

093200

**ASSESSMENT REPORT ON A 1993 PROGRAM
OF PROSPECTING, HAND TRENCHING,
MAPPING AND REPROCESSING OF
HELICOPTER GEOPHYSICS**

With 1-40 (YA89727-YA89766)

DAWSON MINING DISTRICT

NTS 115 O/14,15

LATITUDE 63°57'N
LONGITUDE 139°11'W

Work Conducted: July 27-29, 1993

OWNER:

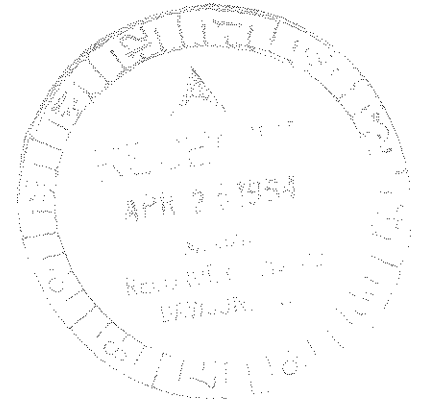
Arbor Resources Inc.(37.5%),
Klondike Reef Mines Ltd.(25%)
1000-675 West Hastings St.
Vancouver, B.C. V6B 1N6

and

Sultan Minerals Inc.(37.5%)
1000-1177 West Hastings St.
Vancouver, B.C., V6B 1N6

OPERATOR:

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



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A. Doyle

April 19, 1994

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1.0 INTRODUCTION

The With property covers a four kilometre long magnetic low anomaly in the middle of the Klondike placer gold district. Through an option agreement with Arbor Resources Inc. et al, Kennecott Canada Inc. has the option to earn an interest in the claims and explored the property in 1993. The 1993 exploration program included prospecting, hand trenching, mapping, and reprocessing of 1987 helicopter geophysics. Work was conducted from July 27-29, 1993.

2.0 LOCATION, ACCESS AND TOPOGRAPHY

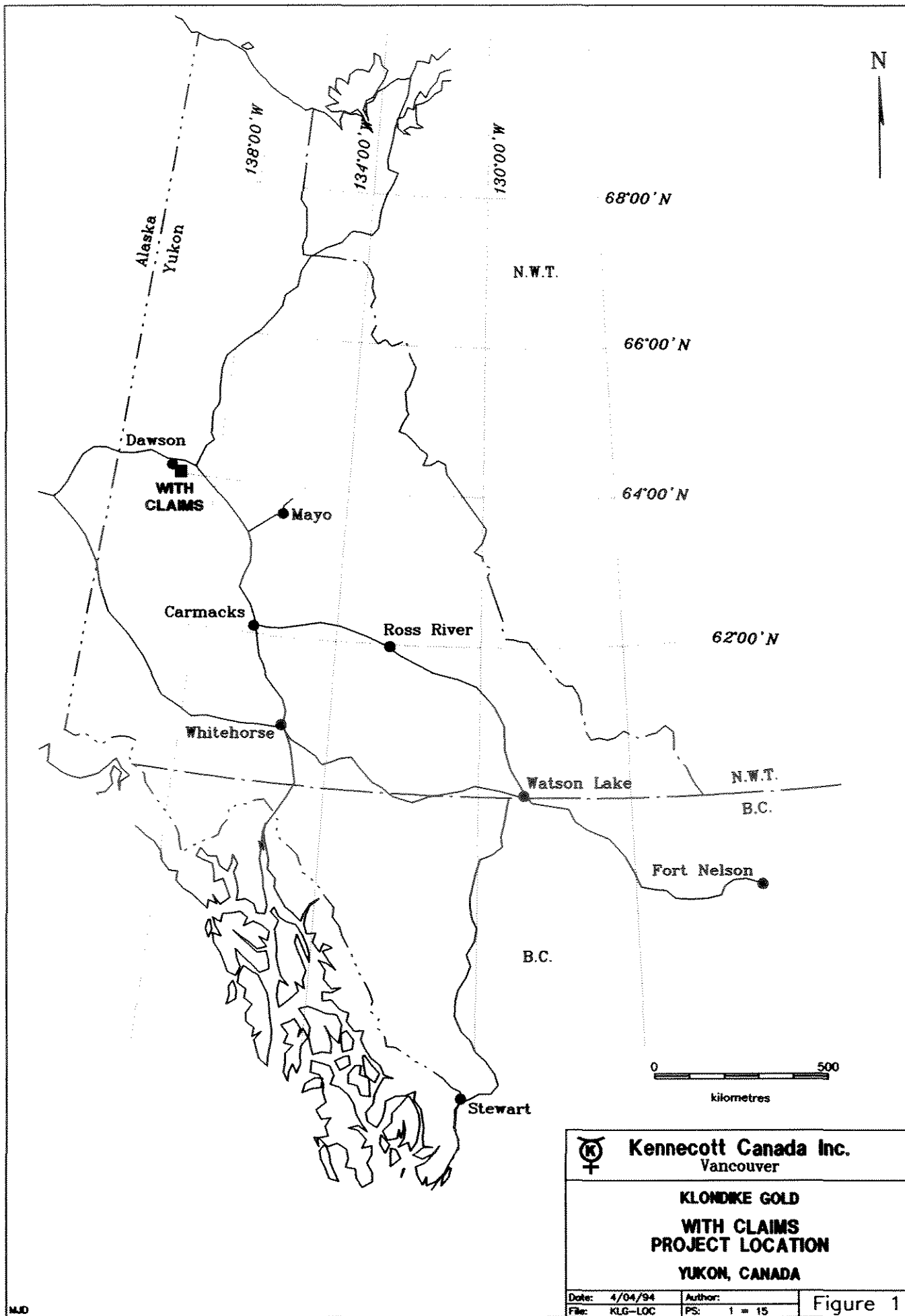
The With property is located in the west-central Yukon, approximately 16 km southeast of Dawson (Figure 1). The With claims are situated on the divide between Bear Creek, Upper Bonanza Creek, and Last Chance Creek. The property is centred at 63°57'N latitude and 139°11'W longitude and is located within NTS map areas 115 O/14 and 15.

The claims can be accessed by dirt road from either Bear Creek to the north or from Upper Bonanza Creek near Grand Forks to the west. Dawson serves as the service and supply centre for the area.

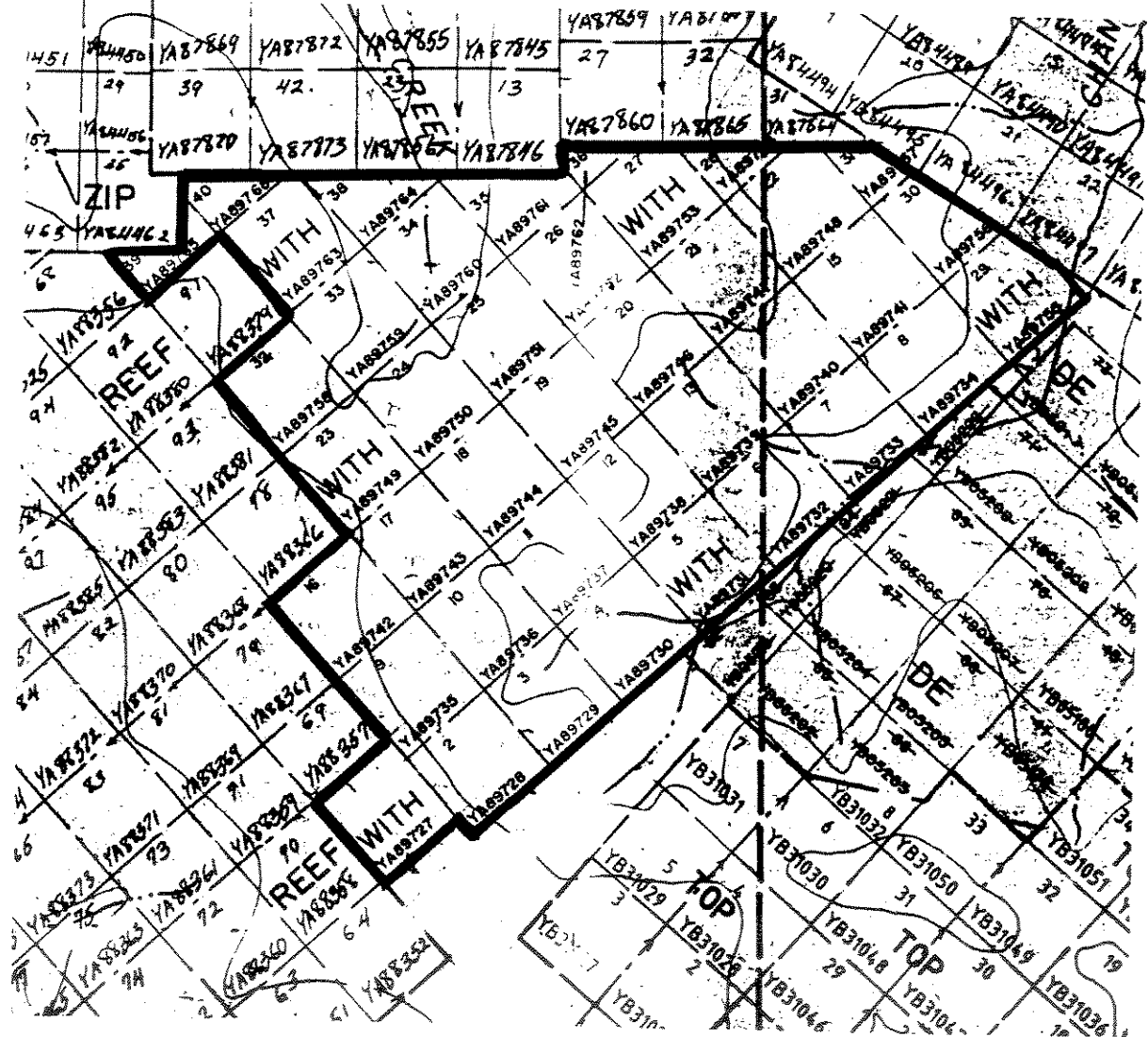
The With property is situated within the Klondike Plateau. Gentle rolling hills predominate and elevation changes are moderate, ranging from 500m in creek bottoms to 800m on the ridge. The district was not subjected to Pleistocene glaciation and is draped with deeply weathered rubble. True outcrop is uncommon and is confined to ridges and exposures from mechanical trenching. Due to frost heaving, subcrop is abundant on north facing slopes.

3.0 PROPERTY STATUS

The With property is located in the Dawson Mining District of Yukon Territory. The property comprises 40 Quartz claims covering approximately 800 hectares (Figure 2). Table 1 is a list of the With claims with updated expiry dates. The claims are owned by Arbor Resources Inc.(37.5%), Sultan Minerals Inc.(37.5%) and Klondike Reef Minerals Ltd.(25%), subject to a royalty interest. Kennecott holds an option to earn an interest in the claims via an agreement with Arbor Resources Ltd. et al. As a part of this agreement, Kennecott is the recorded owner of the claims.



N



scale 1:31,680



metres



Kennecott Canada Inc.
Vancouver

LONESTAR - KLONDIKE GOLD
WITH CLAIMS
YUKON, CANADA

Date: 11/12/93 Author: AD
File: KLG-FRM PS: 1 = 31.68

Figure 2

Table 1 List of Claims.

Claim Name	Claim Number	Expiry Date
WITH 1	YA89727	August 4, 1994
WITH 2	YA89728	August 4, 1994
WITH 3	YA89729	August 4, 1994
WITH 4	YA89730	August 4, 1994
WITH 5	YA89731	August 4, 1994
WITH 6	YA89732	August 4, 1994
WITH 7	YA89733	August 4, 1994
WITH 8	YA89734	August 4, 1994
WITH 9	YA89735	August 4, 1994
WITH 10	YA89736	August 4, 1994
WITH 11	YA89737	August 4, 1994
WITH 12	YA89738	August 4, 1994
WITH 13	YA89739	August 4, 1994
WITH 14	YA89740	August 4, 1994
WITH 15	YA89741	August 4, 1994
WITH 16	YA89742	August 4, 1994
WITH 17	YA89743	August 4, 1994
WITH 18	YA89744	August 4, 1994
WITH 19	YA89745	August 4, 1994
WITH 20	YA89746	August 4, 1994
WITH 21	YA89747	August 4, 1994
WITH 22	YA89748	August 4, 1994
WITH 23	YA89749	August 4, 1994
WITH 24	YA89750	August 4, 1994
WITH 25	YA89751	August 4, 1994
WITH 26	YA89752	August 4, 1994
WITH27	YA89753	August 4, 1994
WITH28	YA89754	August 4, 1994
WITH29	YA89755	August 4, 1994
WITH30	YA89756	August 4, 1994
WITH31	YA89757	August 4, 1994
WITH32	YA89758	August 4, 1994
WITH33	YA89759	August 4, 1994
WITH34	YA89760	August 4, 1994
WITH35	YA89761	August 4, 1994
WITH36	YA89762	August 4, 1994
WITH37	YA89763	August 4, 1994
WITH38	YA89764	August 4, 1994
WITH39	YA89765	August 4, 1994
WITH 40	YA89766	August 4, 1994

4.0 REGIONAL GEOLOGY

4.1 Tectonic Environment

The Klondike district is located on the northeastern edge of the Palaeozoic 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 Palaeogene 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 Palaeocene - Eocene magmatic event are present in both the Klondike district and the Grew Creek area 400km to the southeast.

4.2 Stratigraphy

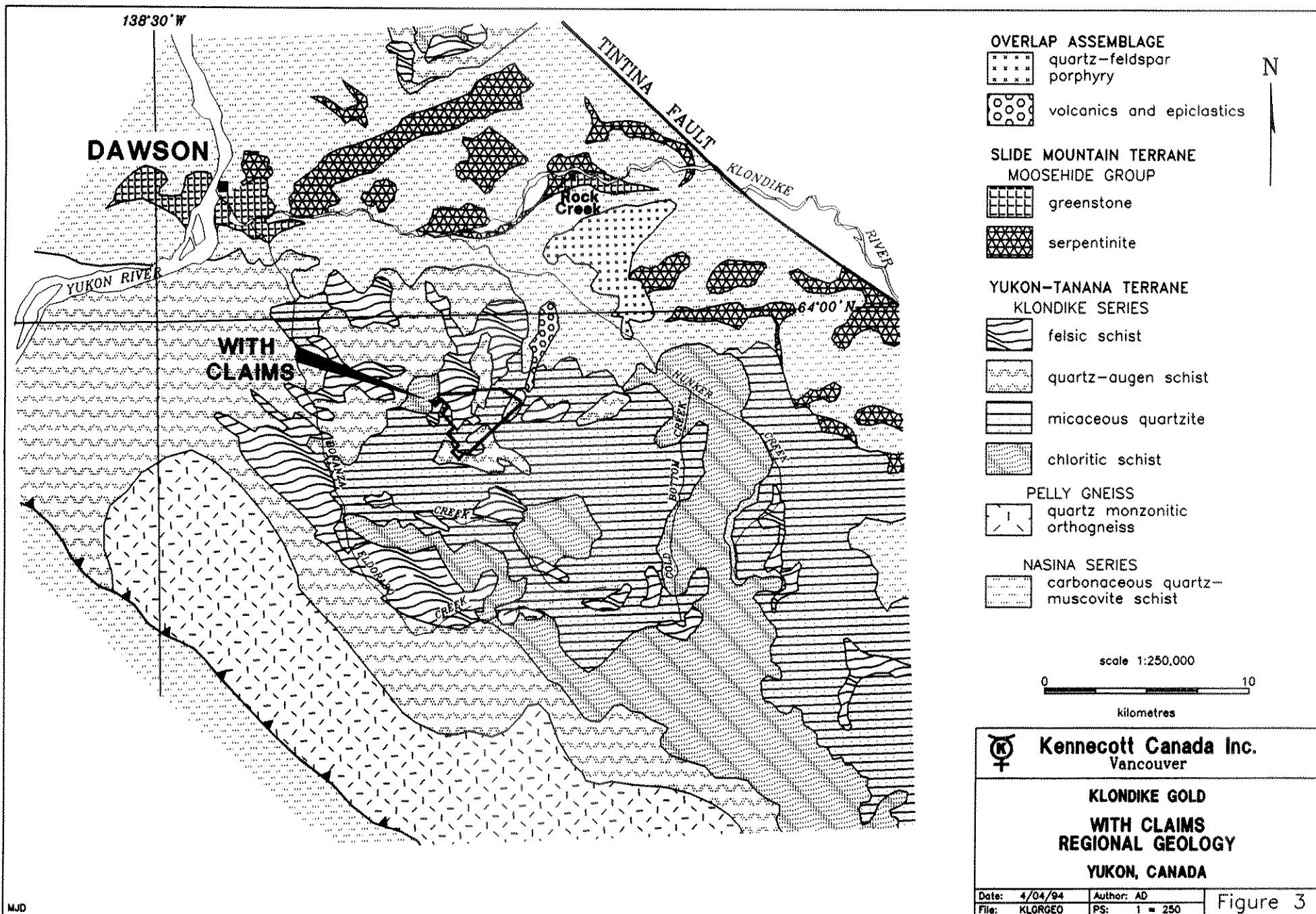
Brief descriptions of rock units found in the vicinity of the property are provided below, using the tectonostratigraphic nomenclature of Mortensen (1990) and the original stratigraphic nomenclature of McConnell (1905). Units are grouped into the Yukon-Tanana terrane, the Slide Mountain terrane and a 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 Palaeozoic rock units. Mortensen (1990) has outlined three thrust-stacked assemblages within the terrane, two of which occur in the vicinity of the With 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 Devono-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 WORK

In 1984, Dawson Syndicate Ltd. completed a regional heavy mineral stream sediment survey in the Klondike. Anomalous gold and arsenic values were reported for the headwaters of Bear Creek and Last Chance Creek. This work was not followed up.

Standard Gold Mines Ltd. conducted a combined helicopter electromagnetic, magnetic,

and VLF-EM survey of the Bonanza-Eldorado Creek area in 1986-1987. A broad magnetic low was outlined along the ridge between Upper Bonanza Creek and the head waters of Bear and Last Chance Creeks.

In 1988, Arbor Resources Inc. completed a follow-up program of ground magnetics surveying, geological mapping, soil sampling, and bulldozer trenching. Arsenic and gold soil anomalies that were coincident with magnetic lows were subsequently trenched. No significant gold values were encountered.

In 1990 Arbor Resources completed an induced polarization (IP) survey in the same area. Chargeability and resistivity anomalies coincident with gold and arsenic soil anomalies were reported.

6.0 1993 EXPLORATION PROGRAM

In 1993, six days were spent hand excavating and systematically mapping and sampling eight trenches in the With claim area. A total of eleven rock samples were collected from the hand trenches and other outcrop exposures on the property. Reprocessing of 1987 helicopter geophysics was also conducted.

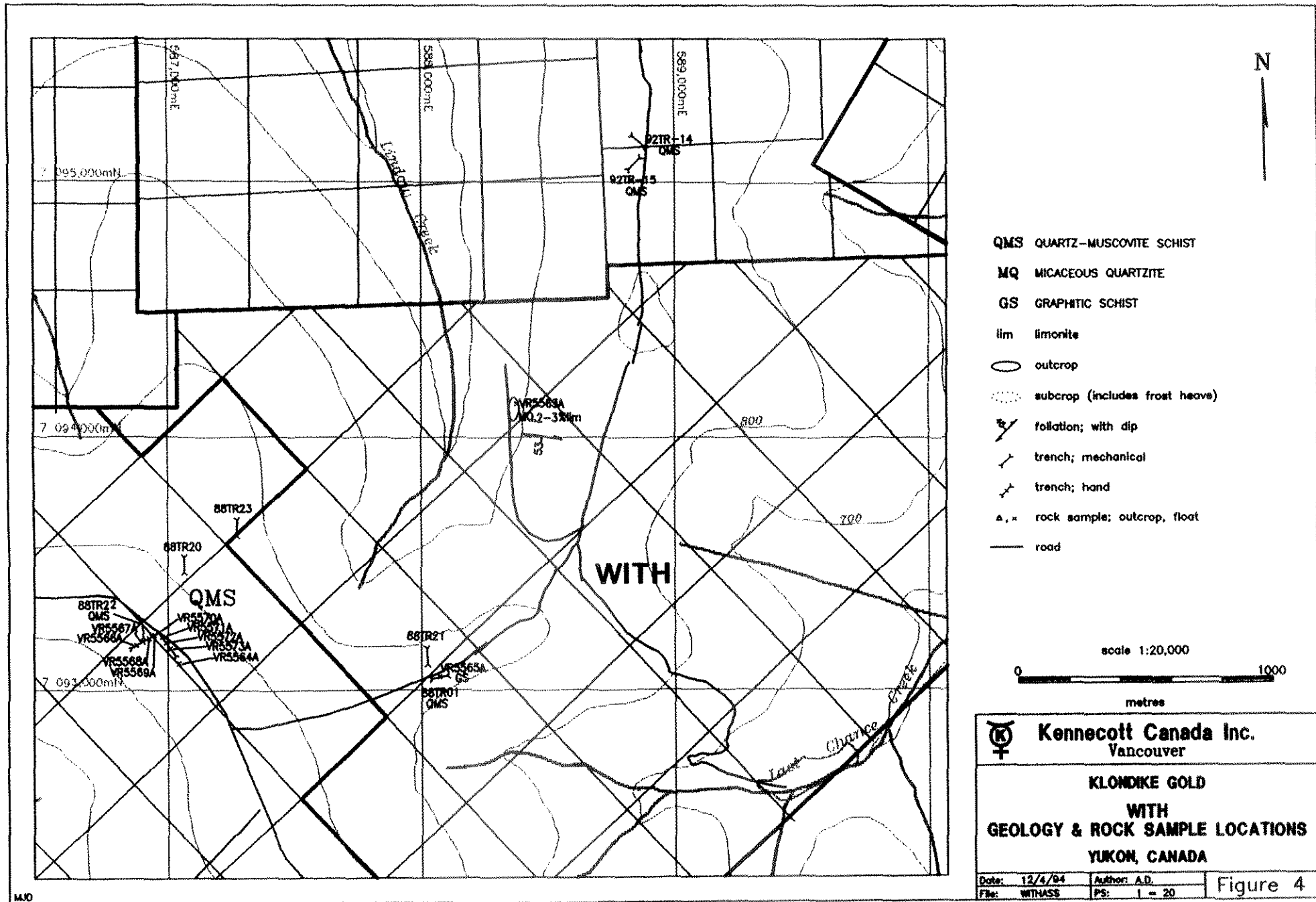
7.0 GEOLOGY, ALTERATION AND MINERALIZATION

The With property overlies mixed lithologies of micaceous quartzite, quartz muscovite schist and graphitic schist (Figure 4). All eight hand trenches encountered quartz muscovite schist with a minor micaceous quartzite component. Micaceous quartzite has more of a blocky texture, is very siliceous, and tends to break in slabs. Mineralized or limonite-lined fractures cross-cut the quartz muscovite schist.

In the central part of the With claims, quartz muscovite schist is exposed in old trenches. Recent water runoff exposed graphitic, quartzitic schist adjacent to trench 88TR01. Sample VR5565A detected small amounts of silver, arsenic, copper, iron, molybdenum and zinc. These values are all low, but are elevated above the background values observed in the quartz-muscovite schist. These weakly anomalous values likely represent differences in lithology.

8.0 ROCK GEOCHEMISTRY

A total of 11 rock samples were collected from hand excavated trenches and outcrop exposures on the With claims. The trenches were located over previously identified gold and arsenic soil anomalies. Sample locations are plotted on Figure 4 and analytical procedures and results are provided in Appendix A.



The lack of outcrop exposure and thick overburden made soil anomaly follow-up difficult. Although bedrock was not encountered in all trenches, most trenches encountered angular fragments which are believed to accurately reflect underlying bedrock. Rock samples were collected from each of the eight trenches.

Rock samples were sent to Chemex Labs 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.

Two of the eleven samples, VR5565A and VR5568A, contain anomalous values. Sample VR5565A, of graphitic schist with weathered out pyrite vugs, has values of 45 ppm Cu, 13 ppm Mo, 39 ppm Ni, and 96 ppm Zn. The second anomalous sample, VR5568A assayed 30 ppb Au.

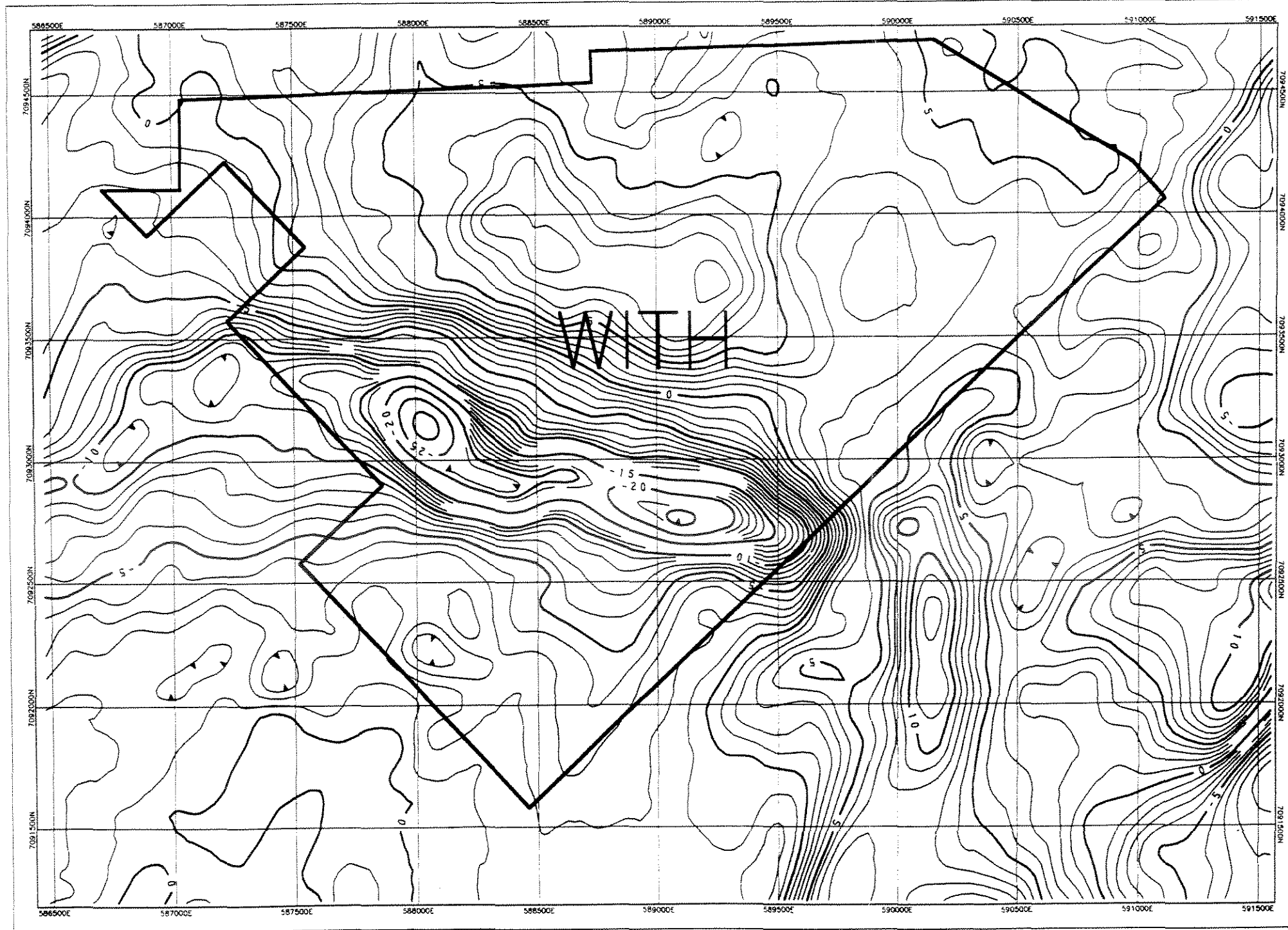
9.0 REPROCESSING OF HELICOPTER GEOPHYSICS

Three helicopter magnetic and electromagnetic surveys have been commissioned over areas of the Klondike district by Arbor Resources Inc. and their associates. All three were flown by Geonex Aerodat Limited of Mississauga, Ontario (Table 2, Figures 5 & 6). Survey specifications are detailed in interpretive reports prepared for Arbor by Aerodat (Geonex Aerodat Limited, 1987a.,b.,c.). Parameters measured during the survey included terrain clearance, total magnetic field, in-phase and quadrature responses for four frequencies of EM(32,000Hz coplanar, 4,600Hz coaxial, 4,175Hz coplanar, 935Hz coaxial) and total field and quadrature components for two frequencies of VLF-EM (24,800Hz, 24,000Hz).

Table 2 - Klondike helicopter geophysical surveys

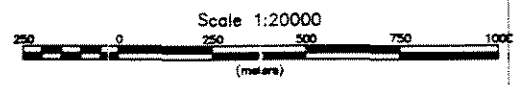
Job No.	Acquisition Dates	Line km	Line Spacing	Line Azimuth	Terrain Clearance
J8646	Jan.16, 1987	139	100m	015° (195°)	60 m
J8642	Jan.17-Jan.25, 1987	1,335	100 m	015° (225°)	60 m
J8661	Jan.25-Feb.1, 1987	1,920	100 m	030° (210°)	60 m

Navigation was facilitated by development of a MiniRanger radar transponder system and flight path recovery was accomplished by using video tracking, an uncontrolled photomosaic base map and published 1:50,000 NAD27 topographic maps. Inexplicable however, line data for the survey No.8642 were not located in UTM space following the survey but were left co-ordinated to the local Mini-Ranger grid. The



Airborne Magnetics
 (1988 Aerial Survey)

The magnetic grid is a combination of three separate grids spaced together by RTZ Newbury. RTZ Newbury enhanced the original data by performing a 100m upward continuation and subtracting the resultant grid from the original data set.




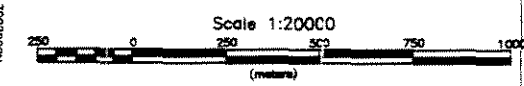
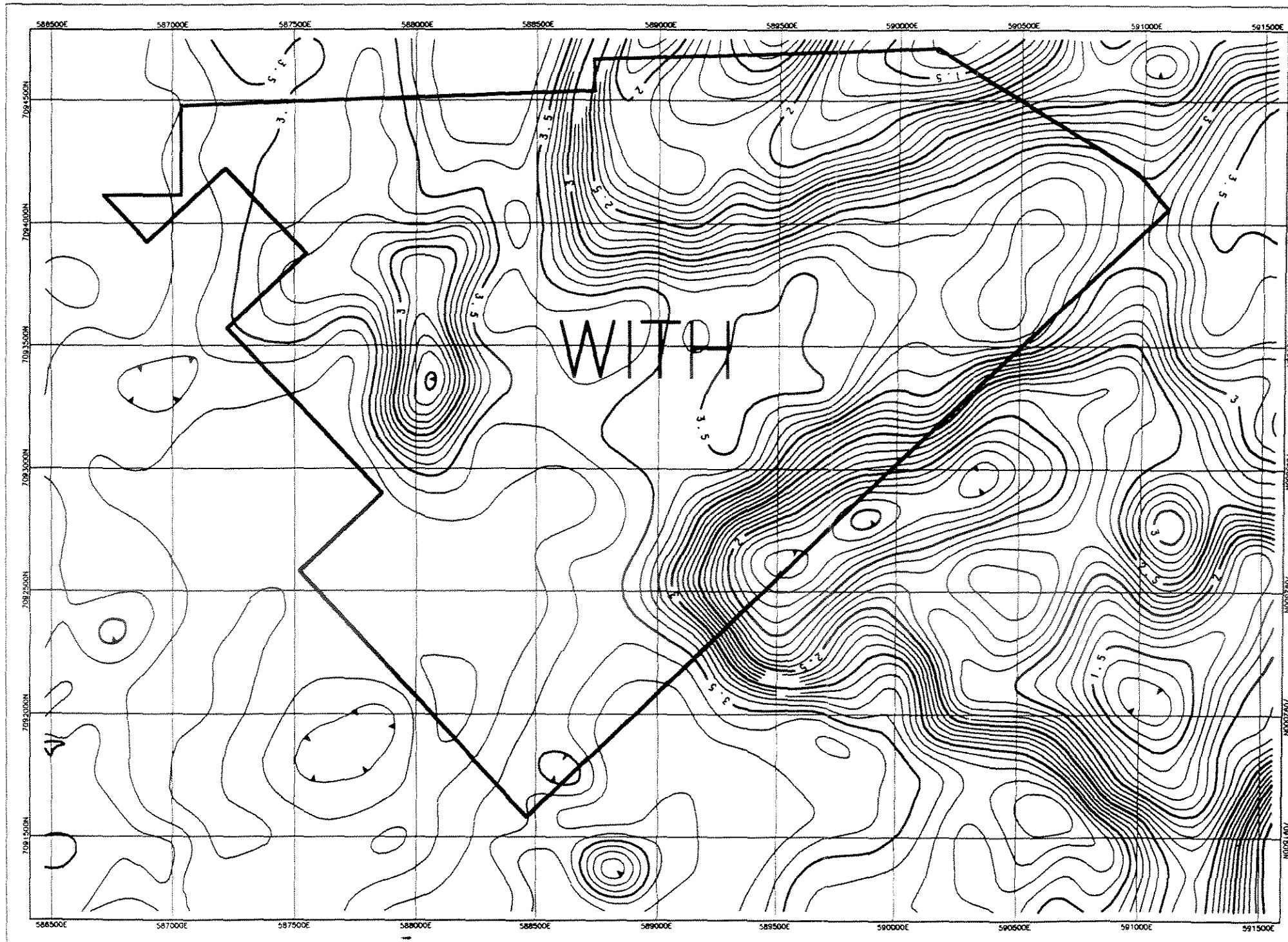
 Kennecott Canada Inc. Vancouver	
WITH FILTERED HELICOPTER MAGNETICS YUKON, CANADA	
Date: 07/25/83	Author:
File: WTH	PS:

Figure 5




 Kennecott Canada Inc. Vancouver	
WITH HELICOPTER RESISTIVITY 4175 COPLANAR YUKON, CANADA	
Date: 87/08/23	Author:
File: WITPY	PS:

Figure 6

UTM co-ordinates for the Mini-Ranger transponder stations have not been recorded.

Digital tapes for these surveys were recovered from Aerodat's archives in first quarter of 1993. Corresponding video tracking tapes were not found, nor have they been located elsewhere. Preliminary imaging of a magnetic grid prepared from line data for survey No.8642 revealed the stripping characteristic of a poorly levelled survey. Aerodat was therefor commissioned to prepare properly levelled grids for each of the three surveys for total magnetic intensity, calculated vertical magnetic gradient and calculated apparent resistivity for each of the four EM frequencies. A 25m grid cell size was employed. Survey No.8642 was also located in UTM space by georeferencing stations picked from the photomosaic flight path map using the published 1:50,000 NAD27 topographic map. Positioning accuracy for the newly "located" data was estimated by Aerodat as $\pm 20\text{m}$

Magnetic and resistivity grids for the three survey areas were then normalised and merged by geophysicists at RTZ's exploration research facility in Newbury, England. In place of new vertical gradient grid, a residual magnetic was calculated by subtraction of a 100m upward continued grid from the merged magnetic intensity grid. This residual magnetic grid highlights high frequency variations in the total magnetic field. these variations are attributable to shallow structure or sources. All new grid files prepared at Newbury were then transformed into NAD83 1:50,000 topographic map sheets.

Contoured filtered magnetics and 4,175Hz coplanar resistivity for the With area are provided on Figures 5 and 6 respectively. Interpretation in this area is difficult due to the limited outcrop mapped in the area. However, the prominent east-west trending magnetic low is approximately coincident with IP chargeability and resistivity targets outlined adjacent arsenic anomalies described by Arbor et al (Mark, 1991). Sample VR5565A, anomalous in copper, molybdenum, nickel and zinc was also collected along this magnetic low trend. Resistivity lows occur in the western and southeastern portions of the property.

11.0 CONCLUSIONS AND RECOMMENDATIONS

Previous work by the Dawson Syndicate, Standard Gold Mines, and Arbor Resources has outlined anomalous gold and/or arsenic heavy mineral and soil geochemistry, a four kilometre long magnetic low, and IP chargeability and resistivity anomalies in the With area. Two anomalous rock samples were obtained from approximately the same area in 1993. A detailed compilation of historical results, followed by anomaly-specific prospecting, mapping and sampling is required in 1994.

12.0 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, Yukon Territory. Open file map with marginal notes.
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- GEONEX AERODAT LIMITED., 1987b. Report on combined helicopter borne electromagnetic, magnetic and VLF-EM survey, Bonanza-Eldorado Creek area, Yukon Territory. Job No.J8642.
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- GRUNENBURG, P.B., 1988. Geological, Geophysical, Geochemical and Trench Report on the Work Performed by Mark Management Ltd., on the Reef Grid, Dawson Property, Dawson Mining District, Yukon, NTS 115O/14 and 116B/3 for Kangel Resources and Arbor Resources Inc.
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- MARK, D.G., 1991; Geophysical Report on the Induced Polarization and Resistivity Surveys over portions of Various Klondike Properties, Dawson City Area, Dawson Mining District, Yukon. 27p.
- 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*.

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 19th day of April, 1994.



R. L. Cranswick - P.Geol.



**STATEMENT OF COSTS - WITH
27-29 July, 1993**

Salaries

Geologists	6 man days	@	\$250.00	\$ 1,500.00
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Support

Truck 1 rental	3 days	@	\$60.00	\$ 180.00
Fax rental	3 days	@	\$10.00	\$ 30.00

Meals and Accomodations

Meals	6 man days	@	\$40.00	\$ 240.00
House Rental	3 days	@	\$37.00	\$ 111.00

Analytical Costs

Rock	11 samples	@	\$16.00	\$ 176.00
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Airborne Geophysical Reprocessing

	40 claims	@	\$26.00	\$ 1,040.00
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Supplies

\$ 200.00

Communications/Reproductions

\$ 100.00

Report

\$ 750.00

Drafting

\$ 250.00

TOTAL

\$ 4,577.00



\$4,000.00

Work performed on With 17, 23
Costs alloted to each group:

DA03231 With 1-14 (14)			\$ 1,601.95
DA03232 With 15-23, 28-31 (13)			\$ 1,487.46
DA03233 With 24-27, 32-40 (13)			\$ 1,487.46

Appendix A
Rock 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 in situ 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

Rock Sample Descriptions

SAMPLE #	CERTIF. #	PROJ.	PROPERTY	NTS	UTM N	UTM E	CLAIM	DATE	GEOLOG.	S-TYPE	MOD 1	MOD 2	MOD 3	R-TYPE	NOTES
VR5563A	A9319353	KG	WITH	1150/14	7,094,128	588,377	With 32	7/28/93	ALD	RC	QTZ	MUS		SCH	STRONG FOLN, WITH PODS OF QTZ RIMMED WITH CHL, 3% LIM AFTER PYY
VR5564A	A9319353	KG	WITH	1150/14	7,093,103	587,044	Reef 93	7/29/93	ALD	RC	QTZ	MUS		SCH	25m ALONG 136e FROM HT-08,
VR5565A	A9319353	KG	WITH	1150/14	7,093,053	588,071	With 17	7/29/93	ALD	RC	GRA			SCH	10m DISC CHIP, AT TR 88TR7, NO PREV SAMPLE, 5% CUBIC VUGS, HEM STN'G
VR5566A	A9319353	KG	WITH	1150/14	7,093,174	586,876	Reef 96	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-01,
VR5567A	A9319353	KG	WITH	1150/14	7,093,187	586,901	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-02,
VR5568A	A9319353	KG	WITH	1150/14	7,093,201	586,926	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-03, WITH X-CUTTING OXI FRACTURES + OXI VUGGY QTZ BANDS
VR5569A	A9319353	KG	WITH	1150/14	7,093,214	586,946	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-04,
VR5570A	A9319353	KG	WITH	1150/14	7,093,224	586,963	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-05
VR5571A	A9319353	KG	WITH	1150/14	7,093,206	586,977	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-06, TR PYY
VR5572A	A9319353	KG	WITH	1150/14	7,093,184	586,934	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-07, TR PYY
VR5573A	A9319353	KG	WITH	1150/14	7,093,160	587,010	Reef 93	7/29/93	ALD	FL	QTZ	MUS		SCH	HT-08,

Appendix B

Analytical Certificates: Rock Samples



Chemex Labs Ltd.

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

o: KENNECOTT CANADA, INC.

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

A9319353

Comments: ATTN: C.BELL

CERTIFICATE

A9319353

KENNECOTT CANADA, INC.

Project: KLONDIKE GOLD
 P.O. #: 05-428

Samples submitted to our lab in Vancouver, BC.
 This report was printed on 25-AUG-93.

SAMPLE PREPARATION

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

* 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, Be, Bi, 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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 PHONE: 604-984-0221

KENNECOTT CANADA, INC.

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

Project : KLONDIKE GOLD
 Comments: ATTN: C.BELL

Page Number : 1-A
 Total Pages : 2
 Certificate Date: 25-AUG-93
 Invoice No. : 19319353
 P.O. Number : 05-428
 Account : KAVA

CERTIFICATE OF ANALYSIS A9319353

SAMPLE	PREP CODE		Au ppb	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	Hg %	Mn ppm
	FA+AA																				
VR5563 A	205	274	< 5	< 0.2	0.13	4	100	< 0.5	< 2	< 0.01	< 0.5	< 1	100	< 1	0.44	< 10	< 1	0.16	30	< 0.01	15
VR5564 A	205	274	< 5	< 0.2	0.32	32	150	< 0.5	< 2	0.04	< 0.5	< 1	151	2	0.43	< 10	< 1	0.22	< 10	0.09	50
VR5565 A	205	274	< 5	1.2	1.27	246	180	< 0.5	< 2	0.20	0.5	8	201	45	2.56	< 10	< 1	0.09	20	1.21	130
VR5566 A	205	274	< 5	< 0.2	0.31	256	120	< 0.5	< 2	0.01	< 0.5	< 1	215	8	0.67	< 10	< 1	0.20	20	0.03	85
VR5567 A	205	274	< 5	< 0.2	0.41	10	130	< 0.5	< 2	0.02	< 0.5	1	176	< 1	0.41	< 10	< 1	0.25	< 10	0.12	55
VR5568 A	205	274	30	< 0.2	0.36	120	130	< 0.5	< 2	0.01	< 0.5	1	112	2	0.48	< 10	< 1	0.23	40	0.03	200
VR5569 A	205	274	< 5	< 0.2	0.61	136	250	< 0.5	< 2	0.06	< 0.5	5	186	8	0.87	< 10	< 1	0.31	30	0.20	305
VR5570 A	205	274	< 5	< 0.2	0.62	38	240	< 0.5	< 2	0.16	0.5	4	163	4	0.98	< 10	< 1	0.27	30	0.39	385
VR5571 A	205	274	< 5	< 0.2	0.29	142	160	< 0.5	< 2	0.02	< 0.5	1	182	1	0.52	< 10	< 1	0.23	30	0.03	185
VR5572 A	205	274	< 5	< 0.2	0.26	148	120	< 0.5	< 2	0.06	< 0.5	3	196	7	0.98	< 10	< 1	0.17	10	0.06	250
VR5573 A	205	274	< 5	< 0.2	0.23	134	130	< 0.5	< 2	< 0.01	< 0.5	< 1	112	< 1	0.42	< 10	< 1	0.31	10	0.01	45

CERTIFICATION:

Hart Bichler

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
VR5563 A	205	274	< 1	< 0.01	2	30	22	< 2	< 1	2	< 0.01	10	< 10	< 1	< 10	6
VR5564 A	205	274	< 1	< 0.01	2	60	6	< 2	1	10	< 0.01	< 10	< 10	< 1	< 10	8
VR5565 A	205	274	13	< 0.01	39	1040	18	< 2	1	14	< 0.01	20	< 10	31	< 10	96
VR5566 A	205	274	< 1	0.01	3	40	24	< 2	1	2	< 0.01	10	< 10	2	< 10	4
VR5567 A	205	274	< 1	< 0.01	3	100	10	< 2	1	1	< 0.01	< 10	< 10	1	< 10	8
VR5568 A	205	274	< 1	< 0.01	3	80	16	< 2	1	3	< 0.01	10	< 10	3	< 10	22
VR5569 A	205	274	1	< 0.01	7	210	8	< 2	2	5	< 0.01	10	< 10	7	< 10	22
VR5570 A	205	274	1	< 0.01	13	390	32	< 2	4	8	< 0.01	10	< 10	7	< 10	48
VR5571 A	205	274	< 1	0.01	3	100	14	< 2	1	3	< 0.01	10	< 10	2	< 10	6
VR5572 A	205	274	< 1	< 0.01	4	270	8	< 2	2	4	< 0.01	< 10	< 10	7	< 10	18
VR5573 A	205	274	< 1	< 0.01	2	40	6	< 2	< 1	2	< 0.01	< 10	< 10	< 1	< 10	8

CERTIFICATION:

Hart Bichler

*h. C. Edwards
approval*

copy
MINFILE: 1150 079
PAGE NO: 1 of 1
UPDATED: 07/26/94

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

NAME(S): Fork
MINFILE #: 1150 079
MAJOR COMMODITIES: -
MINOR COMMODITIES: -
TECTONIC ELEMENT: Yukon Tanana Terrane

NTS MAP SHEET: 115 O 14
LATITUDE: 63°57'08"N
LONGITUDE: 139°12'19"W
DEPOSIT TYPE: Unknown
STATUS: Anomaly

CLAIMS (PREVIOUS AND CURRENT)

MONTEZUMA, SON, REEF, WITH

WORK HISTORY

First staked in Nov/1898 as Montezuma cl (461) by R.F. Groom. Restaked as Son cl (Y65357) in May/72 by R.G. Hilker for Sullivan & Rogers, who performed mapping and soil sampling later in the year.

Restaked as Reef & With cl (YA88289) in Oct/86 by the Dawson Synd, which explored by airborne geophysics, mapping and VLF surveys in 1987 and mapping, geochemical and geophysical surveys, trenching and road construction in 1988.

In 1990, a joint venture group of Klondike Reef Mines, Arbor Resources and Appian Resources conducted IP and resistivity surveys on part of the Reef and With claims. W. Dawson performed trenching and sampling on the Reef 81 claim in 1992. The Reef 1-107, Reef 191-197 cl and With 1-40 cl were transferred to Kennecott Canada Inc. in May/93 as part of an option agreement. Kennecott Canada Inc. reprocessed 1987 airborne geophysics, hand trenched, mapped and prospected on the With claims in Aug/93.

GEOLOGY

Strongly deformed, rusty weathering muscovite and muscovite-quartz schist overlies chlorite-quartz schist and micaceous quartzite. These units belong to the Klondike Schist (Permian). A narrow lens of carbonaceous phyllite (Nasina Series) occurs along the contact between the rusty unit and the underlying rocks.

The 1990 geophysical surveys were conducted over areas of anomalous arsenic response.

REFERENCES

KENNECOTT CANADA INC., May/94. Assessment Report #093200 by R. Cranswick and A. Doyle.

KLONDIKE REEF MINES LTD, 1991. Assessment Report #092972 by D.G. Mark.

YUKON EXPLORATION 1987, p. 296-299.

*needs
approval*

Copy 1

MINFILE: 106L 061
PAGE NO: 1 of 1
UPDATED: 07/25/94

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

NAME(S): Ewen
MINFILE #: 106L 061
MAJOR COMMODITIES: U
MINOR COMMODITIES: Cu
TECTONIC ELEMENT: Mackenzie Platform

NTS MAP SHEET: 106 L 6
LATITUDE: 66°16'00"N
LONGITUDE: 135°24'00"W
DEPOSIT TYPE: Wernecke Breccia
STATUS: Drilled prospect

CLAIMS (PREVIOUS AND CURRENT)

NOR, DIIKEE

WORK HISTORY

Described by the GSC in 1973 and first staked as the NOR cl (YA10244) in Jun/77 by Getty ML, which explored with mapping, geochem and radiometric surveys in 1977; 20 Winkie holes (571.2 m) in 1978; boulder tracing, radiometric and geochem surveys in 1979; and trenching and track-etch surveys in 1979-80.

Equity Engineering and Pamicon Development Ltd. staked the occurrence as the Diikee 1-20 cl (YB45183) in Jul/93, as part of the Monster Joint Venture. Minor geological mapping, prospecting and soil geochemical sampling was carried out concurrently with the staking.

GEOLOGY

The claims are underlain by an 800 by 1800 m heterolithic, diatreme breccia body intruded into a fault-bounded outlier of Middle Proterozoic limy siltstone and argillite that is exposed through Cambrian limestone which unconformably overlies it. The breccia body, which contains angular fragments of wallrock in a fine matrix, has irregular outer margins and the wallrock contacts are gradational.

The breccia pipe hosts two distinct types of mineralization. The earliest phase, consisting of massive magnetite-hematite-jasper-quartz with minor disseminated chalcopyrite in the matrix, occurs in an irregular zone about 30 m across in the northern part of the diatreme.

The second phase of mineralization, which includes coarsely crystalline brannerite with quartz and pink K feldspar, occurs at the east edge of the core of the pipe.

REFERENCES

GEOLOGICAL SURVEY OF CANADA Paper 74-1A, p. 343; Paper 78-1A, p. 320.

MINERAL INDUSTRY REPORT 1978, p. 26.

MONSTER JOINT VENTURE, May/94. Assessment Report #093199 by D. A. Caulfield.

NORRIS, D.K., ET AL., 1993. The geology, mineral and hydrocarbon potential of the Northern Yukon Territory and Northwestern District of Mackenzie. Geological Survey of Canada Memoir, in press.

YUKON GEOLOGY AND EXPLORATION 1979-80, p. 300-301.