

Cash Minerals Limited  
Suite 1890 Oceanic Plaza, 1066 West Hastings Street  
Vancouver B.C. V6E 3X1

Telephone: 604-633-9942

Fax: 604-633-9972

**Assessment Report**

describing

**Airborne geophysics and ground exploration mapping**

At the

**Bonnie Property**

Bonnie 1-16      YC42866-YC42881

NTS 106C/13  
Latitude 64°47'N, Longitude 133°38'W  
in the Mayo Mining District  
Yukon Territory

Prepared by  
Cash Minerals Limited

for

Cash Minerals Ltd. and Twenty-Seven Capital Corp.  
by

Russell Smits M.S.c.  
February 2008

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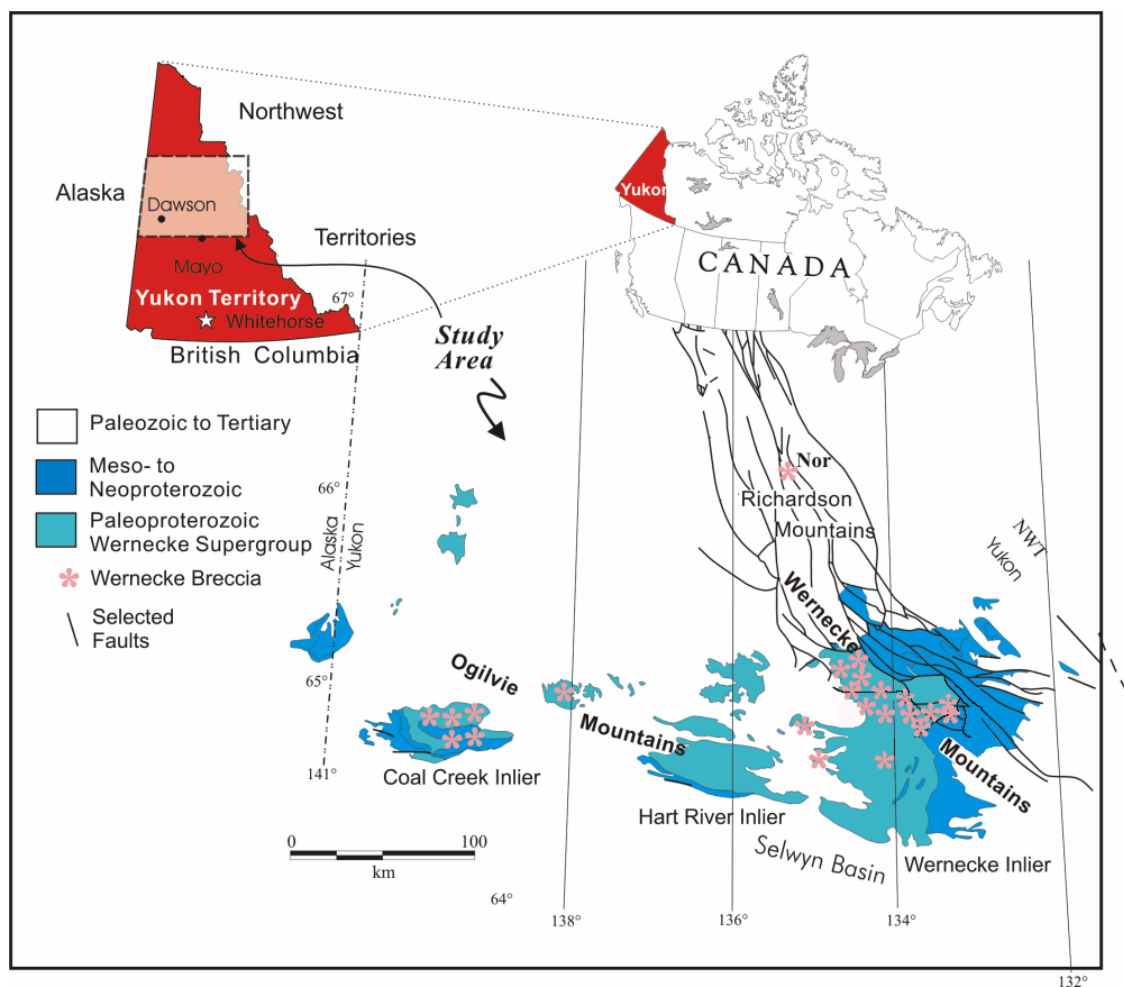
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Measurements and grid locations included in the report are in UTM NAD83, zone 8,  
unless otherwise stated

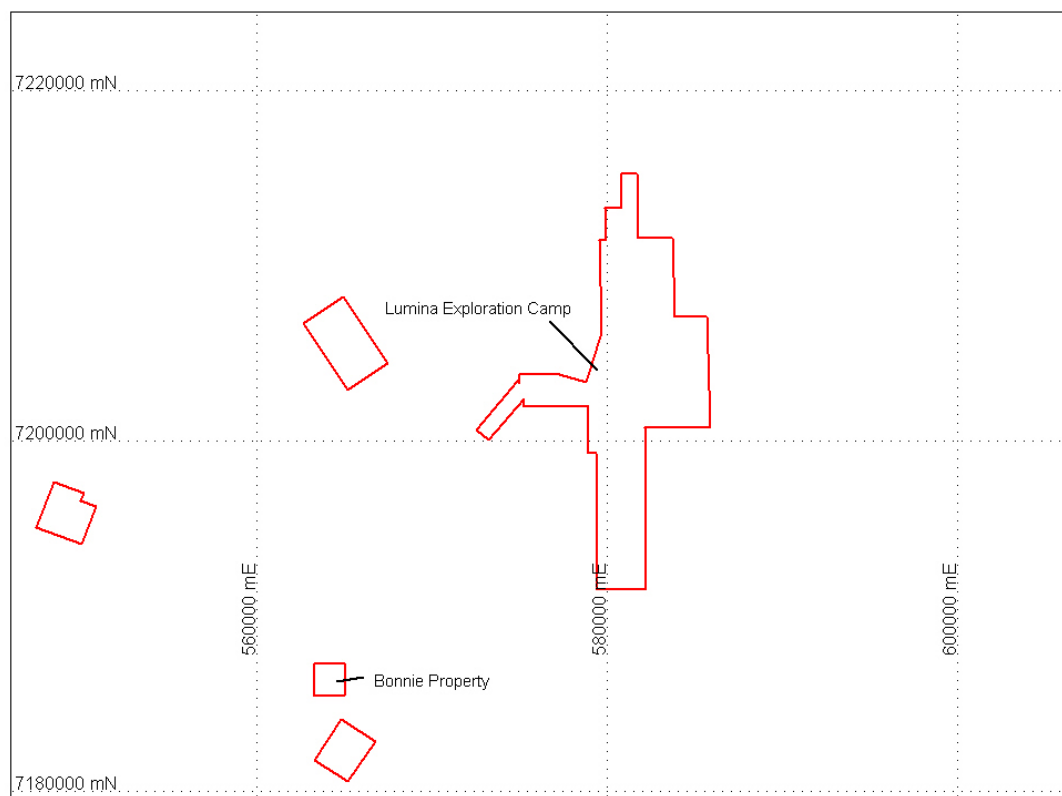
## Introduction

The Bonnie property hosts iron oxide copper-gold (IOCG) mineralisation in discordant breccia bodies and Uranium in younger veins and fractures. Twenty-Seven Capital Corp. staked the property in March 2006 to cover pitchblende bearing float occurrence discovered in 1976. It and 18 other properties in the Wernecke Mountains, figure 1, owned by Twenty-Seven are under option to Cash Minerals Ltd. as part of the Yukon Uranium Project.



**Figure 1:** Regional location and geological setting of the Werneckes district.

Exploration work in 2007 built on the airborne geophysics, diamond drilling and prospecting work conducted 2006. The work comprised of mapping and scintillometer surveys based out of the Lumina camp 21km to the northwest of the property, see figure 2. Later mapping was based out of the Bear River camp 30km to the west. This work was conducted with daily helicopter support.



**Figure 2:** Location of the Bonnie property and the Lumina property which acted as a base for the Bonnie operations for the initial mapping.

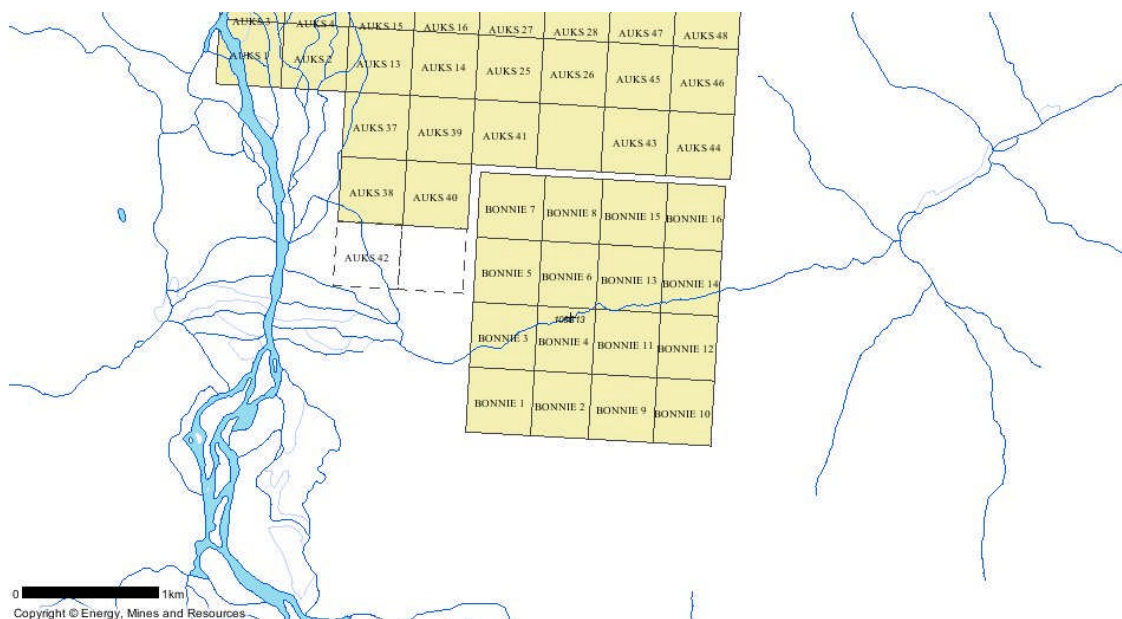
### ***The Property Location, Claim Data and Access***

The property is located in east-central Yukon at latitude 64°47'N and longitude 133°38'W on NTS map sheet 106C/13. It comprises of 16 minerals claims covering approximately 320 hectares, see figure 3. The claims were staked under the Yukon Quartz Mining Act and are registered with the Mayo Mining Record in the name of Cash Minerals Ltd, who holds the land under option from Twenty-Seven Capital Corp as part of the Yukon Uranium Project.

Claim Name	Grant Number	Expiry Date
Bonnie 1-16	YC42866-YC42881	March 17 <sup>th</sup> , 2012

**Table 1:** summary of claim registration information, expiry date does not include 2007 work which has not been filed for assessment credit.

The Bonnie property is located 175km northeast of the Klondike Highway and Silver Trail. Mayo is situated 407km by road north of Whitehorse. The closest road access to the property is at McQuesten Lake which lies 87km by road northeast of Mayo and 137km southwest of Bonnie. From McQuesten Lake the Wind River Trail, an abandoned winter road leads to the Lumina property. This road passes within 2km of the Bonnie property. The Dolores Creek airstrip is located on the Lumina property.



**Figure 3:** Claims map for the Bonnie property.

Access to the property in 2007 was accomplished using a Hughes 500D Helicopter based at the Lumina camp and operated by Fireweed Helicopters of Whitehorse. Fuel was flown from Mayo to Dolores Creek airstrip using a Britten-Norman Islander operated by Sifton Air of Haines Junction.

### ***Regional***

The first report of Mineralisation in the Wernecke Mountains was the discovery of hematite rich float in gravels by prospectors' enroute to the Klondike Goldfields in 1898. A few copper and gold prospects were and staked prior to the 1960's, but no serious exploration was conducted. After the discovery of the Crest Iron Deposit by California Standard Company Ltd. in 1961, several hematite bodies were staked and briefly explored. This wave of exploration coupled with improved access spurred by construction of the Wind River Trail led to new copper discoveries in the mid 1960's, some of which were drilled or bulldozer trenched (Deklerk and Traynor, 2004)

Uranium was first discovered in the Wernecke Mountains in 1974 at the Igor property by Ogilvie Joint Venture (Chevron Canada Ltd., Marietta Resources International Ltd. and Aquitaine Company of Canada Ltd.) The following summer Wernecke Joint Venture (Chevron and Aquitaine) conducted helicopter borne radiometric reconnaissance throughout the district and staked a number of other properties based on ground radiometric follow up. Most of these occurrences are associated with large iron oxide rich breccias that are informally known as the Wernecke Breccias. Eldorado Nuclear optioned Wernecke Joint Venture's properties and regional exploration rights in 1976. It conducted property and regional exploration in 1976 and 1977 along with a number of other companies, notably Noranda Minerals Ltd. and Pan Ocean Oil Ltd. Wernecke Joint Venture resumed exploration in 1978 after Eldorado Nuclear began to drop its optioned

properties. Systematic Uranium exploration by various parties continued in the Wernecke Mountains until 1982, when uranium prices fell (Eaton and Wober, 2005).

Another wave of regional and property exploration occurred in the mid 1990's when Westmin Resources Ltd. and Newmont Exploration Limited explored some of the Wernecke Breccias for copper and gold using the IOCG model.

### ***Property History***

Pitchblende bearing float was discovered in a creek bed on what is now the Bonnie property in 1976 by Wernecke Joint Venture during regional prospecting. This mineralisation received only limited follow up work.

Newmont and Westmin staked the Auks claims that are now partially covered by the Bonnie property, as part of the Fairchild Joint Venture in 1994. The Auks claims were explored for copper and gold mineralisation between 1994 and 1997. Float samples collected in the area now covered by the Bonnie claims returned up to 2.07% copper, while soil samples returned up to 1555ppm copper (Montgomery, 1995).

### ***Physiography and Geomorphology***

The Bonnie property is located within the Wernecke Mountains and is drained by a tributary of the Bonnet Plume River, which flows into the Peel River and ultimately the Arctic Ocean via the Mackenzie River.

The climate in the Wernecke Mountains is typical of northern continental regions with long, cold winters, truncated fall and spring seasons and short, cool summers. Average temperatures in January are about -25°C and in July about 10C. Total annual precipitation is approximately 30cm, mainly occurring as rain during the summer months. Maximum snow pack averages about 40cm. Although summers are relatively mild, arctic cold fronts occasionally cover the area and snowfall can happen in any month. Sunlight ranges from 22hrs per day in late June to approximately six hours per day in late December. The property is relatively snow-free from late May until late September.

The main area of interest is located within a west trending creek canyon, which divides the property. From late May to June, runoff from the surrounding hills floods this canyon making it inaccessible. Local elevations range from 720m within the canyon to 1420m on a peak near the northern edge of the property. Outcrop is abundant along the canyon wall and near ridge crest, but is rare elsewhere. The slopes typically range between 30 and 50°. Vegetation consists of stunted spruce and moss at lower elevations with grasses and moss at higher elevations. There is no commercial timber on the property. No suitable campsites are located on the property but there is abundant water in the creeks till August for drilling purposes.

### ***Geological Setting***

The Wernecke, Hart River and Coal Creek Inliers are exposed within the Cordilleran fold and thrust belt of northwestern Canada (figure 1) (Thorkelson *et al.* 2005). Deformation associated with Cordilleran orogenesis has largely shaped the modern geological

configuration of the region. The Canadian Cordillera formed along the western margin of ancestral North America from the Devonian to the Early Cainozoic (Cook *et al.* 2004). Mesozoic – Cainozoic cordilleran orogenesis resulted in the accretion of several allochthonous and pericratonic terranes that incorporated existing Paleoproterozoic terranes with Paleozoic marginal strata, and lead to the formation of syn-orogenic and post-orogenic igneous and sedimentary successions (Gabrielse *et al.* 1991).

Wernecke Supergroup strata are geographically separated from cratonic North America within a series of Inliers (figure 1); thought to represent large-scale structural culminations that have been preferentially exhumed (Thorkelson *et al.* 2005). Smaller outcrops of Early Proterozoic strata are considered to be the cores of folds produced during late Mesozoic shortening (Laramide orogenesis) (Norris 1984). Surrounding the inliers are younger Neoproterozoic to Cenozoic rocks that now comprise part of the Mackenzie platform (figure 1) (Thorkelson *et al.* 2005). This sub-region of Cordilleran foreland belt is associated with Neoproterozoic to Paleozoic platformal assemblages (figure 1) (Gordey & Anderson 1993; Norris 1997). This platformal sequence is juxtaposed to the south of the Dawson Fault by the Selwyn Basin (figure 1), a package of basinal strata also of Neoproterozoic to Lower Paleozoic age (Gordey & Makepeace 1999).

The Wernecke Inlier is crosscut by the Richardson fault array (figure 1) (Thorkelson 2000), a series of deep-seated structures that are continuous for over 600 km that mark the boundary between the deformed Cordilleran fold and thrust belt and the relatively undeformed Northern Interior Platform (Delaney 1981; Norris 1997; Thorkelson 2000). This region represents a zone of weakened crust within the North American craton – possibly an Early Proterozoic terrane boundary (Thorkelson 2000) – that has been re-activated during the Late Proterozoic and the Tertiary (Hall & Cook 1998) manifested as strike-slip, thrust and normal faults (Norris 1981; Hall & Cook 1998). To the south, the Richardson Fault Array splays to become the Fairchild Lake Fault (Norris 1981). This fault is a major structure in the Wernecke Inlier that intersects strata of the Wernecke Supergroup (Thorkelson 2000). The Fairchild Lake Fault has been interpreted as a normal fault (with possible minor strike-slip motion) with an east-side-down sense of movement (Thorkelson 2000). Early fault activity occurred during the Middle to Late Proterozoic, given by the differential preservation of Early and Mesoproterozoic strata on adjacent sides of the Fairchild Lake fault (Thorkelson 2000). Fault displacement and erosion associated with the Fairchild Lake Fault could control the configuration of many Proterozoic and Paleozoic successions in the region (Thorkelson 2000).

**The Wernecke Supergroup** is comprised of a roughly 13 km thick package of marine sedimentary and carbonate sediments (Delaney 1981) deposited prior to 1.71 Ga (Thorkelson 2000). The Wernecke Supergroup consists of three major successions known from oldest to youngest as the Fairchild Lake Group, Quartet Group and the Gillespie Lake Group (Delaney 1981; Thorkelson 2000), that are dominated by mudstone, siltstone and dolomite (Thorkelson *et al.* 2001b).

**Fairchild Lake Group (FLG)** sediments represent the oldest supracrustal sedimentary succession within the Cordillera, and forms the basal section of the Wernecke Supergroup (Thorkelson 2000). The lower contact of the Fairchild Lake Group is nowhere exposed, but is thought to be structurally decoupled with the crystalline



basement as a result of contractional deformation (Thorkelson 2000). Thorkelson (2000) differentiated the ~ 200 m thick upper FLG (uFLG) from the ~ 4.6 km thick lower FLG on the basis of lithological character. Lower FLG strata are generally composed of weakly to moderately metamorphosed (Thorkelson *et al.* 2003) finely laminated to cross-laminated siltstone, mudstone and fine-grained sandstone with locally intercalated dolomite (Thorkelson 2000). Upper FLG sediments generally consist of monotonous alternating sequences of dolomite and siltstone (Thorkelson 2000).

Fairchild Lake Group strata often exhibit a variably intense slaty cleavage (Thorkelson *et al.* 2003), with local zones of higher strain – often the cores of tight folds – producing chlorite and muscovite-rich phyllite to fine grained chlorite-muscovite-chlorite schist, often with additional chloritoid or garnet porphyroblasts (Thorkelson *et al.* 2003).

**The Quartet Group (QG)**- conformably overlies the uppermost Fairchild Lake Group and represents the middle sequence of the Wernecke Supergroup (Thorkelson 2000; Hunt *et al.* 2005). The ~ 5 km thick sequence has been divided into a basal Q-1 unit and an overlying Q-2 unit by Delaney (1981). Q-1 consists of black carbonaceous shale in conformable contact with an upward coarsening sequence of intercalated pyritic shale, siltstone and fine grained sandstone termed Q-2 (Delaney 1981). Within the uppermost Q-2 sequence, this fine grained sandstone becomes interlayered with buff-brown weathering silty dolomite; indicating the onset of Gillespie Lake Group sedimentation (Thorkelson 2000).

**The Gillespie Lake Group (GLG)**- conformably overlies the upper Quartet Group and represents the uppermost layer of the Wernecke Supergroup as ~ 4 km of shallow water sediments (Delaney 1981). Delaney (1981) subdivided the GLG into seven conformable units known from bottom to top as units G-TR and G-2 to G-7. The basal G-TR unit is delineated from the upper QG on the pronounced increase in the abundance of buff-weathering dolomite that appear as distinctive alternating bands of dolomite and siltstone (Thorkelson 2000). The remainder of the succession (units G2-G7, of Delaney, 1981) is composed of orange-weathering dolomite and silty dolomite sediments; interpreted as deposition in a shallow to intertidal environment (Thorkelson 2000).

**Wernecke Breccia (WBX)**- Voluminous hydrothermal activity occurred in the Yukon during the Early to Middle Proterozoic, that resulted in the formation of extensive zones of fragmental rocks within the Wernecke Supergroup, termed the Wernecke Breccia (figures 1) (Thorkelson *et al.* 2001b). Brecciation occurred in the Wernecke inlier and 300 km to the west in the Coal Creek inlier, hosted predominantly within strata of the Wernecke Supergroup (Figure 1) (Thorkelson *et al.* 2001b). Breccia bodies are present as numerous curvilinear belts over an area of ~ 48,000 km<sup>2</sup> (figure 1) (Archer & Schmidt 1978; Delaney 1981; Bell 1986b; Lane 1990; Wheeler & McFeely 1991; Thorkelson 2000).

Wernecke Breccia typically consists of variably metasomatised angular to sub-angular clasts, surrounded by a matrix of hydrothermal minerals (Thorkelson *et al.* 2001b). Specular hematite is abundant both within fractures and as disseminations within most breccia occurrences (Thorkelson 2000; Thorkelson *et al.* 2001b)

Breccia clasts are sourced predominantly from Wernecke Supergroup dolomites, siltstones, slates, phyllites and schists (Thorkelson 2000). Where brecciation has intersected the Bonnet Plume River intrusions, breccias contain locally abundant igneous clasts. Megaclasts and clasts of volcanic material are found at one locality (Slab

occurrence) where brecciation engulfed the Slab volcanics (Thorkelson 2000). Breccia matrix is generally composed of milled and small fragments of clasts and wall rock, cemented by abundant hydrothermally precipitated minerals including: hematite, quartz, carbonate, chlorite, feldspar and mica (Thorkelson 2000; Thorkelson *et al.* 2001b).

Metasomatism associated with the Wernecke Breccia was initiated before and concluded after the main breccia forming event, and is commonly preserved as metasomatic aureoles overprinting breccia and surrounding country rock (Thorkelson *et al.* 2001b). Metasomatic effects are variable regionally, but typically result in the overprinting of clasts and matrix via the precipitation of a range of minerals including: hematite (earthy and specular), magnetite, dolomite, siderite, chlorite, titanite, brannerite and chalcopyrite (Thorkelson *et al.* 2001b).

U-Pb dating of titanite produced an age of ~ 1.6 Ga for the earliest phase of brecciation (Thorkelson *et al.* 2001b). Although this event is recognized as the dominant breccia forming event, at least two other phases of hydrothermal activity occurred at 1.38 and 1.27 Ga (Thorkelson *et al.* 2005).

**Bonnet plume River intrusions (1.71 Ga)**- The Bonnet Plume River intrusions represent the oldest intrusive rocks in the Yukon (figure 1) (Thorkelson 2000; Thorkelson *et al.* 2001b). Intrusion occurred in the form of short dikes and stocks of fine to medium-grained diorites and gabbros (with minor syenite and anorthosite) (Thorkelson *et al.* 2001a) that invaded the Wernecke Supergroup (Delaney 1981; Norris & Dyke 1997; Thorkelson 2000). This intrusive relationship allows the Bonnet Plume River Intrusions to constrain the minimum age of Wernecke Supergroup deposition and preceding Wernecke basin formation (Thorkelson *et al.* 2001a). Dating of zircon obtained from several Bonnet Plume River Intrusions samples yielded U-Pb ages of ~ 1.71 Ga, providing a lower bracket age for Wernecke Supergroup deposition of > 1.71 Ga (Thorkelson *et al.* 2001a).

The Bonnet Plume River Intrusions are predominantly found as clasts and enclaves – millimeters to hundreds of meters in length – within breccia bodies that formed during voluminous hydrothermal-phreatic activity at ca. 1.6 Ga (Thorkelson *et al.* 2001b). These events lead to the development of regional zones of fragmental rock known as the Wernecke Breccia (Laznicka & Edwards 1979; Bell 1986b; Laznicka & Gaboury 1988). Bonnet Plume River Intrusions also show an association with normal faulting that probably represents syn-magmatic extensional faulting within the Wernecke Mountains (Thorkelson *et al.* 2001a).

**Slab Volcanics (1.71 Ga?)**-The Bonnet Plume River Intrusions are often considered to have a possible co-magmatic extrusive equivalent known as the Slab Volcanics (figure 1) (e.g. Thorkelson 2000; Thorkelson *et al.* 2001a; Thorkelson *et al.* 2005). The Slab volcanics comprise of a sequence of ~ 40 mafic to intermediate thin lava flows, preserved entirely as clasts, including one 250 m thick megaclast (Thorkelson *et al.* 2001a). This megaclast is hosted within an expansive zone of Wernecke breccia; present within schist and metasediment of the Fairchild Lake Group (Thorkelson *et al.* 2005).

### ***Regional Mineralisation***

Sixty-five Wernecke breccia bodies within the Wernecke and Ogilvie Mountains have been identified to host prospective IOCG style mineralisation (Archer & Schmidt 1978;

Deklerk & Traynor 2005). Mineralisation occurs both within breccia, and in the surrounding rock, as disseminations and veins that record multiple phases of mineralisation (Hunt *et al.* 2005). Common IOCG phases include: magnetite, hematite, chalcopyrite, pitchblende, brannerite, cobaltite and gold (not visible but reports in assay with copper) (Hunt *et al.* 2005).

Mineralised Wernecke breccia appears to show similarities with mineralized breccia associated with the giant Olympic Dam deposit (Thorkelson *et al.* 2005). This correlation is significant for paleogeographic reconstructions that link Australia and Laurentia during the early Proterozoic (e.g. Bell & Jefferson 1987; Dalziel 1991; Moores 1991; Thorkelson *et al.* 2001b; Betts *et al.* 2008).

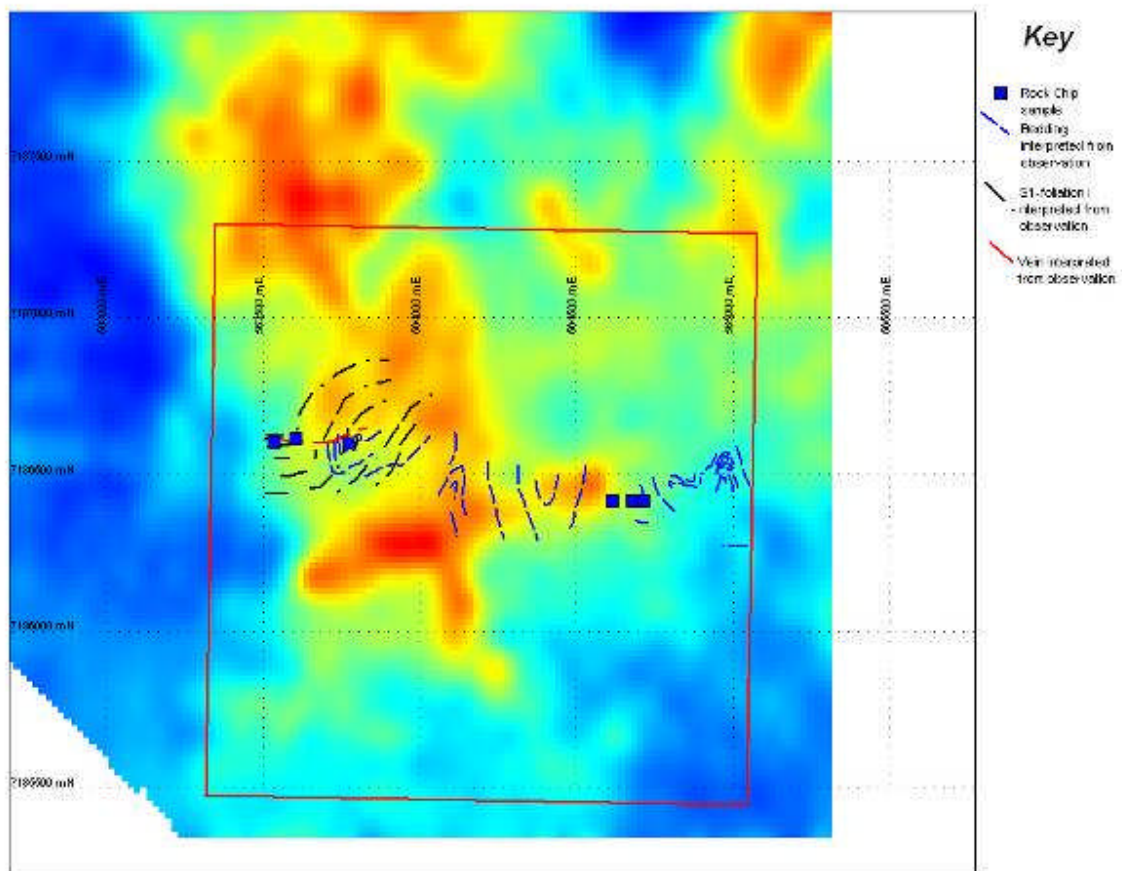
The mineralisation is commonly copper-gold and less frequently uranium and cobalt. This mineralisation occurs in four of styles: (1) disseminations in albite-quartz-pyrite-chalcopyrite veinlets/replacement veins within sedimentary clasts in the Wernecke Breccia and as rare massive sulphide clasts, (2) disseminations and blebs in breccia matrix, locally forming the entire matrix, (3) as blebs up to 5cm across or disseminations in calcite-chlorite-muscovite-pyrite-chalcopyrite-hematite  $\pm$  magnetite, quartz-hematite-pyrite-chalcopyrite and calcite  $\pm$  chalcopyrite veins that cross-cut breccia and the Wernecke Supergroup and (4) as blebs or disseminations in quartz-chalcopyrite  $\pm$  feldspar  $\pm$  muscovite  $\pm$  hematite veins that are parallel to and cross-cut calcareous layers in siltstone (Hunt *et al.* 2005).

### ***Property Geology***

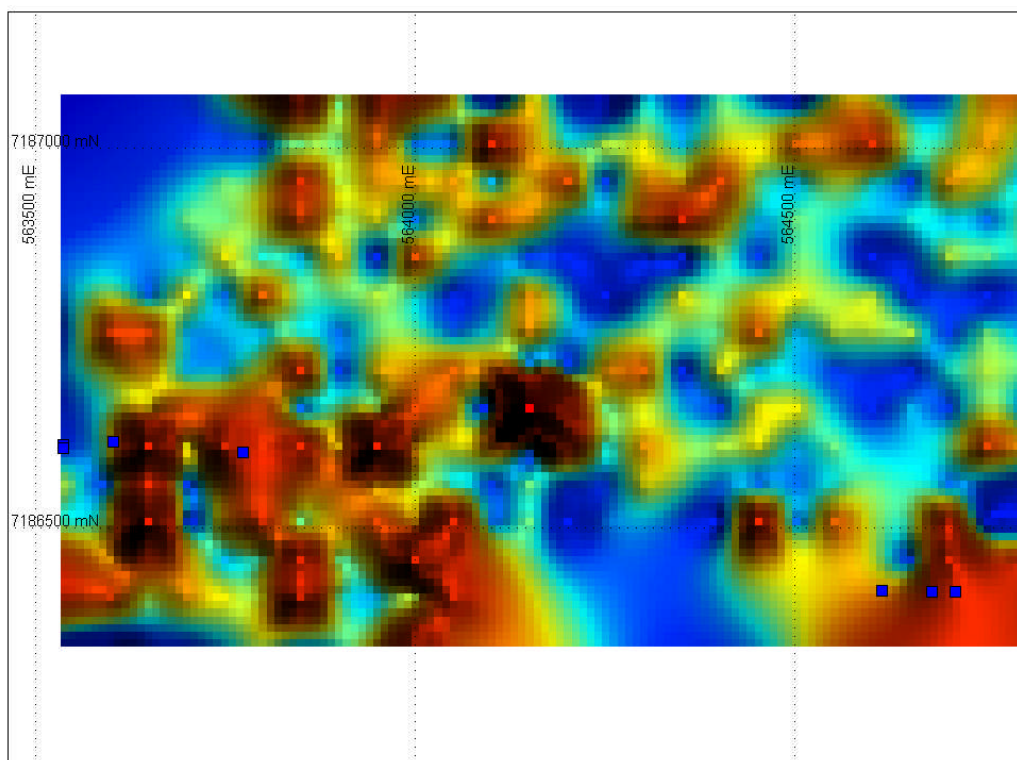
The Bonnie property has many characteristics common to mineralised regions in the Wernecke Mountains. Variably altered sediments of the Wernecke Supergroup occur throughout the property, with alteration assemblages including sericite-feldspar, carbonate, Fe-carbonate, and chlorite present, commonly together in varying intensities. The sediments in the Bonnie property observed were the Quartet Group, with regional deformation observed as open and tight folds observed on the meters to 10's of meters scale. This deformation appears to have been reactivated a number of times, and common alteration is locally more intense along the fold axis. The general trend of the deformation is striking to the north, with some fold axis plunging to the north.

Outcrop of the Wernecke breccias are found associated with the fold axis, and focused along the regional radiometric anomaly, figure 4. The breccias observed have variable amounts of sericite, silica, feldspar, chlorite and Fe-carbonate alteration observed. The sericite and feldspar commonly occur as alteration of large angular clasts, with the matrix material varying from clast supported to matrix supported in some regions. The matrix commonly has specular hematite, making up to 2 modal %, and Fe-carbonate (siderite-dolomite-ankerite), with minor amounts of sericite. Sulphides have been observed in the matrix with hematite, and usually occur as minor amounts of chalcopyrite or pyrite, less than 1 modal %.

In the western region of the Bonnie property a 2-3m wide barite-hematite vein was observed, occurring along a fold axis of the deformed sediments, and with proximal breccia bodies. The barite vein contained up to 15 modal % specular hematite. The vein was vertically banded in outcrop, with hematite rich and poor zones, in a matrix of barite and quartz.



**Figure 4:** Regional geophysics of the Bonnie property with field structural observations and sample localities. Details of sample descriptions are in Table 2, and geochemical assays are in appendix 2.



**Figure 5:** Ground scintillometer grid for the Bonnie property, with sample locations for reference.

Easting	Northing	Sample #	Locality	Description
564711.1	7186416	1106	outcrop	Dark altered sediment in region of high deformation with pervasive silica alteration and minor muscovite alteration. Malachite staining prevalent on surface
564679.8	7186415	1107	outcrop	Strongly altered breccia with a chlorite rich matrix supporting angular sericite and Fe-rich clasts, minor pyrite observed, pervasive silica alteration
564613.9	7186416	1108	outcrop	Pervasive Fe-alteration, especially in the matrix, specularite in the matrix, Fe-silica altered clasts along with angular (3cm wide) feldspar and sericite rich clasts
563535.8	7186608	1109	outcrop	Laminated and layered barite/hematite with barite up to 2cm with, and interbedded hematite occurring as veinlets with a fine grained size ~1mm crystals
563536	7186605	1110	outcrop	Laminated barite/hematite layers, with mg barite crystals in 1cm layers, 0.1mm hematite crystals occurring as veinlets
563602.2	7186614	1111	outcrop	Breccia with matrix of sericite-chlorite-carbonate-specularite supporting feldspar-hematized clasts with minor chalcopyrite
563773.1	7186599	1114	outcrop	Strongly feldspar altered hydrothermal breccia

				with sericite rich zones and minor calcite veining with up to 10000 cps above background, chalcopyrite in calcite
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**Table 2:** Samples collected and sent to ALS for geochemical assays.

### ***Property Mineralisation and Geochemistry***

Ground geophysical survey, figure 5 (raw collected data in appendix 3), identify a number of radiometric anomalous regions. The highest regions were observed in outcrop with the most intense feldspar alteration. Scintillometer readings near the barite veined zone were over 5,000cps, with the highest counts found near fractures in the laminations. Wernecke breccia bodies found along similar structures to the barite-hematite vein also have elevated scintillometer readings, over 10,000cps. These readings were observed in sericite-feldspar altered breccias, with hematite rich matrices.

Geochemical assays received for samples collected show elevated K % for samples that were identified with radiometric signatures. Elevated copper assays were received from a sample with noted malachite.

### ***Discussion and Recommendations***

Drilling was proposed for the Bonnie region, and attempted late in the 2007 field season. This drilling was abandoned due to weather and setup problems. It is recommended that drilling should be attempted again earlier in the season. The anomalous regions observed in the field, along with the geological features, such as barite-hematite veining, radiometrically anomalous breccia outcrops and structurally controlled mineralised features warrant further investigation.

Respectfully submitted,  
Cash Minerals Limited

Russell Smits, M.S.c

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***Appendix 1***

I, Russell Smits, exploration geologist, with a business and residential address in Vancouver, British Columbia, do hereby certify that:

1. I graduated in 2005 from Monash University with a Bachelor of Science degree, majoring in geology and a Masters degree in Economic Geology
2. From 2005 to present I have been actively engaged in the Mineral Exploration in Australian and Canadian minerals provinces
3. I personally participated and oversaw the fieldwork reported herein

Russell Smits, M.S.c.

## Appendix II

Rock geochemical data from ALS for samples collected from the Bonnie Property  
All samples assayed for major and trace elements by ME-MS61, besides Au which was  
assayed via Ion Coupling Plasma Au-ICP21

Sample #	1108	1107	1106	1109	1110	1111
Ce ppm	41.4	70.8	146	204	69.9	85.4
Co ppm	104	47.9	9.7	4.4	16.8	20.5
Cr ppm	52	21	40	2	< 1	38
Cs ppm	1.48	1.34	3.71	0.18	0.1	3.24
Cu ppm	9.1	15.1	2710	5.5	3.8	148.5
Fe %	7.78	7.12	1.21	15.2	10.3	5.14
Ga ppm	13.6	11.85	17	1.36	0.39	14.3
Ge ppm	0.17	0.18	0.16	0.17	0.12	0.13
Hf ppm	2.3	1.3	3.1	0.1	< 0.1	2.1
In ppm	0.056	0.386	0.12	0.011	0.01	0.086
Ag ppm	0.09	0.24	1.88	0.46	0.3	0.26
K %	5.14	1.17	3.18	0.16	0.02	5.19
La ppm	25	41.7	77.5	240	79.1	49.9
Li ppm	7.4	28.8	5.3	2.1	0.5	24.9
Mg %	1.37	5.17	0.42	0.09	0.07	0.77
Mn ppm	1190	4070	36	220	180	1295
Mo ppm	19.55	1.25	1.13	5.32	9.73	4.4
Na %	0.09	0.03	0.04	< 0.01	< 0.01	0.01
Nb ppm	4.1	4.1	8.2	5.4	2.3	6.8
Ni ppm	24.5	30	7.3	2.4	1.9	15.1
P ppm	1210	360	280	730	210	820
Al %	7.02	4.07	6.83	0.32	0.05	5.62
Pb ppm	5.2	4	5.4	2.1	2.1	9.2
Rb ppm	122.5	62.5	131.5	9.5	1.5	196
Re ppm	< 0.002	< 0.002	< 0.002	0.002	0.004	< 0.002
S %	0.3	0.57	0.3	0.18	0.27	0.14
Sb ppm	7.39	2.65	3.96	4.6	3.32	2.84
Sc ppm	11.3	17.3	9.3	0.4	< 0.1	7
Se ppm	2	2	2	3	5	2
Sn ppm	2.7	2.2	2.8	2.4	1.4	2.7
Sr ppm	31.9	27.9	4.9	830	917	60.2
Ta ppm	0.32	0.33	0.66	< 0.05	< 0.05	0.59
As ppm	33.7	6.1	14.9	15.8	9.2	7.8
Te ppm	0.13	0.36	< 0.05	2.37	3.16	0.2
Th ppm	16.9	9.4	17.3	0.4	< 0.2	15.5
Ti %	0.135	0.102	0.184	0.01	< 0.005	0.197
Tl ppm	0.6	0.78	0.61	0.02	< 0.02	0.43
U ppm	4.3	3.7	3.4	2.5	5.2	6.7
V ppm	85	49	43	107	71	45
W ppm	3.1	3.6	1.4	12.1	9.1	6.6
Y ppm	11.2	16.2	15.6	2.2	0.9	12.7
Zn ppm	10	35	8	< 2	< 2	8
Zr ppm	73.2	43.9	92	3.2	0.9	64.1
Au ppm	0.019	0.006	0.001	0.007	0.009	0.013
Be ppm	0.74	0.93	2.01	0.1	< 0.05	1.47
Ba %	0.25	2.3	1.03			0.55
Bi ppm	2.75	8.16	0.08	8.92	3.83	0.62
Ca %	< 0.02	0.02	< 0.02	0.28	0.34	1.3