF ANALYSIS

### A9315295

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
VR3032A	201 229	< 1	0.01	19	170	6	< 2	4	13	0.07	< 10	< 10	59	< 10	54
VR3033A	201 229	< 1	0.01	14	330	6	< 2	3	17	0.06	< 10	< 10	40	< 10	48
VR3034A	201 229	< 1	0.01	13	240	8	< 2	3	18	0.07	< 10	< 10	38	< 10	68
VR3035A	201 229	< 1	0.01	11	210	6	< 2	3	16	0.06	< 10	< 10	36	< 10	46
VR3036A	201 229	< 1	0.01	13	160	8	< 2	3	20	0.07	< 10	< 10	37	< 10	58
VR3037A	201 229	< 1	0.01	15	400	6	< 2	3	19	0.05	< 10	< 10	34	< 10	60
VR3038A	201 229	< 1	0.01	17	440	8	< 2	4	23	0.06	< 10	< 10	42	< 10	64
VR3039A	201 229	< 1	0.01	17	460	6	< 2	4	22	0.05	< 10	< 10	40	< 10	68
VR3040A	201 229	< 1	0.01	17	550	6	< 2	3	21	0.04	< 10	< 10	38	< 10	52
VR3041A	201 229	< 1	0.01	17	590	6	< 2	3	23	0.05	< 10	< 10	41	< 10	54
VR3042A	201 229	< 1	0.01	18	520	6	< 2	3	20	0.05	< 10	< 10	41	< 10	58
VR3043A	201 229	< 1	0.01	16	540	8	< 2	3	26	0.04	< 10	< 10	40	< 10	56
VR3044A	201 229	< 1	0.01	15	420	6	< 2	3	32	0.05	< 10	< 10	42	< 10	56
VR3045A	201 229	< 1	0.01	15	450	6	< 2	3	26	0.06	< 10	< 10	43	< 10	58
VR3046A	201 229	< 1	0.01	15	420	4	< 2	3	23	0.04	< 10	< 10	38	< 10	50
VR3047A	201 229	< 1	0.01	14	510	6	< 2	2	21	0.04	< 10	< 10	38	< 10	46
VR3048A	201 229	< 1	0.01	17	600	6	< 2	3	29	0.05	< 10	< 10	38	< 10	54
VR3049A	201 229	< 1	0.01	16	760	8	< 2	3	33	0.05	< 10	< 10	41	< 10	80
VR3101A	201 229	< 1	0.01	17	180	12	< 2	3	14	0.08	< 10	< 10	64	< 10	56
VR3102A	201 229	< 1	0.01	16	180	6	< 2	3	11	0.07	< 10	< 10	55	< 10	56
VR3103A	201 229	< 1	0.01	11	180	8	< 2	2	10	0.04	< 10	< 10	33	< 10	60
VR3104A	201 229	< 1	0.01	15	480	10	< 2	2	9	0.06	< 10	< 10	57	< 10	66
VR3105A	201 229	< 1	0.01	14	210	16	< 2	3	15	0.06	< 10	< 10	67	< 10	72
VR3106A	201 229	< 1	0.01	11	220	8	< 2	2	12	0.06	< 10	< 10	37	< 10	64
VR3107A	201 229	< 1	0.01	9	270	8	< 2	3	16	0.07	< 10	< 10	31	< 10	70
VR3108A	201 229	< 1	0.01	8	180	14	< 2	3	14	0.07	< 10	< 10	50	< 10	96
VR3109A	201 229	< 1	0.01	12	350	14	< 2	2	10	0.06	< 10	< 10	53	< 10	74
VR3110A	201 229	< 1	0.01	6	150	8	< 2	2	7	0.06	< 10	< 10	31	< 10	96
VR3111A	201 229	< 1	0.01	4	170	12	< 2	1	6	0.04	< 10	< 10	25	< 10	74
VR3112A	201 229	< 1	0.01	11	240	10	< 2	2	12	0.07	< 10	< 10	50	< 10	52
VR3113A	201 229	< 1	0.01	6	160	16	< 2	2	12	0.06	< 10	< 10	34	< 10	74
VR3114A	201 229	< 1	0.01	10	200	10	< 2	2	11	0.06	< 10	< 10	47	< 10	70
VR3115A	201 229	< 1	0.01	11	260	12	< 2	3	13	0.07	< 10	< 10	59	< 10	60
VR3116A	201 229	< 1	0.01	7	180	8	< 2	2	10	0.06	< 10	< 10	25	< 10	96
VR3117A	201 229	< 1	0.01	14	240	12	< 2	3	13	0.09	< 10	< 10	74	< 10	62

CERTIFICATION: *Hant Bickler*



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 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
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To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

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## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR3127A	201 229	< 5	< 0.2	2.60	10	230	< 0.5	< 2	0.11	< 0.5	9	38	14	3.59	10	< 1	0.06	20	0.42	200
VR3128A	201 229	< 5	< 0.2	2.68	10	290	< 0.5	2	0.12	< 0.5	10	43	18	3.41	10	< 1	0.04	10	0.49	255
VR3129A	201 229	< 5	< 0.2	1.38	6	140	< 0.5	< 2	0.12	< 0.5	5	22	11	2.00	< 10	< 1	0.05	20	0.30	150
VR3130A	201 229	< 5	< 0.2	1.43	2	110	< 0.5	< 2	0.14	< 0.5	3	16	7	1.71	10	< 1	0.11	10	0.20	160
VR3131A	201 229	< 5	< 0.2	1.16	8	120	< 0.5	< 2	0.15	< 0.5	4	19	9	1.67	< 10	< 1	0.08	20	0.25	165
VR3132A	201 229	< 5	< 0.2	1.40	8	130	< 0.5	2	0.12	< 0.5	4	19	8	1.81	10	< 1	0.07	10	0.23	130
VR3133A	201 229	< 5	< 0.2	1.96	10	180	< 0.5	2	0.14	< 0.5	7	27	10	2.80	10	< 1	0.10	10	0.31	190
VR3134A	201 229	10	< 0.2	1.21	4	130	< 0.5	< 2	0.11	< 0.5	4	18	4	1.96	10	1	0.03	10	0.21	145
VR3135A	201 229	< 5	< 0.2	2.00	6	220	< 0.5	< 2	0.12	< 0.5	9	31	13	2.84	10	< 1	0.03	10	0.41	195
VR3136A	201 229	< 5	< 0.2	1.66	10	140	< 0.5	< 2	0.40	< 0.5	2	8	2	1.56	10	< 1	0.16	10	0.09	165
VR3137A	201 229	< 5	< 0.2	1.90	12	180	< 0.5	< 2	0.08	< 0.5	9	27	10	2.71	10	< 1	0.03	10	0.36	200
VR3138A	201 229	< 5	< 0.2	1.52	16	150	< 0.5	< 2	0.11	< 0.5	6	25	11	2.43	< 10	< 1	0.04	10	0.36	160
VR3139A	201 229	< 5	< 0.2	1.57	4	150	< 0.5	2	0.14	< 0.5	6	14	5	2.01	< 10	< 1	0.10	< 10	0.19	170
VR3140A	201 229	< 5	< 0.2	2.02	8	210	< 0.5	< 2	0.11	< 0.5	8	31	12	2.76	10	< 1	0.04	10	0.36	175
VR3141A	201 229	< 5	< 0.2	1.45	2	150	< 0.5	< 2	0.12	< 0.5	4	23	5	2.15	< 10	< 1	0.03	10	0.26	135
VR3142A	201 229	< 5	< 0.2	2.03	8	160	< 0.5	< 2	0.20	< 0.5	4	21	9	3.03	10	< 1	0.13	10	0.18	175
VR3143A	201 229	< 5	< 0.2	1.42	2	130	< 0.5	< 2	0.09	< 0.5	3	25	11	2.58	< 10	< 1	0.03	10	0.27	95
VR3144A	201 229	< 5	0.2	2.10	2	220	< 0.5	< 2	0.14	< 0.5	9	33	16	2.90	< 10	< 1	0.05	10	0.42	190
VR3145A	201 229	< 5	< 0.2	2.09	16	240	< 0.5	< 2	0.11	< 0.5	9	33	17	2.81	< 10	< 1	0.04	10	0.43	185
VR3146A	201 229	< 5	< 0.2	2.23	12	290	< 0.5	< 2	0.15	< 0.5	8	29	17	2.61	< 10	< 1	0.06	10	0.37	165
VR3147A	201 229	< 5	< 0.2	1.50	2	190	< 0.5	< 2	0.12	< 0.5	4	21	9	2.35	< 10	< 1	0.04	10	0.25	130
VR3148A	217 229	< 5	< 0.2	0.95	6	80	0.5	< 2	0.08	< 0.5	4	60	4	1.54	< 10	< 1	0.14	< 10	0.12	280
VR3151A	217 229	< 5	0.4	0.59	< 2	450	< 0.5	< 2	0.86	4.0	17	18	32	1.38	< 10	< 1	0.06	10	0.21	1400
VR3153A	201 229	< 5	< 0.2	1.43	2	220	< 0.5	< 2	0.39	0.5	6	26	11	2.05	< 10	< 1	0.04	10	0.47	135
VR3154A	201 229	< 5	0.2	1.41	6	280	< 0.5	< 2	0.47	< 0.5	7	28	12	2.40	< 10	< 1	0.06	20	0.54	195
VR3155A	201 229	< 5	0.2	1.20	4	270	< 0.5	2	0.45	< 0.5	8	22	16	2.15	< 10	< 1	0.04	20	0.48	190
VR3156A	201 229	< 5	< 0.2	2.15	2	260	< 0.5	2	0.13	< 0.5	8	30	9	2.82	< 10	< 1	0.03	10	0.41	195
VR3157A	201 229	< 5	0.2	2.34	6	310	< 0.5	2	0.12	< 0.5	9	35	15	3.38	< 10	< 1	0.05	10	0.50	230
VR3158A	201 229	< 5	0.2	2.17	8	250	< 0.5	2	0.12	< 0.5	9	33	12	2.94	< 10	< 1	0.04	10	0.43	220
VR3159A	201 229	< 5	0.2	2.03	12	290	< 0.5	2	0.17	< 0.5	7	29	8	2.68	< 10	< 1	0.05	20	0.41	180
VR3160A	201 229	< 5	0.2	1.33	6	190	< 0.5	2	0.12	< 0.5	4	21	6	2.08	< 10	< 1	0.03	10	0.30	115
VR3161A	201 229	5	0.2	2.01	12	210	< 0.5	< 2	0.10	< 0.5	7	28	6	2.79	< 10	< 1	0.04	10	0.34	195
VR3162A	201 229	< 5	0.2	1.77	< 2	170	< 0.5	< 2	0.11	< 0.5	5	24	7	2.52	< 10	< 1	0.05	10	0.35	155
VR3163A	201 229	< 5	0.4	2.14	6	220	< 0.5	< 2	0.12	< 0.5	7	27	11	2.99	< 10	< 1	0.09	10	0.39	205
VR3164A	201 229	< 5	0.2	2.08	< 2	190	< 0.5	2	0.11	< 0.5	7	29	7	2.87	< 10	< 1	0.06	10	0.39	220
VR3165A	201 229	< 5	0.4	2.10	12	170	< 0.5	< 2	0.12	< 0.5	7	30	10	3.12	< 10	< 1	0.06	10	0.39	175

CERTIFICATION: *Hart Bickler*



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SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
VR3127A	201 229	1	0.01	18	230	16	< 2	3	13	0.08	10	< 10	70	< 10	66
VR3128A	201 229	< 1	0.01	21	210	8	< 2	3	14	0.08	10	< 10	74	< 10	66
VR3129A	201 229	< 1	0.01	12	150	12	< 2	2	11	0.06	10	< 10	43	< 10	58
VR3130A	201 229	< 1	0.01	10	120	10	< 2	2	10	0.05	10	< 10	34	< 10	86
VR3131A	201 229	< 1	0.01	11	140	4	< 2	2	13	0.07	10	< 10	36	< 10	62
VR3132A	201 229	< 1	0.01	12	110	10	< 2	2	12	0.08	10	< 10	45	< 10	66
VR3133A	201 229	< 1	0.01	17	180	12	< 2	3	14	0.08	10	< 10	61	< 10	84
VR3134A	201 229	< 1	< 0.01	9	140	12	< 2	2	11	0.08	10	< 10	56	< 10	32
VR3135A	201 229	< 1	< 0.01	19	180	10	< 2	2	13	0.07	< 10	< 10	60	< 10	48
VR3136A	201 229	1	0.01	5	90	14	2	2	13	0.02	10	< 10	19	< 10	96
VR3137A	201 229	< 1	< 0.01	17	180	12	< 2	2	9	0.06	10	< 10	56	< 10	50
VR3138A	201 229	< 1	0.01	16	140	12	< 2	2	11	0.05	10	< 10	46	< 10	56
VR3139A	201 229	< 1	0.01	11	160	12	< 2	1	9	0.03	< 10	< 10	30	< 10	74
VR3140A	201 229	< 1	0.01	18	200	13	< 2	2	13	0.07	< 10	< 10	60	< 10	58
VR3141A	201 229	< 1	< 0.01	10	150	14	< 2	2	12	0.07	< 10	< 10	57	< 10	38
VR3142A	201 229	< 1	0.01	9	280	14	< 2	3	14	0.06	10	< 10	60	< 10	96
VR3143A	201 229	< 1	< 0.01	10	170	6	< 2	2	9	0.06	< 10	< 10	51	< 10	34
VR3144A	201 229	< 1	< 0.01	21	140	6	< 2	2	13	0.06	< 10	< 10	51	< 10	58
VR3145A	201 229	< 1	< 0.01	19	160	4	2	2	12	0.06	< 10	< 10	50	< 10	70
VR3146A	201 229	< 1	0.01	20	140	10	< 2	2	15	0.06	10	< 10	48	< 10	72
VR3147A	201 229	< 1	< 0.01	10	170	6	< 2	2	12	0.06	< 10	< 10	50	< 10	42
VR3148A	217 229	1	0.02	6	150	14	< 2	1	7	0.02	10	< 10	19	< 10	88
VR3151A	217 229	< 1	0.01	20	1080	6	2	1	44	0.01	< 10	< 10	21	< 10	114
VR3153A	201 229	< 1	0.01	16	650	8	< 2	2	24	0.04	< 10	< 10	47	< 10	52
VR3154A	201 229	1	0.01	19	700	10	< 2	3	29	0.07	10	< 10	49	< 10	62
VR3155A	201 229	1	0.01	19	680	8	2	3	27	0.06	10	< 10	42	< 10	58
VR3156A	201 229	< 1	< 0.01	18	120	6	< 2	2	14	0.08	< 10	< 10	61	< 10	52
VR3157A	201 229	< 1	0.01	21	190	8	< 2	3	14	0.08	< 10	< 10	64	< 10	58
VR3158A	201 229	< 1	< 0.01	19	220	6	< 2	2	13	0.08	< 10	< 10	63	< 10	62
VR3159A	201 229	< 1	0.01	16	200	12	< 2	3	16	0.08	10	< 10	59	< 10	68
VR3160A	201 229	< 1	< 0.01	11	140	6	< 2	2	12	0.05	10	< 10	44	< 10	32
VR3161A	201 229	< 1	< 0.01	15	290	6	< 2	2	10	0.06	< 10	< 10	57	< 10	76
VR3162A	201 229	< 1	< 0.01	14	170	4	< 2	2	10	0.06	10	< 10	51	< 10	68
VR3163A	201 229	1	< 0.01	17	210	8	< 2	3	12	0.05	< 10	< 10	52	< 10	94
VR3164A	201 229	< 1	< 0.01	16	250	12	< 2	2	11	0.07	< 10	< 10	57	< 10	94
VR3165A	201 229	< 1	< 0.01	17	220	8	< 2	3	11	0.08	< 10	< 10	65	< 10	74

CERTIFICATION: *Hart Bichler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
VANCOUVER, BC  
V6C 1S4

Project : HMS  
Comments: ATTN: ANN DOYLE

Page Number : 5-A  
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Certificate Date: 17-JUN-93  
Invoice No. : 19315295  
P.O. Number : 05-428  
Account : KAVA

## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR3170A	201 229	< 5	< 0.2	2.26	12	280	< 0.5	< 2	0.14	< 0.5	7	30	7	2.80	< 10	< 1	0.07	10	0.39	220
VR3171A	201 229	< 5	< 0.2	2.10	18	380	< 0.5	< 2	0.16	< 0.5	10	27	11	2.97	< 10	< 1	0.10	10	0.35	275
VR3172A	201 229	< 5	< 0.2	1.95	16	300	< 0.5	< 2	0.17	< 0.5	8	31	8	2.85	< 10	< 1	0.11	20	0.39	375
VR3173A	201 229	< 5	< 0.2	1.97	16	260	< 0.5	< 2	0.12	< 0.5	11	28	7	2.66	< 10	1	0.06	10	0.37	320
VR3174A	201 229	< 5	< 0.2	1.26	10	190	< 0.5	< 2	0.13	< 0.5	3	18	5	1.82	10	< 1	0.13	40	0.23	150
VR3175A	201 229	< 5	< 0.2	1.34	14	210	< 0.5	< 2	0.14	< 0.5	4	22	5	1.92	< 10	< 1	0.05	10	0.30	140
VR3176A	201 229	< 5	< 0.2	0.99	6	220	< 0.5	< 2	0.12	< 0.5	4	14	2	1.47	< 10	< 1	0.08	10	0.18	205
VR3177A	201 229	< 5	< 0.2	0.91	2	110	< 0.5	< 2	0.10	< 0.5	3	15	3	1.72	< 10	< 1	0.05	10	0.20	130
VR3178A	201 229	< 5	< 0.2	1.32	8	180	< 0.5	< 2	0.17	< 0.5	4	20	10	2.04	< 10	1	0.04	20	0.37	140
VR3179A	201 229	< 5	< 0.2	1.53	14	240	< 0.5	< 2	0.20	< 0.5	5	26	13	2.22	< 10	1	0.06	20	0.39	150
VR3180A	201 229	< 5	< 0.2	1.31	12	200	< 0.5	< 2	0.17	< 0.5	4	18	7	1.86	< 10	< 1	0.05	20	0.31	140
VR3181A	201 229	< 5	< 0.2	1.30	< 2	150	< 0.5	< 2	0.14	< 0.5	4	17	6	1.82	< 10	< 1	0.07	20	0.27	170
VR3182A	201 229	< 5	0.2	1.61	14	130	< 0.5	< 2	0.13	< 0.5	3	12	9	1.83	< 10	1	0.13	10	0.18	170
VR3183A	201 229	40	0.2	2.41	4	110	< 0.5	< 2	0.47	0.5	19	29	47	4.38	10	< 1	0.14	60	0.92	470
VR3184A	201 229	< 5	< 0.2	1.49	14	260	< 0.5	< 2	0.31	< 0.5	29	607	14	3.28	< 10	< 1	0.01	10	3.34	285
VR3185A	201 229	< 5	0.2	1.53	8	320	< 0.5	< 2	0.29	< 0.5	12	48	32	3.47	< 10	< 1	0.10	30	0.55	315
VR3192A	201 229	< 5	< 0.2	2.15	14	220	< 0.5	2	0.10	< 0.5	8	35	15	2.92	< 10	< 1	0.09	10	0.42	215
VR3193A	201 229	< 5	< 0.2	2.16	8	200	< 0.5	2	0.12	< 0.5	7	26	8	2.87	< 10	< 1	0.08	10	0.37	210
VR3194A	201 229	< 5	< 0.2	1.71	4	150	< 0.5	< 2	0.11	< 0.5	4	20	6	2.35	< 10	< 1	0.08	10	0.28	160
VR3195A	201 229	< 5	< 0.2	2.19	2	300	< 0.5	< 2	0.17	< 0.5	8	28	7	2.69	< 10	< 1	0.08	10	0.37	260
VR3196A	201 229	< 5	< 0.2	2.34	12	210	< 0.5	< 2	0.09	< 0.5	8	34	12	3.01	< 10	< 1	0.06	10	0.40	220
VR3197A	201 229	< 5	0.2	2.44	16	220	< 0.5	< 2	0.10	< 0.5	7	28	14	2.88	< 10	< 1	0.11	20	0.37	195
VR3198A	201 229	< 5	< 0.2	2.38	12	240	< 0.5	< 2	0.13	< 0.5	9	30	10	3.12	< 10	< 1	0.12	10	0.38	250
VR3199A	201 229	< 5	< 0.2	2.76	14	390	< 0.5	< 2	0.15	< 0.5	11	46	22	3.43	< 10	< 1	0.09	20	0.53	260
VR3200A	201 229	< 5	< 0.2	1.91	4	320	< 0.5	< 2	0.13	< 0.5	9	29	9	2.53	< 10	< 1	0.06	10	0.37	310
VR3201A	201 229	< 5	< 0.2	1.53	12	180	< 0.5	< 2	0.11	< 0.5	5	23	6	2.38	< 10	< 1	0.03	10	0.28	185
VR3202A	201 229	< 5	< 0.2	1.23	6	150	< 0.5	< 2	0.14	< 0.5	4	18	13	1.78	< 10	< 1	0.08	20	0.25	155
VR3203A	201 229	< 5	< 0.2	1.48	14	160	< 0.5	< 2	0.09	< 0.5	6	21	9	2.39	< 10	< 1	0.04	10	0.30	205
VR3204A	201 229	< 5	< 0.2	1.37	10	180	< 0.5	< 2	0.09	< 0.5	4	20	10	2.03	< 10	< 1	0.06	10	0.26	145
VR3205A	201 229	< 5	< 0.2	1.69	6	210	< 0.5	< 2	0.11	< 0.5	7	28	14	2.46	< 10	< 1	0.04	10	0.39	165

CERTIFICATION:

*Hart Bickler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.  
 354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

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 P.O. Number : 05-428  
 Account : KAVA

Project : HMS  
 Comments : ATTN: ANN DOYLE

## CERTIFICATE OF ANALYSIS

### A9315295

SAMPLE	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
VR3170A	201 229	1	0.01	16	230	10	< 2	2	13	0.08	< 10	< 10	60	< 10	80
VR3171A	201 229	< 1	0.01	16	300	10	< 2	3	16	0.06	< 10	< 10	54	< 10	90
VR3172A	201 229	< 1	0.01	14	750	4	< 2	3	15	0.09	< 10	< 10	63	< 10	94
VR3173A	201 229	< 1	< 0.01	14	240	6	< 2	2	12	0.07	< 10	< 10	56	< 10	78
VR3174A	201 229	< 1	0.01	9	140	18	< 2	3	11	0.06	< 10	< 10	33	< 10	88
VR3175A	201 229	< 1	< 0.01	10	160	4	< 2	2	12	0.07	< 10	< 10	44	< 10	42
VR3176A	201 229	< 1	0.01	6	130	8	< 2	1	11	0.04	< 10	< 10	38	< 10	68
VR3177A	201 229	< 1	< 0.01	7	140	4	< 2	1	8	0.06	< 10	< 10	34	< 10	58
VR3178A	201 229	< 1	< 0.01	12	230	8	< 2	2	13	0.06	< 10	< 10	39	< 10	48
VR3179A	201 229	< 1	0.01	13	240	10	< 2	3	16	0.07	< 10	< 10	42	< 10	44
VR3180A	201 229	1	< 0.01	10	180	12	< 2	2	13	0.06	< 10	< 10	36	< 10	48
VR3181A	201 229	1	< 0.01	10	150	14	< 2	2	12	0.06	< 10	< 10	36	< 10	52
VR3182A	201 229	1	0.01	11	190	12	< 2	2	10	0.03	< 10	< 10	23	< 10	94
VR3183A	201 229	4	0.01	43	1010	6	< 2	3	30	< 0.01	< 10	< 10	27	< 10	128
VR3184A	201 229	< 1	< 0.01	785	230	4	< 2	4	19	0.03	< 10	< 10	34	< 10	54
VR3185A	201 229	1	0.01	55	420	4	< 2	4	20	0.01	< 10	< 10	30	< 10	78
VR3192A	201 229	< 1	< 0.01	19	180	6	< 2	2	11	0.07	< 10	< 10	56	< 10	66
VR3193A	201 229	< 1	< 0.01	16	210	14	< 2	2	11	0.07	< 10	< 10	53	< 10	98
VR3194A	201 229	1	< 0.01	11	170	8	< 2	2	10	0.06	< 10	< 10	41	< 10	100
VR3195A	201 229	< 1	< 0.01	17	200	8	< 2	2	15	0.07	< 10	< 10	53	< 10	128
VR3196A	201 229	1	< 0.01	16	190	4	< 2	3	10	0.07	< 10	< 10	59	< 10	90
VR3197A	201 229	1	0.01	18	150	12	< 2	3	12	0.07	< 10	< 10	49	< 10	100
VR3198A	201 229	1	0.01	14	370	6	< 2	3	13	0.08	< 10	< 10	58	< 10	100
VR3199A	201 229	1	0.01	26	190	8	< 2	4	17	0.09	< 10	< 10	67	< 10	74
VR3200A	201 229	< 1	0.01	14	250	4	< 2	2	14	0.07	< 10	< 10	55	< 10	64
VR3201A	201 229	< 1	< 0.01	10	170	6	< 2	2	11	0.07	< 10	< 10	54	< 10	36
VR3202A	201 229	< 1	0.01	11	220	16	< 2	3	13	0.07	< 10	< 10	34	< 10	60
VR3203A	201 229	< 1	< 0.01	12	170	12	< 2	2	10	0.07	< 10	< 10	53	< 10	46
VR3204A	201 229	< 1	0.01	10	160	8	< 2	2	10	0.07	< 10	< 10	45	< 10	44
VR3205A	201 229	< 1	< 0.01	14	140	8	< 2	2	12	0.07	< 10	< 10	48	< 10	52

CERTIFICATION: Hart Bichler



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Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
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To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
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## CERTIFICATE OF ANALYSIS A9315295

SAMPLE	PREP CODE		Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
			FA+AA																		
VR3206A	201	229	< 5	0.2	1.82	10	200	< 0.5	< 2	0.13	< 0.5	6	24	12	2.44	< 10	1	0.05	20	0.35	150
VR3207A	201	229	< 5	< 0.2	1.93	6	190	< 0.5	< 2	0.14	< 0.5	5	27	11	2.39	< 10	< 1	0.07	10	0.36	125
VR3208A	201	229	< 5	< 0.2	1.95	6	220	< 0.5	< 2	0.13	< 0.5	6	29	14	2.50	< 10	< 1	0.06	10	0.40	165
VR3209A	201	229	< 5	< 0.2	2.48	6	270	< 0.5	< 2	0.17	< 0.5	7	36	21	2.80	< 10	< 1	0.09	20	0.43	135
VR3210A	201	229	< 5	< 0.2	1.56	6	210	< 0.5	< 2	0.16	< 0.5	5	23	12	1.98	< 10	< 1	0.06	20	0.32	130
VR3211A	201	229	< 5	< 0.2	1.78	8	180	< 0.5	< 2	0.16	< 0.5	5	24	10	2.37	< 10	< 1	0.05	10	0.37	130
VR3212A	201	229	< 5	< 0.2	2.10	4	230	< 0.5	2	0.16	< 0.5	6	27	14	2.66	< 10	< 1	0.08	20	0.37	150
VR3213A	201	229	< 5	< 0.2	2.03	12	240	< 0.5	< 2	0.20	< 0.5	6	27	12	3.46	< 10	< 1	0.07	20	0.39	125
VR3214A	201	229	< 5	< 0.2	1.24	6	160	< 0.5	2	0.12	< 0.5	3	16	9	1.78	< 10	< 1	0.05	10	0.23	100
VR3215A	201	229	< 5	< 0.2	1.29	6	160	< 0.5	< 2	0.14	< 0.5	4	17	10	2.01	< 10	< 1	0.04	10	0.27	125
VR3216A	201	229	< 5	< 0.2	1.36	< 2	160	< 0.5	< 2	0.13	< 0.5	5	21	13	2.08	< 10	< 1	0.03	10	0.34	120
VR3217A	201	229	< 5	< 0.2	1.14	4	130	< 0.5	< 2	0.10	< 0.5	3	18	8	1.54	< 10	< 1	0.06	10	0.24	95
VR3218A	201	229	< 5	< 0.2	1.51	12	130	< 0.5	< 2	0.10	< 0.5	4	24	9	2.07	< 10	< 1	0.06	20	0.38	115
VR3219A	201	229	< 5	0.2	1.98	24	240	1.0	2	0.20	< 0.5	6	26	18	2.49	10	< 1	0.05	40	0.39	160
VR3220A	201	229	< 5	< 0.2	1.36	10	170	< 0.5	< 2	0.13	< 0.5	4	18	6	1.77	< 10	< 1	0.06	20	0.30	135
VR3221A	201	229	< 5	< 0.2	1.26	6	100	< 0.5	< 2	0.08	< 0.5	3	13	4	1.65	< 10	< 1	0.10	10	0.19	200
VR3222A	201	229	< 5	< 0.2	1.01	4	80	< 0.5	< 2	0.08	< 0.5	2	10	4	1.45	< 10	< 1	0.08	20	0.17	115
VR3223A	201	229	< 5	0.6	2.14	6	190	< 0.5	2	0.13	< 0.5	7	30	21	2.69	< 10	< 1	0.05	20	0.42	160
VR3224A	201	229	< 5	0.2	1.58	20	120	< 0.5	< 2	0.14	< 0.5	5	17	8	2.71	< 10	1	0.11	10	0.30	360
VR3225A	201	229	< 5	0.2	1.42	22	200	< 0.5	< 2	0.20	0.5	4	23	11	2.06	< 10	< 1	0.07	20	0.40	180
VR3226A	201	229	< 5	< 0.2	1.14	8	100	0.5	2	0.17	0.5	3	15	6	1.61	10	< 1	0.11	70	0.23	145
VR3227A	201	229	< 5	< 0.2	1.23	12	100	< 0.5	< 2	0.08	< 0.5	4	19	13	1.80	< 10	< 1	0.05	20	0.22	110
VR3228A	201	229	< 5	< 0.2	0.92	16	120	< 0.5	2	0.16	< 0.5	6	36	15	1.95	< 10	< 1	0.09	30	0.31	160
VR3229A	201	229	< 5	< 0.2	1.00	4	140	< 0.5	< 2	0.16	< 0.5	4	19	11	1.49	< 10	< 1	0.06	20	0.27	95
VR3230A	201	229	< 5	< 0.2	1.10	6	140	< 0.5	< 2	0.17	< 0.5	3	21	9	1.54	< 10	< 1	0.07	30	0.28	85
VR3231A	201	229	< 5	< 0.2	2.46	10	280	< 0.5	< 2	0.14	< 0.5	11	39	27	3.32	< 10	< 1	0.06	10	0.50	255
VR3232A	201	229	< 5	0.2	1.68	8	220	< 0.5	< 2	0.11	< 0.5	5	23	9	2.34	< 10	< 1	0.03	10	0.30	130
VR3236A	201	229	< 5	< 0.2	1.77	12	410	< 0.5	< 2	0.26	0.5	8	28	23	2.76	< 10	< 1	0.09	20	0.43	180
VR3237A	201	229	< 5	0.2	1.57	24	380	< 0.5	< 2	0.26	< 0.5	8	24	18	2.69	< 10	< 1	0.07	20	0.42	225
VR3238A	201	229	< 5	< 0.2	1.72	14	510	0.5	< 2	0.31	< 0.5	11	29	29	2.54	< 10	< 1	0.10	20	0.39	330
VR3239A	201	229	< 5	< 0.2	1.48	8	230	< 0.5	< 2	0.14	< 0.5	5	25	15	2.11	< 10	< 1	0.08	10	0.30	115
VR3240A	201	229	< 5	< 0.2	1.33	8	210	< 0.5	< 2	0.12	< 0.5	6	25	11	2.28	< 10	< 1	0.09	10	0.30	130
VR3241A	201	229	< 5	< 0.2	1.64	4	240	< 0.5	< 2	0.14	< 0.5	7	26	10	2.65	< 10	< 1	0.10	10	0.26	275
VR3251A	201	229	< 5	0.2	1.74	12	170	0.5	12	0.08	< 0.5	6	24	12	2.42	< 10	< 1	0.09	10	0.32	145
VR3252A	201	229	< 5	0.2	1.22	14	150	0.5	< 2	0.16	< 0.5	4	22	11	2.01	< 10	< 1	0.07	20	0.39	130
VR3253A	201	229	< 5	0.2	1.19	6	150	0.5	< 2	0.13	< 0.5	5	22	10	2.00	< 10	< 1	0.07	20	0.38	145
VR3254A	201	229	< 5	0.2	1.42	6	250	0.5	< 2	0.30	< 0.5	11	19	29	3.69	< 10	< 1	0.08	40	0.37	315

CERTIFICATION:

*Hart Beckler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project: HMS  
 Comments: ATTN: ANN DOYLE

Page Number : 6-B  
 Total Pages : 7  
 Certificate Date: 17 JUN-93  
 Invoice No. : 19315295  
 P.O. Number : 05-428  
 Account : KAVA

## CERTIFICATE OF ANALYSIS

### A9315295

SAMPLE	PREP		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
	CODE		ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
VR3206A	201	229	< 1	< 0.01	15	170	8	< 2	2	13	0.08	< 10	< 10	51	< 10	50
VR3207A	201	229	< 1	0.01	14	130	4	< 2	3	14	0.08	< 10	< 10	48	< 10	52
VR3208A	201	229	< 1	0.01	15	110	4	< 2	2	14	0.08	< 10	< 10	50	< 10	54
VR3209A	201	229	< 1	0.01	19	160	8	< 2	3	18	0.09	< 10	< 10	54	< 10	64
VR3210A	201	229	< 1	0.01	13	150	8	< 2	3	16	0.09	< 10	< 10	39	< 10	58
VR3211A	201	229	< 1	0.01	13	200	4	< 2	2	15	0.08	< 10	< 10	47	< 10	48
VR3212A	201	229	1	0.01	16	280	8	< 2	3	17	0.09	< 10	< 10	53	< 10	66
VR3213A	201	229	< 1	0.01	16	230	6	< 2	3	18	0.09	< 10	< 10	47	< 10	60
VR3214A	201	229	< 1	0.01	10	410	8	< 2	2	11	0.04	< 10	< 10	30	< 10	56
VR3215A	201	229	< 1	< 0.01	10	380	6	< 2	1	12	0.04	< 10	< 10	35	< 10	54
VR3216A	201	229	< 1	< 0.01	12	390	8	< 2	2	12	0.05	< 10	< 10	37	< 10	50
VR3217A	201	229	< 1	0.01	10	140	8	< 2	2	10	0.06	< 10	< 10	28	< 10	54
VR3218A	201	229	< 1	0.01	12	130	8	< 2	2	11	0.06	< 10	< 10	38	< 10	50
VR3219A	201	229	1	0.01	15	260	14	< 2	3	17	0.06	< 10	< 10	46	< 10	72
VR3220A	201	229	< 1	0.01	10	120	10	< 2	2	13	0.06	< 10	< 10	33	< 10	56
VR3221A	201	229	< 1	0.01	7	160	16	< 2	2	8	0.04	< 10	< 10	25	< 10	98
VR3222A	201	229	1	0.01	6	110	14	< 2	2	8	0.04	< 10	< 10	22	< 10	82
VR3223A	201	229	1	< 0.01	20	150	8	< 2	3	13	0.05	< 10	< 10	49	< 10	70
VR3224A	201	229	1	0.01	12	320	14	< 2	3	10	0.03	< 10	< 10	36	< 10	122
VR3225A	201	229	1	< 0.01	15	290	6	< 2	2	15	0.05	< 10	< 10	44	< 10	74
VR3226A	201	229	< 1	0.01	8	240	20	< 2	3	13	0.05	< 10	< 10	25	< 10	102
VR3227A	201	229	< 1	< 0.01	15	190	8	< 2	2	8	0.03	< 10	< 10	29	< 10	58
VR3231A	201	229	1	0.01	29	190	4	< 2	3	15	0.08	< 10	< 10	65	< 10	68
VR3232A	201	229	< 1	< 0.01	12	140	8	< 2	2	11	0.07	< 10	< 10	53	< 10	38
VR3233A	201	229	< 1	0.01	15	200	2	< 2	2	13	0.07	< 10	< 10	54	< 10	44
VR3234A	201	229	< 1	0.01	17	510	6	< 2	3	16	0.06	< 10	< 10	45	< 10	56
VR3235A	201	229	1	0.01	18	420	6	< 2	2	25	0.03	< 10	< 10	42	< 10	44
VR3236A	201	229	1	0.01	22	560	8	< 2	3	25	0.05	< 10	< 10	50	< 10	76
VR3237A	201	229	1	0.01	20	660	6	< 2	3	23	0.06	< 10	< 10	48	< 10	78
VR3238A	201	229	1	0.01	23	630	8	< 2	4	30	0.07	< 10	< 10	47	< 10	68
VR3239A	201	229	1	0.01	17	340	6	< 2	3	13	0.06	< 10	< 10	49	< 10	50
VR3240A	201	229	1	0.01	16	410	6	< 2	1	13	0.06	< 10	< 10	55	< 10	52
VR3241A	201	229	1	0.01	14	880	4	< 2	1	13	0.05	< 10	< 10	62	< 10	54
VR3251A	201	229	1	< 0.01	15	150	12	< 2	2	9	0.04	< 10	< 10	38	< 10	70
VR3252A	201	229	1	< 0.01	15	330	8	< 2	2	14	0.05	< 10	< 10	33	< 10	56
VR3253A	201	229	< 1	< 0.01	15	210	12	< 2	2	11	0.03	< 10	< 10	31	< 10	54
VR3254A	201	229	1	0.01	35	390	4	< 2	3	18	< 0.01	< 10	< 10	16	< 10	86

CERTIFICATION:

*Haut Buchler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
VANCOUVER, BC  
V6C 1S4

Project : HMS  
Comments: ATTN: ANN DOYLE

Page Number : 7-A  
Total Pages : 7  
Certificate Date: 17-JUN-93  
Invoice No. : 19315295  
P.O. Number : 05-428  
Account : KAVA

## CERTIFICATE OF ANALYSIS

### A9315295

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR3255A	201 229	< 5	0.2	2.07	14	410	< 0.5	< 2	0.17	< 0.5	10	27	25	3.83	< 10	< 1	0.07	30	0.68	330
VR3256A	201 229	< 5	0.2	2.24	18	620	0.5	2	0.36	< 0.5	11	34	24	3.16	< 10	< 1	0.04	20	0.51	380
VR3257A	201 229	< 5	< 0.2	1.86	6	390	< 0.5	2	0.11	< 0.5	7	30	13	2.38	< 10	< 1	0.05	10	0.47	220
VR3258A	201 229	< 5	0.2	2.29	14	860	0.5	< 2	0.13	< 0.5	9	37	23	2.78	< 10	< 1	0.05	10	0.44	325
VR3259A	201 229	< 5	0.2	1.51	12	510	< 0.5	< 2	0.09	< 0.5	7	23	29	2.62	< 10	< 1	0.07	10	0.32	275
VR3260A	201 229	< 5	0.6	1.81	< 2	360	< 0.5	< 2	0.08	< 0.5	7	25	29	2.91	< 10	< 1	0.06	10	0.34	145
VR3261A	201 229	< 5	0.4	1.35	86	600	0.5	< 2	0.10	< 0.5	11	32	71	3.61	< 10	< 1	0.08	10	0.20	285
VR3262A	201 229	< 5	0.2	1.38	2	400	< 0.5	< 2	0.14	< 0.5	6	27	6	1.97	< 10	< 1	0.09	20	0.32	245
VR3263A	201 229	< 5	0.4	1.77	6	1420	0.5	< 2	0.32	< 0.5	15	37	37	4.81	< 10	< 1	0.15	20	0.23	500
VR3264A	201 229	< 5	0.4	1.17	234	820	0.5	< 2	0.32	< 0.5	8	20	16	2.38	< 10	< 1	0.20	20	0.21	585

CERTIFICATION:

*Hart Bickler*



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 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project: HMS  
 Comments: ATTN: ANN DOYLE

Page Number : 7-B  
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 Certificate Date: 17-JUN-93  
 Invoice No. : 19315295  
 P.O. Number : 05-428  
 Account : KAVA

**CERTIFICATE OF ANALYSIS** **A9315295**

SAMPLE	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
VR3255A	201	229	1 < 0.01		26	230	6	< 2	2	12	< 0.01	< 10	< 10	21	< 10	72
VR3256A	201	229	< 1	0.01	25	170	4	< 2	4	19	0.06	< 10	< 10	60	< 10	68
VR3257A	201	229	< 1	< 0.01	21	140	6	< 2	2	9	0.05	< 10	< 10	46	< 10	56
VR3258A	201	229	1	0.01	32	140	4	< 2	3	12	0.06	< 10	< 10	52	< 10	68
VR3259A	201	229	< 1	< 0.01	19	170	< 2	< 2	2	8	0.08	< 10	< 10	41	< 10	54
VR3260A	201	229	1	< 0.01	21	210	8	< 2	1	9	0.02	< 10	< 10	37	< 10	62
VR3261A	201	229	2	< 0.01	48	170	8	< 2	2	9	0.01	< 10	< 10	37	< 10	88
VR3262A	201	229	< 1	0.01	13	140	2	< 2	2	13	0.04	< 10	< 10	37	< 10	38
VR3263A	201	229	1	< 0.01	40	390	4	< 2	4	15	< 0.01	< 10	< 10	56	< 10	122
VR3264A	201	229	2	< 0.01	18	280	12	< 2	2	17	< 0.01	< 10	< 10	29	< 10	58

CERTIFICATION: Hart Buchler



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 212 Brooksbank Ave., North Vancouver  
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354 - 200 GRANVILLE ST.  
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 V6C 1S4

Project: HMS  
 Comments: ATTN: A.DOYLE

Page Number : 1-A  
 Total Pages : 1  
 Certificate Date: 20-JUL-93  
 Invoice No. : 19317065  
 P.O. Number : 05-428  
 Account : KAVA

## CERTIFICATE OF ANALYSIS

### A9317065

SAMPLE	PREP CODE	Au ppb FA+AA	Ag ppm	Al %	As ppm	Ba ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
VR 5671 A	201 229	5	0.2	2.72	10	150	< 0.5	< 2	0.36	< 0.5	15	38	35	4.28	< 10	< 1	0.08	50	1.04	475
VR 5672 A	203 205	< 5	0.2	3.47	14	390	< 0.5	< 2	0.47	1.0	17	99	63	4.83	< 10	< 1	0.27	50	1.24	675
VR 5673 A	201 229	< 5	< 0.2	2.60	4	160	< 0.5	< 2	0.32	< 0.5	16	51	37	4.49	< 10	< 1	0.06	30	1.15	405
VR 5674 A	201 229	5	< 0.2	1.85	6	370	< 0.5	< 2	0.40	0.5	9	39	31	2.87	< 10	< 1	0.05	20	0.62	300
VR 5675 A	201 229	< 5	0.2	2.14	10	270	< 0.5	< 2	0.53	< 0.5	12	139	44	3.51	< 10	< 1	0.06	30	1.34	330
VR 5676 A	203 205	< 5	< 0.2	3.09	10	310	< 0.5	< 2	0.62	< 0.5	15	121	36	3.97	< 10	< 1	0.27	30	1.32	400
VR 5677 A	203 205	< 5	< 0.2	3.58	6	210	< 0.5	< 2	0.37	0.5	14	80	41	5.06	< 10	< 1	0.31	40	1.41	465
VR 5678 A	201 229	< 5	< 0.2	2.66	8	140	< 0.5	< 2	0.43	0.5	13	36	38	4.23	< 10	< 1	0.11	40	1.04	385
VR 5679 A	203 205	< 5	0.2	2.94	18	200	1.0	6	0.33	< 0.5	11	60	32	3.93	< 10	< 1	0.30	50	0.76	390
VR 5680 A	201 229	< 5	< 0.2	1.18	12	120	< 0.5	< 2	0.13	< 0.5	< 1	11	8	1.39	< 10	< 1	0.07	10	0.12	100
VR 5681 A	201 229	20	0.2	1.83	8	260	< 0.5	< 2	0.29	< 0.5	6	23	15	2.32	< 10	< 1	0.07	20	0.43	210
VR 5682 A	201 229	< 5	< 0.2	1.41	4	180	< 0.5	< 2	0.28	< 0.5	4	20	10	1.72	< 10	< 1	0.05	10	0.30	125
VR 5683 A	201 229	< 5	< 0.2	2.46	14	220	< 0.5	< 2	0.39	< 0.5	12	34	25	3.82	< 10	< 1	0.09	40	0.92	460
VR 5684 A	201 229	< 5	< 0.2	2.92	10	320	< 0.5	< 2	0.29	0.5	18	48	33	4.54	< 10	< 1	0.07	40	1.21	615
VR 5685 A	201 229	< 5	< 0.2	1.78	28	450	< 0.5	2	0.72	< 0.5	13	109	43	3.51	< 10	< 1	0.06	20	0.71	495
VR 5686 A	201 229	< 5	0.6	1.63	14	630	< 0.5	< 2	1.06	0.5	10	36	59	2.59	< 10	< 1	0.06	10	0.44	450
VR 5687 A	201 229	< 5	< 0.2	1.85	22	510	< 0.5	2	0.39	0.5	10	105	27	2.65	< 10	< 1	0.04	10	0.60	200

CERTIFICATION:

*Phai B. Me*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: KENNECOTT CANADA, INC.

354 - 200 GRANVILLE ST.  
 VANCOUVER, BC  
 V6C 1S4

Project: HMS  
 Comments: ATTN: A.DOYLE

Page Number : 1-B  
 Total Pages : 1  
 Certificate Date: 20-JUL-93  
 Invoice No. : I9317065  
 P.O. Number : 05-428  
 Account : KAVA

## CERTIFICATE OF ANALYSIS

### A9317065

SAMPLE	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
VR 5671 A	201	229	2	0.01	37	600	22	2	4	21	< 0.01	< 10	< 10	32	< 10	100
VR 5672 A	203	205	5	0.06	55	840	24	< 2	6	40	< 0.01	< 10	< 10	43	< 10	126
VR 5673 A	201	229	1	< 0.01	58	380	10	< 2	4	18	< 0.01	< 10	< 10	28	< 10	90
VR 5674 A	201	229	1	0.01	40	410	< 2	< 2	4	25	0.02	< 10	< 10	42	< 10	60
VR 5675 A	201	229	2	0.01	118	430	6	2	4	30	< 0.01	< 10	< 10	32	< 10	92
VR 5676 A	203	205	< 1	0.04	107	410	10	< 2	5	42	0.01	< 10	< 10	40	< 10	98
VR 5677 A	203	205	2	0.07	42	780	4	< 2	4	29	< 0.01	< 10	< 10	37	< 10	104
VR 5678 A	201	229	3	0.01	39	780	16	< 2	4	26	< 0.01	< 10	< 10	33	< 10	106
VR 5679 A	203	205	2	0.06	32	500	16	< 2	5	27	< 0.01	< 10	< 10	33	< 10	92
VR 5680 A	201	229	< 1	0.01	7	120	10	< 2	2	10	0.03	< 10	< 10	21	< 10	58
VR 5681 A	201	229	< 1	< 0.01	18	220	18	< 2	3	19	0.03	< 10	< 10	31	< 10	66
VR 5682 A	201	229	< 1	0.01	10	180	6	< 2	2	18	0.05	< 10	< 10	34	< 10	46
VR 5683 A	201	229	2	< 0.01	34	600	8	2	4	22	0.01	< 10	< 10	32	< 10	90
VR 5684 A	201	229	3	< 0.01	49	660	6	2	4	21	< 0.01	< 10	< 10	34	< 10	96
VR 5685 A	201	229	1	0.01	133	590	2	2	4	34	< 0.01	< 10	< 10	29	< 10	132
VR 5686 A	201	229	3	0.01	65	580	< 2	4	4	52	< 0.01	< 10	< 10	30	< 10	90
VR 5687 A	201	229	< 1	0.01	90	250	6	< 2	5	26	0.03	< 10	< 10	47	< 10	54

CERTIFICATION:

*Thai D. Ma*

needs approval - COPY 2

MINFILE: 116B 081  
PAGE NO: 1 of 2  
UPDATED: 07/20/94

**YUKON MINFILE  
STANDARD REPORT  
EXPLORATION AND GEOLOGICAL SERVICES DIVISION, DIAND  
WHITEHORSE**

**NAME(S):** Hattie  
**MINFILE #:** 116B 081  
**MAJOR COMMODITIES:** Au,Cu  
**MINOR COMMODITIES:** Hg,F,topaz  
**TECTONIC ELEMENT:** Yukon Tanana Terrane  
**NTS MAP SHEET:** 116 B 3  
**LATITUDE:** 64°01'30"N  
**LONGITUDE:** 139°07'08"W  
**DEPOSIT TYPE:** Vein  
**STATUS:** Uncertain

---

**CLAIMS (PREVIOUS AND CURRENT)**

JAP, OMEGA, JAY, HMS, MELINDA

**WORK HISTORY**

Staked as Morning Star (4168) in Aug/01 by W.O. Smith, who drove a 7.3 m adit and did considerable trenching until 1909. On nearby claims staked at the same time, C.R. Leake sank a 4.6 m shaft in 1903 on the Fourth of July cl (2038), H.F. Lerwill trenched on the Leroy cl (1805), and an open-cut was put in on the California Girl claims. The workings were restaked as Hun cl (YA79929) in Aug/84 by a joint venture between United Keno Hill ML and Falconbridge L. 8783 Yukon Ltd restaked as the Omega (YB30408), Jap (YB30377) and HMS claims (YB30485) in Dec/90. The HMS claims were transferred to Arbor Res Inc in Feb/92, which explored with trenching and stripping later in the year.

In May/91, W. Hawkes and D. Johnson made an unsuccessful attempt to restake the Jap claims as HJ (YB39964). Merced Inc. sampled the property and conducted limited geophysical surveys in 1991. A.J. McFaul restaked the property as 19 Melinda cl (YB40909) in Jun and Sep/92 and trenched on the Melinda 5 claim. The HMS cl were transferred to Kennecott Canada Inc. in May/93 as part of an option agreement. Kennecott conducted a program of trenching, geochemical sampling, and geological mapping on the HMS claims in Jun/93.

**GEOLOGY**

The property is partially underlain by quartz-sericite schist (Permian) with minor quartz veins and lenses, covered by about 80 m of Pliocene White Channel Gravel. The uppermost 1.5 m of the schist and the lowermost 3.5 m of White Channel Gravel has undergone strong hydrothermal alteration. Poorly exposed fault zones filled with black graphitic gouge strike east-west. Placer mining operations have recovered topaz, tourmaline, fluorite and cinnabar, probably derived from a large Eocene quartz-feldspar porphyry which outcrops east of the property.

The Morning Star showing consists of quartz veins which were reported by the owner to contain malachite and free gold and to assay about 34.2 g/t Au and up to 20% Cu. This was never confirmed by an independent examination. Merced panned fine gold from weathered bedrock, but assays were negative.

Kennecott examined the quartz-feldspar porphyry that outcrops on the property in 1993. Gold assays from rock and soil samples were low and there appeared to be little alteration present in the porphyry.

**REFERENCES**

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DEBICKI, R.L., 1984. Bedrock geology and mineralization of the Klondike area (west), 1150/14, 15, and 116B/2, 3. Exploration and Geological Services Division, DIAND, Open File 1984-3.

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MERCED INC., Oct/91. Assessment Report #092994 by D.A. Downing.

MORTENSEN, J.K., 1990. Geology and U-Pb geochronology of the Klondike District, West-Central Yukon Territory. Canadian Journal of Earth Sciences, Vol. 27, p. 903-914.

RAY, D.G., 1962. The mineralogy of some heavy sands from the Klondike. Unpublished B.Sc. Thesis, University of British Columbia.

TEMPELMAN-KLUIT, D.J., 1982. White Channel gravel of the Klondike. In: Yukon Exploration and Geology 1982, p. 74-79.

*needs approval*

*(APR)*

**MINFILE:** 116B 081  
**PAGE NO:** 1 of 2  
**UPDATED:** 07/20/94

**YUKON MINFILE  
STANDARD REPORT  
EXPLORATION AND GEOLOGICAL SERVICES DIVISION, DIAND  
WHITEHORSE**

**NAME(S):** Hattie  
**MINFILE #:** 116B 081  
**MAJOR COMMODITIES:** Au,Cu  
**MINOR COMMODITIES:** Hg,F,topaz  
**TECTONIC ELEMENT:** Yukon Tanana Terrane  
**NTS MAP SHEET:** 116 B 3  
**LATITUDE:** 64°01'30"N  
**LONGITUDE:** 139°07'08"W  
**DEPOSIT TYPE:** Vein  
**STATUS:** Uncertain

**CLAIMS (PREVIOUS AND CURRENT)**

JAP, OMEGA, JAY, HMS, MELINDA

**WORK HISTORY**

Staked as Morning Star (4168) in Aug/01 by W.O. Smith, who drove a 7.3 m adit and did considerable trenching until 1909. On nearby claims staked at the same time, C.R. Leake sank a 4.6 m shaft in 1903 on the Fourth of July cl (2038), H.F. Lerwill trenched on the Leroy cl (1805), and an open-cut was put in on the California Girl claims. The workings were restaked as Hun cl (YA79929) in Aug/84 by a joint venture between United Keno Hill ML and Falconbridge L. 8783 Yukon Ltd restaked as the Omega (YB30408), Jap (YB30377) and HMS claims (YB30485) in Dec/90. The HMS claims were transferred to Arbor Res Inc in Feb/92, which explored with trenching and stripping later in the year.

In May/91, W. Hawkes and D. Johnson made an unsuccessful attempt to restake the Jap claims as HJ (YB39964). Merced Inc. sampled the property and conducted limited geophysical surveys in 1991. A.J. McFaul restaked the property as 19 Melinda cl (YB40909) in Jun and Sep/92 and trenched on the Melinda 5 claim. The HMS cl were transferred to Kennecott Canada Inc. in May/93 as part of an option agreement. Kennecott conducted a program of trenching, geochemical sampling, and geological mapping on the HMS claims in Jun/93.

**GEOLOGY**

The property is partially underlain by quartz-sericite schist (Permian) with minor quartz veins and lenses, covered by about 80 m of Pliocene White Channel Gravel. The uppermost 1.5 m of the schist and the lowermost 3.5 m of White Channel Gravel has undergone strong hydrothermal alteration. Poorly exposed fault zones filled with black graphitic gouge strike east-west. Placer mining operations have recovered topaz, tourmaline, fluorite and cinnabar, probably derived from a large Eocene quartz-feldspar porphyry which outcrops east of the property.

The Morning Star showing consists of quartz veins which were reported by the owner to contain malachite and free gold and to assay about 34.2 g/t Au and up to 20% Cu. This was never confirmed by an independent examination. Merced panned fine gold from weathered bedrock, but assays were negative.

Kennecott examined the quartz-feldspar porphyry that outcrops on the property in 1993. Gold assays from rock and soil samples were low and there appeared to be little alteration present in the porphyry.

**REFERENCES**

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MAP NO.:  
116B 03

ASSESSMENT REPORT  
PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 093183  
MINING DISTRICT: MAYO *Lawson*  
TYPE OF WORK: GEOLOGICAL, GEOCHEMICAL  
HAND TRENCHING

REPORT FILED UNDER: KENNECOTT CANADA

DATE PERFORMED: JUNE 30 JULY 8, 1993

DATE FILED: MARCH 18, 1994

LOCATION: LAT.: 64°20'N

AREA: HUNKER CREEK

LONG.: 139°04'W

VALUE \$: 10,400

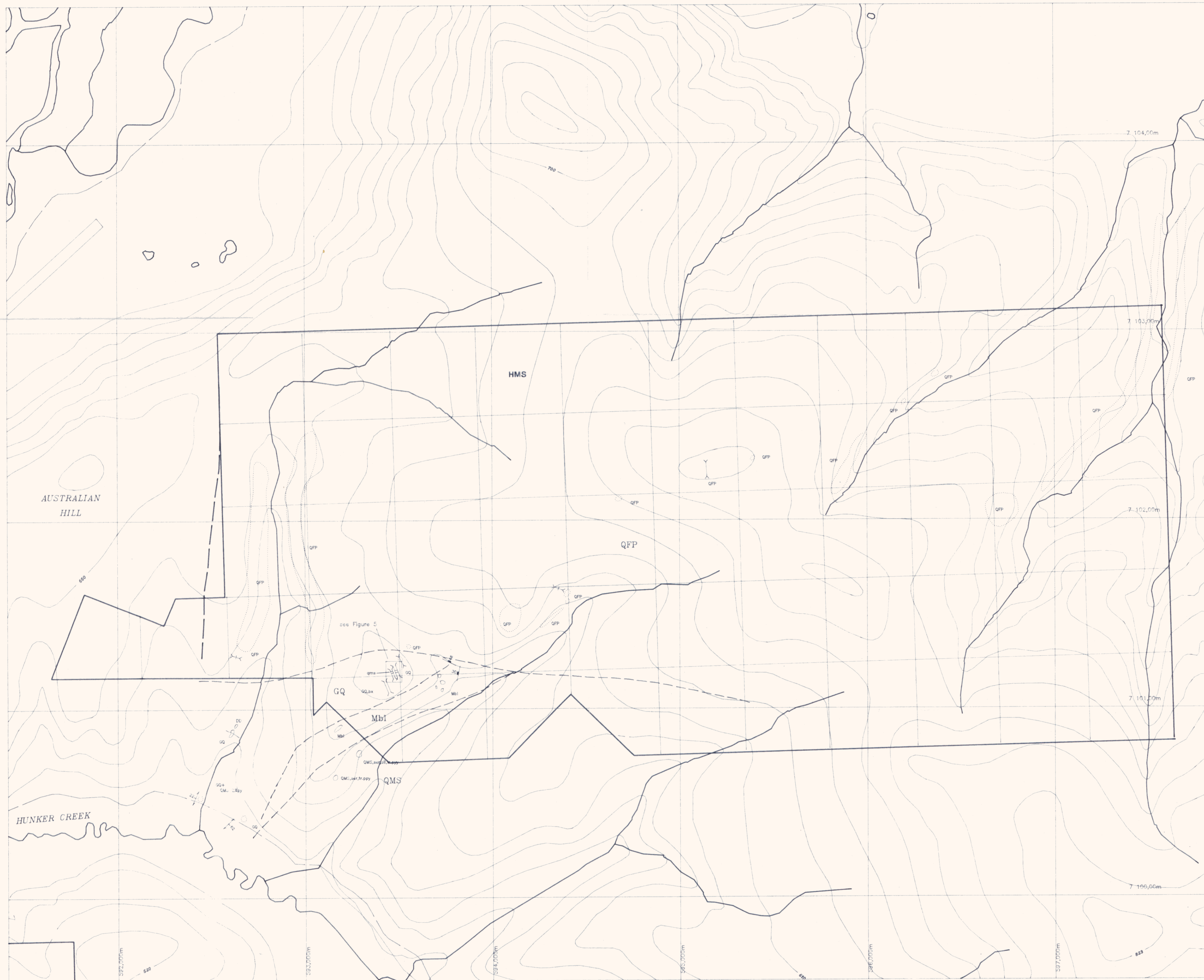
CLAIM NAME & NO.: HMS 3-25 (YB30485-507), HMS 31-63 (YB30508-540)

WORK DONE BY: R. CRANSWICK; A. DOYLE

WORK DONE FOR: KENNECOTT CANADA

DATE TO GOOD STANDING:

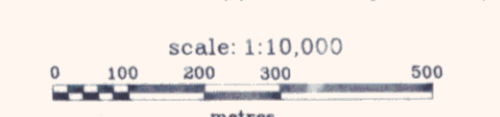
REMARKS: 20 ROCK AND 230 SOIL SAMPLES WERE COLLECTED

- DD DIABASE DYKE;  
dark grey-green, 2% magnetite
- QFP QUARTZ-FELDSPAR PORPHYRY;  
5% euhedral smoky quartz phenocrysts;  
5% euhedral feldspar phenocrysts;  
2% euhedral magnetite phenocrysts  
in fine grained white to grey feldspar  
and quartz matrix
- QMS QUARTZ-MUSCOVITE SCHIST;  
light green
- GQ GRAPHITIC QUARTZITE;  
dark grey, weakly to strongly foliated;  
quartz content varies from 10% up to 50%;  
contains minor interbedded quartz-muscovite schist  
and marble (Mbl)
- bx breccia
- ser sericite alteration
- sil silicification
- pyr pyrite
- o outcrop
- subrep (includes frost heave)
- geological contact; defined, inferred
- fault; inferred
- foliation; with dip
- joint; with dip
- trench; mechanical
- trench; hand

093183

contour interval is approximately 30m (100')



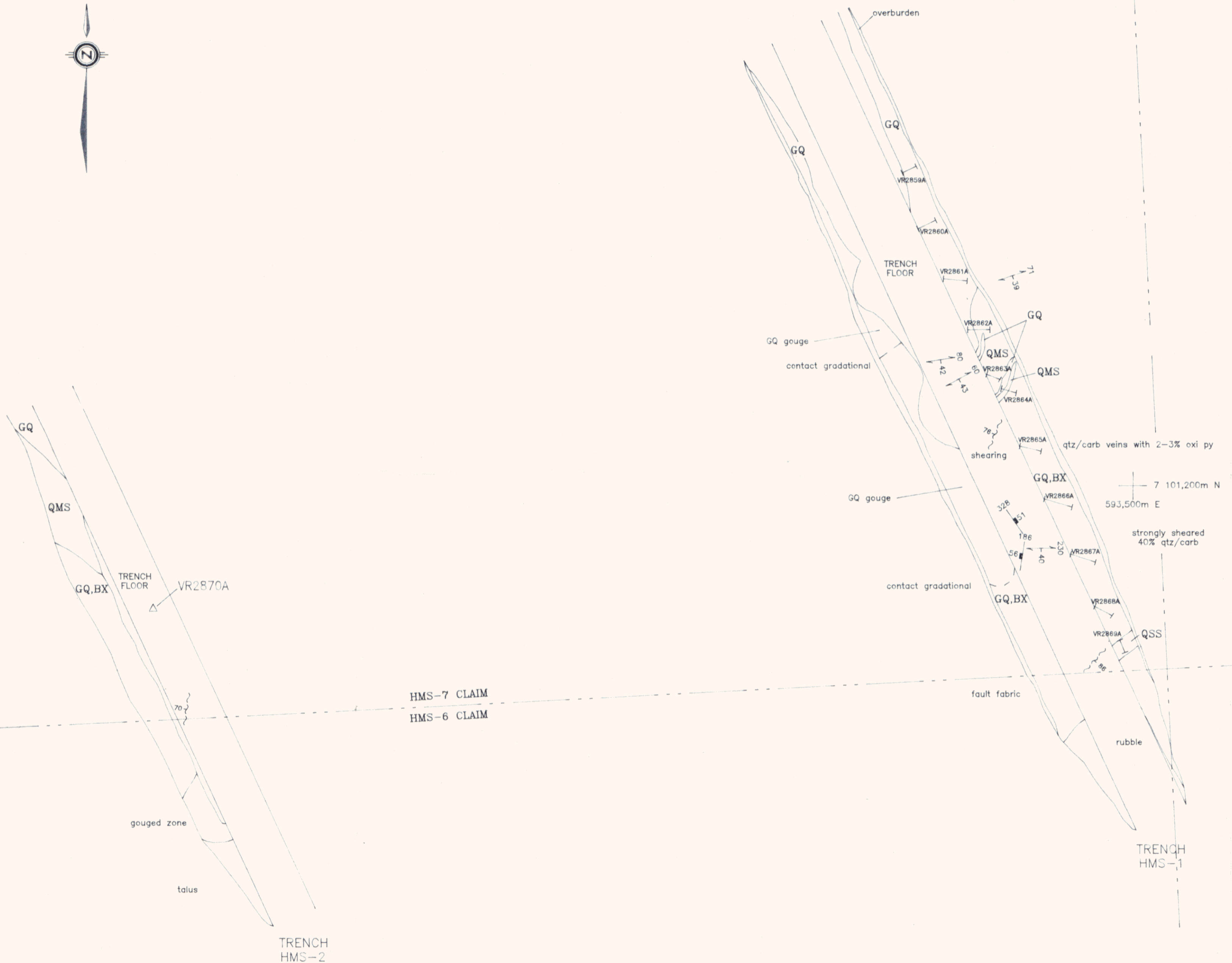
DWG 563

**Kenecott Canada Inc.**  
Vancouver

**KLONDIKE GOLD  
HMS CLAIMS  
GEOLOGY  
YUKON, CANADA**

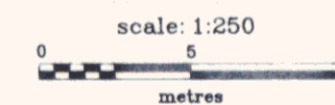
NTS: 116B/3	Projection: UTM(NAD83)	Drawn by: M.C./H.O.
Date: 1/3/94	Author: AD	
File: HMSBASE	Scale: 1:10,000	Figure 4





- QMS QUARTZ-MUSCOVITE SCHIST
- GQ GRAPHITIC QUARTZITE;  
40-50% quartz lenses and bands
- BX FAULT BRECCIA;  
carbonate +/- quartz cemented
- QSS QUARTZ-SERICITE SCHIST;  
white very strong  
pervasive carbonate
- carb carbonate
- pyr pyrite
- oxi oxidized
- qtz quartz
- geological contact; defined, inferred
- ↗ foliation; with dip
- ↖ joint; with dip
- ↘ shearing; with dip
- VR2868A chip sample location and number

093183



562

<b>Kennecott Canada Inc.</b> Vancouver		
<b>KLONDIKE GOLD          HMS CLAIMS          TRENCHES          YUKON, CANADA</b>		
NTS: 116B/3	Projection: UTM	Drawn by: MJD
Date: 10/3/94	Author: P.L.	Figure 6
File: HMSTRNCH	Scale: 1:250	