DETAILED AIRBORNE MAGNETICS AND VLF-EM OVER THE KLONDIKE DISTRICT, DAWSON CITY - 1999

A Geophysical Report

for the
Hunker Dome Project
Dawson Mining Division
Work Completed between March 15 and March 25, 1999

Including the following Quartz Claims Registered under Barramundi Gold Ltd., and United Keno Hill Mines Limited:

BAR 1-276, 283-296, 307-320, 329-342, 351-362, 371-382, 391-404, 415-426, 437-446, 455-462, 464, 466, 481-490, 505-506, 525-536, 538, 540, 542, 580; **LB** 11-16; **DM** 26, 28, 30, 32, 34, 36-67; **J** 1-11; **LP** 1-13; **PUP** 1-20, 25-59, 61-70; **LD** 1-8; **K** 1-47, 60-64, 68-73; **DO** 1-42; **HUNK** 1-13; **MOJO** 1-18; **H** 1-32; **SU** 1-39; **HUN** 1-3, 107, 109, 111, 113, 169-174; **SUL** 99-132, 182-191, 248-260, 262-263, 265; **KIN** 4, 6, 8, 10, 15-16, 24-26, 29-30, 36, 38-52, 54, 57-59, 61, 65-79, 81-112, 114-147, 154-164, 173-184, 217-232

Hunker Dome Project
Klondike Region, Yukon Territory
NTS 115 O/14,15; 63^0 52'N; 138^0 55' W

094021

W.A.(Sandy) Sears
Barramundi Gold Ltd.

for

Dawson Mining Recorder's Office, April 1999

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1.0 INTRODUCTION

The Hunker Dome Project is located in the historic Klondike placer gold fields of west central Yukon. Over 13 million ounces of placer gold (reported) have been mined from primary and secondary creeks in the Klondike, however only 1000 ounces of bedrock gold has been removed. Barramundi Gold Ltd.'s ("Barramundi") interest in the Klondike began in late 1995 with a literature search and a field visit to the area by Barramundi personnel. Subsequently, Barramundi staked a large amount of claims in the area and an option agreement was arranged with United Keno Hill Mines Limited ("UKHM") to acquire a 100% interest in their claim holdings in the Klondike. As of March 1999 Barramundi holds approximately 1050 claims either 100% or as an option. This area comprises a significant portion of the historic placer gold fields.

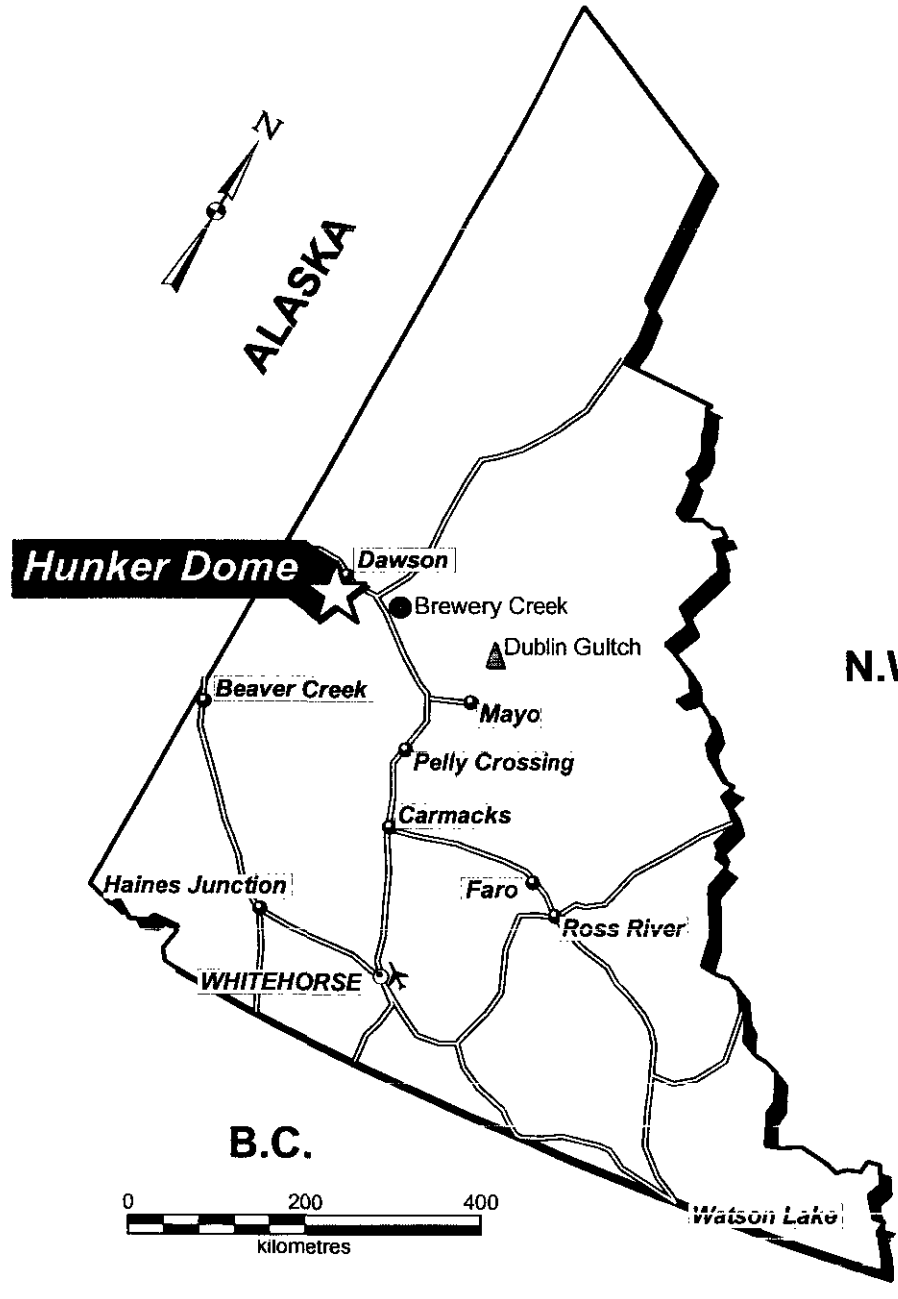
This report describes a detailed airborne magnetics and VLF-EM survey flown over the claims from March 15 through 25, 1999. A total of 3850 line kilometres were surveyed covering an area approximately 16 km X 24 km (384 km^2) centered about King Solomon Dome.

2.0 LOCATION AND ACCESS

The Hunker Dome project is located in the historic Klondike placer gold fields southeast of Dawson City, Yukon (Figure 1). This area is accessible year round via the Klondike Highway, 530 km from Whitehorse, or via air to the Dawson City airport. The heart of the Klondike lies about 45 km southeast of Dawson and is centered around King Solomon Dome and Hunker Summit (138°55'W; 63°52'N). Accessibility to the Hunker property is excellent, with all of the main placer creeks having a seasonally maintained gravel road that can be reached from Dawson City. In addition, most of the smaller creeks and several of the ridge tops are easily accessible by 4WD vehicle during the summer or snow machine during the winter.

3.0 CLAIM STATUS

The following is a list of claims for which Barramundi Gold Ltd. (BGL) is requesting renewed expiry dates. Included in this list are claim currently registered to United Keno Hill Mines Ltd. (UKHM Ltd.). This is not a complete list of claims held by BGL or UKHM in the Klondike. A claim outline is plotted on Figure 2.



LEGEND

- Hunker Dome Project
- OtherExploration/ Mine Development
- Mine
- Highway

BARRAMUNDI GOLD·LTD

Figure 1: Hunker Dome Project Location Map

April, 1999

Table 1 List of Claims

Claim Name	Claim No.	No. of Claims	Grant No.	Current Expiry Date	Requested Expiry Date	Registered Owner
Bar	1-28	28	YB68007-YB68034	1999/03/22	1999-09-22	BGL
Bar	29-30	2	YB68643-YB68644	1999/04/26	1999-09-22	BGL
Bar	31-254	224	YB68035-YB68258	1999/03/22	1999-09-22	BGL
Bar	255	1	YB68645	1999/04/26	1999-09-22	BGL
Bar	256-261	6	YB68259-YB68264	1999/03/22	1999-09-22	BGL
Bar	262-276	15	YB68646-YB68660	1999/04/26	1999-09-22	BGL
Bar	283-296	14	YB68667-YB68680	1999/04/26	1999-09-22	BGL
Bar	307-318	12	YB81564-YB81575	1999/04/06	1999-09-22	BGL
Bar	319-320	2	YB68691-YB68692	1999/04/26	1999-09-22	BGL
Bar	329-342	14	YB68701-YB68714	1999/04/26	1999-09-22	BGL
Bar	351-362	12	YB68723-YB68734	1999/04/26	1999-09-22	BGL
Bar	371-382	12	YB68743-YB68754	1999/04/26	1999-09-22	BGL
Bar	391-404	14	YB68763-YB68776	1999/04/26	1999-09-22	BGL
Bar	415-426	12	YB68787-YB68798	1999/04/26	1999-09-22	BGL
Bar	437-446	10	YB81409-YB81418	1999/04/26	1999-09-22	BGL
Bar	455-462	8	YB81427-YB81434	1999/04/26	1999-09-22	BGL
Bar	464	1	YB81436	1999/04/26	1999-09-22	BGL
Bar	466	1	YB81438	1999/04/26	1999-09-22	BGL
Bar	481-490	10	YB81453-YB81462	1999/04/26	1999-09-22	BGL
Bar	505-506	2	YB81477-YB81478	1999/04/26	1999-09-22	BGL
Bar	525-536	12	YB81497-YB81508	1999/04/26	1999-09-22	BGL
Bar	538	1	YB81510	1999/04/26	1999-09-22	BGL
Bar	540	1	YB81512	1999/04/26	1999-09-22	BGL
Bar	542	1	YB81514	1999/04/26	1999-09-22	BGL
Bar	580	1	YB81552	1999/04/26	1999-09-22	BGL
LB	11-16	6	YB68327-YB68332	1999/04/26	1999-09-22	BGL
DM	26	1	YB68522	1999/04/26	1999-09-22	BGL
DM	28	1	YB68524	1999/04/26	1999-09-22	BGL
DM	30	1	YB68526	1999/04/26	1999-09-22	BGL
DM	32	1	YB68528	1999/04/26	1999-09-22	BGL
DM	34	1	YB68530	1999/04/26	1999-09-22	BGL
DM	36-67	32	YB688532-YB68563	1999/04/26	1999-09-22	BGL
J	1-11	11	YB88033-YB88043	1999/06/17	1999-12-17	BGL
LP	1-13	13	YB68565-YB68577	1999/04/26	1999-09-22	BGL
Pup	1-4	4	YB68578-YB68581	1999/04/26	1999-09-22	BGL
Pup	FR 5-7	3	YB88081-YB88083	1999/07/24	1999-12-22	BGL
Pup	8-20	13	YB88084-YB88096	1999/07/24	1999-12-22	BGL
Pup	25-59	35	YB88101-YB88135	1999/07/24	1999-12-22	BGL

Claim Name	Claim No.	No. of Claims	Grant No.	Current Expiry Date	Requested Expiry Date	Registered Owner
Pup	61-70	10	YB88137-YB88146	1999/07/24	1999-12-22	BGL
LD	1-8	8	YB88057-YB88064	1999/07/24	1999-12-22	BGL
K	1-47	47	YC11916-YC11962	1999/08/14	1999-12-22	BGL
K	60-64	5	YC11975-YC11979	1999/08/14	1999-12-22	BGL
K	68-73	6	YC11983-YC11988	1999/08/14	1999-12-22	BGL
DO	1-42	42	YC12005-YC12046	1999/08/14	1999-12-22	BGL
Hunk	1-2	2	YC12101-YC12102	1999/08/14	1999-12-22	BGL
Hunk	3-11	9	YC12103-YC12111	1999/08/27	1999-12-22	BGL
Mojo	1-18	18	YB84599-YB94616	1999/09/19	1999-12-22	BGL
H	1-32	32	YC07843-YC07874	1999/08/14	1999/12/22	BGL
SU	1-31	31	YC12063-YC12093	1999/08/14	1999/12/22	BGL
SU	32-38	7	YC12094-YC12100	1999/08/14	1999-12-22	BGL
SU	FR 39	1	YC12161	1999/08/27	1999-12-22	BGL
Hun	1 – 2	2	YA79929 - YA79930	1999/06/15	1999/09/22	UKHM Ltd.
Hun	3	1	YA79931	2000/06/15	2000/12/15	UKHM Ltd.
Sul	99-100	2	YA80226 - YA80227	2000/06/18	2000/12/15	UKHM Ltd.
Sul	101	1	YA80228	2001/06/18	2001/12/18	UKHM Ltd.
Sul	102	1	YA80229	2000/06/18	2000/12/15	UKHM Ltd.
Sul	103-112	10	YA80230 - YA80239	2001/06/18	2001/12/18	UKHM Ltd.
Sul	113-124	12	YA80240 - YA80251	1999/06/18	1999-12-18	UKHM Ltd.
Sul	125	1	YA80252	2000/06/18	2000/12/15	UKHM Ltd.
Sul	126	1	YA80253	1999/06/18	1999-12-18	UKHM Ltd.
Sul	127	1	YA80254	2000/06/18	2000-12-18	UKHM Ltd.
Sul	128	1	YA80255	1999/06/18	1999-12-18	UKHM Ltd.
Sul	129-132	4	YA80256 - YA80259	2000/06/18	2000/12/18	UKHM Ltd.
Sul	182-183	2	YA80849 – YA80850	2000/06/26	2000/12/15	UKHM Ltd.
Sul	184-191	8	YA80851 – YA80858	2001/06/26	2001/12/18	UKHM Ltd.
Sul	248-249	2	YA80909-YA80910	2000/06/26	2000/12/26	UKHM Ltd.
Sul	250-254	5	YA80911-YA80915	2001/06/26	2001/12/26	UKHM Ltd.
Sul	255-260	6	YA80916-YA80921	2000/06/26	2000/12/26	UKHM Ltd.
Sul	262-263	2	YA80923-YA80924	1999/06/26	1999/12/26	UKHM Ltd.
Sul	265	1	YA80926	2002/06/26	2002/12/26	UKHM Ltd.
Hun	107	1	YA80764	1999/06/22	1999/12/22	UKHM Ltd.
Hun	109	1	YA80766	1999/06/22	1999/12/22	UKHM Ltd.
Hun	111	1	YA80768	1999/06/22	1999/12/22	UKHM Ltd.
Hun	113	1	YA80770	1999/06/22	1999/12/22	UKHM Ltd.
Hun	169 - 174	6	YA84626 - YA84631	1999/09/26	2000/03/26	UKHM Ltd.
Kin	4	1	YA89445	1999/07/08	1999/12/22	UKHM Ltd.
Kin	6	1	YA89447	1999/07/08	1999/12/22	UKHM Ltd.
Kin	8	1	YA89449	1999/07/08	1999/12/22	UKHM Ltd.
Kin	10	1	YA89450	1999/07/08	1999/12/22	UKHM Ltd.
Kin	15-16	2	YA89454-YA89455	1999/07/08	1999/12/22	UKHM Ltd.
Kin	24-26	3	YA89463-YA89465	1999/07/08	1999/12/22	UKHM Ltd.
Kin	29-30	2	YA89468-YA89469	1999/07/08	1999/12/22	UKHM Ltd.
Kin	36	1	YA89471	1999/07/08	1999/12/22	UKHM Ltd.

Claim Name	Claim No.	No. of Claims	Grant No.	Current Expiry Date	Requested Expiry Date	Registered Owner
Kin	38-52	15	YA89473-YA89487	1999/07/08	1999/12/22	UKHM Ltd.
Kin	54	1	YA89489	1999/07/08	1999/12/22	UKHM Ltd.
Kin	57-59	3	YA89492– YA89494	1999/07/08	1999/12/22	UKHM Ltd.
Kin	61	1	YA89496	1999/07/08	1999/12/22	UKHM Ltd.
Kin	65-79	15	YA89500 – YA89514	1999/07/08	1999/12/22	UKHM Ltd.
Kin	81-82	2	YA89516-YA89517	1999/07/08	1999/12/22	UKHM Ltd.
Kin	83-112	30	YB04083-YB04112	1999/09/18	2000/03/18	UKHM Ltd.
Kin	114-147	34	YB04114-YB04147	1999/09/18	2000/03/18	UKHM Ltd.
Kin	154-164	11	YB04154-YB04164	1999/09/18	2000-03-18	UKHM Ltd.
Kin	173-184	12	YB04185-YB04196	1999/09/28	2000/03/26	UKHM Ltd.
Kin	217-232	16	YBG04229-YB04244	1999/09/28	2000/03/26	UKHM Ltd.

4.0 REGIONAL GEOLOGY

The Klondike region has very limited bedrock exposure, making it difficult to establish the geology of the area. However, the work of Dr. Jim Mortensen from the University of British Columbia has resulted in a good understanding of the regional geology despite these difficulties. The summary below draws heavily on maps released by Dr. Mortensen in 1996 (Mortensen, 1996) and is augmented by the work of Barramundi in 1996.

The Klondike district is underlain by a variety of metamorphosed and deformed sedimentary, volcanic and plutonic rocks that are divided into two broad lithotectonic assemblages (Figure 2): medium to high grade, polydeformed rocks of the Yukon-Tanana terrane, and weakly deformed and metamorphosed rocks of the Slide Mountain terrane (Mortensen, 1996).

Rocks of the Yukon-Tanana terrane underlie most of the Klondike area and can be divided into two distinct assemblages: the Devono-Mississippian Nasina assemblage, and the Permian Klondike Schist assemblage. The Nasina assemblage occurs along the north and northeastern edge of the Klondike and consists predominantly of fine grained, graphitic to non-graphitic quartz-muscovite-chlorite schist and quartzite with locally interlayered mafic schist, amphibolite and marble (Mortensen, 1996). The Klondike Schist underlies most of the Klondike and comprises four main units broadly separated into mafic, intermediate, felsic, and felsic augen schists.

The principal rock types within each unit are distinct, however there is considerable gradation between rock types in the Klondike schist. Thus, contacts between units commonly reflect relative abundances rather than distinct lithologic changes. This gradation and observed interfingering of rocks from the different units is interpreted to indicate an original depositional relationship between rocks units of the Klondike schist

(Mortensen, 1996). Along the southwest margin of the Klondike a large body of foliated biotite quartz monzonite (Sulphur Creek orthogneiss) of Permian age is also in gradational contact with augen schist. Although this body does not form part of the Klondike Schist assemblage, its contact relationship and age suggest it has a primary relationship with rocks of the Klondike Schist (Mortensen, 1996). U-Pb zircon dates from the felsic schist, augen-schist and Sulphur Creek orthogneiss all give the same Permian ages, and have zircon morphologies indicating an igneous origin (Mortensen, 1996).

Several younger and unfoliated plutonic rocks intrude the Klondike Schist and Nasina assemblages. They are biotite-hornblende quartz monzonite and granodiorite of Cretaceous age and a bimodal suite of quartz-feldspar porphyry and plagioclase-phyric basalt of Eocene age (Mortensen, 1996). Along Last Chance Creek massive andesites overlie and are interbedded with immature clastic rocks including siltstone, sandstone and conglomerate. These rocks are undated but thought to be Cretaceous in age (Mortensen, 1997).

Rocks of the Slide Mountain terrane outcrop primarily as isolated structural slices or slivers along regional thrust faults. The main rocks types are massive greenstone and a variety of altered ultramafic rocks, both of which are thought to be Permian in age (Mortensen, 1996).

5.0 AEROMAGNETIC AND VLF SURVEY RESULTS

5.1 General

The area surveyed (see Figure 2) totals 384 km^2 (16 km X 24 km) and covers an area centered about King Solomon Dome. Flight lines were oriented 080°N – 260°N and spaced 100m apart. Tie lines were oriented 170°N – 350N and spaced 5 km apart. Average terrain clearance, from surface to the plane, was 90m. A detail description of the survey equipment, methods, and technical specifications is presented in Appendix 2, a technical report submitted by the geophysical contractor.

5.2 Airborne Magnetics

In general, the aeromagnetics signature over the survey block varies in intensity from the SW corner (57477 nT) toward the NE corner (57709 nT – Figure 3). The higher magnetic values are underlain by two rock types: middle to upper Paleozoic altered ultramafic rocks, ranging in composition from serpentinites to talc-carbonate schists; and mafic schists which are part of the late Permian Klondike Schist assemblage.

The Klondike schists within the surveyed block consist predominantly of intermediate and mafic schists and lesser felsic schists. The mafic schists have a slightly stronger overall magnetic character than the intermediate schists, however the magnetic transition between the rock types is gradational, akin to the assumed stratigraphic relationship between them. The volumetrically minor felsic schists have no well-defined magnetic character.

The southwest corner of the surveyed block contains the lowest magnetic values. This area is underlain by felsic augen schists (of the Klondike Schist) and by the mid Permian Sulphur Creek orthogneiss, a foliated biotite quartz monzonite gneiss. In this area the magnetic contours trend northwest-southeast paralleling an inferred contact between augen schist and mafic schist. A triangular shaped magnetic low west of King Solomon Dome suggests that there maybe augen schist in the near subsurface, i.e. an area where there is a 'window' through the overlying mafic schists, exposing augen schist. The southern boundary of this triangle continues as a magnetic discordance beyond the triangle to the east-northeast, through King Solomon Dome. It is approximately 8 km in length and cuts across the inferred local lithological strike (northwest) and may represent a major fault, possibly a thrust. This linear cuts through known quartz vein-hosted gold mineralization (Sheba and Mitchell veins near King Solomon Dome) and has anomalous gold from stream sediments in creek drainages both north and south of the linear (Barramundi Gold Report, 1997). This linear may be a conduit focussing mineralizing fluids.

In the northwest corner of the surveyed area, there is well defined oval-shaped magnetic low with an internal magnetic high. This feature could represent a buried intrusive which has an alteration halo around a fresh core. A linear, northwest trending magnetic low structure is visible near the southeast corner of the surveyed area. This feature coincides with a change in lithology within the Klondike Schist.

The central area of the surveyed block, north of King Solomon Dome, contains an interesting horseshoe or U-shaped magnetic feature oriented northeast (closed end) – southwest (open end). The closed end is defined by the magnetically high ultramafics, whereas the two limbs may indicate ultramafics at depth below the overlying mafic schists.

5.3 VLF-EM

A VLF survey (Figures 4 and 5) was flown in conjunction with the magnetics survey. VLF response is typically strongly influenced by topography and such is the case for this survey. Predominantly north to northwest trending ridge tops have a high positive total

field (16.5%) and quadrature (5.2%) response whereas valleys have a large negative total field (-10.9%) and quadrature (-3.9%) response.

There are, however, a few VLF features which cross-cut the known local lithological strike. The most prominent cross-cutting VLF response is coincident with an 8 km east-northeast trending, cross-cutting magnetic feature located near King Solomon Dome. Approximately 4 km south is a parallel structure although it is not as well defined.

6.0 CONCLUSIONS

The airborne magnetic and VLF surveys were successful in helping to refine the inferred bedrock geology, as well as highlight areas of possible economic interest. The mafic and ultramafic rocks have higher magnetic levels than the intermediate to felsic schists and augen schists. Geological contacts within the layered lithologies trend predominantly northwest-southeast whereas the intrusive ultramafic rocks have variable oriented contacts.

With respect to possible mineralized areas, there is an interesting east-northeast oriented geological feature cross-cutting the regional magnetic trend through King Solomon Dome. This possible fault or thrust could be a mineralizing conduit as there is known gold mineralization in veins located on King Solomon Dome. Also, in the northwest corner of the surveyed area, there is well defined oval-shaped magnetic low with an internal magnetic high. This feature could represent a buried intrusive which has an alteration halo around a fresh core.

7.0 RECOMMENDATIONS

It is recommended that there be detailed ground follow-up in order to assess the magnetic and VLF features which may represent mineralizing features. Assessment work would involve closer spaced stream sediment samples, localized soil sampling, and if warranted, diamond drilling to check geology and potential mineralization.

8.0 SUMMARY OF EXPENSES

Below is a list of assessable costs incurred during the airborne geophysical survey flown over King Solomon's Dome. The actual survey went beyond the claim boundaries and it is estimated that only 85% of the survey cost is assessable.

Table 2 Summary of Expenditures, Hunker Dome Project.

Item	Description	Assessment Cost
Geophysics Survey	Detailed airborne magnetics and VLF-EM ($56,862.48 @ 85% assessable)	$48,333.11
Project Geologist		
Field Work	6 days @ $250/day	$1,500.00
Travel	Half ticket to Whitehorse	$309.59
Room/Board	Hotel/food/expenses	$786.68
Report Writing	10 days @ $225/day	$2,250.00
Computer Geologist	5 days @ $200/day	$1,000.00
	Total:	**$54,179.38**

9.0 REFERENCES

Mortensen, J.K., 1996. Geological compilation maps of the northern Stewart River map area, Klondike and Sixtymile districts (115N15, 16; 115O/13, 14 and parts of 115O/15, 16). 1:50,000 scale, Indian and Northern Affairs Canada, Yukon Region, Open File 1996-1(G).

Mortensen, J.K., 1997. Geology and metallogeny of the Klondike district, western Yukon Territory: implications for a mineral exploration strategy. Barramundi Gold Ltd. internal report.

Barramundi Gold Ltd., 1997. Stream sediment survey report – 1996: A geological and geochemical report for the Hunker Dome project. Barramundi Gold Ltd. internal report.

Appendix 1

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, W.A. (Sandy) Sears, with business address of:

Barramundi Gold Ltd.
Suite 204, Box 25
595 Howe Street
Vancouver, BC
V6C 2T5

and residential address of:

19 – W. 18th Ave.
Vancouver, BC
V5Y 2A3

do hereby certify that:

1. I am a practicing geologist.

2. I hold a M.Sc. degree in Economic Geology (1991) from Memorial University of Newfoundland in St. John's, NF and a B.Sc. (Honours) degree in Geology (1987) from Saint Francis Xavier University in Antigonish, NS.

3. I have been employed in my profession since 1985.

4. This report is based on work conducted and supervised by me as an employee of Barramundi Gold Ltd.

5. I am a shareholder in Barramundi Gold Ltd.

W.A. (Sandy) Sears

W.A. (Sandy) Sears

Appendix 2

Goldak Exploration Technology Ltd.
Technical Report

TECHNICAL REPORT ON A FIXED WING AEROMAGNETIC SURVEY

HUNKER CREEK PROJECT

DAWSON CITY, YUKON TERRITORY

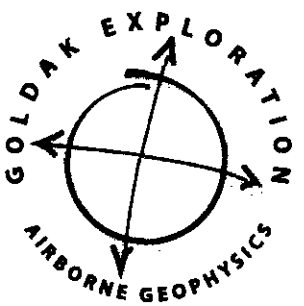
for

BARRAMUNDI GOLD LTD.

by

GOLDAK EXPLORATION TECHNOLOGY LTD.

March, 1999



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1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Barramundi Gold Ltd. by Goldak Exploration Technology Ltd. during March of 1999. Equipment operated included a cesium vapor, digitally compensated magnetometer, a dual frequency VLF-EM system, a GPS real-time differential positioning system, a flight path recovery camera, VHS titling and recording system, as well as multiple radar and barometric altimeters. All data was recorded digitally in MS-DOS binary file format.

The survey area, located in the Dawson City (Klondike) area of the Yukon Territory was flown during March of 1999. Eight flights were required to calibrate the instrumentation and effect coverage of the survey grid. These flights took place between the 15th and the 25th of the month. The flight lines were oriented on an azimuth of 080 / 260 degrees with respect to UTM north. Nominal line spacing was 100 meters, with tie lines separated at 5000 meters.

The purpose of the survey was to map regional geology and structural features that may be related to the source(s) of many placer gold deposits found throughout the area. The area has had extensive placer gold mining operations since the late 1800s.

A total of 232 traverse lines and 4 control lines were flown. 3850 line kilometers of data was collected and processed to map and digital database form.

2. SURVEY AREA LOCATION

The survey area is located at approximately 63 52 17N, 138 58 07W, approximately 30 kilometers southeast of Dawson City. The area has extensive seasonal road and trail access throughout due to historical and current placer gold mining operations.

The survey grid is defined by the following NAD-83, Zone 7N UTM coordinates.

605170 7096970
591270 7094070
595170 7071870
610270 7074570

The flight lines were oriented on an azimuth of 080 / 260 degrees with respect to UTM north. Nominal line spacing was 100 meters, with tie lines separated at 5000 meters.

3. DATA SPECIFICATION

The nominal traverse line separation was 100 meters, with a control line spacing of 5000 meters. The tolerance for line separation was ± 60% maximum deviation over a 1000 meter distance.

Altitude control was determined by a pre-computed drape surface. This surface was generated from digital topographic data obtained by Goldak Exploration and used as input to Goldak's Autodrape 3D navigation system. The tolerance for navigating this surface was ± 30 meters maximum deviation over a 1000 meter distance, with exception made for regulatory compliance or aircraft safety considerations. The minimum surface terrain clearance was 90 meters AGL.

Diurnal activity was specified as maximum 5 nT deviation from a straight line chord whose length is equivalent to the time required to traverse two control lines. In this case, for automated data rejection, that time is assumed to be 60 seconds.

4. AIRCRAFT AND EQUIPMENT

4.1 Aircraft

The aircraft used was a Piper PA-31 Navajo, registration C-GJBA, owned and operated by Goldak Exploration. The aircraft is fitted with a 3 meter stinger attached to the rear fuselage on the centerline of the aircraft. The magnetometer is installed to the extreme rear of the stinger on an adjustable gimbal assembly, and the attitude sensing fluxgate magnetometer positioned at the midpoint.

The VLF sense coils are located in a pod attached to the underside of the left wingtip.

The aircraft has been extensively modified, both mechanically and electrically to minimize the effects of maneuvering on the measured magnetic field. The aircraft has a demonstrated Figure of Merit of less than 0.9 nT as measured to GSC specification. This low level of magnetic noise is considered to be exceptional by experts at the National Research Council.

4.2 Magnetometer and Compensation

The airborne magnetometer used is a Geometrics G-822A optically pumped cesium vapor type with sensitivity of 0.005 nT. The magnetometer's Larmor signal is decoupled and counted by an RMS Instruments AADCII device and data produced at a rate of 10Hz with a resolution of 0.001 nT. The data bandwidth is from 0 to 0.9 Hz with an internal noise level of less than 0.002 nT.

The AADCII compensates for magnetic noise due to aircraft motion and heading. Prior to the survey, the aircraft is taken to a high altitude (7000' AGL +) and put through a series of rolls, pitches and yaws on each of the cardinal headings so that the AADCII can form a model of what the aircraft "looks like" magnetically without the near influence of the local geology. The remaining magnetic distortion is quantified by a term known as the Figure of Merit, or FOM. A figure of merit of 2.0 or less is used by the Geological

Survey of Canada as a standard survey criteria. As stated above, this aircraft has a exceptional demonstrated FOM of less than 0.9 nT.

4.3 Magnetic Base Station

The magnetic base station used was a GEM Systems GSM-19 Overhauser Proton magnetometer sampling at 1 Hz with a sensitivity of 0.02 nT. Both the aircraft data acquisition system and the base magnetometer where synchronized to UTC time derived from the GPS system and recorded in the form of seconds after midnight.

The GSM-19 was located away from cultural effect at geographic coordinates 64 02 48N, 139 06 58W. This point is at the north end of the Dawson Airport property, northeast of the endpoint of runway 02.

4.4 VLF-EM System

The VLF-EM system used is a Herz Totem-2A dual channel VLF receiver. The receiver records the total field and quadrature component of two VLF frequencies simultaneously. The sensor is located in a pod located under the left wingtip of the survey aircraft. The transmitter stations used for this survey were Cutler, Maine (NAA) at 24.0 KHz for the orthogonal channel, and Seattle, Washington (NLK) on 24.8 KHz for the line channel.

4.5 GPS Positioning System

The GPS receiver in the survey aircraft is a Novatel 3151R Propak 12 channel differential unit that communicates directly with our GEDAS system. The base station GPS is also a Novatel 3151R Propak whose data is logged by a battery powered industrial portable computer. A survey grade GPS base antenna and choke ring is used to minimize multi-path errors. The system can be used for differential positioning in either real-time, or post-corrected mode.

The positioning system also incorporates a Racal Landstar real-time DGPS system that receives real-time differential corrections from an orbiting geo-synchronous communications satellite. These corrections from this device allow 2-5 meter positioning accuracy in real-time. A GPS base station is also recorded during the survey flight to provide a higher level of accuracy and an independent confidence check to the Landstar RT DGPS system. The Landstar system could not be used on this particular survey due to the high latitude of the survey area and the rugged terrain.

GPS signals are intentionally "dithered" by the US Department of Defense for security reasons. This dithering typically reduces the accuracy of the non-differential positioning to approximately 50 meters RMS. If a suitable stationary GPS receiver on a known, or assumed position, is used to record the apparent errors in the satellite range data, those errors can be used to correct the moving receiver in the aircraft to a an accuracy of 2-5 meters RMS. This compensation process is called differential correction and can be either applied to the moving receiver in real time for higher dynamic accuracy, or applied later to find out where the aircraft *was* with high accuracy. This is called real-time and post-corrected differential positioning respectively.

For this survey, the base GPS receiver was positioned at geographic coordinates 64 02 47.9085N, 139 06 58.3101W and 381.42 meters ASL in the NAD-83 datum. The precise

position was differentially determined using data both from the Canadian CACS GPS site in Whitehorse, and the American CORS site in Fairbanks, Alaska. The base station antenna was located at a point approximately 100 meters northeast of the endpoint of runway 02 at the Dawson Airport.

4.6 Radar Altimeter

The radar altimeters used were a Terra TRA-3000 digital unit with accuracy of ±3 meters in the range of typical survey altitudes, and a Thompson CSF ERT-160 with an accuracy of 1 meter over a range of 0 to 2500 meters.

4.7 Barometric Altimeter

The barometric altimeter monitored by the system is a AIR Systems DB-1A with accuracy of ±3 meters.

4.8 Flight Path Camera

The flight path is recorded by a Panasonic GP-KR222 SV hi-resolution color video camera located in the wing of the aircraft. The video is recorded by an Panasonic AG-1980P SVHS video recorder. Data pertaining to position, time, speed, altitude, line number and direction are superimposed in the videotape by a Horita SCT-50 video titler.

4.9 GEDAS Digital Recorder

All data is processed and recorded digitally by our GEDAS system. The GEDAS is an industrial rackmount 486 based PC computer operating at 100 MHz with multiple hard-drives, IO ports and ADAC devices.

GEDAS records time, magnetic and VLF data at 10 Hz. All positioning data is recorded at 1Hz. Data files are organized on a flight by flight basis in a proprietary binary format. The data is then converted post-flight to a Geosoft compatible format.

Data can be downloaded from the system by either floppy disk or Iomega ZIP disk. Data can be delivered in the field by either floppy, ZIP disk, Iomega JAZ disk or CD-ROM.

5. DATA PRESENTATION

5.1 Base Map with Topography and Flight Lines

A base map with topographic contours, flight path and survey boundary has been produced and marked as Figure 4. Two copies of this map at a 1:50,000 scale have been plotted on clear film for overlay on various other sheets. The map has also been printed at page size and appended to this report. This sheet has been provided as a geo-referenced TIFF image on CDROM for viewing on a computer without specialized mapping software.

5.2 Total Field Color and Contours Magnetic Map

A contoured color temperature total field magnetic map has been produced as the primary product of the survey and marked as Figure 1. It has been gridded and contoured by Geosoft Oasis Montaj using a 25 meter cell size. Two copies of this map at a 1:50,000 scale have been plotted on coated paper. The map has also been printed at page size and appended to this report. This sheet has been provided on CD-ROM as a geo-referenced TIFF image for viewing on a computer without specialized mapping software.

5.3 Random Gridded Total Field Color Magnetic Map

The GEDAS data acquisition system records all parameters continuously and as such, reasonably coherent data exists for some distance beyond the grid boundary. This data, while not guaranteed to be within noise limits due to aircraft maneuvering, may still be useful in the interpretation of valid data inside the grid. This aggregate data set has been random gridded and provided in color temperature form as Figure 1a. One copy of this map has been provided at a 1:50,000 scale, and also printed at page size and appended to this report. This sheet has been provided on CD-ROM as a geo-referenced TIFF image for viewing on a computer without specialized mapping software.

5.4 VLF-EM Color and Profiles Maps

A color temperature map with line profiles for the VLF total field strength and quadrature component has been produced as figures 2 and 3 respectively. Two copies of these maps at a 1:50,000 scale have been plotted on coated paper. These maps have also been printed at page size and appended to the report. These sheets have been copied as geo-referenced TIFF images for viewing on a computer without specialized mapping software.

5.5 Digital Data Files

All raw and processed data files along with the Geosoft compatible grids are included on CD-ROM disk. The printer specific map images in HP-RTL, Postscript and TIFF format have also been included on the CDROM.

The primary database is provided in Geosoft GDB form. The following is a channel definition list for the database.

_X	database internal	meters
_Y	database internal	meters
Balt	barometric altimeter	meters
BaseMag	base station magnetometer 1 nT	
BaseMag2	base station magnetometer 2	nT
DGAlt	differential GPS altitude	meters
Dlat	differential GPS latitude	geographic
Dlon	differential GPS longitude	geographic
DX	differential UTM E	meters
DY	differential UTM N	meters
Fdiff	magnetic fourth difference noise	nT
GAlt0	raw GPS Z	meters

GPSQ	corrected GPS quality	scalar
Gtime	GPS time, UTC	seconds
Lat0	raw GPS latitude	geographic
Lon0	raw GPS longitude	geographic
MagC	compensated mag	nT
MagDC	diurnal corrected mag	nT
MagFid	mag fid counter	scalar
MagLag	time lagged mag	nT
MagLevel	levelled mag	nT
MagUC	uncompensated raw mag	nT
OnLine	ingrid/outgrid boolean	boolean
RAlt1	radar altimeter 1 ERT-160	meters
RAlt2	radar altimeter 2 TRA-30	meters
SurfAlt	desired surface altitude	meters
SysFid	GEDAS system fid counter	scalar
SysTime	GEDAS system time UTC	seconds
UTME	raw UTM E	meters
UTMN	raw UTM N	meters
VlfLQ	VLF line quad	percent
VLFLQBp	bandpassed VLF line quad	percent
VLFLQFinal	levelled VLF line quad	percent
VLFLQLag	lagged VLF line quad	percent
VlfLT	VLF line total	percent
VLFLTBp	bandpassed VLF line total	percent
VLFLTFinal	levelled VLF line total	percent
VLFLtLag	lagged VLF line total	percent
VlfOQ	VLF ortho quad	percent
VlfOT	VLF ortho total	percent
VmTF	vector mag total field	nT
VmX	vector mag X component	nT
VmY	vector mag Y component	nT
VmZ	vector mag Z component	nT
X	database internal X coord	meters
Xtr	surround trimmed X	meters
Y	data base internal Y coord	meters
Ytr	surround trimmed Y	meters

Two copies of this disk have been provided.

5.6 Flight Path Video

Flight path video for this survey is contained on eight VHS tapes. Times, positions, direction and speed are overlain on the tape for detailed flight path recovery if required.

6. DETAILED EQUIPMENT SPECIFICATIONS

Our detailed equipment technical specifications are as follows:

Aircraft

Piper PA-31 Navajo C-GJBA
3m composite tail stinger
1m wingtip VLF sensor pod
Demonstrated Figure of Merit < 0.8nT

Aircraft Magnetometers:

Manufacturer:	Geometrics
Type and Model Number:	Cesium G-822A
Range in nT:	20,000 to 90,000
Sensitivity in nT:	0.005
Sampling Rate:	10Hz

Base Station Magnetometer:

Manufacturer:	GEM Systems
Type and Model Number:	Overhauser GSM-19W
Range in nT:	20,000 to 120,000
Sensitivity in nT:	0.01
Sampling Rate:	5Hz maximum (0.5Hz typical)
Solar Power Supply:	1 - Solarex MSX50

Base Station Magnetometer (backup):

Manufacturer:	Scintrex
Type and Model Number:	Proton Envi Mag
Range in nT:	20,000 to 100,000
Sensitivity in nT:	0.1
Sampling Rate:	2Hz maximum (0.5Hz typical)

Real-time Magnetic Compensator:

Manufacturer:	RMS Instruments
Type and Model Number:	AADCII
Range in nT:	20,000 to 100,000
Resolution in nT:	0.001
Sampling Rate:	10Hz

Digital Acquisition System:

Manufacturer:	Goldak Exploration Technology
Type and Model Number:	GEDAS
Sampling Rate:	10Hz
Data Format:	MS-DOS binary

Positioning Cameras:

Manufacturer:	Panasonic
Model:	GPKR402 HRSV
Lens:	WV-LR4R5 4.5mm
	FOV at 1000 feet AGL is 1040 x 1300 feet

Barometric Altimeter:

Manufacturer: AIR Systems
Type and Model Number: DB-1A
Range: -1000 to 10,000 feet
Resolution: 1 meter

Radar Altimeter:
Manufacturer Terra
Type and Model Number: TRA300 – TRI40
Range: 0-2500 feet
Resolution: 1 meter

Positioning System:
Manufacturer: Goldak Exploration Technology Ltd.
Type and Model Number: GEDAS
Displays: 10" color LCD graphical display
ILS style pilot indicator

GPS Subsystem:
GPS Receiver:
Manufacturer Novatel
Type and Model Number: 3151R Propak

GPS Real Time Differential Receiver:
Manufacturer Racal
Type and Model Number: Landstar

GPS Base Station:
Manufacturer Novatel
Type and Model Number: 3151R Propak

System Resolution: 1 meter
Overall accuracy: 3 m in real-time, <1m post-corrected

Computers:
Manufacturer: Compaq
Type and Model Number: Pentium 120, laptop PC

Manufacturer: Toshiba
Type and Model Number: Pentium 100, 100CS laptop PC

Plotters and Printers:
Manufacturer: Canon
Type and Model Number: Bubblejet, BJC10 color page printer

Data backup:
Manufacturer: Iomega
Type and Model Number: 100Mb Zip drive

Manufacturer: Iomega
Type and Model Number: 1.0Gb Jaz drive

Manufacturer: Hewlett Packard
Type and Model Number: Sure Store CD-ROM writer

Software

Manufacturer: Geosoft
Function: Geophysical data processing
Type and Model Number: Oasis Montaj

Manufacturer: Waypoint Consulting
Function: GPS post-processing
Type and Model Number: GrafNav

Manufacturer: Geomatics Canada
Function: GPS post-processing
Type and Model Number: GPSPace

7. STATEMENT OF QUALIFICATIONS

Ben Goldak

1. I reside at 25 Duncan Crescent in Saskatoon, Saskatchewan.
2. I hold a B.Sc. Adv. in Computer Science from the University of Saskatchewan.
3. I have been active in the field of geophysics since 1980.
4. I have examined the data referred to in this report and find it to be of suitable quality for purposes of geological interpretation.
5. I am President of Goldak Exploration Technology Ltd.

Ben Goldak April 12, 1999

115-O-15
QUARTZ

LATITUDE 63°45' TO 64°00'
LONGITUDE 138°00' TO 139°00'

CANADA
DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
NORTHERN ADMINISTRATION AND LANDS BRANCH
MINING AND LANDS DIVISION

SCALE 1:31,680

ISSUED UNDER THE AUTHORITY OF THE MINISTER OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

NOTICE

THIS MAP IS ISSUED AS A PRELIMINARY GUIDE FOR WHICH THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT WILL ACCEPT NO RESPONSIBILITY FOR ANY ERRORS, INACCURACIES OR OMISSIONS WHATSOEVER

TOPOGRAPHY COMPILED FROM 1:50,000 NATIONAL TOPOGRAPHIC SERIES
CONTOUR INTERVAL 500 FEET
SURVEY INFORMATION COMPILED FROM LEGAL SURVEYS BY DRAFTING SERVICES
1992

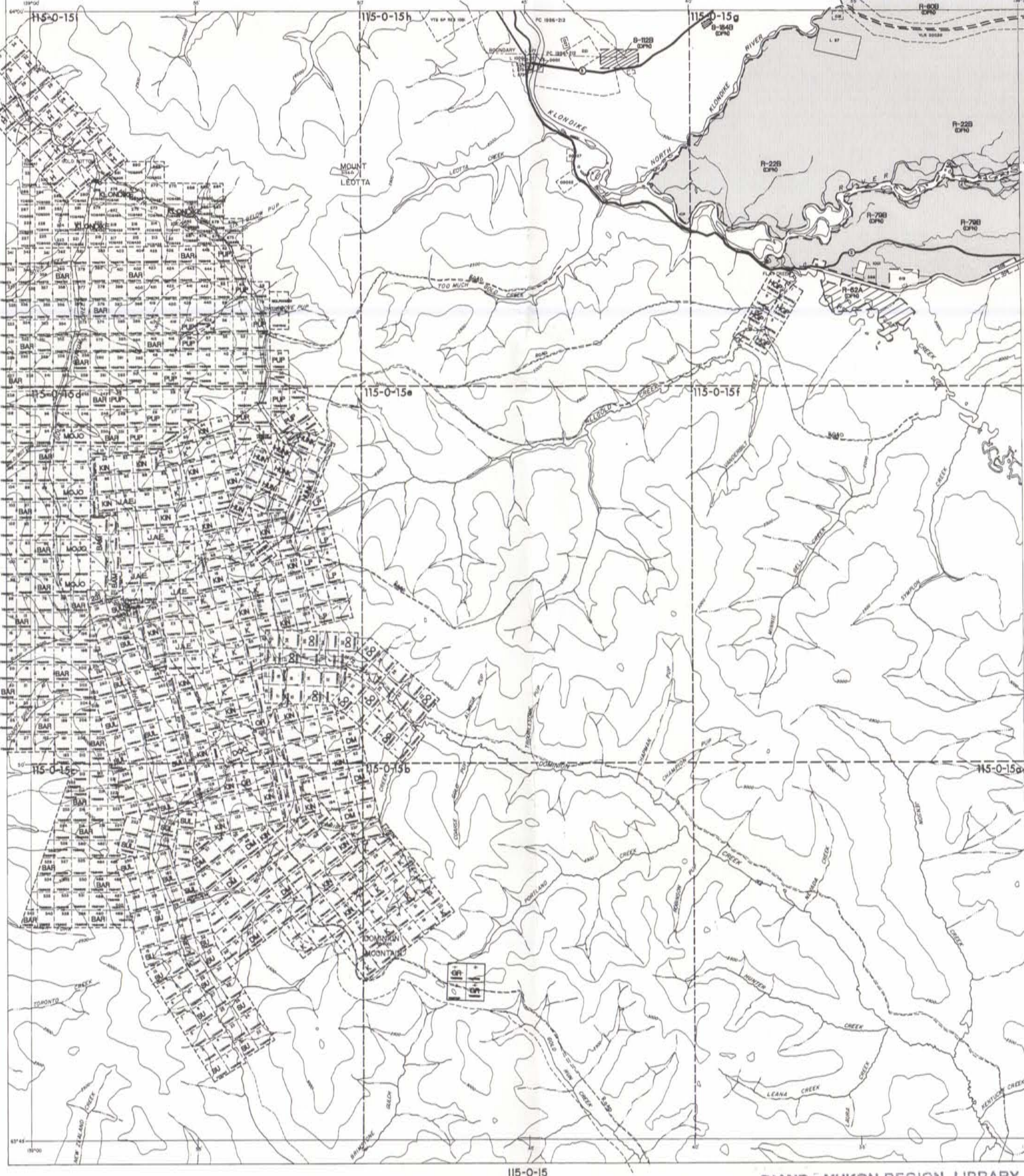
SEE ADJACENT MAP SHEET(S) EDGES FOR ADJOINING MINERAL CLAIMS NOT SHOWN ON THIS MAP

116-B-3	116-B-2	116-B-1
115-O-14	115-O-15	115-O-16
115-O-11	115-O-10	115-O-9

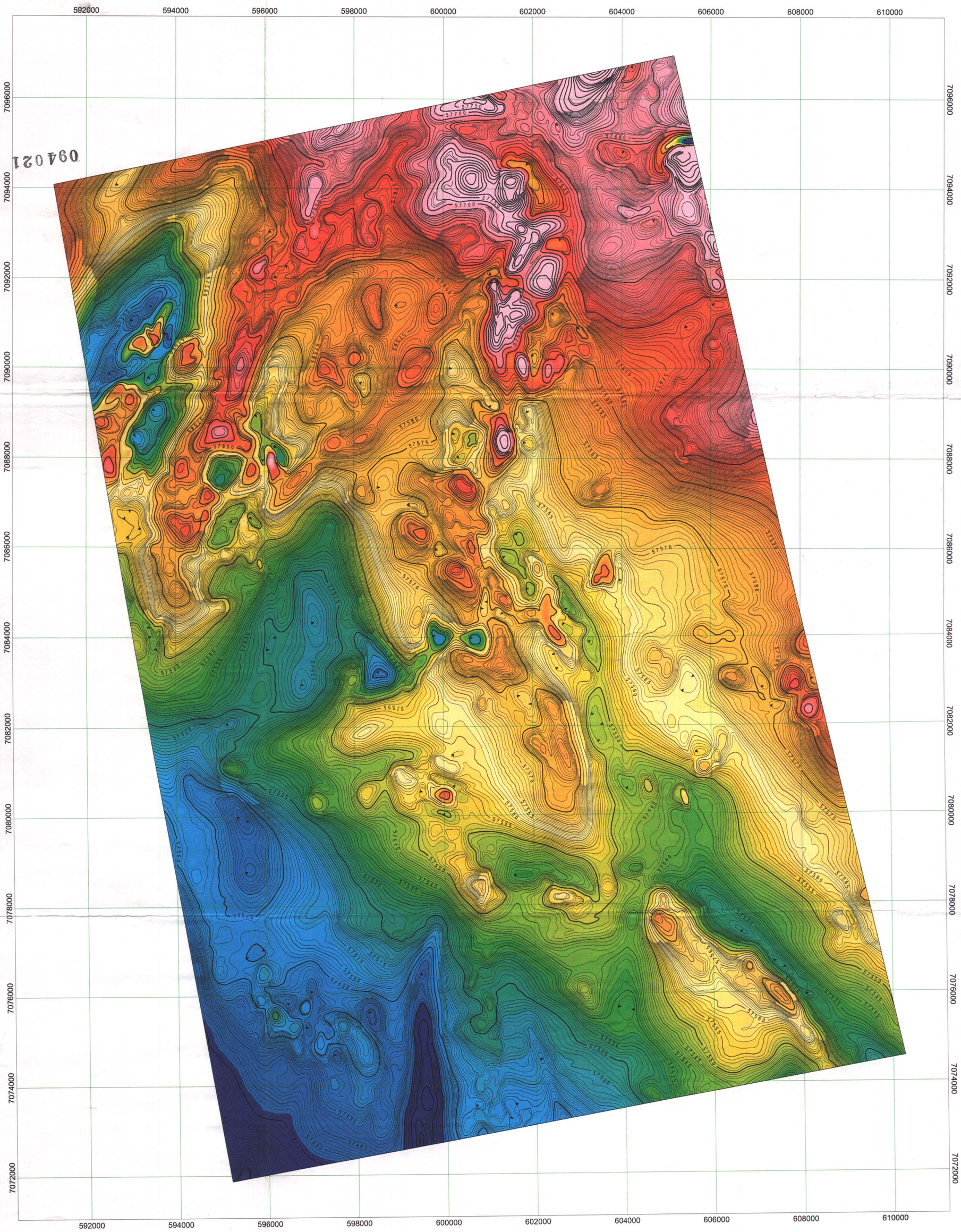
DAWSON MINING DISTRICT 14 SEPTEMBER 1999

DFN (DAWSON FIRST NATION) A.K.A. TRONDEK HWECHIN FIRST NATION

NOTE FOR PLACER CLAIMS WITHIN DASHED AREA SEE 1:10,000 PLACER MAPS



115-O-15



This high-resolution airborne magnetic survey was flown by Goldak Exploration Technology Ltd. during March of 1999 under contract to Barramundi Gold Ltd. The survey location is approximately 25 kilometers SE of Dawson City, Yukon Territory, Canada.

Total field magnetic and VLF-EM data were acquired using the proprietary GEDAS data acquisition and navigation system. Autodrape 3D navigation was used for more accurate tie-line intersections over the moderately rugged terrain. The aircraft used was Goldak Exploration's twin engine Piper Navajo, registration C-GJBA. This aircraft has been extensively modified to minimize it's magnetic maneuver noise, and typically compensates to an FOM of less than 1.0nT at GSC specification. Landstar real-time GPS corrections were not available due to the high latitude of the survey area, but post-correction was applied to the 12 channel Novatel GPS data in order to recover flight path with an accuracy of better than 1 meter.

Topographic data used to generate the Autodrape 3D navigation surface, and as presented in this map set, was obtained from the Canadian National Topographic Database.

57709
57674
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57550
57548
57546
57544
57541
57539
57537
57533
57530
57527
57524
57520
57515
57508
57503
57500
57495
57489
57477

Total Field
nT

LEGEND

Contour Intervals

1	1 nT
5	5 nT
25	25 nT
100	100 nT

Scale 1:50000

1000 0 1000 2000 3000
metre
NAD83 / UTM zone 7N

Barramundi Gold Ltd.

Hunker Creek Project
Dawson City, Yukon Territory

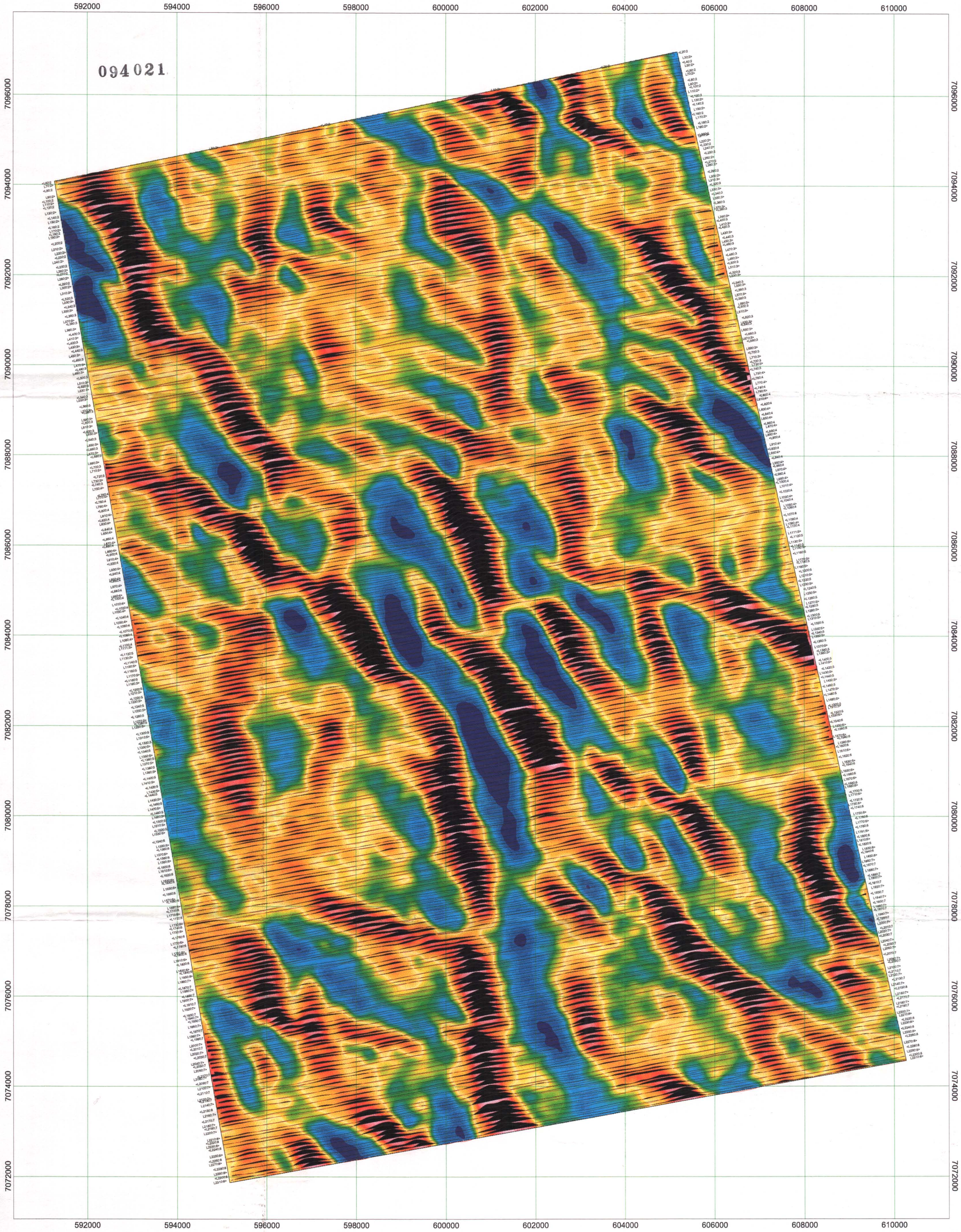
Total Field Magnetics

Scale 1: 50000	**Sheet Ref:** 115O14/15	**Figure #** 3
Surveyed March 15-25	**Plotted** Apr 11, 1999	**File -** TFMag

Goldak Exploration

DWG(2)

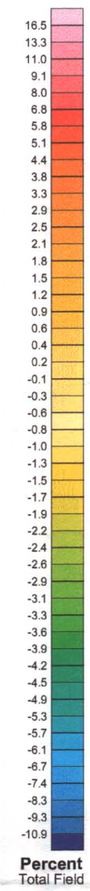
094021

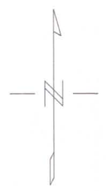


This high-resolution airborne magnetic survey was flown by Goldak Exploration Technology Ltd. during March of 1999 under contract to Barramundi Gold Ltd. The survey location is approximately 25 kilometers SE of Dawson City, Yukon Territory, Canada.

Total field magnetic and VLF-EM data were acquired using the proprietary GEDAS data acquisition and navigation system. Autodrape 3D navigation was used for more accurate tie-line intersections over the moderately rugged terrain. The aircraft used was Goldak Exploration's twin engine Piper Navajo, registration C-GJBA. This aircraft has been extensively modified to minimize it's magnetic maneuver noise, and typically compensates to an FOM of less than 1.0nT at GSC specification. Landstar real-time GPS corrections were not available due to the high latitude of the survey area, but post-correction was applied to the 12 channel Novatel GPS data in order to recover flight path with an accuracy of better than 1 meter.

Topographic data used to generate the Autodrape 3D navigation surface, and as presented in this map set, was obtained from the Canadian National Topographic Database.





Scale 1:50000

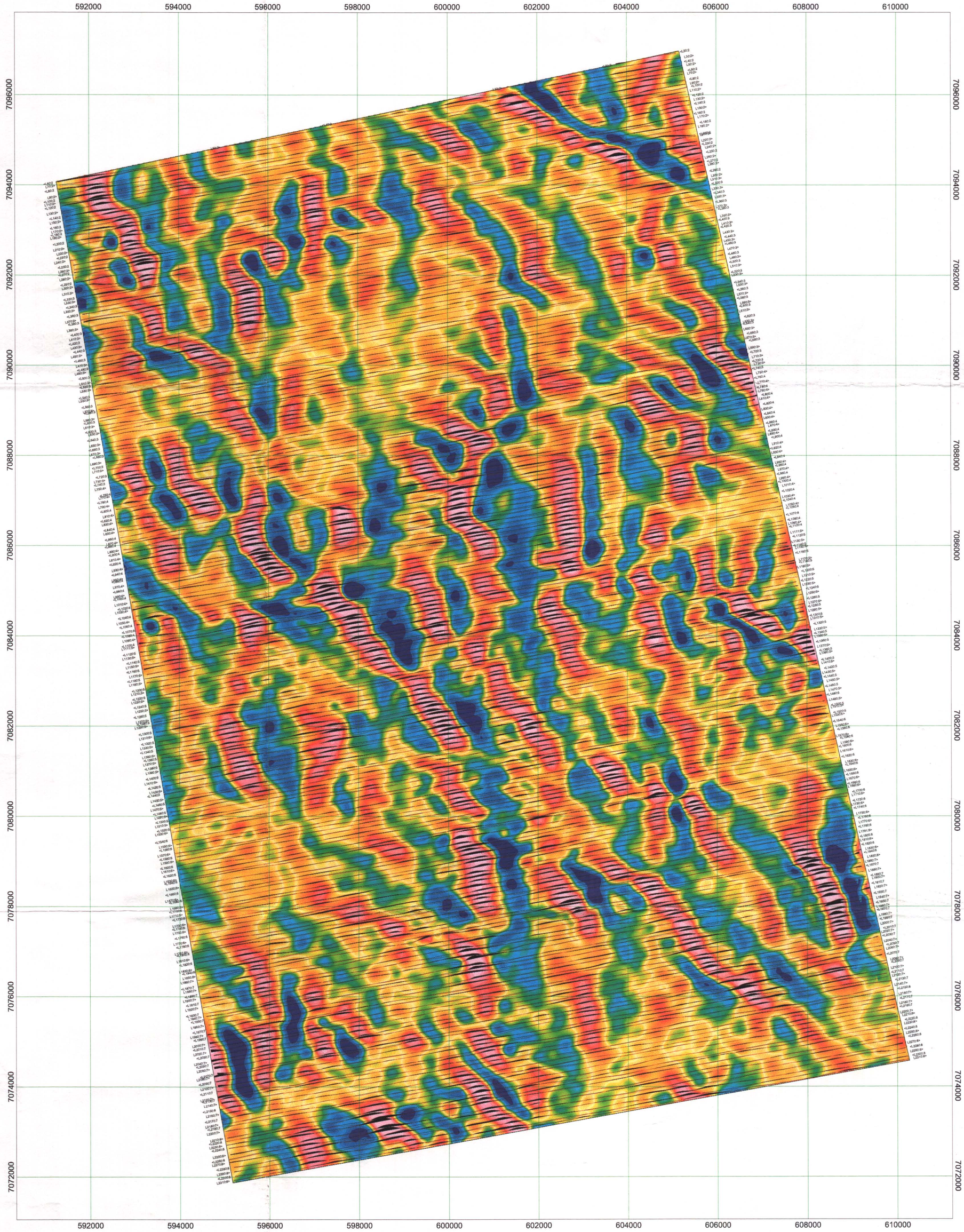
1000 0 1000 2000 3000

metre

NAD83 / UTM zone 7N

Barramundi Gold Ltd.		
GOLDAK EXPLORATION AIRBORNE GEOPHYSICS	***Hunker Creek Project*** Dawson City, Yukon Territory VLF Total Field Response NLK, Seattle, WA. (24.8 KHz)	
Scale 1: 50000	**Sheet Ref:** 115O14/15	**Figure #** 4
Surveyed March 15-25	**Plotted** Apr 11, 1999	**File** - VLFLT
Goldak Exploration		

094021 Dwg(3)



This high-resolution airborne magnetic survey was flown by Goldak Exploration Technology Ltd. during March of 1999 under contract to Barramundi Gold Ltd. The survey location is approximately 25 kilometers SE of Dawson City, Yukon Territory, Canada.

Total field magnetic and VLF-EM data were acquired using the proprietary GEDAS data acquisition and navigation system. Autodrape 3D navigation was used for more accurate tie-line intersections over the moderately rugged terrain. The aircraft used was Goldak Exploration's twin engine Piper Navajo, registration C-GJBA. This aircraft has been extensively modified to minimize it's magnetic maneuver noise, and typically compensates to an FOM of less than 1.0nT at GSC specification. Landstar real-time GPS corrections were not available due to the high latitude of the survey area, but post-correction was applied to the 12 channel Novatel GPS data in order to recover flight path with an accuracy of better than 1 meter.

Topographic data used to generate the Autodrape 3D navigation surface, and as presented in this map set, was obtained from the Canadian National Topographic Database.

Scale 1:50000

1000 0 1000 2000 3000

metre

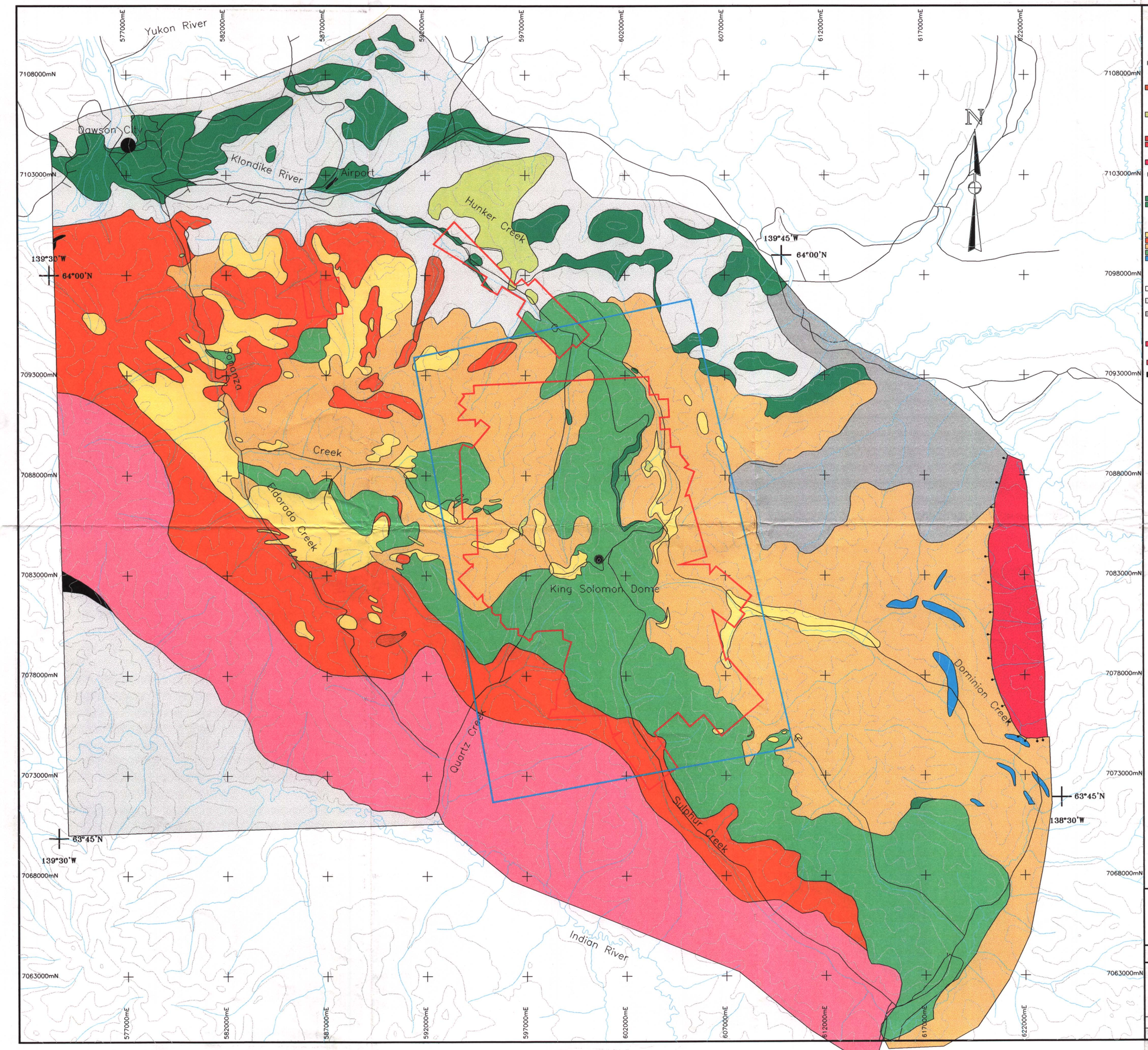
NAD83 / UTM zone 7N

Barramundi Gold Ltd.

Hunker Creek Project
Dawson City, Yukon Territory
VLF Quadrature Response
NLK, Seattle, WA. (24.8 KHz)

Scale 1: 50000	**Sheet Ref:** 115O14/15	**Figure #** 5
Surveyed March 15-25	**Plotted** Apr 11, 1999	**File -** VLFLQ

Goldak Exploration



LITHOSTRATIGRAPHIC LEGEND

POST–ACCRETION UNITS
Suprocrustal Rocks
Late Cretaceous
- lKva andesite flows and breccias

Undeformed Intrusive Rocks
Eocene
- eTqfp quartz–feldspar porphyry stocks and dykes

Late Cretaceous
- lKqfp massive quartz feldspar porphyry
- lKqdr massive hornblende–biotite granodiorite

Early Cretaceous
- eKgd massive hornblende–biotite granodiorite

PRE–ACCRETION UNITS
Undeformed Intrusive Rocks
Middle or Upper Paleozoic
- lPv massive and brittlely–sheared greenstone and dibase; locally weakly foliated
- lPu serpentinte, serpentinized harzberite, cabonatized ultramafic rocks; talc–cabonate schist

BKlondike Schist Assemblage
Middle to Late Permian
- Psqm rusty–weathering quartz–muscovite schist
- Psq quartz and/or feldspar augen–bearing quartz–mucovite (±chlorite) schist
- Psq tan weathering muscovite and/or chloritic quartzite and quartz–muscovite–chlorite schist
- Psc medium to dark green chlorite–quartz–muscovite schist
- Pc crystalline marble

Nasina Assemblage
Late(?) Devoinan to Early Mississippian
- DMsq non–graphitic Nasina Assemblage undifferentiated (pale green, tan and medium weathering, micaceous quartzite and quartz–muscovite (±chlorite) schist); includes minor DMqsc
- DMsqc graphitic Nasina Assemblage undifferentiated (mainly pale to dark gray weathering, fine grained quartzite, quartz–muscovite (±chlorite) schist; locally garnetiferous)
- DMs medium to coarse grained mica schist, commonly garnetiferous, amphibolite, minor quartzite

Metaplutonic Rocks
Middle Permian
- Pqmg moderately to strongly foliated biotite quartz monzonite gneiss (Sulphur Cr. orthogneiss)

Late Devonian to Early Mississippian
- DMgg moderately to strongly foliated K–feldspar augen–bearing quartz monzonite to granitic gneiss (Mt. Burnham orthogneiss)
- Undefined

LEGEND

- 500ft Contour Interval
- Thrust Fault
- Normal Fault
- Streams
- Claim Boundary
- Aeromag/VLF survey area

Dwg (4)

metres
1000 0 5,000 10,000

BARRAMUNDI GOLD LTD

HUNKER DOME PROJECT – YUKON TERRITORY

GEOLOGICAL MAP

AFTER Mortensen; 1996

AUTHOR : James Mortensen	NTS: 1150/10,14,15	FILE: hdm\dwg\geology
DRAWN : revision PWC	DATE: April 1999	Figure 2