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Assessment Report

describing

Airborne geophysics and ground exploration mapping

At the

Domo Property

Domo 1-60 YC49387-YC49446

NTS 106C/13
Latitude 64°58’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.
January 2008

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Introduction

The 2007 exploration program was managed by Cash Minerals Ltd. The Domo property is located in the Werneckes Mountains (figure 1) an area of historical Cu-Au-U mineralisation. The work was completed between from Lumina camp southeast of the property (figure 2).

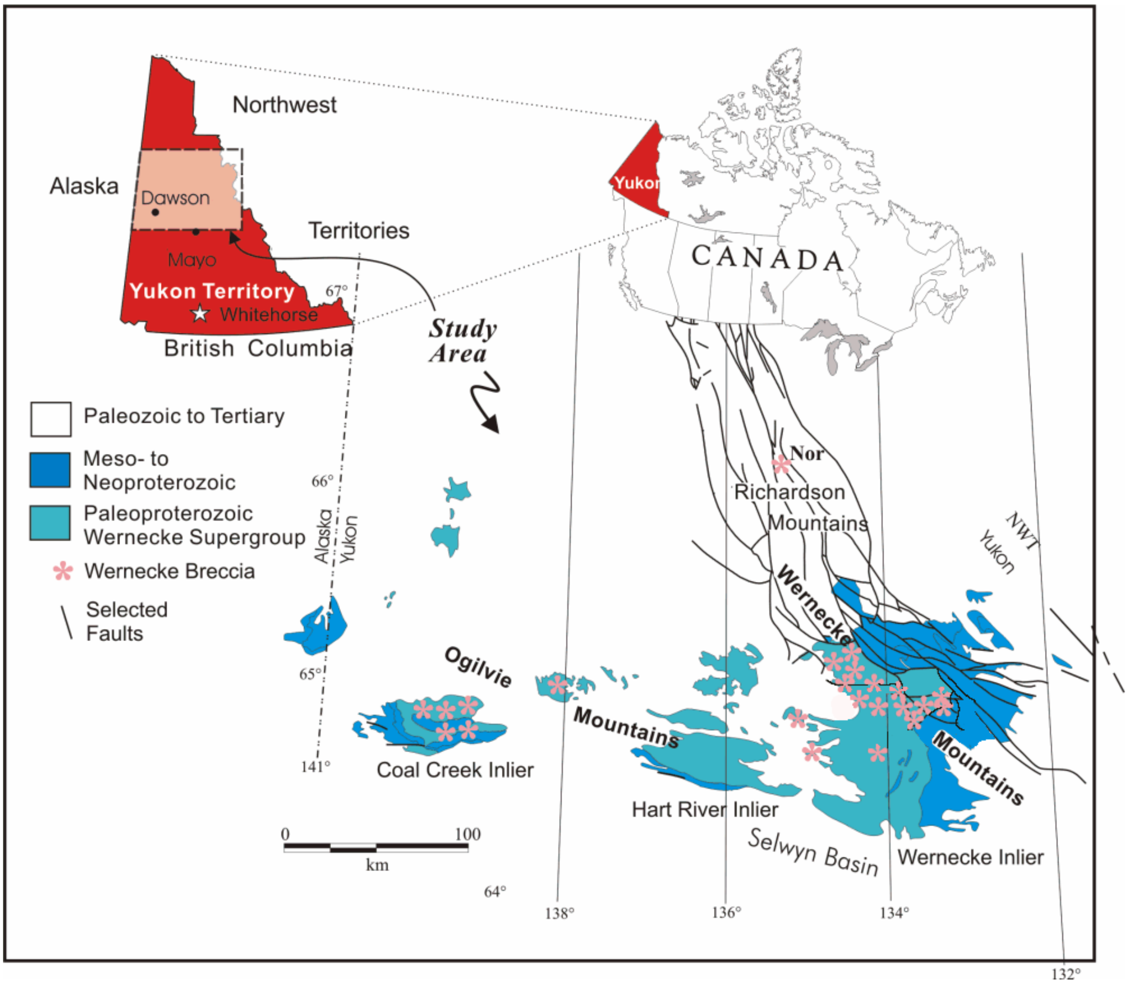

Figure 1: Regional location and geological setting of the Wernecks district.

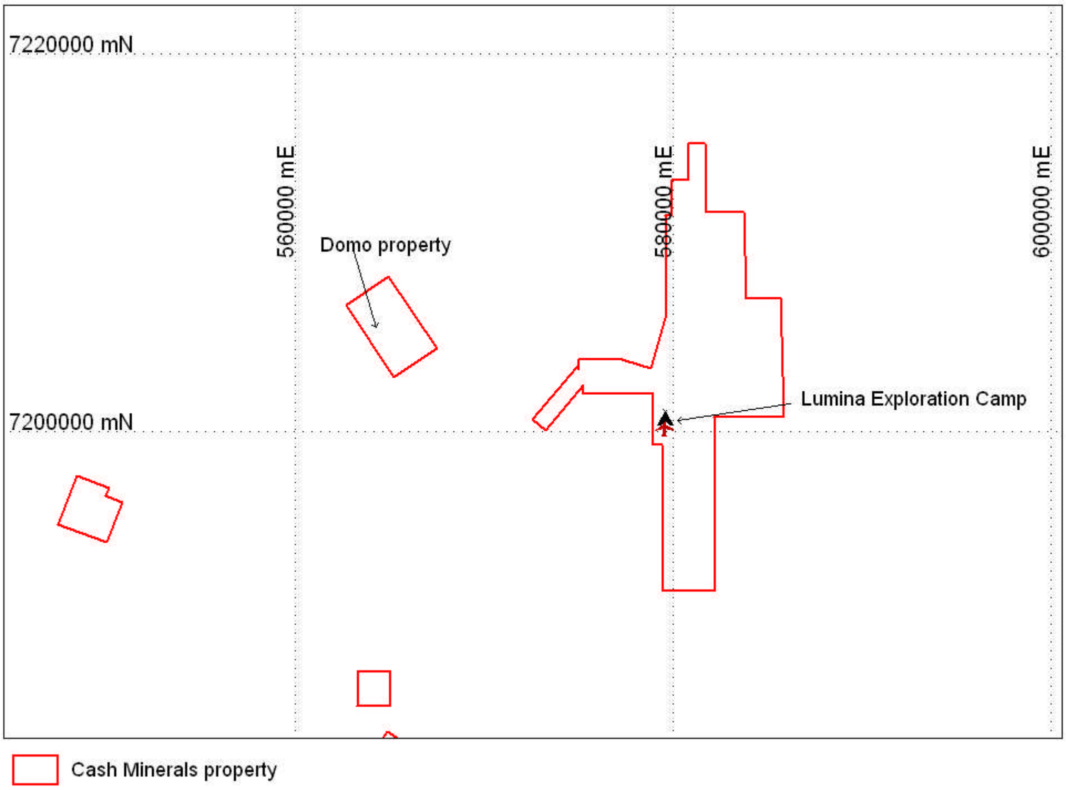

Figure 2: Location of the Domo property in the Werneckes district

The Property Location, Claim Data and Access

The property is located in east-central Yukon at latitude 64°58’N and longitude 133°38’W on NTS 106C/13 map sheet. It comprises of 60 minerals claims covering approximately 12494 hectares. 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
Domo 1-60	YC49387-YC49446	July 24th, 2008

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

The Domo 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 15km southwest of the Domo property. From McQuesten Lake the Wind River Trail, an abandoned winter road extends northward towards the Peel Basin. This winter road, the Wind River Trail, passes within 2km of the Domo property. A cat trail branches off the winter road and leads to the Bear River airstrip, a gravel airstrip 45km southeast of the property.

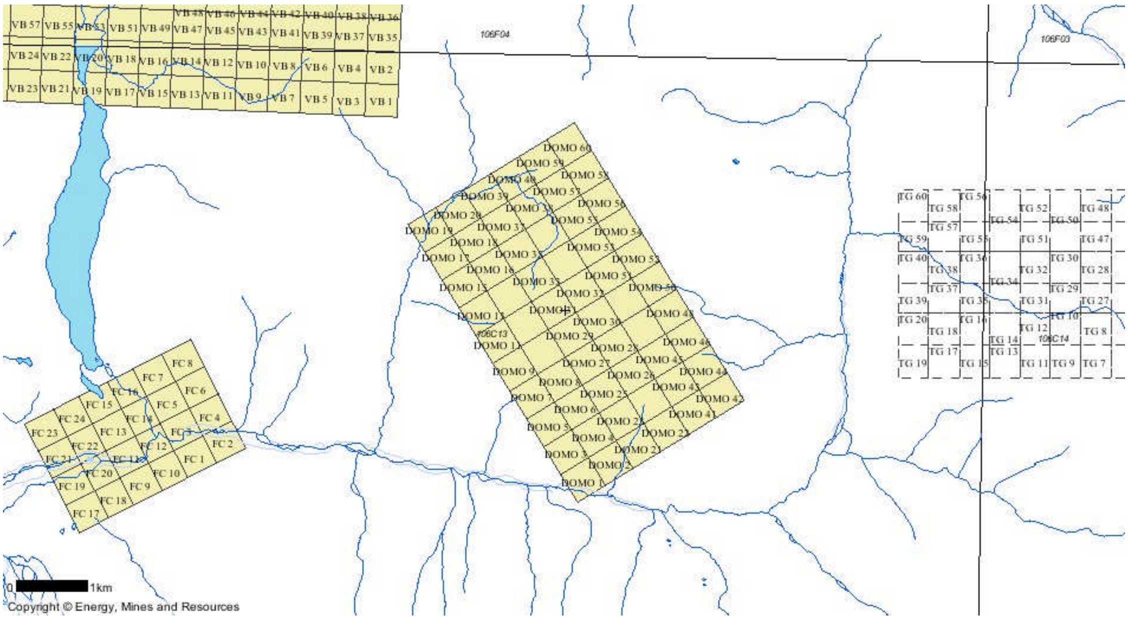

Figure 3: Domo claims map

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

The ground was acquired after regional airborne geophysical surveys identified magnetic anomalies by McPhar geophysics in 2006. Minimal exploration has been completed on the Domo property until 2007.

Physiography and Geomorphology

The Domo property is located in an alpine setting along the divide draining to the Bonnet Plume River. It covers a complex system of ridges, broad glacial valleys and cirques immediately southeast of the Bonnet of the Bonnet Plume Plateau. Local elevations range from 550m near the Bonnet Plume Plateau to 1900m atop a peak at the southern edge of the property. There is no commercial timber on the property. Vegetation consists of grasses, moss and buckbrush with scattered clumps of stunted spruce.

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.

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 allocthonous 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 with 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^2 (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 ± magnetite, quartz-hematite-pyrite-chalcopyrite and calcite ± chalcopyrite veins that cross-cut breccia and the Werneckes Supergroup and (4) as blebs or disseminations in quartz-chalcopyrite ± feldspar ± muscovite ± hematite veins that are parallel to and cross-cut calcareous layers in siltstone (Hunt *et al*. 2005).

Geophysical Observations

Regional geophysical surveys were conducted in the Domo property region in 2006. Magnetic and gravity surveys were conducted. A northwest trending magnetic anomaly occurs near the northwest boundary of the property and trends sub-parallel to the property boundary towards the south of the property (figure 4).

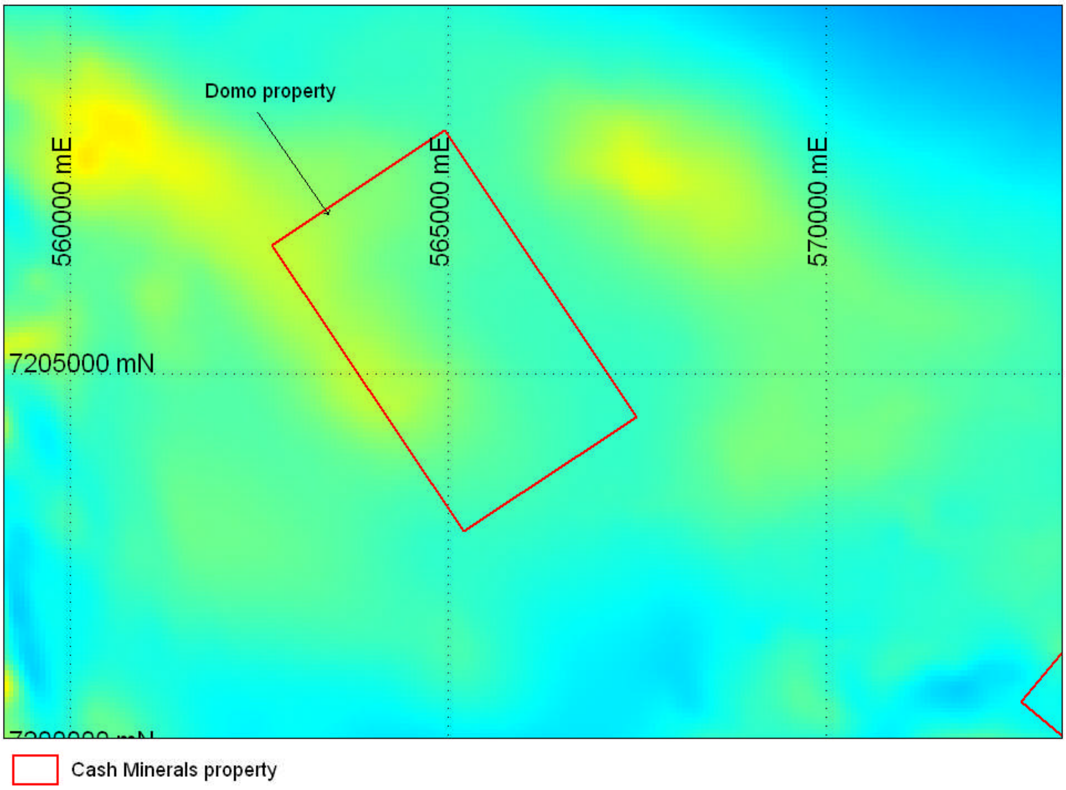

Figure 4: Regional total magnetic intensity image near the Domo property

Property Geology

The Domo property is dominated by deformed and altered layered sedimentary lithologies of the Fairchild Lake group. In the north of the property calcareous sandstone is prevalent with minor folds observed. The calcareous sandstone has a fine to medium grain size with a massive texture. No fossils are observed in the sandstone, and the calcite alteration observed is pervasive through out the unit. Localised silica rich areas with associated mineralisation are observed near fold closures. The deformation in this unit is expressed as northerly trending deformation event with jointed cleavage observed in the hinge regions of parasitic folds (figure 5).

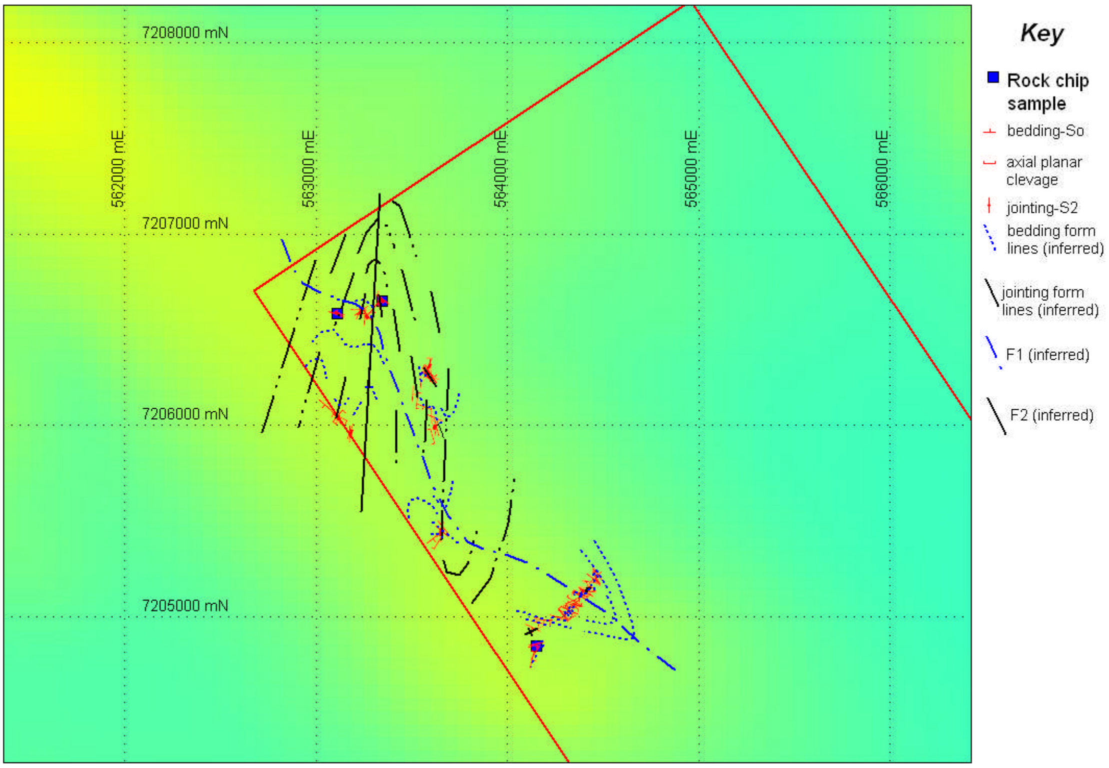

Figure 5: Total magnetic intensity of the north western region of the Domo property with interpreted structural geology and sample locations

In the south of the property interbedded siltstone and sandstones are observed (figure 6). These fine to medium grained sediments have well sorted fine particles and common extension and compression structural features. A boudinage region (approximately 20m along strike) has been defined in the southern region of the property, with associated sericite and silica alteration. The boudinage trends to the north and plunges to the west. The folds observed are oriented to the northwest with many parasitic fold pairs observed from 30cm wide to over 50m wide (hinge to hinge measurements). The slatey cleavage identified in the southern region of the mapped area where the host lithology is slate. The cleavage is axial planar to the earliest deformation and striking parallel to the bedding. This cleavage is most prevalent in the hinge regions of parasitic folds in the slate.

Property Mineralisation and Geochemistry

Observed minor magnetite mineralisation in the northwest of the claim occurs in carbonate and silica altered sediments. The silica alteration occurs as minor bands with disseminated magnetite and hematite (up to 3 modal %combined). The mineralisation may be related to the intersection of the early northwest trending deformation and the later northerly trending deformation, with anomalous scintilometer readings observed along the fracture zones (up to 700cps above background). It is possible that the mineralisation and magnetic anomaly could be related to a deeper region not expressed at surface.

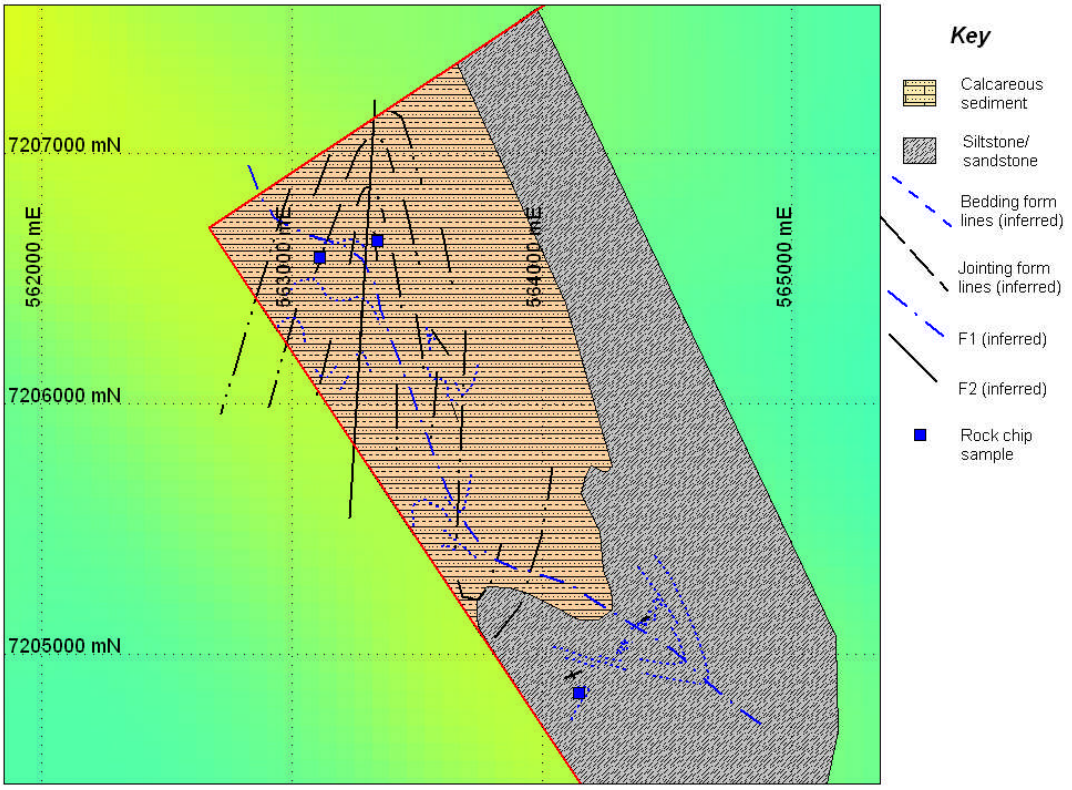

Figure 6: Interpreted geology of the Domo property

Easting	Northing	Sample #	Location	Description
563341.3	7206651	1280	outcrop	Scintillometer readings up to 600cps (peak 1000cps). Pale carbonate-rich sandstone with minor hematite-filled vughs, quartz veining with wispy form
563111.6	7206585	1101	outcrop	Massive carbonate-rich sandstone with disseminated magnetite (up to 4mm) in massive matrix with silicification and minor chlorite alteration
564148.9	7204843	1293	outcrop	Sugary textured deformed sediments with minor quartz and sericite alteration in a boudined region

Table 2: Rock chip samples for the Domo property.

Geochemical assays for the samples collected in table 2 are shown in appendix 1. No major anomalous geochemical assays were observed. Above average assays were recorded in two samples with sample 1280 having 214ppm U, and sample 1293 having 2290ppm Cu. Full Geochemical assay suites are shown in Appendix 2.

Discussion and Recommendations

Exploration on the Domo property in the future presents minor opportunity for drilling targets. Regional magnetic geophysical anomalies appear to be minor magnetite mineralisation along fold intersections with related extensional features hosting minor copper bearing fluids.

Respectfully submitted,
Cash Minerals Limited

Russell Smits, M.S.c

References

ARCHER A. & SCHMIDT U. 1978. Mineralized breccias of Early Proterozoic age, Bonnet Plume River district, Yukon Territory. *Canadian Mining and Metallurgy Bulletin* **71**, 53-58.

BELL R. T. 1986b. Megabreccias in northeast Wernecke Mountains, Yukon Territory. *In: Current Research, Part A*, pp. 375-384. Geological Survey of Canada, Paper 1986-1A.

BELL R. T. & JEFFERSON C. W. 1987. A hypothesis for an Australian-Canadian connection in the late Proterozoic and the birth of the pacific Ocean.*In:* Pacific Rim Congress '87, Parkville, Australia, Australian Institute of Mining and Metallurgy, Melbourne.

BETTS P. G., GILES D. & SCHAEFER B. F. 2008. Comparing 1800-160 Ma accretionary and basin processes in Australia and Laurentia; possible geographic connections in Columbia. *Precambrian Research*, In Press.

COOK F. A., CLOWES R. M., SNYDER D. B., VAN DER VELDEN A. J., HALL K. W., ERDMER P. & EVENCHICK C. A. 2004. Precambrian crust beneath the Mesozoic northrn Canadian Cordillera discovered by Lithoprobe seismic reflection profiling. *Tectonics* **23**.

DALZIEL I. W. D. 1991. Pacific margins of Laurentia and East Antarctica-Australia as a conjugate rift pair: Evidence an implications for an Eocambrian supercontinent. *Geology* **19**, 598-601.

DEKLERK R. & TRAYNOR S. (compilers) 2005. Yukon MINFILE - A database of mineral occurrences Yukon Geological Survey CD-ROM

DELANEY G. D. 1981. The mid-Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory. *In:* Campbell F. H. A. ed. *Proterozoic Basins of Canada*, p. 23p. **81-10** Geological Survey of Canada Paper.

EATON, W.D. & WOBER, H.H. 2005. Technical Report describing the Geology, Geochemistry, and Diamond Drilling at the Bond, Igor, Steel and Pterd Properties, Mayo Mining District, Yukon Territory, prepared for Cash Minerals Ltd

GABRIELSE H., MONGER J. W. H., WHEELER J. O. & YORATH C. J. 1991. Morphogenic belts, tectonic assmeblages, and terranes. *In:* Galbrielse H. & Yorath C. J. eds. *Geology of the Cordilleran Orogen in Canada*, pp. 15-28. Geological Survey of Canada, Ottawa.

GORDEY S. P. & ANDERSON R. G. 1993. Evolution of the northern Cordilleran miogeocline, Nahanni map area (105I), Yukon and Northwest Territories. *Geological Survey of Canada* **428**, 214p.

HALL K. W. & COOK F. A. 1998. Geophysical transect of the Eagle Plains foldbelt and Richardson Mountains anticlinorium, northwestern Canada. *Geological Survey of America Bulletin* **110**, 311-325.

HUNT J. A., BAKER T. & THORKELSON D. J. 2005. Regional-scale Proterozoic IOCG-mineralized breccia systems: examples from the Wernecke Mountains, Yukon, Canada. *Mineralium Deposita* **40**, 492-514.

LANE R. A. 1990. Geologic setting and petrology of the Proterozoic Ogilvie Mountains breccia of the Coal Creek inlier, southern Ogilvie Mountains, Yukon Territory. University of British Columbia, Vancouver (unpubl.).

LAZNICKA P. & EDWARDS R. J. 1979. Dolores Creek, Yukon - a disseminated copper mineralisation in sodic metasomatites. *Economic Geology* **74**, 1352-1370.

LAZNICKA P. & GABOURY D. 1988. Wernecke Breccias and Fe, Cu, U mineralization: Quartet Mountain-Igor area (NTS 106E). *In:* Abbot G. J. ed. *Yukon Geology*, pp. 42-50. **2** Exploration and Geological Services, Yukon, Indian and Northern Affairs Canada.

MOORES E. M. 1991. Southwest U.S. - East Antarctic (SWEAT) connection: A hypothesis. . *Geology* **19**, 425-428.

NORRIS D. K. 1981. *Wind River*. Geological Survey of Canada, Map 1528A, 1:25000 scale.

NORRIS D. K. 1984. *Geology of the northern Yukon and northwestern District of Mackenzie* (Map 1581A edition). Geological Survey of Canada.

NORRIS D. K. 1997. *In:* Norris D. K. ed. *The Geology, Mineral and Hydrocarbon Potential of Northern Yukon Territory and Northwestern District of Mackenzie*, pp. 21-64. **422** Geological Survey of Canada Bulletin.

NORRIS D. K. & DYKE L. D. 1997. Geological Setting. *In:* Norris D. K. ed. *The Geology, Mineral and Hydrocarbon Potential of Northern Yukon Territory and Northwestern District of Mackenzie*, pp. 65-84. **Bulletin 422** Geological Survey of Canada.

THORKELSON D. J. 2000. Geology and mineral occurrences of the Slats Creek, Fairchild Lake and "Dolores Creek" areas, Wernecke Mountains (106D/16, 106C/13, 106C/14), Yukon Territory. Indian and Northern Affairs Canada, Bulletin 10, 73 p.

THORKELSON D. J., ABBOTT G. J., MORTENSEN J. K., CREASER R. A., VILLENEUVE M. E., MCNICOLL V. J. & LAYER P. W. 2005. Early and Middle Proterozoic evolution of Yukon, Canada1, 2. *Canadian Journal of Earth Sciences* **42**, 1045.

THORKELSON D. J., HUNT J. A. & BAKER T. 2003. Geology and mineral occurrences of the Quartet Lakes map area (NTS 106E/1), Wernecke and Mackenzie mountains, Yukon. *In:* Emond D. S. & Lewis L. L. eds. *Yukon Exploration and Geology 2002*, pp. 223-239. Exploration and Geoogical Services Division, Yukon Region, Indian and Northern Affairs Canada.

THORKELSON D. J., MORTENSEN J. K., DAVIDSON G. J., CREASER R. A., PEREZ W. A. & ABBOT G. J. 2001a. Early Proterozoic magmatism in Yukon, Canada: constraints on the evolution northwestern Laurentia. *Canadian Journal of Earth Sciences* **38**, 1479-1494.

THORKELSON D. J., MORTENSEN J. K., DAVIDSON G. J., CREASER R. A., PEREZ W. A. & ABBOT G. J. 2001b. Early Mesoproterozoic intrusive breccias in Yukon, Canada: the role of hydrothermal systems in reconstructions of North America and Australia. *In:* Bartley J. K. & Kah L. C. eds. *Rodinia and the Mesoproterozoic earth-ocean system*, pp. 31-55. **111** Precambrian Research.

WHEELER J. O. & MCFEELY P. 1991. *Tectonic assemblage map of th Canadian Cordillera and adjacent parts of the United States of America*. Geological Survey of Canada, Map 1712A, 1:2 000 000 scale.

Appendix 1

I, Russell Smits, exploration geologist, with a business and residential address in Vancouver, British Colombia, 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 2

Geochemical Results

Sample	**Analyte**	**Units**	**Lower Detection Limit**	Rock	Rock	Rock
Sample #				1280	1293	1101
WEI-21	**Recvd Wt.**	**kg**	**0.02**	1.49	2.06	2.46
ME-MS61	**Ca**	**%**	**0.01**	8	4.9	1.6
ME-MS61	**Cd**	**ppm**	**0.02**	0.09	0.04	0.04
ME-MS61	**Ce**	**ppm**	**0.01**	122.5	23.1	107.5
ME-MS61	**Co**	**ppm**	**0.1**	3.9	64.5	5.7
ME-MS61	**Cr**	**ppm**	**1**	22	52	34
ME-MS61	**Cs**	**ppm**	**0.05**	0.32	0.99	4.57
ME-MS61	**Cu**	**ppm**	**0.2**	139	2290	9.4
ME-MS61	**Fe**	**%**	**0.01**	1.82	13.4	2.52
ME-MS61	**Ga**	**ppm**	**0.05**	14.9	22.7	16.4
ME-MS61	**Ge**	**ppm**	**0.05**	0.12	0.13	0.12
Au-ICP21	**Au**	**ppm**	**0.001**	< 0.001	0.014	< 0.001
ME-MS61	**Hf**	**ppm**	**0.1**	1	1.7	1.2
ME-MS61	**In**	**ppm**	**0.005**	0.022	0.151	0.049
ME-MS61	**K**	**%**	**0.01**	0.16	0.15	2.28
ME-MS61	**La**	**ppm**	**0.5**	62.9	10.4	56.1
ME-MS61	**Li**	**ppm**	**0.2**	4.7	26.9	28.5
ME-MS61	**Mg**	**%**	**0.01**	1.39	2.9	0.53
ME-MS61	**Mn**	**ppm**	**5**	2240	921	531
ME-MS61	**Mo**	**ppm**	**0.05**	0.33	0.36	0.25
ME-MS61	**Na**	**%**	**0.01**	3.98	3.43	2.04
ME-MS61	**Nb**	**ppm**	**0.1**	4.9	9.5	6.5
ME-MS61	**Ni**	**ppm**	**0.2**	26.8	51.6	15.7
ME-MS61	**P**	**ppm**	**10**	750	740	580
ME-MS61	**Pb**	**ppm**	**0.5**	28.3	4.1	4.2
ME-MS61	**Rb**	**ppm**	**0.1**	10.2	10	133.5
ME-MS61	**Re**	**ppm**	**0.002**	< 0.002	< 0.002	< 0.002
ME-MS61	**S**	**%**	**0.01**	0.01	0.2	< 0.01
ME-MS61	**Sb**	**ppm**	**0.05**	1.61	1.4	0.69
ME-MS61	**Sc**	**ppm**	**0.1**	7.8	34.3	9.9
ME-MS61	**Se**	**ppm**	**1**	1	3	1
ME-MS61	**Sn**	**ppm**	**0.2**	1	1.7	2.2
ME-MS61	**Ag**	**ppm**	**0.01**	0.09	0.13	< 0.01
ME-MS61	**Sr**	**ppm**	**0.2**	70.5	58.1	75.5
ME-MS61	**Ta**	**ppm**	**0.05**	0.4	0.66	0.53
ME-MS61	**Te**	**ppm**	**0.05**	0.05	0.05	< 0.05
ME-MS61	**Th**	**ppm**	**0.2**	43.5	3.3	15.1
ME-MS61	**Ti**	**%**	**0.005**	0.127	0.939	0.209
ME-MS61	**Tl**	**ppm**	**0.02**	0.04	0.03	0.54
ME-MS61	**U**	**ppm**	**0.1**	214	2.6	2.8
ME-MS61	**V**	**ppm**	**1**	34	364	48
ME-MS61	**W**	**ppm**	**0.1**	1.9	0.7	1
ME-MS61	**Y**	**ppm**	**0.1**	20	28.3	8.4
ME-MS61	**Al**	**%**	**0.01**	5	6.16	6.37
ME-MS61	**Zn**	**ppm**	**2**	18	68	18
ME-MS61	**Zr**	**ppm**	**0.5**	30.4	48.9	40.6
ME-MS61	**As**	**ppm**	**0.2**	3.1	6.2	0.7
ME-MS61	**Ba**	**ppm**	**10**	110	70	790
ME-MS61	**Be**	**ppm**	**0.05**	0.58	0.86	1.93
ME-MS61	**Bi**	**ppm**	**0.01**	0.15	0.09	0.03