

# 2010-2011 TRENCHING AND MAPPING REPORT ERMATINGER, VENTURI, VERNON AND PORTER TWP SUDBURY DISTRICT



Trench 2

Wallbridge Mining Company 129 Fielding Rd Lively, On P3Y 1L7

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### **1** INTRODUCTION

## 1.1 GENERAL

The Ermatinger Property is located in the Sudbury Mining District of Ontario and is being explored for nickel, copper, platinum, palladium and gold mineralisation. Targets include the Sudbury Offset dykes which are part of the Sudbury Igneous Complex ("SIC").

#### **2 PROPERTY DESCRIPTION AND LOCATION**

The Ermatinger Property is located in Ermatinger, Totten, Vernon, and Porter Township in the Sudbury Mining District west of the City of Greater Sudbury (Figure 1).

# **3** ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Ermatinger Property is approximately 70 kilometers from downtown City Greater Sudbury. The property is accessible by a combination of primary and secondary paved roads, gravel-topped roads, logging roads, ATV trails, and lastly on foot. From Sudbury, take Highway 17 West and turn north onto Highway 144. Follow Highway 144 for about 50 km, passing through the towns of Chelmsford and Dowling. Turn left onto Old Cartier Road at the Windy Lake Motel keep right and continue west to the Fox Lake Road turn off.

The City of Greater Sudbury has a population of approximately 166,000. It is a major northern centre of education, health services and industry, and is the location of the main office of the Ontario Geological Survey.

Sudbury is a major northern centre of education, health services and industry, and is the location of the main office for the Ontario Geological Survey. It has over a 125 year mining history. As the western world's largest producer of nickel it is one of the largest fully integrated mining complexes in the world. In terms of the infrastructure to support exploration and mining, the Sudbury area is perhaps unparalleled anywhere in the world. Over 300

claim number	Township	area (ha)	holder	recorded date	work due date	(\$) work required	work reserve
1246165	Ermatinger	64	WMCL	09-Aug-2001	09-Aug-2013	1,600	0
1246166	Ermatinger	96	WMCL	09-Aug-2001	09-Aug-2013	2,400	0
1246167	Ermatinger	256	WMCL	09-Aug-2001	09-Aug-2013	6,400	0
1246168	Ermatinger	256	WMCL	09-Aug-2001	09-Aug-2013	6,400	0
3004868	Ermatinger	224	WMCL	28-Jul-2003	28-Jul-2013	5,600	0
4201305	Hart	240	WMCL	24-Jul-2006	24-Jul-2013	6,000	0
4206115	Hart	256	WMCL	19-May-2006	19-May-2013	6,400	0
4206116	Hart	64	WMCL	19-May-2006	19-May-2013	1,600	0
4245183	Ermatinger	112	WMCL	18-Nov-2010	18-Nov-2013	2,800	0
4255351	Totten	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255352	Totten	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255353	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255354	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255355	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255356	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255357	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255358	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255359	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255360	Ermatinger	256	WMCL	12-Nov-2010	12-Nov-2013	6,400	0
4255361	Totten	256	WMCL	12-Nov-2010	12-Nov-2012	6,400	0
4255362	Totten	256	WMCL	12-Nov-2010	12-Nov-2012	6,400	0
4255388	Vernon	128	WMCL	31-Dec-2010	31-Dec-2013	3,200	0
4255389	Vernon	256	WMCL	31-Dec-2010	31-Dec-2013	6,400	0
4255390	Vernon	256	WMCL	31-Dec-2010	31-Dec-2013	6,400	0
4255391	Vernon	256	WMCL	31-Dec-2010	31-Dec-2013	6,400	0
4255392	Vernon	256	WMCL	31-Dec-2010	31-Dec-2013	6,400	0
4255393	Vernon	256	WMCL	31-Dec-2010	31-Dec-2013	6,400	0
4262273	Venturi	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262274	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262275	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262276	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262277	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262278	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262279	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262280	Vernon	240	WMCL	29-Jul-2011	29-Jul-2013	6,000	0
4262281	Vernon	144	WMCL	29-Jul-2011	29-Jul-2013	3,600	0
4262282	Vernon	144	WMCL	29-Jul-2011	29-Jul-2013	3,600	0
4262283	Vernon	144	WMCL	29-Jul-2011	29-Jul-2013	3,600	0
4262284	Vernon	128	WMCL	29-Jul-2011	29-Jul-2013	3,200	0
4262285	Vernon	256	WMCL	29-Jul-2011	29-Jul-2013	6,400	0
4262286	Vernon	128	WMCL	29-Jul-2011	29-Jul-2013	3,200	0
4262287	Venturi	256	WMCL	09-Aug-2011	09-Aug-2013	6,400	0
4267471	Porter	32	WMCL	26-Sep-2011	26-Sep-2013	800	0
4267472	Porter	32	WMCL	26-Sep-2011	26-Sep-2013	800	0
Total	101001	9344		20 00p 2011	20 Sep 2015	233,600	\$0

Table 1: Ermatinger	Property claims	status as of June	1, 2012.
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companies involved in mining related activities offer expertise covering all areas of underground hard rock mining and environmental rehabilitation.

Land uses in the City of Greater Sudbury and outlying area include private and public recreational activities (hunting, fishing, canoeing, cottages, and camping), mining, mineral exploration, forestry and commercial fishing. The Sudbury Basin is drained by watersheds of the Wanapitei, Vermillion and Spanish Rivers, which define Traditional Lands of the Wahnapitae, Sagamok and Whitefish First Nations, respectively.

The area has a temperate climate with average temperatures ranging from 25°C in summer to - 18° C in winter. The average annual precipitation is 634 mm of rain and 268 cm of snow.

The topography and relief in the map area are characteristic of shield areas underlain largely by granitic rocks. The elevation ranges from 310 m to 450 m above sea level with numerous lineament controlled valleys. The altitudes of three major lakes in the area are between 330 m and 360 m above sea level. In northern Hart Township, Nipissing Diabase and Lorrain Formation form northeast trending ridges ranging in elevation from 300 m to 450 m. Drainage in the area is prominently lineament controlled. Most of the streams trend southerly, except in northern Hart Township where they drain west or southwest into the Spanish River. Exposure in the mapped areas is generally good in areas under lain by granitic rocks. Huronian sediments, at many places, are covered with glacial deposits.

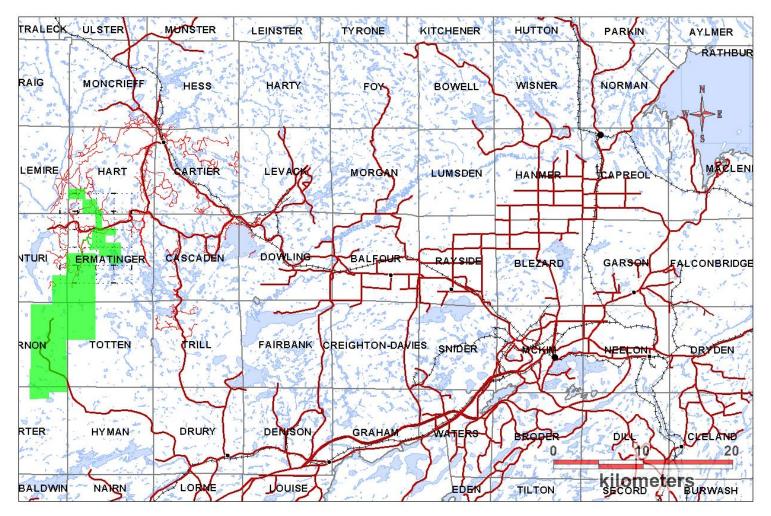


Figure 1: Property location

#### **4 HISTORY**

#### 4.1 WORK HISTORY PRIOR TO WALLBRIDGE

In the 1950s and 1960s Alcourt Mines Ltd and Balboa "U" Mines explored for uranium in the Huronian sedimentary rocks in the northern end of the property. Alcourt Mines Ltd drill six holes during 1957 -59 totalling 378 meters and in 1968 Balboa "U" Mines drilled an additional three holes totalling 546 m.

In 1957 the Ontario Department of Mines mapped Porter Township. In 1961 R.M. Ginn completed Geological Report No. 5 detailing the results of that mapping of that mapping.

1961 -1968, A. Lachelle completed some trenching and drilling in south-central Hart Township. The drilling targeted the contact between the Huronian and a Nipissing Sill. The drilling intersected low concentrations of pyrite.

In 1974 Cons. Morrison Exploration completed an airborne magnetics and radiometrics survey over part of the north claim block.

In 1982, Ontario Geological Survey ("OGS") geologist A. Choudhry carried out the first government geological mapping of Ermatinger, Totten, and Hart townships. The map area covered 280 km2 and was completed at a scale of 1:15,840.

1988 BP resources completed 127.7 VLF-Em and Magnetic Survey which covered parts of northern Ermatinger property.

In late October 1998, High-Sense Geophysics Limited was contracted by Champion Bear Resources Limited to provide a combined helicopter-borne magnetic, electromagnetic, and VLF survey over two blocks, part of one block cover a portion of the seven most northern claim blocks of the Trill West property. In 2004-2005 Mike Easton of the OGS completed mapping in Porter and Vernon Township. Easton compiled data from previous mapping and his 2004-2005 mapping to produce 2006 OGS publication P2845.

2007 and 2008 Ursa Major completed prospecting and sampling in Porter, Vernon, and Venturi Townships.

## 4.2 WALLBRIDGE WORK HISTORY

In 2002, Wallbridge completed 161.7 km of line cutting for a ground magnetics survey over Wallbridge's Ermatinger CBA, Ministic and Ermatinger Properties. The grid covers five claims in eastern Ermatinger (Figure 2).

Geosystem Canada Inc. completed 43 audio-magnetotelluric ("AMT") soundings (Figure 3) in the Weequed Lake area between lines 34+00W and 13+00W. The western half of the survey was completed on the Ermatinger Property. This survey is capable of detecting extremely large conductive sources to depths of a few kilometres, and can map large scale structures which transect rock types of differing conductivity.

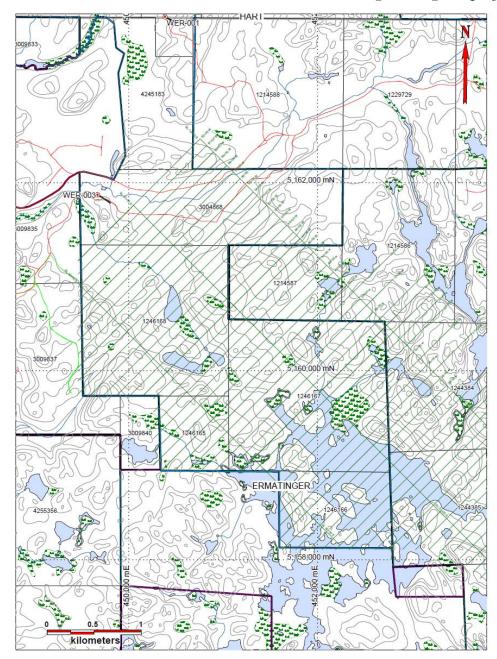


Figure 2: 2002 ground magnetic survey grid

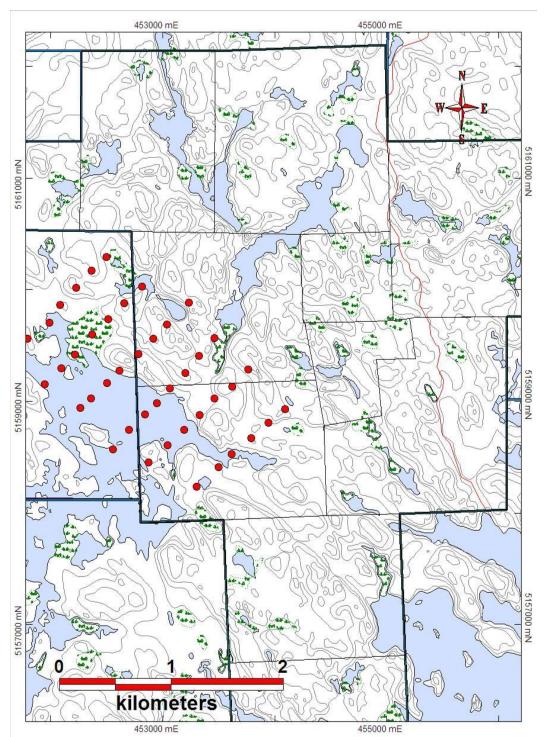


Figure 3: Location of AMT soundings

In 2008 Aeroquest was contracted to conduct a 257.8 km AeroTEM III survey (Figure 4) targeting the Ministic Offset dyke in the eastern portion of the Ermatinger property and a 332.2 km AeroTEM III was flown over central Ermatinger property (Figure 5)

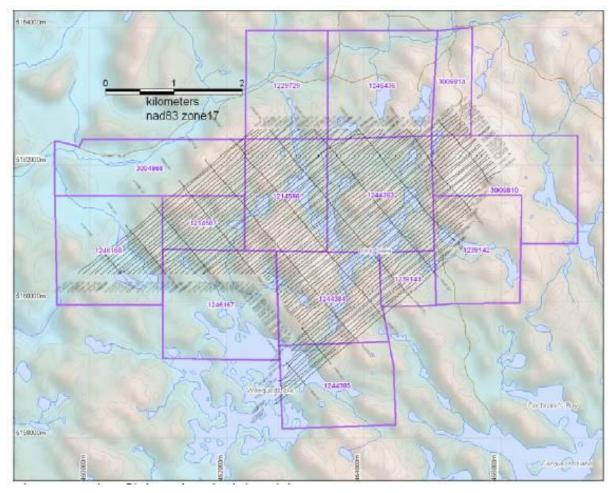


Figure 4: 2008 AeroTEM III flight lines-Ermatinger

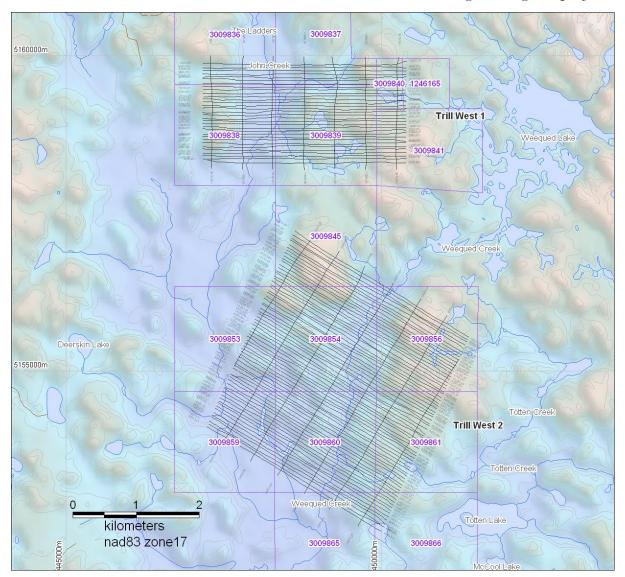


Figure 5: 2008 AeroTEM III flight lines - Trill West

#### **5 GEOLOGICAL SETTING**

#### 5.1 REGIONAL GEOLOGIC SETTING

The Sudbury area hosts one of the most prolific Ni-Cu-PGE mining camps in the world. Sudbury geology is unique – the ore deposits are associated with the SIC and related rocks, which record what is generally accepted as a major, mid-Proterozoic meteorite impact event, that occurred 1.85 billion years ago (Ga). Despite over one hundred years of academic and industry scrutiny, many aspects of Sudbury ore deposits geology are still hotly disputed and significant new discoveries continue to be made.

Current exploration focuses on the SIC and related footwall rocks. The Sudbury Structure is located at the junction of the Superior and Southern Provinces of the Canadian Shield. The Superior Province is of Archean age, about 2.7 Ga in the Sudbury area. Paleoproterozoic sedimentary and volcanic rocks of the Huronian Supergroup were then deposited unconformably on Archean basement in an elongate belt and were subsequently intruded by sill-like Nipissing gabbros. After metamorphism and folding during the Penokean Orogeny, this belt formed the Southern Province along the southern margin of the Superior Province. At  $\sim 1.85$  Ga, the SIC was superimposed on Archean and Huronian rocks. The SIC is located about 10 km north of the  $\sim 1$  Ga Grenville Front.

The SIC straddles an unconformity between gneisses and granitoid plutons of the Archean Superior Province and overlying Huronian supracrustal rocks of the Paleoproterozoic Southern Province. It is geographically divided into the North, South, and East Ranges. It defines what may be a deformed, deeply eroded, melt- and sediment-filled meteorite impact crater (the Sudbury Basin) and its surrounding brecciated target rocks. The oval-shaped crater remnant has dimensions of 60 km in a northeast direction and 27 km in a northwest direction. The brecciated footwall rocks of the SIC extend for 70 to 80 kilometres beyond the crater remnant. All pre-SIC rocks are cut by varying quantities of Sudbury Breccia.

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Sudbury Breccia consists of rounded and milled, millimetre to hundred metre-sized fragments of country rock within a fine-grained, variably cataclastic to igneous (recrystallized) matrix. Small veinlets of Sudbury Breccia occur throughout nearly every pre-SIC lithology in the footwall environment. Generally, it is only distinguished as a distinct, mappable lithological unit when the Sudbury Breccia matrix accounts for greater than 15 volume percent of the rock. Concentrations of Sudbury Breccia often occur along pre-existing structures and weaknesses in the Archean and Paleoproterozoic footwall rocks; such as along the contact between rock types of contrasting competencies. It is quite commonly found along the margins of diabase dykes. Trace pyrite is common within the Sudbury Breccia matrix, particularly when it occurs in the surrounding rocks and dominant fragment types. Background precious metal concentrations in Sudbury Breccia are typically below the limits of detection for standard assay or ICP analysis.

The crater fill consists of the Sudbury Igneous Complex (SIC), and sedimentary rocks of the Whitewater Group.

The SIC consists of a discontinuous, variably mineralized, basal Sublayer unit lying along the crater wall, offset dykes intruded for up to tens of kilometres into the underlying brecciated country rocks, and the overlying so-called Main Mass units of Mafic Norite, Felsic Norite, Quartz Gabbro and Granophyre. The formation of the SIC as a superheated meteorite impact melt sheet that was heavily contaminated by crustal rocks is strongly supported by contemporary research although other theories have been postulated in the past. At its base, the SIC intrudes brecciated rocks of the crater wall. At its top, the SIC intrudes the Onaping Formation of the Whitewater Group.

The Whitewater Group consists, from bottom to top, of the Onaping, Onwatin, and Chelmsford Formations. The Onaping Formation is a poorly stratified 1600 m thick unit of breccia, thought to be a fallback breccia following the impact event. The Onwatin Formation is several hundred metres thick and has been interpreted as a deepwater, black, graphitic slate.

The uppermost formation, the Chelmsford, is a shallow water turbidite. No Whitewater Group sedimentary rocks have been found beyond the Sudbury Structure.

The present geometry of the SIC is the result of northwest directed tectonic shortening accommodated along regional folds, shear zones, and faults that developed during the Penokean Orogeny between 1.9 and 1.65 Ga. Deformation steepened the South Range, which was thrust northward along the South Range Shear Zone, and the East Range of the SIC, which buckled, accumulating strain along a complex series of folds and faults.

One of the world's greatest concentrations of Ni-Cu-Co-PGE mineralization occurs associated with the Sudbury Structure. Sulphide deposits occur in three distinct geological environments:

**Contact Sublayer:** a discontinuous layer of variable thickness at the base of the SIC. It is made up of quartz gabbronorite, often with rounded inclusions of mafic and ultramafic rocks of unknown source. The Sublayer is in contact either with late granite breccia (LGBX) or with underlying brecciated footwall rocks. Disseminated to massive sulphides may be found in the Sublayer and/or LGBX, which may fill depressions, channels, or embayments that have formed at the SIC-footwall interface.

**Offset dykes:** quartz diorite dykes which may be radiating or concentric around the contact of the SIC. Radiating dykes originate from embayment structures and may extend over 30 km into the footwall (e.g. the Foy offset dyke). The relationship of concentric dykes to the so-called Main Mass of the SIC is uncertain. The Trill offset dyke is a typical radial offset.

**Brecciated footwall:** zones of breccia, metres to tens of metres wide, are concentric to the contact of the SIC. Footwall breccia belts can extend for tens of kilometres along strike and occasionally contain quartz diorite bodies (e.g. Frood-Stobie Breccia Belt). Ore bodies in Sublayer and Offset dykes have reasonably simple geometry whereas ores in brecciated footwall rocks tend to be more complex. The ore zones in footwall breccias commonly occur

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as an anastomosing network of millimetre- to metre-sized sulphide veins, which can extend hundreds of metres away from the Sublayer. Mineral and metal zoning patterns indicate that these ores may be derived from hydrothermal transport of metals away from Sublayer ores. Footwall breccia ores tend to be much richer in copper and PGE than nearby Sublayer ore, and lower in nickel.

# 5.2 PROPERTY GEOLOGY

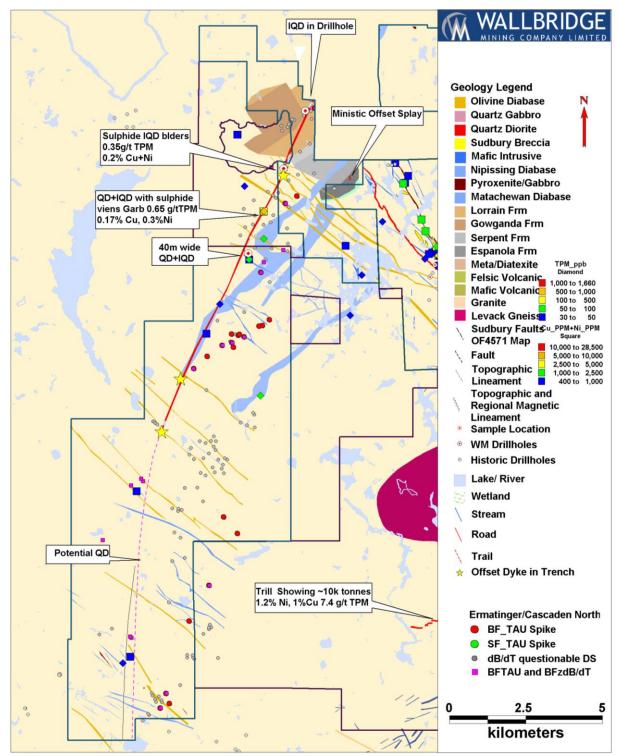


Figure 6: Simplified Property Geology

The Ermatinger Property lies in the North Range Footwall, northwest of the SIC eight to 16 km from the SIC contact. Government maps P.2600 indicates a contact of Archean felsic

intrusive rocks of the Superior Province with metasedimentary rocks of the Huronian Supergroup in the northwest, southwest and south corner of the Ermatinger property.

The area is dominated by the Archean Cartier batholith (~2640 Ma). The felsic intrusives underlie most of the map area. They consisted of foliated, in places sheared, pink to pink-grey and grey felsic plutonic rocks; an older suite of fine and medium to coarse-grained, rarely porphyritic quartz monzonite, granite/granodiorite and related segregated and intrusive leucocratic granite, pegmatites and aplite dikes; and a younger, massive, pink suite of coarse-grained quartz monzonite, quartz syenite, granite and intrusive dikes of leucocratic alkalifeldspar granite, pegmatites and aplite dikes. These intrusions can contain xenoliths of gneissic material that probably correlate with the Levack Gneiss Complex.

Paleo-proterozoic Matachewan diabase dykes  $(2473 + 16/-9 \text{ Ma} \text{ and } 2446 \pm 3 \text{ Ma}; \text{Heaman}, 1997)$  cut the Cartier Batholith and Levack Gneiss Complex. Glomeroporphyritic texture is relatively common. The weathered surface of these dykes is brown-grey, whereas fresh surfaces are a medium to dark blue-grey.

Outliers of the Paleoproterozoic Huronian Supergroup (< 2480 to > 2220 Ma), rest unconformably on an irregular erosional surface of felsic plutonic rocks and are comprised of arenites and argillites of the Mississagi Formation; conglomerate and arenites of the Bruce Formation; limestone, mudstone, and silty wackes of Espanola Formation; arenites and silty arkoses of Serpent Formation; conglomerate greywacke, and siltstone of the Gowganda Formation; and arenites and conglomerates of the Lorrain Formation. The Huronian Supergroup, felsic plutonic rock suites, and gneissic to migmatitic rocks are intruded by The Huronian sediments adjacent to the southwest and hosted in and adjacent to the northeast claim group are part of the Vernon Syncline. In the southern half of the property two fault sets have been recognized. One group consists of the northwest-southeast striking Cut-Off fault

and Vernon fault, and the other group consists of east-west striking South and North Porter Creek faults. Both sets displace the Huronian sediments and Nipissing intrusives.

Nipissing Diabase (2210-2217 Ma; Corfu and Andrews, 1986; Noble and Lightfoot, 1992; Buchan et al., 1998) which forms sills, dikes and irregularly-shaped bodies. Three sills are present on the property. The largest is nine kilometer long and 1.5 kilometer thick. The dykes can be subdivided into plagioclase-phyric and non-phyric varieties. The plagioclase-phyric dykes have euhedral to anhedral phenocrysts up to 3 cm in length, with an aphanitic to medium-grained groundmass. The sills are generally coarse grained but can be very coarse grained to pegmitodial.

All of the above rocks are crosscut by dikes and irregular bodies of Sudbury Breccia (pseudotachylite breccia) and SIC. Wallbridge has traced the Hess Offset dyke, a concentric Sudbury Offset dyke, for approximately nine kilometres on the Ermatinger Property. In general, the quartz diorite has been described as massive, medium grained, light grey 12 meters to 30 meters wide. The offset dykes have chemical composition similar to the felsic norite layer of the SIC. The dykes have a felty texture defined by acicular ortho-pyroxene and amphibole with interstial fine grained granophyric quartz feldspar intergrowths. The dykes commonly host blebby po and cp mineralization and inclusions of country rocks. Within the property there are no known significant sulphide or inclusion concentrations associated with the Offset dyke.

Post-SIC Sudbury Olivine Diabase dykes also traverse the Property with a northwestsoutheast trend. These diabase dykes, consist of plagioclase, pyroxene, and opaque oxides (magnetite and ilmenite), can have 0.1 - 1% sulphide (dominantly pyrite, but can also have trace chalcopyrite), and where visible, have chilled margins. The olivine diabase dykes are equigranular, medium- to coarse-grained, are comprised of the same minerals as the other dykes and generally contain olivine. These dykes can be strongly altered (are rusty brown to mottled grey on weathered surfaces compared to fresh surfaces that are reddish brown to unaltered light grey), and typically have a moderate magnetism.

### 6 DEPOSIT TYPES

## 6.1 DEPOSIT MODELS

Cu-Ni-PGE-Au mineralization occurs in a variety of settings within the Sudbury Impact Structure. For context, these are all introduced briefly below and subdivided into 1) mineralization associated with the basal contact of the SIC, 2) mineralization associated with the offset quartz diorite dykes that extend outwards from the main mass of the SIC into the footwall, 3) mineralization occurring within the footwall rocks of the Sudbury structure, and 4) structurally controlled remobilized mineralization. The primary exploration targets on the Trill West Property are:

• Mineralization occurring within the footwall environment to the SIC.

• Mineralization associated with the extension of the Ministic and Hess Offset dykes. From the time of discovery in 1883 of copper-nickel sulphides at the Murray Mine to the year 2000, about 9.69 million tonnes of nickel, 9.59 million tonnes of copper, and 69.6 thousand tonnes of cobalt have been produced from the SIC. Valuable by-product metals are gold, platinum, palladium, rhodium, ruthenium, iridium, silver, selenium, and tellurium. Production, reserves and resources are thought to amount to about 1.6 billion tonnes grading about 1.2% nickel and about 1% copper (Lesher and Thurston, 2000). PGE values grade about 1 g/t in Contact Sublayer ore, but are higher in Offset Dyke and Footwall Breccia ores.

Approximately 50% of the ore in the Sudbury region is located outside of the SIC sublayer in "footwall" and "offset dyke" deposits. In spite of this fact, exploration efforts in the past have concentrated on the contact of the SIC. Over the years, there has been little systematic exploration of the footwall environment.

All three environments are regarded as highly prospective for the discovery of further ore reserves, and all three environments are being actively explored in the various Wallbridge projects.

#### 7.1.1 CONTACT STYLE MINERALIZATION

- Minor disseminated pyrrhotite, pentlandite and chalcopyrite mineralization is present within the basal noritic members of the main mass of the SIC, especially where the basal norite is in contact with mineralized sublayer embayment structures.
- Mineralization occurs as disseminated to massive accumulations within the Sublayer, along the basal contact of the main mass of the SIC. These deposits are most important where the sublayer unit thickens within embayment structures and are generally characterized by Fe and Ni rich assemblages of pyrrhotite and pentlandite, with lesser chalcopyrite; the PGE content of these deposits is low and quite variable.
- Mineralization occurs as blebby disseminations, fragments of sulphide, veins, stringers, and massive accumulations within zones of late granite Breccia (Footwall Breccia) at the base and beneath embayment structures. This style of mineralization is also generally characterized by Fe- and Ni-rich assemblages of pyrrhotite and pentlandite with lesser chalcopyrite; the PGE content of this style of mineralization is generally low.

#### 7.1.2 OFFSET STYLE MINERALIZATION

Mineralization occurs as disseminated, blebby, veinlet, and massive accumulations of pyrrhotite, pentlandite, and chalcopyrite within xenolithic-rich (Inclusion rich Quartz Diorite IQD), central core phases of quartz-diorite offset dykes (Copper Cliff orebodies) or within zones of Footwall Breccia containing irregular quartz diorite melt bodies (Frood-Stobie orebodies).

A schematic model of the geology through sections of the Worthington Offset is shown in Figure 7. Interpretation suggests that the quartz diorite (QD) intruded the offset structure first, followed by a secondary pulse of IQD, generally through the centre of the QD (Lightfoot and Farrow, 2002). IQD is the offset facies associated with sulphide mineralization, and thus the main focus of the exploration.

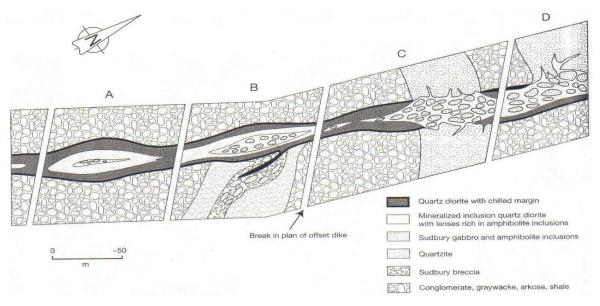


Figure 7: Schematic model of the Worthington Offset (from Lightfoot and Farrow, 2002)

Presently, the seven offsets occurring on the North Range include the Whistle-Parkin, Foy, Hess, Ministic, Trill offset and the two dykes on the Pele Mountain property. The Whistle-Parkin Offset hosts the future- and past-producing, Podolsky and Milnet mines, respectively, and three unnamed occurrences. The Foy Offset dyke is known to host a large number of occurrences (including WD series 150, 152, 155, 233, 234, 236, 237, 248, and 250, Crazy Creek, Nickel Lake, and three unnamed occurrences) as well as the past-producing Nickel Offset mine. The Hess Offset hosts the Rivers Option and Cartier Regional occurrences whereas the Trill offset hosts the Trill offset showing. The Ministic Offset is not known to host any mineral occurrences.

The Copper Cliff and Worthington Offsets in the South Range host substantial Ni-Cu-PGE ore bodies whereas North Range offsets have not historically shown the same level of potential. It is unknown whether the potential of the North Range offsets has not been realized due to their generally remote and poorly accessible nature, or if it may have something to do with the relative erosion levels of the North Range compared to the South Range (Figure 8). Another factor could be the effect of differing country rocks (granites and gneisses in the North Range, contrasting with metasediments and metavolcanics in the South

Range) contributing different levels of assimilated contaminants such as sulphur along with Ni, Cu, and PGE.

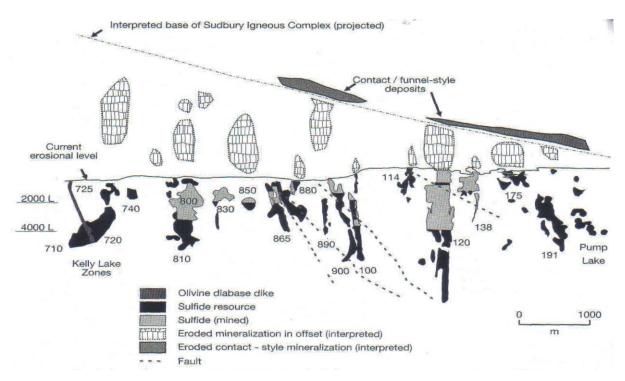


Figure 8: Longitudinal section showing the distribution of ore bodies and discontinuities along the Copper Cliff Offset (from Lightfoot and Farrow, 2002)

## 7.1.3 FOOTWALL STYLE MINERALIZATION

Mineralization occurs as sulphide veins and stock-work vein systems within the footwall rocks underlying the SIC. These deposits are often constrained to thick dykes and irregular zones of Sudbury Breccia and occur up to 1200 metres from the basal contact of the SIC (e.g. Broken Hammer on the North Range). Similar Cu-PGE rich deposits can also be associated with irregular zones of Footwall Breccia within the Sudbury Breccia belts, as in the case of the immense Frood and Stobie orebodies that occur more than a kilometre into the footwall on the South Range. These deposits are comprised of veins and stockwork systems that are primarily

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massive chalcopyrite or cubanite that vary from millimetre scale to greater than 10 metres wide. Veins consisting of massive intergrown bornite, chalcopyrite, and millerite characterize the distal portions of these deposits on the North and East Ranges. Minor alteration of the host footwall rocks immediately next to the deposits includes quartz-carbonate veining, and epidote, actinolite and chlorite I as massive replacements, and fractures and vein fillings. These deposits are characterized by significant PGE-Au mineralization, which occurs not only within the main sulphide veins but also in peripheral stringers and disseminations.

An empirical relationship has been developed that relates the degree of thermal/hydrothermal recrystallization of Sudbury Breccia matrix with proximity to zones of vein-type Cu-PGE mineralization. This is quantified using the following alphanumeric classification scheme that also describes matrix colour index and clast composition.

	Code	Description
Colour Index	1	Mafic
	2	Intermediate
	3	Felsic
Clast Composition	А	Mafic
	В	Intermediate
	С	Felsic
	D	Granitoid
	Е	Sedimentary
Matrix	1	Subigneous
Recrystallization	2	Medium-grained porphyroblastic
	3	Fine-grained porphyroblastic
	4	Fine-grained recrystallized
	5	Aphanitic

Table 2: Sudbury Breccia Codes

# 7.1.4 LOW SULFIDE HIGH PGE MINERALIZATION

Low sulphide/ high PGE-Au mineralization forms a fairly new classification of mineralization in Sudbury. This type of mineralization has become an increasingly higher profile exploration target in the Sudbury Basin. Low sulphide/ high PGE-Au mineralization has been identified in several geological settings to date. These include fine disseminations and specks in quartz-

diorite dykes, lenses, pods, disseminations and narrow discontinuous fracture fillings in Sudbury Breccia and adjacent wall rocks.

#### 7 MINERALIZATION

No significant mineralization has been found on the Ermatinger property.

#### 8 EXPLORATION

During 2010 and 2011 Wallbridge Mining completed mapping and trenching on the Ermatinger Property in Ermatinger, Venturi, Vernon and Porter Townships. The work focused on the delineation of the concentric Hess Offset Dyke.

In September and October 2010, Field Geologists Siyamend Al Barazi and Magdalena Pusz assisted by Jesse Bagnell and Neil Jones, mapped in northeast Ermatinger Property. In November 2010 Janveaux Forest Products was contracted to excavate the site of trench 1. Jesse Bagnell and Kevin Dutchburn subsequently washed the exposed bedrock. Subsequently, Dave Smith assisted by Jesse Bagnell conducted mapping and sampling in November.

From May to December 2011 Project Geologist Dave Smith, Field Geologists Gyorgyi Tuba and Attila Pentek mapped throughout the Ermatinger Property. They were assisted by field technicians Adam Perryman, Jesse Bagnell, James Nopper, Rebecca Korolnek and Marshall Hall. During May to December 2011 nine areas on the property were trenched and stripped. The trenching was conducted using excavators contracted from Janveaux Forest Products, Caralyle Construction, T. Bell Transport and Denis Gratton Construction. The exposed bedrock was washed by Wallbridge employees Kevin Dutch, Adam Perryman, Jesse Bagnell, Marshall Hall, Dave Smith and Tom Johnson. All work was conducted under the supervision of the Dave Smith.

The surface mapping was conducted at 1:2000 or 1:5000 scale and trench maps at 1:100 to 1:500 scale using base maps with air photo and NAD 27 Zone 17 Datum, compass, and Garmin Etrex GPS for navigation and mapping. Crews used Wajax Mark IV pumps rented

from Wildfire Specialists Inc. to wash trenched areas. Each crew was equipped with one 4x4 pick-up truck.

## 8.1 GEOLOGICAL MAPPING AND TRENCHING

The purpose of the mapping was to delineate the Hess Offset Dyke on the property. The Hess Offset is found 12-14 kilometers from the SIC contact. Therefore mapping on the Ermatinger property was focused within a two kilometer wide band 12- 14 kilometer from SIC. The majority of the traverses were conducted perpendicular to the Hess Offset trend along east west oriented outcrop ridges. The surface mapping was conducted at 1:2000 or 1:5000 scale and trench maps at 1:100 to 1:500 scale using base maps with air photo and NAD 27 Zone 17 Datum, compass, and Garmin Etrex GPS for navigation and mapping. All mafic intrusive rocks suspected to be Quartz diorite Offset Dykes were sampled by field crews and submitted for whole rock and 48 element ICP analyses. The geochemistry of the samples was used to verify which generation of mafic intrusion the sample belongs. This was accomplished by comparing sample chemistry to averages of Olivine Diabase (OD), Matachewan diabase (MDIA), Nipissing Diabase (NDIA), North Range Felsic Norite, Sudbury Offset Dyke (QD), South Range Quartz Gabbro (QGAB), and South Range Granophyre (GRANO) suites from data compiled by OGS and Wallbridge sampling. The samples in the sample table provided with the report (Appendix C) are labelled with the rock type derived from geochemistry.

The Hess Offset Dyke weathers recessively relative to the granite and gabbro sills which are the common host lithologies. As a result the Hess Offset Dyke was hosted in overburden filled valleys between host rock outcrops. Mapping narrowed down possible Hess Offset Dyke hosting valleys and trenching was used to confirm or rule out the presences of the Offset Dyke in those suspected Offset Dyke hosting valleys.

# 8.2 RESULTS

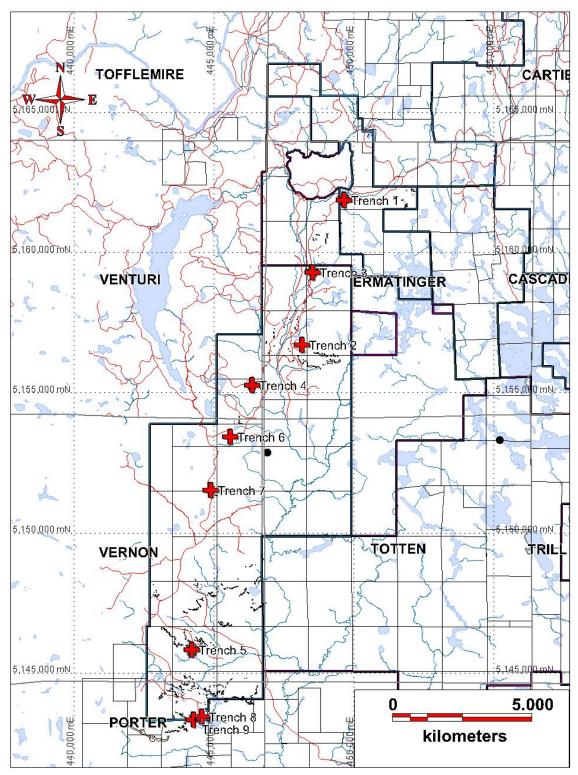


Figure 9: Trench Locations

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September 2010 mapping located what was believed to be an outcrop of Hess Offset dyke (Map 1). Subsequent trenching with an excavator proved it to be a truck sized boulder. However, two meters below the boulder the trenching exposed a 23 meter wide segment of the Hess Offset Dyke (Trench 1 in Figure 9). The dyke is massive with trace blebs of chalcopyrite. The petrography and geochemistry of the dyke was identical to known samples of the SIC Offset Dykes. Samples of angular float of the Offset Dyke from the trench returned values of 0.1% Cu, 0.1% Ni and 0.35 g/t TPM.

In November 2010 and May to December 2011, mapping continued to the south along the Hess Offset trend. At the site of Trench 2, large boulders of Offset Dyke material where located in a valley similar to the site of trench 1. Trenching across the valley proved the bedrock hosted in the valley was entirely granite. The trench was filled back in and recontoured.

Trench 3 was dug immediately after Trench 2, along another valley which hosted numerous Offset Dyke boulders. Geochemistry and petrography identified the dykes exposed by the trenching as meta-pyroxenite and Nipissing dykes.

Mapping was moved to the west side of John's Creek. After several weeks of mapping and prospecting, an outcrop of the Hess Offset was located at the site which was to become the location of trench 4 (Figure 9). The petrography and geochemistry of the dyke was identical to known samples of the SIC Offset Dykes. An excavator was used to dig trench 4 to expose the entire width of this section of the dyke. The dyke had massive margins with an inclusion bearing phase in the center. Inclusions made up < 5% of that phase. Trace concentrations of sulphides were observed in the exposed bedrock. Not enough to produce anomalous metal concentrations.

Simultaneously, trench 5 was being excavated in a till filled valley along the suspected trend of the Hess Offset dyke. That trench exposed a highly sheared mixture of different mafic intrusions (Figure 9, trench 5 map). Geochemistry indicates samples 608938 and 608939 are

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part of a Nipissing diabase. Samples 608634-608636 and 608940 geochemistry were very similar with respect to each other and were somewhat similar to the Hess offset dyke.

Trench 6 was excavated ~2 km south of trench 4 (Figure 9), along the trend of the Hess Offset Dyke. The Hess Offset Dyke was exposed long enough to grab a sample. The section of the trench containing the Hess Offset Dyke was below the water table and within a day was completely submerged. The entire trench was filled in.

Mapping 1.5 km south of trench 6 outlined a mafic dyke which, aside from elevated titanium, had geochemical composition similar to the Hess Offset dyke. Trench 7 (Figure 9) was dug at this site. The trenching exposed a sheared dyke cutting granite and a xenolith of Levack gneiss. The dyke with chemical composition similar to the Hess Offset dyke, was pervasively sheared and hosted inclusions of Matachewan and Nipissing intrusions. An unidentified dyke was exposed in the eastern part of the trench.

Mapping near the northern boundary of Porter Township delineated many new occurrences of a variety ages of mafic dyke suites. The most common included Matachewan, Nipissing and Olivine diabase dykes. A suite of unknown amphibolite/meta-pyroxenite dykes were also frequently observed cutting the southern third of the property. These aforementioned dykes are believed to be the same suite found on Wallbridge's adjacent Ermatinger CBA and Cascaden North Properties.

Mapping outlined a 500m wide, a 100m wide and a 50m valley which may host the Hess Offset dyke. Trenches 8 and 9 where dug in two of the narrower valleys. Trench 8 did not reach bed rock and granite was exposed in trench 9. Both trenches were filled in.

Maps of trenches and geological mapping are located in Appendix A and B.

# 9 INTERPRETATION AND CONCLUSIONS

Based on the bedrock exposed in trench 1, 4 and 6, the Ermatinger property contains at least a nine kilometer strike length of the concentric Hess Offset Dyke. If the sheared mafic dykes exposed in Trench 5 and 7 are part of the Hess Offset Dyke then there is 19.7 km strike length of the Hess Offset dyke on the property. The dyke is virtually untested because it is very poorly exposed and there is no deep penetrating geophysical coverage.

The Hess Offset dyke is an important target because it has the potential to host Offset-style Ni-Cu-PGE mineralisation. This is supported by historical work on Vale's Rivers Option property which delineated sulphide mineralisation accumulations grading 0.82% Cu and 1.45% Ni and 1.29g/t TPM in the Hess Offset dyke.

Also, in other Offset Dykes, mineralisation is generally associated with inclusion bearing phases of quartz diorite and can become focused where the dykes pass through large mafic bodies. There are several locations along the Hess Offset on the property where the Dykes trend is cutting large gabbro. There is also the potential that the segments of the Trill and Ministic Radial Offset dykes and their intersection with the Hess Offset are hosted on the property.

# **10 RECOMMENDATIONS**

- Continue with mapping and prospecting along the strike extent of the Hess Offset.
- Trenching along Hess dyke trend to locate the dyke.
- Drilling 500m spaced 250m drill holes to locate the Hess Offset dyke to the end of the property.
- Prospecting and mapping for possible extensions of the Ministic Offset dyke discovered on the Ministic Offset and Ermatinger CB properties to the southwest and the Trill West property to the northwest.
- 100km of Ground EM along the length of the Hess Offset dyke. Incorporating loop configurations best suited for steeply dipping conductors and equipment best suited for detecting highly conductive bodies such as an "on-time" or "B-field" system.
- Drill deep drill holes targeting favourable geological mapped along the dykes trend such as intersections with other dykes and large mafic bodies

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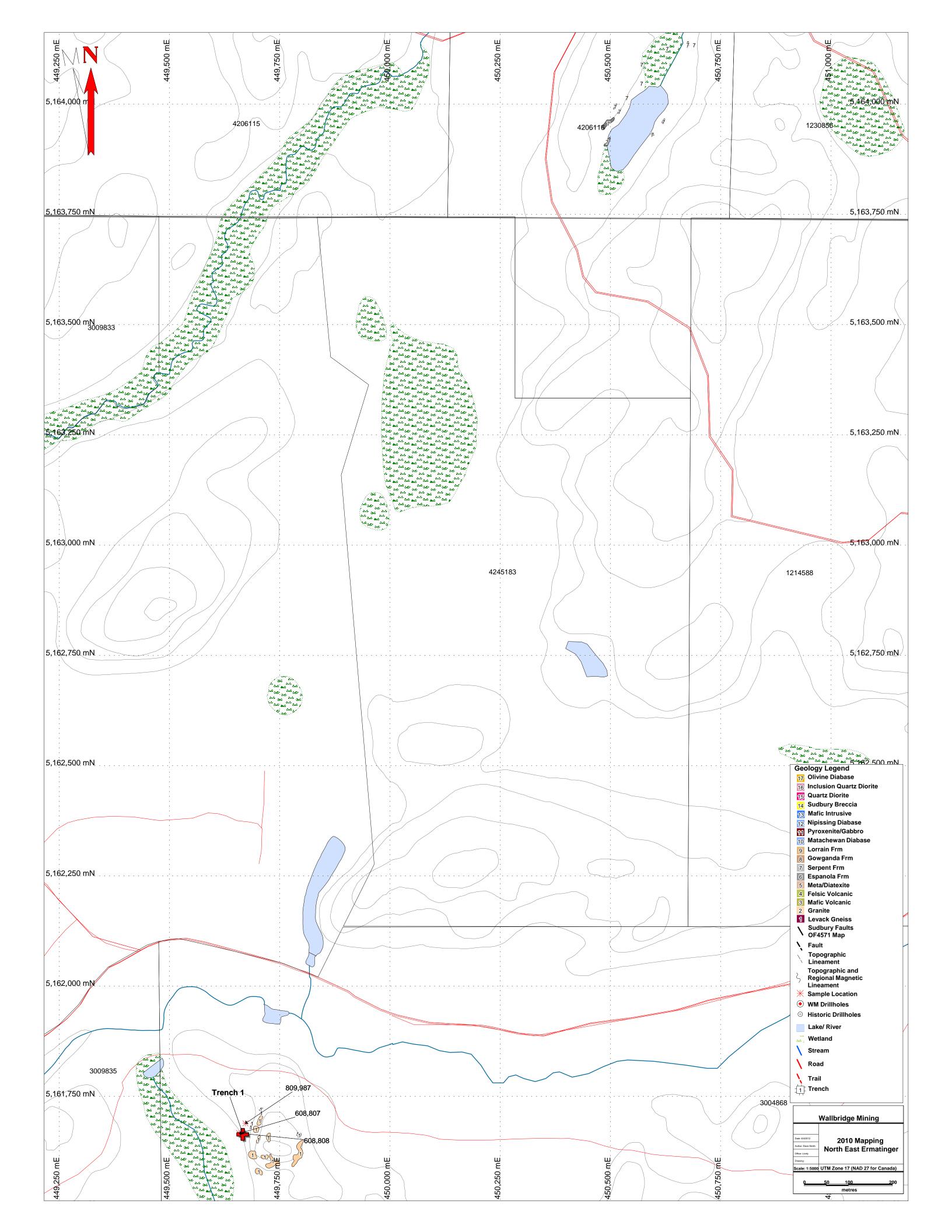
## Certificate

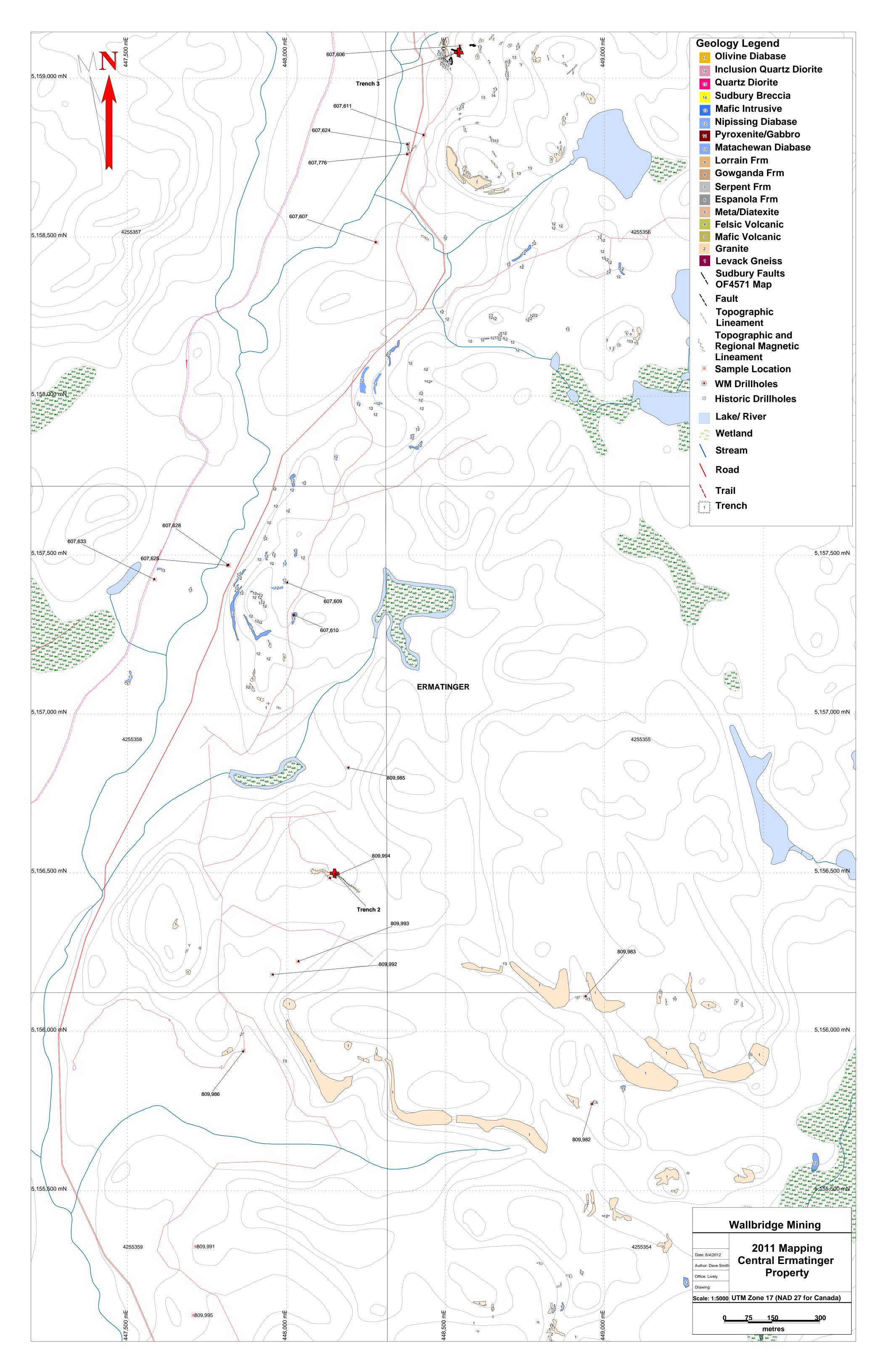
I, David Smith, do hereby certify that:

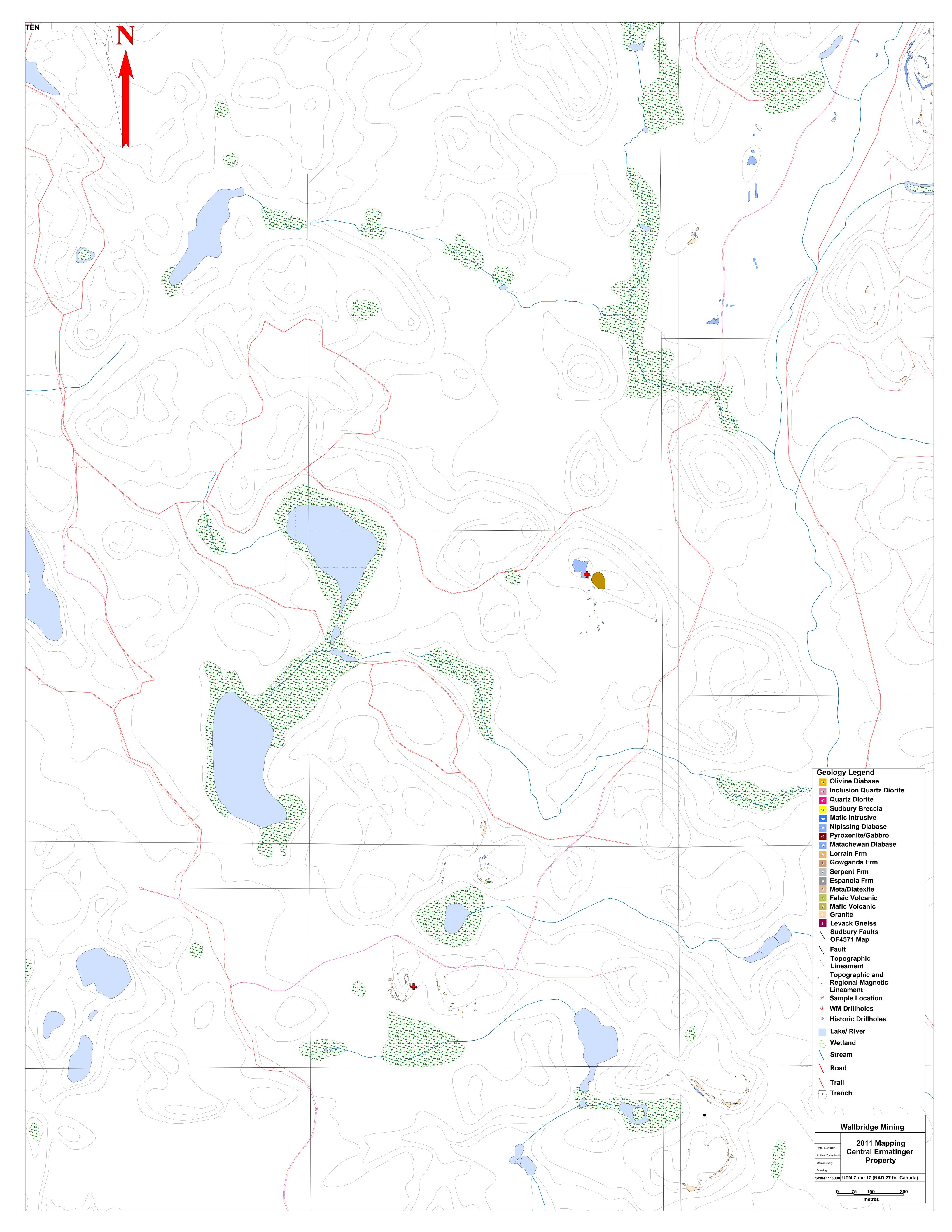
- 1. I reside at 2242 Louisa Drive Sudbury, Ontario, Canada, P3E 4W8.
- 2. I am a graduate from Laurentian University in 2005 with my Bachelor of Science (Hons.) in Geology and have been practicing my profession ever since.
- 3. My post graduate work experience includes seven years working in the North Range of the SIC.
- 4. I am a Geologist with Wallbridge Mining Limited.
- 5. I have personally supervised the work carried out in 2010 and 2011.
- 6. I have prepared this summary report which presents the results of Wallbridge Mining Limited 2010 and 2011 mapping and trenching on the Ermatinger Property.
- 7. As an employee, and insider, of Wallbridge Mining Company, I do not qualify as an independent Qualified Person.

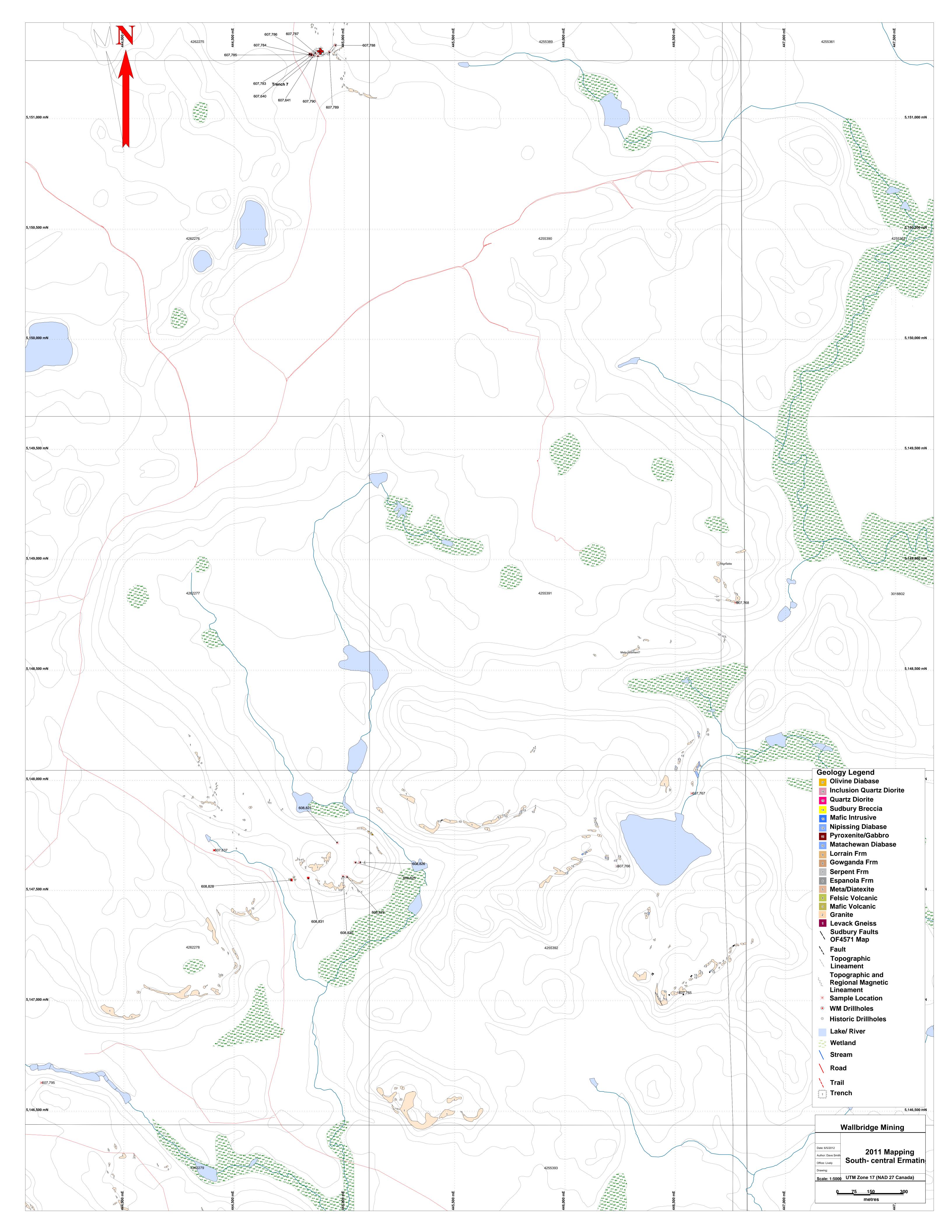
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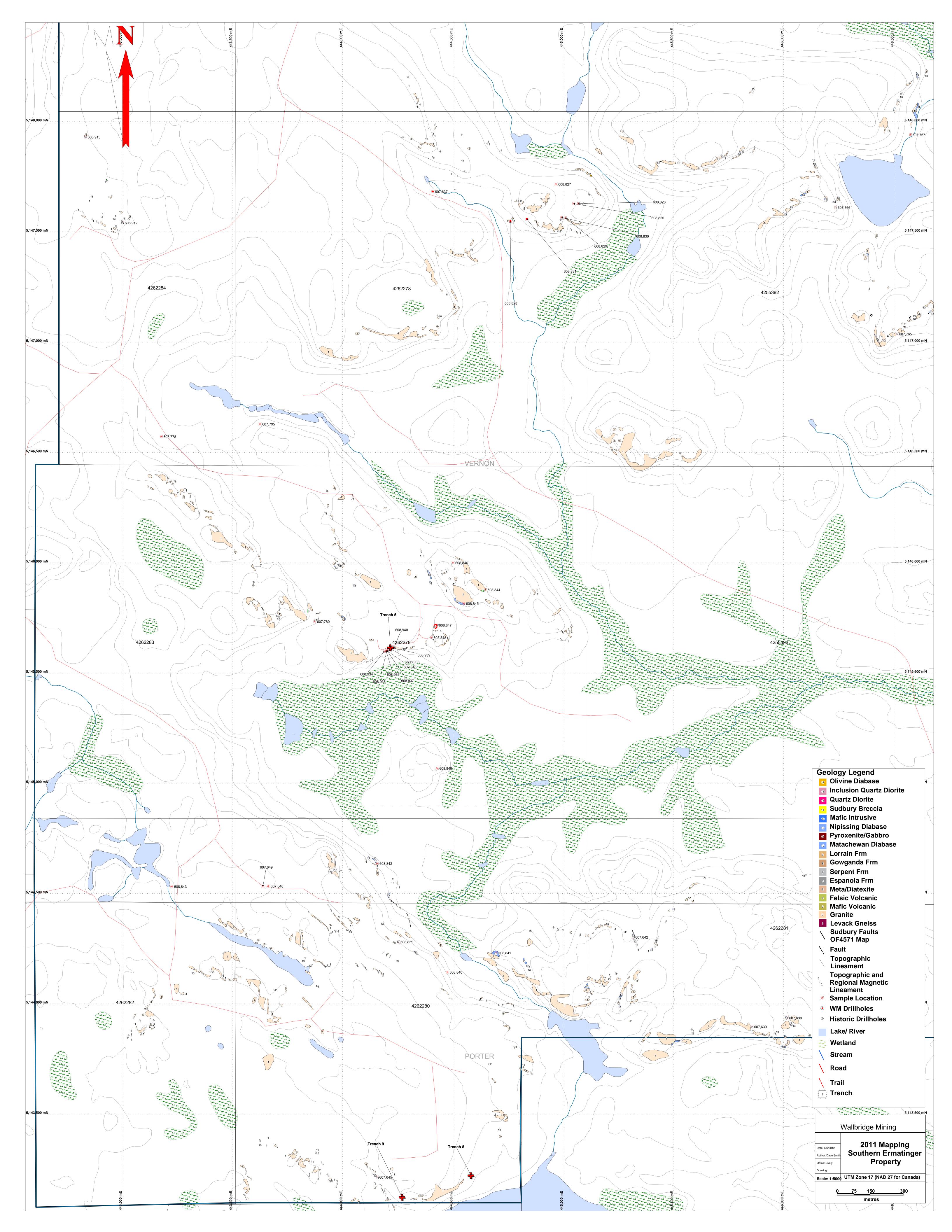
David Smith Geologist Wallbridge Mining Company Ltd. 129 Fielding Rd. Lively, Ont. P3Y 1L7

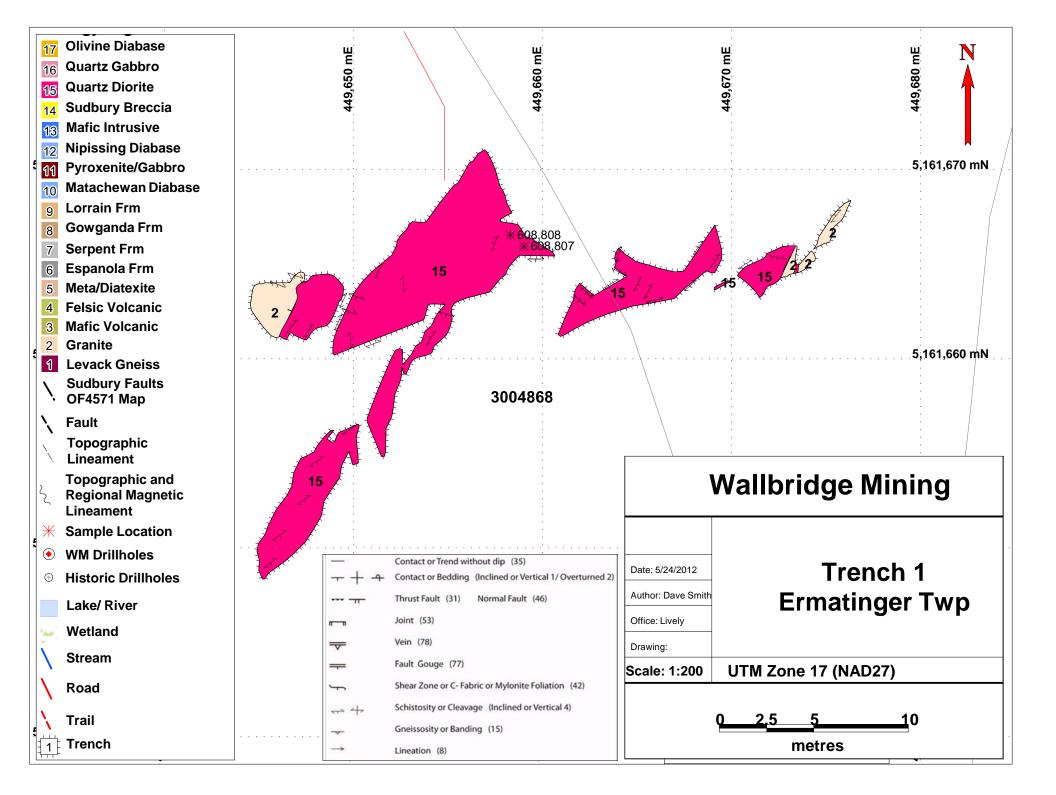


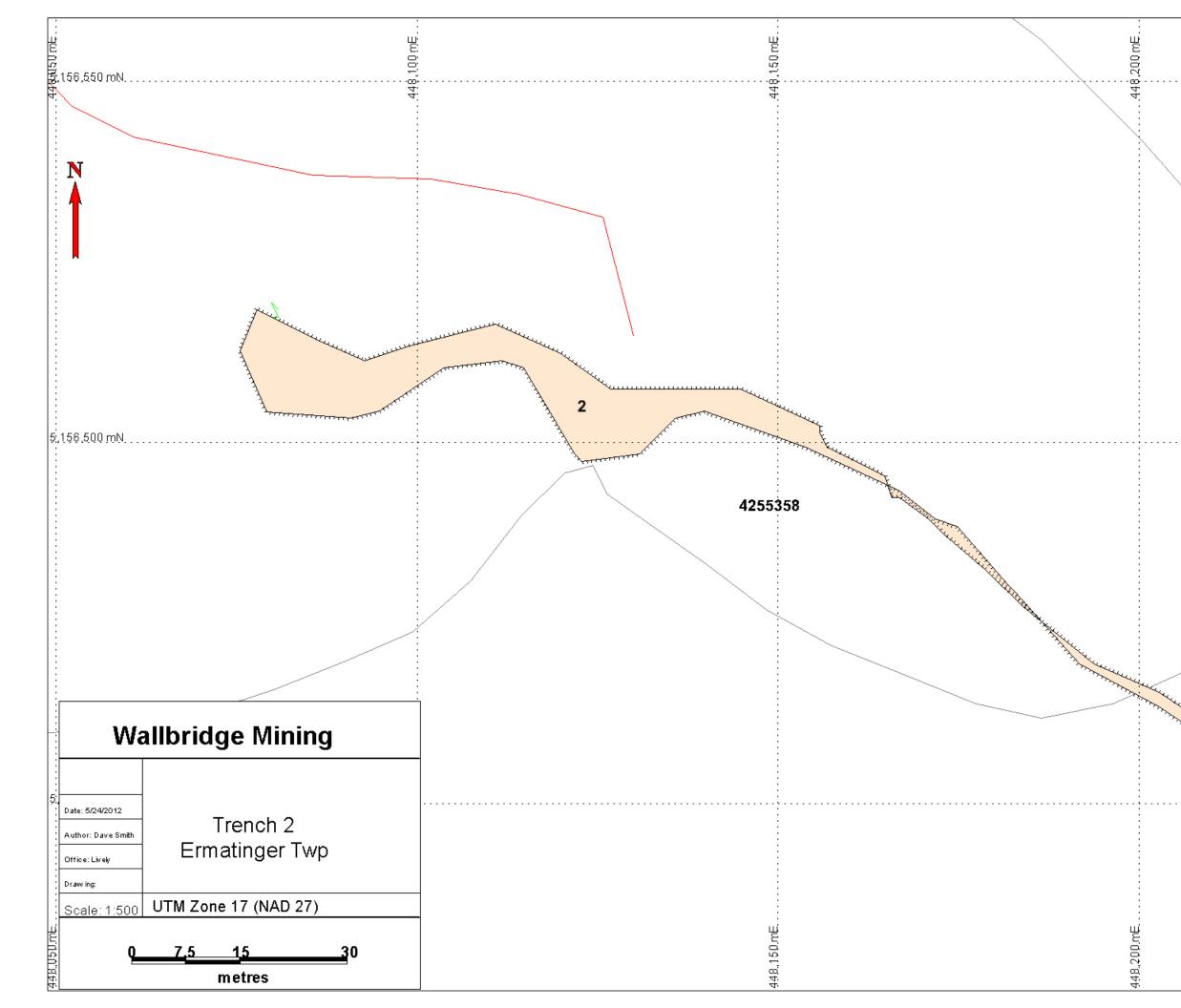


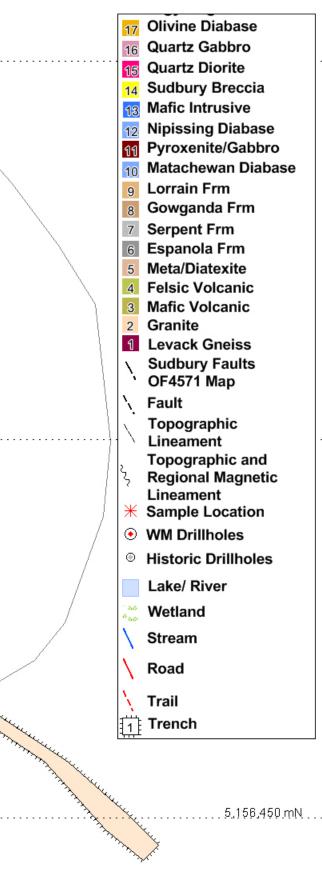


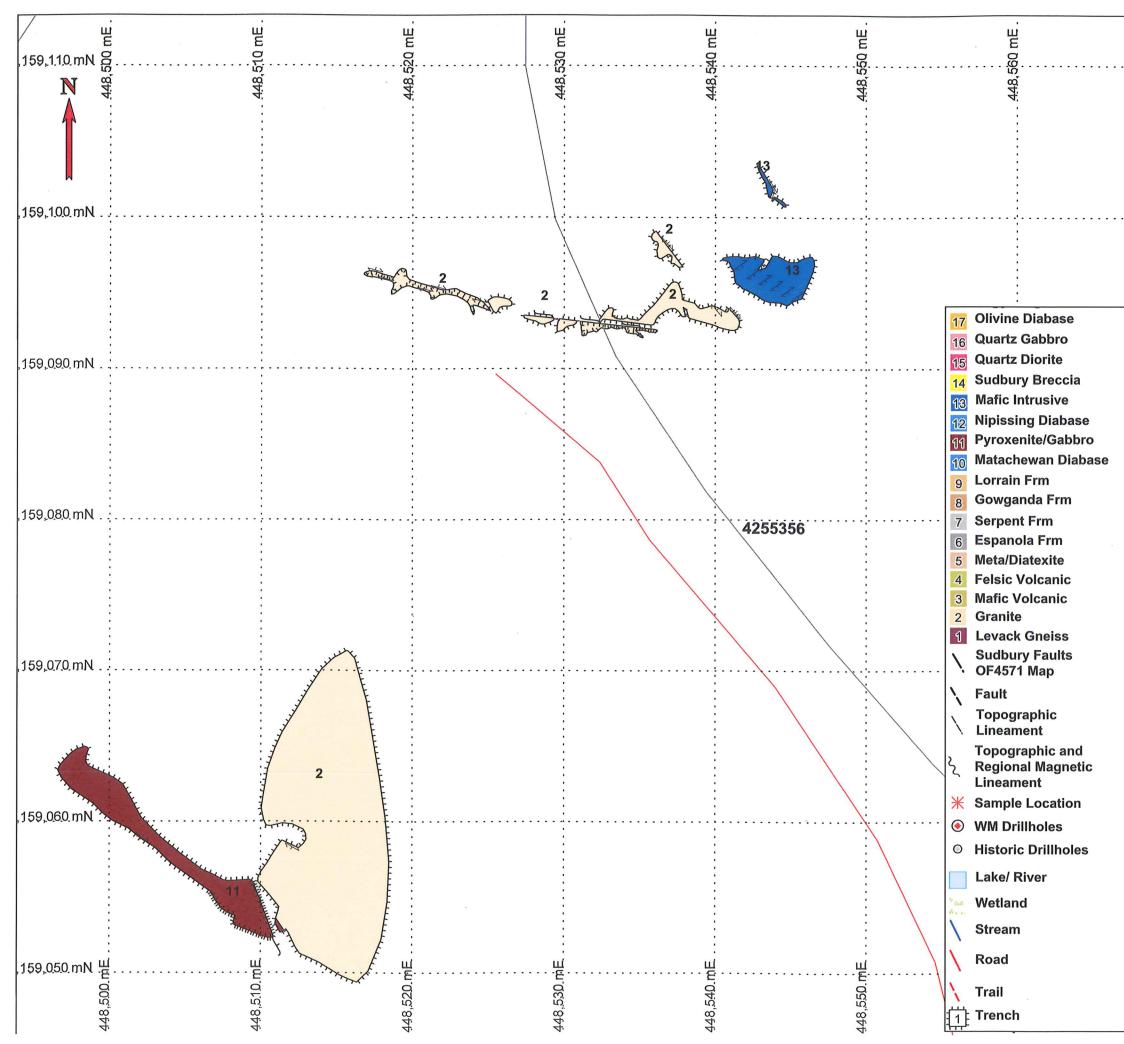




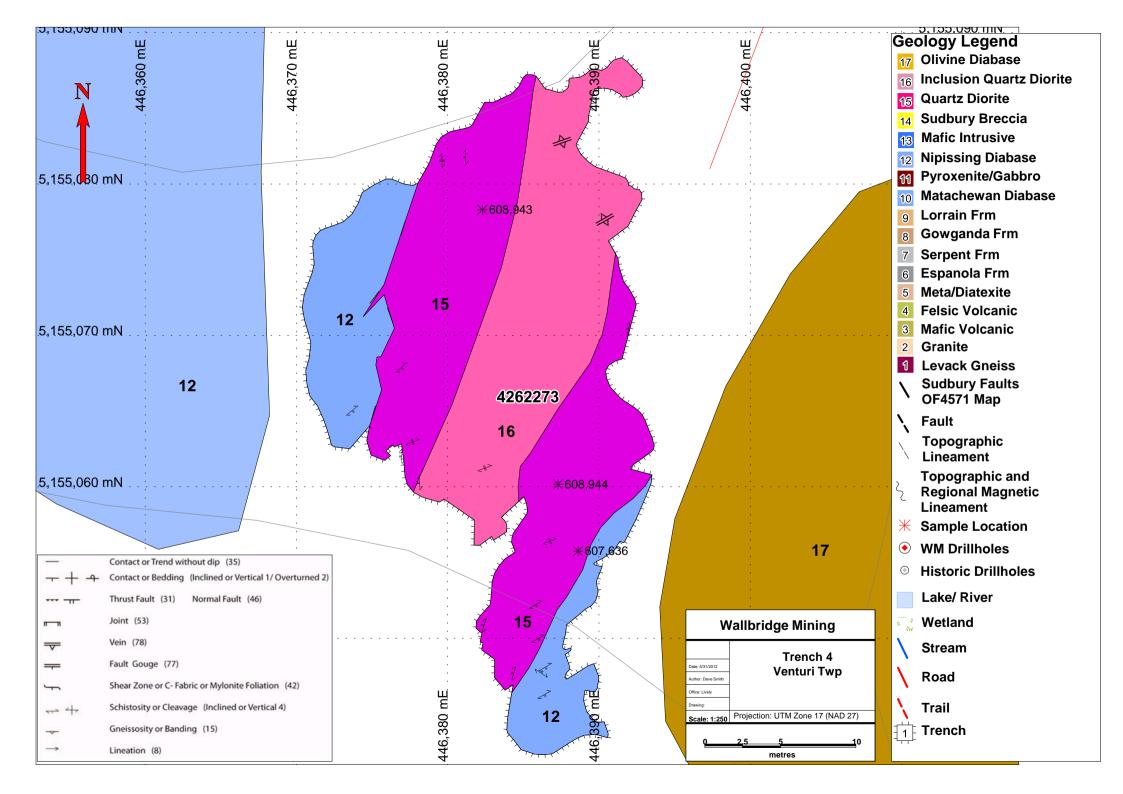


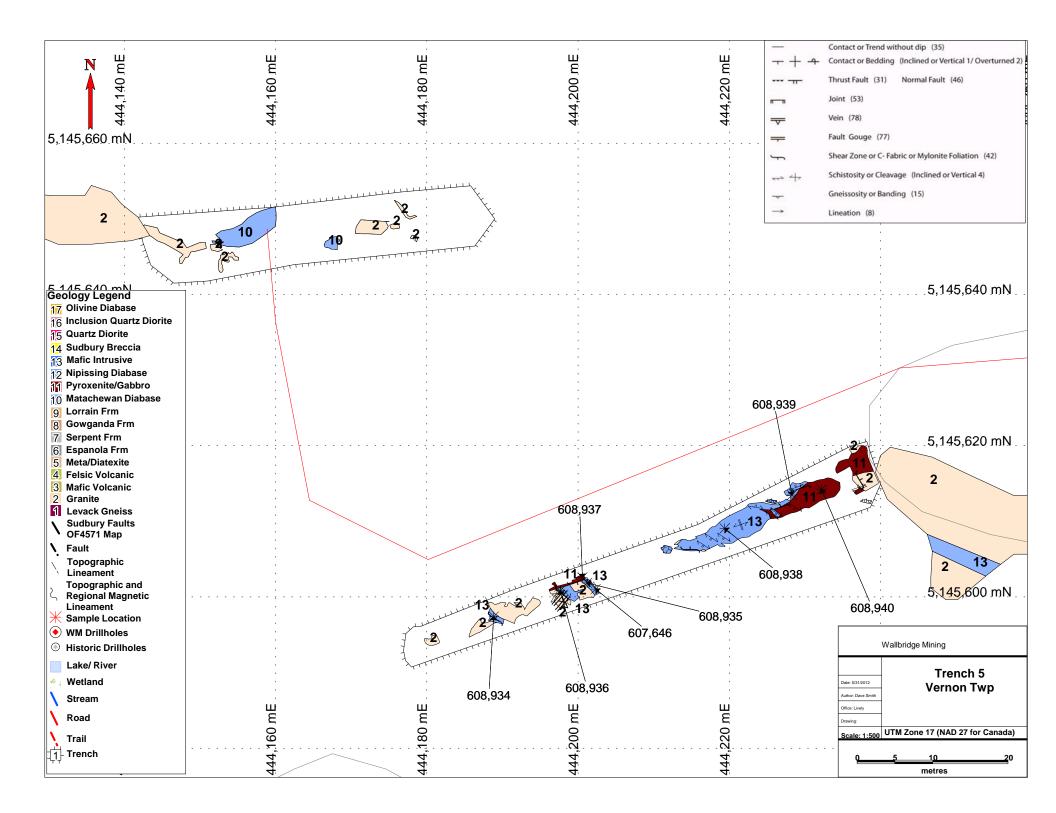


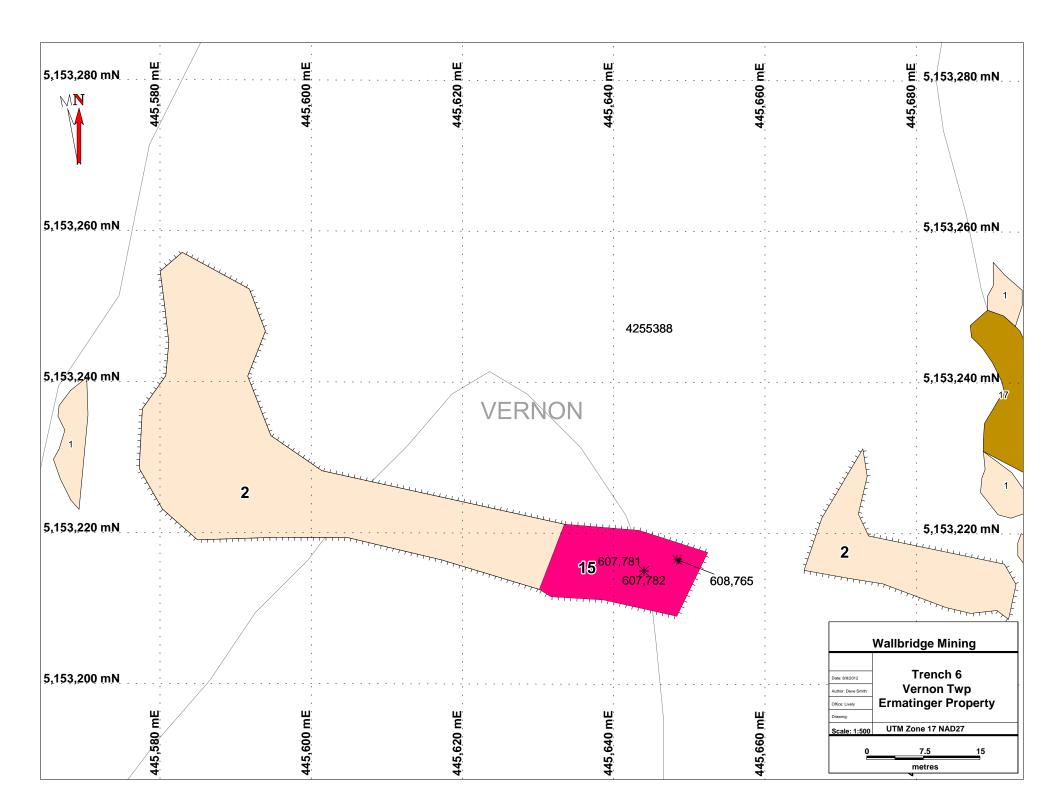


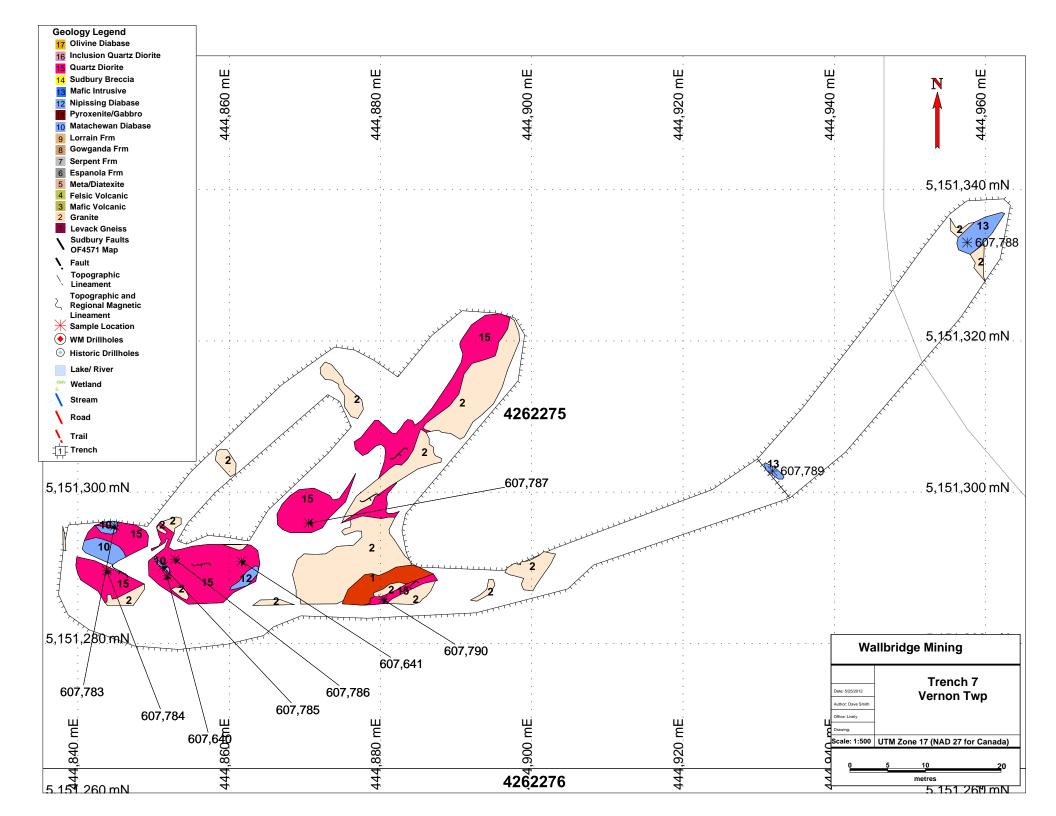


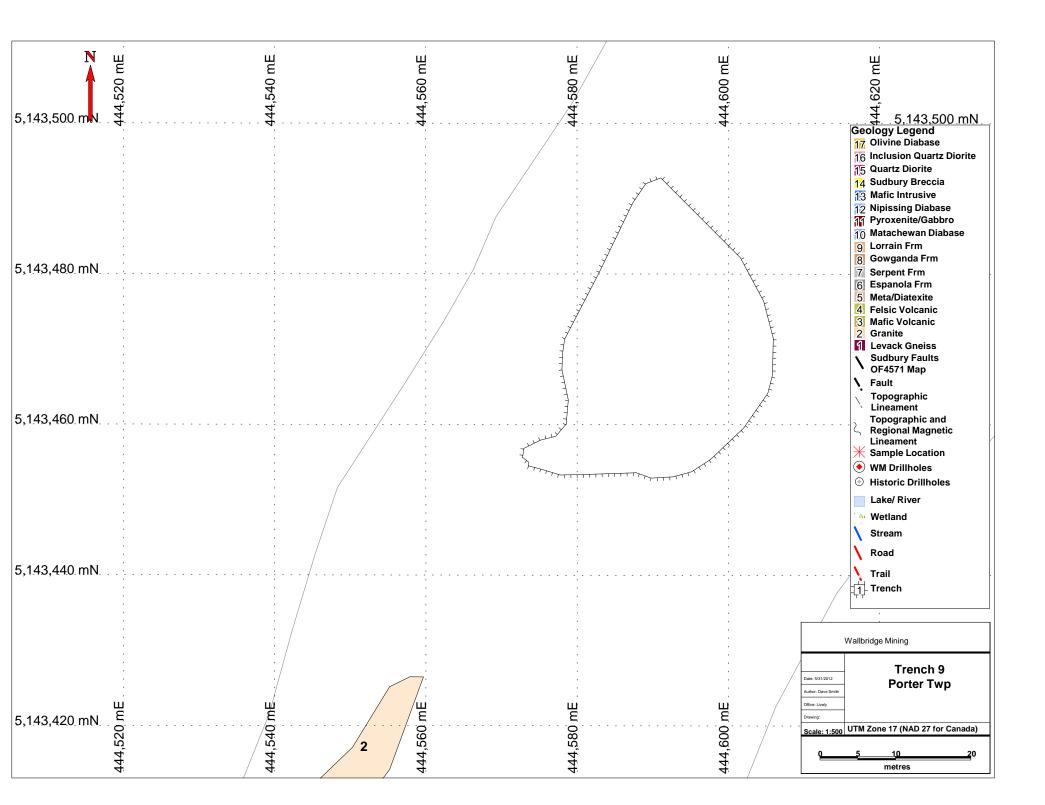
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Road Trail ⊥1,- Trench	444,240 mE	444,250 mE	444, 200 ME	444.280 mE	444,290 mE		I Zone 17 (NAD 27 for Canada) <u>10</u> 20 metres

SampleID	E NAD27	N NAD27	Sample	Geologist	Date Sampled	Rock Type	PY %	PO %	CPY %	PN %	MIL %	MIN1	MIN1 %	MIN2	MIN2 %		
		_	Туре													Field Description	Notes
																OUTCROP?medium-grained, green grey elephant skin textured	
607606	448547	5159102	GRAB	DS	31/05/11	MDIA										weathered surface rounded; non-magwith 0.4cm py and ep blebs on	
																trend with Hess Offset	
607607	448283	5158483	GRAB	DS	31/05/11	MDIA										contact with granite trending 190/50; grey green weathered bluish	
007007	440205	5150405	GIVID	55	51/03/11	NID // (										green fresh 0.5 m from contact	
																medium grained blue grey fresh; nonmag and adjacent to mag NDIA	
607609	447999	5157414	GRAB	DS	1/6/2011	NDIA										outcrop; outcrop has patches of coarse grained plag and amph	
																suspect it is also NDIA	
																magnetic mafic dyke on trend with Hess Offset; meduim grained light	
607610	448020.4	5157312	GRAB	DS	1/6/2011	QGAB										grey green weathered short stubby amph no larger than the	
																feldspars	
607611	448433	5158820	GRAB	DS	2/6/2011	MDIA										dyke on trend with Hess Offset light grey green weathered; magnetic	
																and highly jointed with meduim grained accicular amphiboles	
607612	452007	5161790	GRAB	AP	10/6/2011	CONG											
607613	451843.2	5161552	GRAB	AP	10/6/2011	QD											
007013	10101012	5101552	CIUID	7.1	10/0/2011	d b											
607765	446513.5	5147037	GRAB	DS	10/6/2011	MDIA										Coarse-grianed green grey fresh; high concentration of stubby	
007705	40313.3	5147057	UNAD	55	10/0/2011	WIDIA										pyroxene?check to see if it is similar to Ermatinger pyroxenite	
																green grey dyke with coarse stubby pyroxene/amph similar to	
607766	446234.9	5147611	GRAB	DS	10/6/2011	MD											
																Ermatinger pyroxenite	
607767	446574.6	5147941	FLOAT	DS	10/6/2011	IQD										30cm diameter boulder found in a creek bed on predicted trend of	
																the Hess Offset with 2% 1cm inclusions	
607768	446773.7	5148805	GRAB	DS	16/6/11	QGAB										mafic dyke trending 320 very near the suspected trend of the Hess	
																Offset; blue green fresh and magnetic	
																40cm diameter boulder taken from road side; believed to be insitu	
607769	445505	5153450	FLOAT	DS	21/6/11	IQD					2	Epidote				because road is cut through the till pile were it and a dozen or so	
																other boudlers were located; 1% gr inclusions	
607614			STD														
607615			BLK														
608839	444252.7	5144281	GRAB	GyT	8/9/2011	QGAB	5									dark, medium-grained, w/ biotite knots	
608840	444475.4	5144144	GRAB	GyT	8/9/2011	QGAB	5									dark, medium-grained, w/ biotite knots	
608841		5144231	GRAB	GyT	8/9/2011	QGAB										dark, medium-grained	
608842	444157.5	5144637	GRAB	GyT	8/9/2011	MDIA	7									dark grey, fine-grained	
608843	443226	5144532	GRAB	GyT	8/9/2011	MDIA	3									dark, medium-grained	
608844	444647.3	5145878	GRAB	GyT	8/10/2011	PYXT										coarse-grained, dark green w/ blocky amphibole	
608845	444549.6	5145815	GRAB	GyT	8/10/2011	QGAB										grey, medium-grained	High ti QD?
608846	444501.3	5146000	GRAB	GyT	8/10/2011	MDIA										grey, medium-grained w/ tabular amph	
608847	444427	5145717	GRAB	GyT	8/10/2011	MDIA										dark grey, coarse-grained	
																grey, glassy, fine-grained w/ dissem po and altered inclusion-looking	
608848	444402.5	5145661	GRAB	GyT	8/10/2011	MDIA		1								particles. QD?	
608849	444429	5145068	GRAB	GyT	8/16/2011	QGAB		1								fine-grained, dark grey	
608850		51 15000	STD	3,1	0/10/2011	46,15		-									
608901	446385.7	5154880	BLK	JB	8/6/2011												
608902	446059.8	5153668	GRAB	JB	8/6/2011	QD										dark grey, medium-grained	High ti QD?
608902	440039.8	5153783	GRAB	JB	8/6/2011	MDIA										dark w/ greenish hue, tabular amphiboles	
608903	445885.9	5153783	GRAB	JB	8/6/2011	QGAB										very fine-grained, dark, slightly sheared	
608905	445904.6	5153804	GRAB	JB	8/6/2011	QGAB										very fine-grained, dark, slightly sheared	
608906	445889	5153761	GRAB	JB	8/6/2011	MDIA										greenish, w/ tabular amphiboles	
608907	445923.7	5153771	GRAB	JB	8/6/2011	MDIA										slightly altered amphibolite	
608908		5153719	GRAB	JB	8/6/2011	QGAB	5									very magnetic, dark	
608909	446447.4	5154853	GRAB	JB	8/7/2011	MDIA										grey, coarse-grained	
608910	1		GRAB	JB	8/7/2011	MDIA										dark grey, medium-grained	

SampleID	E_NAD27	N_NAD27	Sample Type	Geologist	Date Sampled	Rock Type	PY %	PO %	CPY %	PN %	MIL %	MIN1	MIN1 %	MIN2	MIN2 %	Field Description	Notes
607778	443178	5146572	FLOAT	DS	4/8/2011	UNKNOWN	1	0.1	0.1							40% 1cm by 1mm amphiboles	
607779	446634	5154285	FLOAT	JB	8/8/2011	QD	-	0.1	0.1							likely a boulder from the road bed	
607780	443874.2		GRAB	DS	15/8/2011	MDIA	1					Calcite	1			coarse equant amphiboles	High ti QD?
007700	11507 112	5115755	Giulo		10/0/2011	111B II T	-					Culeite	-			Labelled DS001 in Field; undetermined strike close to suspected	
607642	445317.7	5144302	GRAB	DS	19/8/2011	NDIA										trend of Hess; elephant skin weathered bluish grey fresh	
007042	445517.7	5144502	GIUID	55	13/0/2011	NDI/(										nonmagnetic	
																nonmag; could be oriented n-s appeared to be similar colour as QD;	
607638	446014.9	5143936	GRAB	DS	22/8/2011	QGAB										has 5% 7mmx3mm feldspar phencrysts	
																trending 340 were suspected Hess dyke could be; dark green fresh	
607639	445856	5143896	GRAB	DS	22/8/2011	MDIA	1									felty texture	
607640	444851.8	5151289	GRAB	DS	23/8/2011	MD	0.5	0.1				Calcite	20	Quartz	10	pervaise qtz carb hosting sulphides	
607641			GRAB	DS	23/8/2011	QD	0.3	0.1				Calcile	20	Quartz	10	dark green fresh non magnetic; near Hess Dyke trend	High ti QD?
	444801.0	2121231		03	23/8/2011	QD	0.1									dark green nesh non magnetic, near ness Dyke trend	
607643			STD														
607644	4474404	5456450	BLK	10													
607632	447149.1	5156453	GRAB	JB		NDIA										no description provided	
607633	447585.9		GRAB	JB		NDIA										no description provided	
607634		5157057	GRAB	JB		NDIA										no description provided	
607635	446877.6	5156578	GRAB	JB		-										no description provided	
607636	446390.8	5155049	GRAB	JB		QD										no description provided	
607637	444409.1	5147683	GRAB	JB												no description provided	
607626			STD	JB													
607627			BLK	JB													
607628	447819	5157467		JB		NDIA										no description provided	
607629	449357	5160996		JB												no description provided	
607630	449272	5160971		JB												no description provided	
607631				JB													
607781	445644	5153215	GRAB	JB	26/08/11	QD										Taken from bedrock exposed in a trench and subsquently buried	
007781	445044	5155215	GRAD	10	20/08/11	QD										because it was fill with water	
607782	445644	5153215	GRAB	JB	26/08/11	QD										Taken from bedrock exposed in a trench and subsquently buried	
007782	443044	2122212	GRAD	10	20/08/11	QD										because it was fill with water	
C07C4F		F142214	CDAD	DC	15/00/11	MDIA										in creek bed; locally magnetic; short stubby amph; bluish dark grey	
607645	444156.7	5143214	GRAB	DS	15/09/11	MDIA										fresh; eroded joinst 1-2cm wide	
607646	444202.2	5445604	<b>CD 4 D</b>	DC	22/00/44	0.645										sample taken from southern trench 1m from sheared contact with	
607646	444202.3	5145601	GRAB	DS	22/09/11	QGAB										granite; could be sheared QD	High ti QD?
607647	443935	5142759	GRAB	DS	23/09/12	MDIA	1									8m wide mafic dyke trending 210 in line with Hess trend; south of	
																property; non mag blue grey fresh and accicualr amph	not marked in field
																road side outcrop; 20 % 1cm inclusion?of bt and qtz cp in a felt	
607648	443664	5144534	GRAB	DS	23/09/13	MD	0.1		0.1							textureed mg dark grey ground mass	not marked in field
																road side outcrop; mg dark bue grey ground mass with accicular felty	
607649	443639	5144533	GRAB	DS	23/09/14	MD										texture	
607650	1		STD					L			1						
608934	444188.9	5145597	GRAB	GyT	10/19/2011	MD										dark, fine-grained, biotite-rich - altered QD?	
608935	444201.2		GRAB	GyT	10/19/2011	UNKNOWN										dark, fine-grained, biotite-ren - altered QD -	
608935		5145601	GRAB	GyT	10/19/2011	UNKNOWN										dark, fine-grained, biotite-rich - altered QD?	
608930	444197.0	5145603	GRAB	GyT	10/19/2011	PYXT										green, large amount of acicular amph	
608938	444200.0	5145609	GRAB	GyT	10/19/2011	NDIA										dark grey, coarse-grained, granular with blocky px	
608939	444219.4		GRAB	GyT	10/19/2011	NDIA	0.1									dark grey, fine-grained, slightly sheared	
608939		5145613	GRAB	GyT	10/19/2011	PYXT	0.1									light grey, coarse-grained, with blocky px	
608940		5145614	GRAB	GyT GyT	10/19/2011	IQD										ווקווג בוכץ, נטמוזכ-צומווכט, שונוו טוטנגץ אג	
				-		IQD											
608944	446389.5	5155054	GRAB	GyT	10/25/2011	ועט										Magnotic Inclusion 2 In another motio dukes blue groop from with 4	
607783	444844.9	5151296	GRAB	DS	11/29/2011	QGAB	0.1									Magnetic Inclusion? In another mafic dyke; blue green fresh with 1-	
I																2cm glomeroporphries of euhedral feldspar	

			Sample	1													
SampleID	E_NAD27	N_NAD27	Туре	Geologist	Date Sampled	Rock Type	PY %	PO %	CPY %	PN %	MIL %	MIN1	MIN1 %	MIN2	MIN2 %	Field Description	Notes
607784	444843.8	5151290	GRAB	DS	11/29/2011	QD										Magnetic blue green medium grained magnetic with trace fine grained disseminated euhedral py	Hi ti QD
607785	444851.3	5151290	GRAB	DS	11/29/2011	MDIA										Fine grained mafic dyke or Sudbury Breccia vein with granite inclusions	
607786	444852.8	5151291	GRAB	DS	11/29/2011	QD										Magnetic blue green medium grained with trace fine grained disseminated euhedral py	Hi ti QD
607787	444870.5	5151296	GRAB	DS	11/29/2011	QD										Magnetic blue green medium grained with trace fine grained	
607700			CDAD	DC		MD										disseminated euhedral py	Hi ti QD
607788	444957.6 444931.9		GRAB	DS	11/29/2011	MD										Non Magnetic; blue grey fresh; meduim grained Non Magnetic; blue grey fresh; meduim grained	
607789	444931.9	5151303	GRAB	DS	11/29/2011	MD										Fine grained mafic dyke or Sudbury Breccia vein with granite	
607790	444880.3	5151286	GRAB	DS	11/29/2011	QD										inclusions	Hi ti QD
607791			STD	DS													
607792			BLK	DS													
607795	443626	5146629	GRAB	JB	12/13/2011												
608825		5147628	FLOAT	GyT	26/07/11	QD			ļ		ļ						High ti QD
608826		5147629	FLOAT	GyT	26/07/11	MDIA											
608827		5147716	FLOAT	GyT	26/07/11	MDIA											
608828	444760.4	5147548	GRAB	GyT	26/07/11	NDIA											
608829	445010.5	5147564	GRAB	GyT	26/07/11	MDIA											OD Like sham
608830 608831	444993.5 444836	5147566 5147557	GRAB GRAB	GyT GyT	26/07/11 26/07/11	MD MD											QD Like chem
608832	444850	5147904	FLOAT	GyT	26/07/11	MDIA											
608833	444500	5147504	std	GyT	20/07/11	NIDIA											
608834			blk	GyT													
809982	448961	5155775	GRAB	DS	11/24/2010	DIA										non-magnetic green fresh	
809983	448939	5156110	GRAB	DS	11/24/2010	DIA	0.1									fine-grained , green fresh, and magnetic	
							•									possible boulder; weakly magnetic, grey with accicular amphiboles	
809984	449533.2	5159670	GRAB	DS	11/26/2010	OD										could be magnetic QD?	
809985	448192	5156831	FLOAT	DS	11/29/2010	DIA										one of a cluster of QD boulders from the edge of a rough excavator trial	
809986	447865	5155940	FLOAT	DS	11/29/2010	DIA			0.1							a 30cm diameter qd boulder	
809987	449672.6	5161689	FLOAT	DS		QD	1	3	0.1							sub-angular QD boulder from the Trench of the Hess Offset Dyke on Ermatinger	
809989			STD														
809990			BLK														1
809991	447714	5155324	FLOAT	DS	12/1/2010	QD			1		1					boulder 50 cm and round	
809992	447954.2	5156180	FLOAT	DS		MD						Epidote	1			large boulder that breaks concoidally; nonmagnetic fine grained; greenish grey fresh	
809993	448035.2	5156221	FLOAT	DS		QD										sub angular boulder 70x30cm; brownish grey fresh and non magnetic with accicular amph	
809994	448134.2	5156483	FLOAT	DS		QD										large boulder, coarse grained brownish grey fresh	
809995		5155108	FLOAT	DS	12/2/2010	QD	0.1									70x50cm boulder;medium grianed brownish grey fresh, nonmagnetic	
809996	447410.2	5152645	GRAB	DS	12/3/2010	MD										very magnetic dark green grey, on trend with qd	,
																blue-grey fresh; nonmagnetic sampled to make certain it is not QD;	
809997	447215.2	5153039	FLOAT	DS	12/3/2010	MD										saw a lot of these boulders in same valley	
809998	447222.2	5153039	FLOAT	DS	12/3/2010	MD										dark grey weathered; fine grained; very weakly magnetic; with coarse amphibolite inclusion and feldspar phenocryst	2
809999	116030 2	5153281	FLOAT	DS	12/3/2010	MD			1		1					non-magnetic blue grey fresh	