# Malcolm Prospect Phase II Assessment Report

# Stripping and Channel Sampling (Including Total Graphite Analysis)

Funded by the Ontario Exploration Corporation OEC 2015-12

Report prepared by Marc Thomas Forget January 17, 2016

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# **Project Summary**

In October of 2015, geological mapping, mechanized stripping and a Beep-Mat was used to find graphitic bedrock under overburden. A total of 43 test pits were put down, 12 trenches were stripped and 47 one metre channel samples were extracted and analyzed for graphite (% Cg). Additional claims were staked on sound advice from Allen Dubblestein. Persistent and systematic search for graphite is showing that economic deposits are tentatively prospective but discovery remains incomplete, and accordingly, additional exploration is warranted to fill gaps.

#### Significant results from this survey are:

- Discovery of a new mineralized zone called the Southeast Zone to distinguish it from the Northeast Zone that was discovered in Phase I. This zone assayed 6.15% Cg over nine metres and continues laterally in both directions under shallow overburden. A high water table required periodic pumping to keep the pit dry long enough to channel sample and is now flooded. This zone was methodically prospected with a Beep-Mat over ground based on the up dip projection from a nearby TDEM anomaly.
- 2. The Northeast Zone is adjacent to a large swamp and also required pumping to complete channel sampling. This zone assayed 2.09% over eight metres. The strike of this zone is uncertain and surface exploration is constrained by the swamp on the one side and a pyrrhotized quartzite cap rock on the other side, but exposed bedrock and geophysical data indicates that this zone continues southward under the swamp and cap rock.
- 3. The Central Zone has been thoroughly defined and includes four subsidiary zones (A, B, C & D) within an area measuring 40 m x 120 m. As such, this zone is the largest surface showing and is dominated by a swamp. Exploration trenches are located along the mineralized flanks of the swamp. Very low water levels permitted a Beep-Mat survey across the swamp. Beep-Mat readings confirm continuity of graphite across the swamp, which implies shallow overburden (muskeg). Assays across this zone averaged between 2.5 and 3.0%. Channel samples represent 18 continuous metres across strike (the other 22 metres is under the swamp). Strike length exceeds 100 metres.
- 4. Multiple test pits were tried in the West Zone, but did not produce any new showings because of very deep overburden. Though disappointing, this zone is still considered the most promising based on interpretation of TDEM and VLF-EM data.
- 5. Stripping also helped to identify and classify hanging and foot wall rock. Graphite mineralization consistently occurs in rusty quartzites, quartz arenites, quartz gneisses, calc-silicates, sandy marbles, and rusty mafic gneisses. The rusty mafic gneisses are completely different then the overlying quartz rich gneisses which contain only minor amounts of mafic minerals, mostly hornblende and even less biotite.

#### Recommendations

- Completely strip and channel sample the Central and Southeast Zones to prove %Cg grade over a large surface area. The Southeast Zone may be as large or larger than the Central Zone and assayed > 6% Cg. This work will require an Exploration Permit.
- 2. Systematically sound (for depth) the West Zone using a full sized excavator to determine the reasonableness and economics of deep pits to examine and sample mineralized bedrock. The West Zone is the most promising based on geophysical data. The miniexcavator used in this project was limited to 3 m depth and double this depth (6 metres) may provide a reliable approach to find new and important graphite showings.
- 3. Expand exploration to include the new Northwest Zone claims using the proven method of geophysics (TDEM + Beep Mat), mechanized stripping and channel sampling.

# **Property Information**

#### **Location & Directions**

The Malcolm Prospect is located in Lyndoch Township, Ontario, of the South-eastern Ontario District, Southern Ontario Mining Division and is centred at UTM 316365E 5013860N, WGS 84, Zone 18, NTS 31F06. The property is located approximately 7 kilometres south-southeast of Quadeville, Ontario. The property is accessible by a good three-season gravel forest road called the (new) Hyland Creek Road (see Road Map) and a passable hunt camp forest road.

Starting at Quadeville, travel south for 5.9 kilometres on the Addington Road to the beginning of the new Hyland Creek Road. The "old" Hyland Creek Road goes due east at this point and the "new" Hyland Creek Road veers to the right and continues south. Continue on the "new" Hyland Creek Road for 1.9 kilometres to the entrance of the property. This is the Graham Lake forest road. Turn left (east) onto the Graham Lake forest road and continue 2.5 km to the Beachwood Hunt Camp parking. This is the centre of the claim. The hunt camp is a MNR lease and the lessee is Bernard Dwyer of Quadeville. Another route is to take the Hyland Creek Road starting at Griffith on HWY 41, and travel west for 20.1 km to the Graham Lake forest road. The Hyland Creek Road is a three season road and only accessible by skidoo in winter.

#### **Property Identification**

The mining claims form a contiguous block of eighteen, 20 hectare unpatented units of Crown Lands. It includes Lots 19 to 24 of Concession 6 and Lots 22 to 24 of Concession 7 in Lyndoch Township, Ontario (see Mining Lands Claim Map). All claims are one hundred percent held by Marc Thomas Forget of Marmora, Ontario, and all claims are in good standing.

#### **Mining Lands Claim Lands**

Claim Number	Lots	Concession	Parcel	Township Plan
1500873	19	6	NA	NA
1500830	20-23	6	NA	NA
1500872	24	6	NA	NA
1501101	22-24	7	NA	NA

#### Name & Address of Claim Holder

Marc Thomas Forget Prospector License 1001310 MNDM Client Number 401287

8 North Hastings Avenue Marmora, Ontario K0K 2M0 (613) 472-0406 forget.marc@gmail.com



Malcolm Prospect Claim Map



# Malcolm Prospect Road Map

# **Claim Abstracts**

Mining Claim Abstract   <u>Main Menu</u>   <u>Back</u>							
SOUTHERN ONTAR	LIO - Division 90	Claim No: SO	1500830	Status: ACTIVE			
Due Date:	2018-Jun-11	Recorded:	2014-Jun-1	1			
Work Required:	\$ 805	Staked:	2014-Jun-1	1 14:33			
Total Work:	\$ 8,795	Township/Area:	LYNDOCH	I (G-3400)			
<b>Total Reserve:</b>	<u>\$ 0</u>	Lot Description:	LOT 20, 21	, 22 & 23, CON 6			
Present Work Assignment:	\$ 0	Claim Units:	8				
Claim Bank:	\$ 0						

# **Claim Holders**

Recorded Holder(s) Percentage	Client Number
FORGET, MARC THOMAS (100.00 %)	401287

Туре	Date	Applied	Description	Performed	Number
STAKER	2014-Jun- 11		RECORDED BY FORGET, MARC THOMAS (1001310)		R1490.01074
OTHER	2015-Aug- 06		EXPLORATION PLAN NO. PL15-10425 EFFECTIVE FROM 2015-MAY-07 TO 2017- MAY-07 FOR THE FOLLOWING ACTIVITIES: (LINE CUTTING / LC, PHYSICAL / PSTRIP)		J1590.00061
OTHER	2015-Aug- 17		WORK PERFORMEDGCHMET, GEOL, PSTRIP APPROVED: 2015-AUG-26	\$ 8,580	<u>Q1590.01656</u>
OTHER	2015-Aug- 17		WORK PERFORMEDCONSULT APPROVED: 2015-AUG-26	\$ 215	<u>Q1590.01659</u>
WORK	2015-Aug- 17	\$ 8,580	WORK APPLIEDGCHMET, GEOL, PSTRIP APPROVED: 2015-AUG-26		<u>W1590.01656</u>
WORK	2015-Aug- 17	\$ 215	WORK APPLIEDCONSULT APPROVED: 2015- AUG-26		<u>W1590.01659</u>

# **Claim Abstract**

# Mining Claim Abstract

SOUTHERN ONTAF	RIO - Division 90	Claim No: SO	1500872	Status: ACTIVE
Due Date:	2018-Aug-25	Recorded:	2014-Aug-2	25
Work Required:	\$ 255	Staked:	2014-Aug-2	25 09:30
Total Work:	\$ 2,145	Township/Area:	LYNDOCH	H (G-3400)
<b>Total Reserve:</b>	<u>\$ 0</u>	Lot Description:	Lot 19, Cor	n 6
Present Work Assignment:	\$ 0	Claim Units:	2	
Claim Bank:	\$ 0			

# **Claim Holders**

Recorded Holder(s) Percentage	Client Number
FORGET, MARC THOMAS (100.00%)	401287

Туре	Date	Applied	Description	Performed	Number
STAKER	2014-Aug-		RECORDED BY FORGET, MARC THOMAS (1001310)		R1490.01540
OTHER	2015-Aug- 06		EXPLORATION PLAN NO. PL15-10425 EFFECTIVE FROM 2015-MAY-07 TO 2017- MAY-07 FOR THE FOLLOWING ACTIVITIES: (LINE CUTTING / LC, PHYSICAL / PSTRIP)		J1590.00061
OTHER	2015-Aug- 17		WORK PERFORMEDGCHMET, GEOL, PSTRIP APPROVED: 2015-AUG-26	\$ 2,145	<u>Q1590.01656</u>
WORK	2015-Aug- 17	\$ 2,145	WORK APPLIEDGCHMET, GEOL, PSTRIP APPROVED: 2015-AUG-26		<u>W1590.01656</u>

# **Claim Abstract**

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SOUTHERN ONTAF	RIO - Division 90	Claim No: SO	1500873	Status: ACTIVE
Due Date:	2018-Aug-25	Recorded:	2014-Aug-2	25
Work Required:	\$ 255	Staked:	2014-Aug-2	25 09:30
Total Work:	\$ 2,145	Township/Area:	LYNDOCH	H (G-3400)
<b>Total Reserve:</b>	<u>\$ 0</u>	Lot Description:	Lot 24, Cor	n 6
Present Work Assignment:	\$ 0	Claim Units:	2	
Claim Bank:	\$ 0			

# **Claim Holders**

Recorded Holder(s) Percentage	Client Number
FORGET, MARC THOMAS (100.00 %)	401287

Туре	Date	Applied	Description	Performed	Number
STAKER	2014-Aug-		RECORDED BY FORGET, MARC THOMAS (1001310)		R1490.01540
OTHER	2015-Aug- 06		EXPLORATION PLAN NO. PL15-10425 EFFECTIVE FROM 2015-MAY-07 TO 2017- MAY-07 FOR THE FOLLOWING ACTIVITIES: (LINE CUTTING / LC, PHYSICAL / PSTRIP)		J1590.00061
OTHER	2015-Aug- 17		WORK PERFORMEDGCHMET, GEOL, PSTRIP APPROVED: 2015-AUG-26	\$ 2,145	<u>Q1590.01656</u>
WORK	2015-Aug- 17	\$ 2,145	WORK APPLIEDGCHMET, GEOL, PSTRIP APPROVED: 2015-AUG-26		<u>W1590.01656</u>

# **Claim Abstract**

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SOUTHERN ONTAI	RIO - Division 90	Claim No: SO	1501101 Status: ACTIV	VE
Due Date:	2017-Jul-22	Recorded:	2015-Jul-22	
Work Required:	\$ 2,400	Staked:	2015-Jul-22 13:42	
Total Work:	\$ 0	Township/Area:	LYNDOCH (G-3400)	
<b>Total Reserve:</b>	<u>\$ 0</u>	Lot Description:	LOTS 22, 23 & 24, CON 7	
Present Work Assignment:	\$ 0	Claim Units:	6	
Claim Bank:	\$ 0			

## **Claim Holders**

Recorded Holder(s) Percentage	Client Number
FORGET, MARC THOMAS (100.00 %)	401287

Туре	Date	Applied	Description	<b>Performed Number</b>
STAKER	2015-Jul-22		RECORDED BY FORGET, MARC THOMAS (1001310)	R1590.01345

# Geology

# **Basin Evolution & Stratigraphy**

The geology of the property was discussed in detail in the assessment report for Phase I. New information is cited here, which compliments that report. Every effort is made to introduce up to date information and the following new information is particularly important because field evidence supports the model of Rivers (2008) shown on the next page. The tectonic history and evolution of the Central Metasedimetary Belt (CMB) spans about two complete Wilson Cycles (400 Ma) if the passive margin era is included. A Wilson cycle is a measure of time related to basin formation and closure as a function of plate tectonics. Angular unconformities are demarcations of separate Wilson Cycles and the Flinton Group was the first indication that the CMB had undergone an extensive period of erosion (cessation of mountain building) associated with a basin.

The continuity of the Grenville Orogeny was therefore interrupted and Rivers (2008) no longer includes tectonic events prior to the protracted erosional period (50 Ma) in the Grenville Cycle as shown in the 2008 model. The Shawingian and Elzevirian orogenies now stand on their own. The new model is based on more precise Pb-U dating and the Elzevirian Orogeny was much shorter than was originally estimated (down from 60 Ma to 20 Ma). The corrected time is now attributed to two periods of erosion and explains the tremendous volume and complexity of sediments in the CMB, not withstanding the older passive margin sand and carbonates. The shorter timeline for the Elzevirian Complex Arc Belt (CAB) is consistent with a failed back-arc hypothesis. The mafic sills of the Icy Hills (Malcolm & Little-Bryan Prospects) are probably back-arc magma related, but precise Pb-U dating has not been done to confirm this statement.

The lcy Hills have two distinct types of epiclastics (gneisses) and a thick sandy carbonate sequence. The carbonate sequence is devoid of iron and alumina and is quartz and dolomite rich. The first epiclastic sequence is rich in mafic minerals, quartz, iron, sulphur, and graphite. They are called rusty gneisses in this report and are distinct from rusty quartzite rocks associated with graphite mineralization. The second overlying sequence of epiclastics is a thick sequence of quartz rich "hornblende quartz gneisses" and is white in colour. Mafic sills (gabbro) intrude the rusty gneisses along a boundary proximal to the graphitic rocks and do not intrude the hb-qtz gneisses. The 2008 model is annotated with petrogenetic stages that the writer posits corresponds with field evidence.

There is a repetition of the sequence along strike and forms a major ridge and valley structure, with the carbonate sequence (Graham and McLaughlin Lakes included) in the valley. The juxtaposition of rocks rich in iron (and sulphur) with rocks depleted in iron and carbonate raises several important structural questions about these rock facies.

In the Phase I assessment report, the writer posited that a recumbent anticline could explain the repetition of the rock sequence. Another model is presented in the Appendix (Alternative Stratigraphic Model) and is a "simple duplex" model. This model is preferred by the writer at this time, but additional geological mapping of the so called "north limb" is needed to either prove or discount an anticlinal model. The absence of folds, a fold nap, fold axis, and inversion of strata along with evidence of thrust fault indicators such as gouge and breccia would be important field data. A left lateral fault at the east end of the Malcolm Prospect is presented in Structural Geology on page 13.



# **Structural Geology**

Two prominent structures are seen at the property scale. Smaller structures have also been observed, but they require further investigation before commenting on them.

- Enormous slabs of sedimentary rock at the kilometre scale strike 60° and dip 60° towards the south-southeast. These slabs may be 1) the unroofed limbs of a recumbent anticlinal fold or alternatively 2) homoclinal horses of imbricated sedimentary formations. See the discussion in Appendix A for details. The slabs are responsible for the prominent ridge and valley geomorphology of the Icy Hills.
- The second structure is a fault along the eastern margin of the property. It strikes 310°, appears to plunge steeply and kinematic features can be observed along the margins of the fault scarp for several kilometres. Field evidence and geophysics support a sinistral or left lateral fault, as follows:
  - a. An anomalous magnetic low "break" divides the anomalous magnetic high associated with pyrrhotite mineralization. This magnetic low may be attributed to destruction of pyrrhotite during activation of the fault.
  - b. Biotite schists strike along the east scarp of the fault. Schistosity strikes parallel to the axis of the fault and the schists dip steeply.
  - c. Hydrothermal quartz veins crosscut and cut into country rock along bedding planes east of the schists. Crosscutting supports a late brittle structural event, probably associated with the end of the Grenville Cycle.
  - d. A sinistral offset of TDEM anomalies of about two hundred metres.
  - e. The central axis of Little-Bryan conductors is offset and rotated to the north of the central axis of the Malcolm conductors as shown in the TDEM profile map below.



TDEM profiles from Standard Graphite Airborne Survey 2012 (Shown is the south limb. The north limb in visible in the upper left corner.)

# **Exploration History**

- 1. **1956:** Lloyd Malcolm drilled 6 holes on the east half of Lot 1, Range B, of Lyndoch Township for copper. This prospect is six kilometres south of the Malcolm Prospect.
- 2. **1961:** Still looking for copper, Lloyd Malcolm staked the Malcolm Prospect and optioned the property to Prospectors Airways Company, Limited. Airways completed a VLF-EM survey. The survey delineated a two kilometre long series of strong conductors. The narrow conductors are on strike with the Little-Bryan Prospect.
- 3. **1962:** Noranda optioned the Range B property and drilled 13 more holes in same location, but is now called the Simon Copper Prospect.
- 4. 1965: W.H. Morrison drilled one DDH hole in the south half of Lot 24, Con VI, Lyndoch Township of the Malcolm Prospect. The collar has been located at UTM (WGS 84) 315581E 5013550N, in the west end of the Malcolm Prospect. DDH YD65-11 intersected a graphite/pyrrhotite zone between 100' and 138'. This is the first record of graphite, but was not assayed because Malcolm was looking for copper.
- 5. 1974: James Bryan and Murray Little staked and explored east of the Malcolm for graphite. The Little-Bryan prospect is now named after them. Ministry records indicate that they used explosives and a bulldozer to strip and trench. The east pit and the old west pit at the north end of T1 (see below) is probably their exploration work. They drilled two holes, DDH1 (1974) and DDH2 (1975) near T7 (see below). The drill logs indicate both holes intersected graphite +/- pyrrhotite. A report shows that the best DDH 2 assay was 8.57% and averaged 3.77% over an interval of 4 metres.
- 6. **1988:** Allen Dubblestein staked and prospected the Little-Bryan.
- 7. 1989: Dubblestein optioned the property to Harrington Sound Exploration Inc. Harrington conducted a magnetic and VLF-EM survey over the property in the early spring of 1989. EM identified several parallel sets of conductors. Based on the interpretation, seven trenches were stripped and intersected several mineralized zones. Trenches T2, T3 and T7 were stripped over weak conductors and assayed poorly. Trenches T1, and T4 to T6 were over a strong conductors and samples assayed: T1 = 3.79% over 11 m, T4 = 3.72% over 22 m, T5 = 4.74% over 11 m, T6 = 4.93% over 10 m.
- 8. **2010:** William Brereton staked and optioned both properties to Standard Graphite.
- 9. **2011:** Standard Graphite flew a high-resolution airborne TDEM survey over the Malcolm and Little-Bryan Prospects. Geophysical data revealed for the first time the magnitude and lateral extent of two prominent and parallel conductors about 1.5 km apart.
- 10. **2012:** MPH Consulting completed recon scale sampling and discovered graphite in the Malcolm Prospect. The most significant assays were samples MPH5014168 = 9.81% Cg and MPH5014170 = 4.9% Cg, both from the Malcolm Central Zone (see Item 15 below).
- 11. **2013:** Portions of the Standard Graphite property came open for staking and Allen Dubblestein staked and began exploring the Little-Bryan property for a second time.
- 12. **2014:** Under OEC 2014-05, Dubblestein did additional trenching and channel sampling of the graphite zone, and began exploring the carbonates north of the graphite zone. A new promising graphite showing, trench TW was discovered and high purity dolomite and diopside was discovered north of the graphite zone.
- 13. **2014:** Marc Forget started staking the Malcolm Property as claims came open.
- 14. **2015:** Allen Dubblestein optioned the south half of Lots 16 &17, Concession 7 of Lyndoch Township to Georgian Bay Marble & Stone to develop a dolomite occurrence
- 15. 2015: Forget completed Phase I of OEC 2015-05 (Malcolm Prospect). Three zones, the West, Central and East zones confirmed that significant graphite mineralization strikes another 2.4 km west of the Little-Bryan. Results also indicated that mineralization continues for 600 metres west of TW (Little-Bryan) towards sample MP09 = 9 % Cg of the Malcolm Prospect's East Zone. A sandy marble graphite ore (MP02 = 8.5% Cg) was discovered in the Central Zone and confirmed the results MPH obtained in 2012.

# **Project Information**

# Purpose

The purpose of Phase II was to do geological mapping along mineralized zones, find additional graphite showings, mechanized stripping of showings, extract multi-meter channel samples and assay samples for total graphite (% Cg). The economic geology and justification for graphite exploration were discussed in great detail in the assessment report for Phase I (Forget, 2015) and not be repeated here for the sake of brevity.

# Methods & Equipment

- 1. Stripping and test pitting was done using a Bobcat mini-excavator, Model 45, equipped with a 1 metre ditching bucket and fixed plough.
- 2. Test pit locations were determined firstly by using up-dip projections from known TDEM anomalies that were located in Phase I, and secondly, by sweeping the projected area with a Beep-Mat using an ultra high resolution grid of 1 metre spacing, and flagging Beep-Mat anomalies.
- 3. In addition to the above, mineralized float and old VLF-EM data was also used to help constrain test pit locations.
- 4. Additionally, when two or more Beep-Mat anomalies where within line of sight, interpolation was used.
- 5. The above survey methods was an iterative process.
- 6. Test pits were put down to a maximum of 3 metres and re-filled if no mineralized bedrock was reached. GPS location, till clasts and boulder lithology was noted.
- If mineralized bedrock was reached, a trench was stripped in accordance with MNDM Exploration Plan PL-15-10425 (< 100 m<sup>2</sup> per 200 metre radius). Trench length was determined by finding hanging and footwall rocks.
- 8. Trenches were swept or washed clean. Channel samples were extracted using a Sthil Model T410 rock saw equipped with a diamond blade and pressurized water bottle.
- 9. If a trench was below the water table, a pump was used to de-water the trench or abandoned if recharge rate was too fast or if sidewall collapse occurred.
- 10. Trenches were left open if they were less than four feet deep, otherwise they were refilled or had sidewalls sloped for stability. The periphery of open trenches was tapped with yellow caution tape or 1 metre safety fencing to draw attention to them. They were dug with multiple access and egress in mind.
- 11. Marc Forget cut channels. They measure 10 centimetres deep, 5 centimetres wide and length varied from 1 metre to 10 metres. All samples measured one metre long, cut into five 20-centimetre blocks, except for MG-A to MG-D, which are 20 cm blocks.
- 12. Samples were washed, bagged, tagged and relevant data noted and delivered to Actlabs in Ancaster, Ontario for analysis. The average weight of a one-metre sample was 10 kilograms and is very representative of grade.
- 13. All samples were crushed and pulverized to -80 mesh and analyzed for total graphite (% Cg) using the Infra-Red Leco furnace technique.
- 14. In addition, several samples were chosen for total sulphur, multi-element and precious metals. Total sulphur analysis was done by the Leco technique, multi-element analysis was done using a four acid digest followed by Mass Spec and precious metal analysis was done by fire assay followed by Mass Spec. Laboratory Certificates are in the Appendix
- 15. Geological mapping was done by geologist Chris Fouts and Marc Forget.
- 16. Chris Fouts did supervision of test pitting and stripping, but Marc Forget supervised the widening of Trench 9 (Southeast Zone) and four test pits.

#### <u>Results</u>

The amount of data is very large and therefore only significant, aggregate or summary data is presented below. For detailed data refer to the referenced Appendices. Also, because the strike length of graphite mineralization is so long, results are presented by zone. Graphite data was obtained from the Actlab Laboratory Certificates, as was data for sulphur, multi-element and precious metals. Geo-referenced locations were extracted from the geologist's (Chris Fouts) field notes that contain descriptions of lithology, mineralogy and structural features.

The Central Zone was discovered by MPH personnel in 2012 during a ground recon to follow up on strong TDEM anomalies identified from an airborne survey flown by Standard Graphite in 2011. MPH assayed several samples from the Central Zone and sample # MPH 5014168 assayed 9.8% Cg. The location is shown on the trenching map for the Central Zone.

During exploration of Phase I by the writer, we missed this very important location by only a few metres due to thick bush and a very steep approach to the swamp. During Phase II we spent more time looking for it and finally got an anomalous signal with the Beep-Mat over a small collapsed hand dug hole. Inserting the Beep-Mat into the hole revealed the full extent of this anomaly. An old, barely visible faded flag also marked the location. Also during Phase I, the writer discovered MP-01 and MP-02 using the Beep-Mat.

During this survey, using the Beep-Mat across an extremely tight grid of 1 metre by 1 metre we were able to define more anomalies along a 60 metre long trend in the Central Zone. The width is approximately 40 metres wide. The swamp was nearly dry and we were able to float the Beep-Mat across the shallow swamp and detected many anomalies over the swamp as well<sup>1</sup>. We conclude that graphite mineralization underlies the entire swamp and probably continues along strike under deeper overburden, which entirely masks Beep-Mat signals.

To keep within the limits of the MNDM Exploration Plan (< 100 m<sup>2</sup>), we chose to strip areas where good assay results were obtained and several new areas where good Beep-Mat anomalies were observed. The stripping (also called trenching in the traditional sense) is shown on the Central Zone Trenching Map. Sample locations from previous surveys are shown with sample locations from this survey. Samples from this survey all have the designation "MG". Though Trenches T5 and T6 warranted channel sampling, time and costs constraints forced us to take only test samples. Trench T8 was not sampled because it showed poorly compared with the other trenches. Trench T7 is a short trench across calcitic marbles and was left open for stratigraphic reasons. All open trenches are very shallow and do not pose any fall hazard.

<sup>&</sup>lt;sup>1</sup> The Beep-Mat is sensitive to wet soil: water reduces the signal to noise ratio until it flat lines with meaningless readings between 150 and 200. Conducting a Beep-Mat survey in the fall when the water table is at its' lowest is highly recommended and explains why we found many more anomalies in Phase II (this survey) compared with Phase I done in late spring of this year.



Zone Map

# **Results for West Zone**

Exploration focused on two sub-areas:

- The area around DDH YD65-11 was chosen because graphite was reported in the drill log, it is up-dip from TDEM anomalies and a surface showing was discovered in Phase I using a Beep-Mat.
- 2. The area around a skidder landing because it is up-dip of large TDEM and VLF-EM anomalies, has a flat topography implying shallow overburden and access was unlimited.

#### **Results for DDH Y65-11 Sub-zone**

Two trenches were stripped across weak Beep-Mat anomalies. Relic bedding is preserved in the sediments. The gneisses are very competent and highly silicified compared with the sediments that show signs of having been sheared or deeply weathered. Trench A shown below intersected a weakly mineralized zone (Cg + pyrrhotite) about two meters wide. Attempts to intersect a mineralized marble horizon as recorded in the drill core log came up empty because the overburden became progressively deeper towards the north end of Trench A and had to be abandoned and re-filled. The rusty quartzites also have minor diopside: therefore the protolith had some carbonates, which is a constant companion of graphitisation in the Malcolm Prospect.

Trench B had no visible signs of graphite, yet there was a distinct, but weak, Beep-Mat anomaly and is attributed to pyrrhotite. No channel samples were taken because graphite content was too low. This means that results remain undetermined because the stratigraphically lower mineralized marbles (as per DDH YD65-11 log) were not found. This is significant because we have proven that calcitic marbles are hanging and foot wall rocks.



Figure ??: Layout of trenches near DDH YD65-11

# **Results for the Skidder Landing Sub-Zone**

Results for this zone are very disappointing because overburden was too deep to reach bedrock in most cases and for that reason no samples were taken. Project geologist, Chris Fouts, supervised most of the test pitting and made several important observations:

- 1. The glacial till is a diamict made of two sizes, sand and boulders,
- 2. Drainage is good because no cavitations were observed. Sidewall compaction is good,
- 3. Gravel and cobbles are extremely rare, boulders dominate the basal portion,
- 4. Minor amounts of clay show up in the basal portion,
- 5. The clay starts to hardpan and makes digging with a ditching bucket very difficult,
- 6. Boulder provenance varied, but some were local marbles and calc-silicates, and Marc Forget identified one erratic graphite schist boulder from the North Limb.
- 7. Most boulders were small enough to fit in a 1 metre bucket, but some were so large we thought we had hit bedrock,

There was enough data to map a till isopleth and is shown on the map below. Locations of test pits are shown on the map below and their exact UTM locations are in Appendix C.



# **Results for Central Zone**

The Central Zone is 200 metres east of the Beachwood Hunt Camp. Systematic stripping and Beep-Mat surveys has proven a mineralized surface showing of approximately 40 m X 100 m. Grab sample grades range from 6% to 10% Cg and channel samples average 2% to 3% Cg over 18 metres. Channel samples do not include a 22 metre wide mineralized zone under the swamp. The difference in grade between grab samples and channel samples is significant and is evidence of sampling bias (grab samples are selectively over representative). Grades from Trench 4 appear to increase as the scarp plunges into the swamp, but more data from the swamp is required to confirm this trend.

Central Zone	Sample	Graphite %	Mean Cg%	Phase I Samples
Trench 1	MG-01	3.64		
	MG-02	4.70		MP-01 = 6.51% Cg
	MG-03	2.68		
	MG-04	4.19		
	MG-05	3.95		
	MG-06	1.37		
	MG-07	0.47	3.07	
	MG-08	3.59	over 8 metres	
Trench 2	MG-09	3.40		
	MG-10	1.99		
	MG-11	0.65		
	MG-12	2.97		
	MG-13	1.17		
	MG-14	2.59	2.97	
	MG-15	4.46	over 7 metres	MP-02 = 8.49 % Cg
Trench 3	MG-16	1.81		New Zone
	MG-17	2.95		
	MG-18	1.20		
	MG-19	1.56		
	MG-20	1.95		
Trench 4	MG-21	1.75		New Zone
	MG-22	0.52		
	MG-23	2.50		MPH 5014168 = 9.81 % Cg
	MG-24	2.45	2.05	
	MG-25	3.84	over 10 metres	
Trench 5	MG-A	3.75	Inferred	New Zone
	MG-B	4.25	3.13	
	MG-C	1.40	over 10 metres	
Trench 6	MG-D	0.27		

Table ??: Assay results for the Central Zone

The map on the next page shows the location of trenches and channel sample numbers. Trench 7 is a shallow trench across hanging wall marbles and Trench 8 is across a mineralized zone and arenite footwall. Neither trench was sampled or assayed in this project because of uncertainty related to budgetary constraints. Sample MP-04 assayed 2.49% Cg from Phase I.



## **Results for East Zone**

The **Southeast Zone** was discovered in this project and was part of the Phase I "East Zone". It is located about 80 metres due north of a TDEM anomaly located at 317057E 5014318N. The discovery was made using the Beep-Mat at a location that was projected up-dip from the TDEM anomaly assuming a southern dip of 60°. The conductor signal strength was marginal, but had a definite pencil like linear aspect to it, about 5 metres long. This conductor shape is typical of good showings under overburden and this anomaly was completely missed in the Phase I Beep-Mat survey (hence persistence is important).

There is only one large pit. The average grade over 9 metres is 6.15% Cg, which makes this zone the best result for the Malcolm Prospect. In addition, the mineralization continues in all directions under overburden. See the trench layout map on the next page.

Southeast				
Zone	Sample	Graphite %	Mean Cg%	Phase I Samples
Trench 9	MG-34	5.42		New Zone
	MG-35	3.58		
	MG-36	7.86		
	MG-37	6.15		
	MG-38	6.24		
	MG-39	8.35		
	MG-40	2.42		
	MG-41	10.60	6.15	
	MG-42	4.69	over 9 metres	

The **Northeast Zone** trenches are several metres inside the Little-Bryan Prospect but the sediments dip under the Malcolm Prospect property line and are part of this assessment. The average grade is 2.30% Cg over 5 metres. Refer to the trench layout map two pages down. The showing is 145 metres due north of a TDEM anomaly at 317232E 5014672N and was discovered in outcrop during an up-dip survey in Phase I.

Northeast				
Zone	Sample	Graphite %	Mean Cg%	Phase I Samples
Trench 10	MG-26	4.54		MP-09 = 8.16% Cg
	MG-27	0.62		MP-08 = 1.44% Cg
	MG-28	1.10		
	MG-29	2.97		
	MG-30	2.27	2.30	
Trench 11	MG-31	1.28	over 5 metres	
	MG-32	3.41	2.35	
Trench 12	MG-33	0.51		





## **Results for Northwest Zone**

No attempt was made to estimate the grade of graphite in these samples because it is a fool's errand. Assays will be performed at a later date, but suffice to say, graphite flakes occur in sandy marbles, quartzites or arenites all along the strike of the TDEM anomalies and across the entire property (> 1.2 km). MPH assayed one sample in 2012 (1.14% Cg) and the location is shown on the Northwest Geological map. MPH personnel must have blazed out a control line in anticipation of future work because the writer found older flags all along the TDEM anomaly.

This work was performed on August 26 and 27 of 2015, requiring two days of prospecting by the writer alone: half a day to run the control line, and one and a half days to map rock units and locate and extract five mineralized samples. Work done is included as part of this report. Access is very good along a forest road that forks off the Graham Lake forest road towards the north and continues east above the mineralized scarp. All samples were extracted from bedrock and represent the average grade of mineralization and not the best.

In general, these mineralized rocks represent a sandy facies of the carbonate sequence called marble & quartzite on the geological map. No samples tested positive for carbonates. Bedding is well preserved in many units. Strong foliation in some samples and absent in other samples suggest a kinematic facies associated with thrusting. Dramatic changes in texture across such short distances is remarkable. Except for NW4, pyrrhotite is completely absent and raises the very important question concerning the strong TDEM anomalies: are these rocks dominated by graphite?

#### Sample NW1

This sample is a tough and competent quartzite. The surface is stained red brown, but not gossany. The rock unit and sample have relic bedding and no foliation. The unit dips steeply (not enough exposure to accurately measure) and strikes east. Graphite flakes glitter as the rock is rotated, confirming the random orientation of flakes when viewed under the stereo microscope. There are no mica, carbonates, sulphides or mafics. It is on strike with and similar to sample NW4, but is not foliated and has no sulphides. Therefore, this unit is a different bed.

### Sample NW2

This sample is a mineralized feldspar quartz arenite with a noticeable amount of white mica and graphite flakes that gives it peppered appearance across foliation. It also has the largest grain size nearing coarse sand; all other samples have fine to medium grain size. It is palpable, weakly bedded, foliated and fissile. The rock unit dips 75° to the south and strikes 65°.

Glitter is due to graphite flakes and white mica flakes. Orientation and number of flakes gives the bedded surface a strong schistose appearance as well. Therefore another name for this rock could be mica graphite schist, which brings up an important rock naming conundrum: mineralogical content versus physical appearance.

#### Sample NW3

This sample is light brown to cinnamon throughout with no significant difference in the weathered surface. The matrix is quartz sand and even though it is a quartz arenite, one could easily mistake it for a sandstone. This rock is friable and palpable with a sandy texture.

Many graphite flakes glitter in the matrix as the sample is rotated back and forth, which is confirmed by the random orientation of the flakes in the matrix (compare this with the highly oriented flakes of NW4) when observed under the stereo microscope. Feldspar is difficult to identify and there is some white mica. Sulphides, carbonates and mafics are entirely absent.

#### Sample NW4

This sample was cut from the bottom face of a scarp with a rock saw. The weathered exterior of this very tough and hard rock is rusty. It is strongly foliated and relic bedding is preserved. The rock unit strikes about 60° and dips 70° to the south southeast. It has a gneissic appearance and is very competent (compare this with NW5).

Under the stereo microscope, graphite flakes, pyrrhotite and sphalerite are seen in a matrix of quartz with some diopside and minor amounts of other pale coloured minerals. Many minerals are stretched in one direction, hence the strong foliation. Graphite flakes line up along this same direction in what appears to be discontinuous stringers. There are no carbonates, mafics, feldspars, and micas are rare.

#### Sample NW5

This sample was extracted from bedrock in the centre of the stream, just below the beaver dam and swamp. The stream must have high energy during spring run-off because it has carved a gut through the marbles. Marbles surround this rock unit. The rock unit is bedded, strikes west of north (difficult to ascertain because of limited strike exposure and an unusual fold in the marbles) and dips steeply to the east. There is no foliation.

The exterior of this sample is covered in a distinctive dark ruddy brown to black patina. This is unique in the Malcolm rocks and not found elsewhere, which is critical in provenance studies of erratics in glacial till. Hydrogen peroxide tests positive for manganese dioxide (the patina fizzes). An HCl test for carbonate proved negative. A fresh surface appears medium grey with many tiny scintillations (caused by mica and graphite flakes). The fresh surface is palpable and feels like sand paper to the touch. Aggressive rubbing leaves a distinct grey "graphite" streak on the finger.

Under the stereo microscope, distinct flakes of graphite and brown mica is seen in a sandy matrix of transparent quartz grains. The rock is porous and friable when wet; less so when dry. Cementation is weak along grain boundaries because quartz grains can be easily teased apart with the tip of a steel needle. If correct, this rock has resisted laterization (laterite) due to the complete absence of pyrrhotite, unlike the sandy and rusty laterites found in trench 8 and trench 10 of this project. This has important implications in terms of sedimentary facies and stratigraphic correlation of the south and north limbs. Should economic quantities of graphite be discovered, the geologist will want to know in which facies the best graphite grades occur.









Photographs of samples NW1-5 from the Northwest Zone

# **Results from Geological Mapping**

## West & Central Zone

Rocks in the West Zone strike on average 60° and only coincidentally dip 60° to the south southeast. A large ridge of hornblende quartz gneiss dominates the south half. At the contact with marbles and quartzites, there is a significant scarp along the entire length. Flake graphite is found along a very narrow bed (10-20 metres thick) in the sandy carbonate rocks. TDEM anomalies and older VLF-EM data constrain the mineralized rock to the north of and under this scarp.

At the west end of the west zone, mineralization occurs on top of the scarp (DDH YD65-11), but we believe that it crosses to the bottom of the scarp as one goes east. There is a significant trough along the length of the sandy carbonate sequence and very deep overburden has frustrated our efforts to uncover bedrock showings. Test pitting has enabled us to map the overburden isopleth, (refer to results for West Zone) but is uncertain because the excavator did not hit bedrock in most instances.

Rusty gneiss contains minor amounts of graphite and sulphides. This leads us to believe that these rocks are contemporary with, but sequentially overlay, the sandy carbonates. The hornblende quartz gneiss may represent an imbricated slab of much younger sediments. The sequence repeats itself in the north, including TDEM anomalies and this has led to the detailed discussion on stratigraphic duplexing in Appendix A. The same geological trend continues along the Central Zone, but overburden thins west of the Hunt Club and several excellent showings have been stripped and sampled.

### East Zone

The aforementioned geological and geophysical trend encounters an abrupt discontinuation in the East Zone. A narrow magnetic high associated with pyrrhotite in the sandy carbonates disappears as shown in the geological map for the East Zone. There is a significant shift in the axis of the marble-quartzite (protolith of sandy carbonates) and rusty gneiss units. In conjuction with kinematic indicators such as hydrothermal quartz, biotite schists and a macroscopic scale cross cutting scarp, a left lateral fault has been deduced.

Prior to the proper elucidation of this phenomenon, several failed attempts at Beep-Mat surveys resulted because we assumed that the trend continued along strike and not towards the north. In this project we conducted another Beep-Mat survey along the northern deflection of made the very encouraging discovery of the Southeast Zone. We followed and mapped mineralized quartzites along the ATV trail. This is a classic example why geophysics and geological mapping is crucial to the execution of exploration projects. Without the assistance of a qualified geologist (Chris Fouts), the Southeast Zone may have gone undiscovered.

# Northwest Zone

This zone was mapped and sampled as a supplement to the present project on August 26 and 27 of 2015 and is not part of OEC 2015-12, but is included in this report as part of the overall assessment. On the morning of August 26, in anticipation of a Beep-Mat survey, a control line was flagged. The Beep-Mat survey was not completed, but was used to find near surface showings of graphite, namely NW1 to NW5. Traverses are shown on the map below.

The samples were photographed and examined under a stereo microscope. See the results in the previous section.

Even though the mineralized zone is conclusively part of a "carbonate package", the rocks of the Northwest Zone (north limb) are very different in appearance (texture & colour) and lack the sulphides as observed in the south limb. No gossany outcrops or laterites have been observed thus far. However, quartz sand still dominates the mineral content of graphitic rocks. The appearance of more alumina minerals and less sulphides is noteworthy.

Micas and feldspars are more common in these schistose and foliated rocks. The differences are notable and raises questions regarding stratigraphic correlation between the two limbs. The differences may be attributable to changes in depositional facies, metamorphic or deformational history. Additional exploration, sampling and assays will help resolve these apparent differences.



Prospecting traverses in the Northwest Zone.

### **Results from other Assays**

Some mineralized rock contains significant amounts of sulphides. Total sulphur, base and precious metal content was analyzed from two representative samples. Assays for gold and platinum were negative, base metals were elevated but not anomalous, except for iron and sulphur combined (mainly pyrrhotite) and was 21.28% w/w in MG-03.

## Additional Staking & Prospecting Activity

After completion of Phase I, Allen Dubblestein (Little-Bryan) mentioned that Lots 22-24 of Concession 7 were not Surface Rights Only (SRO) patented properties, but were unpatented Crown Lands. This was very important because a major TDEM conductor traverses these lots.

The Tax Clerk at the Municipal Office confirmed Allen's suspicions (no tax roll for the said lots), and a process of due diligence was initiated by Marc Forget in July 2015. Discovery found an error was made in 1986 when the a Land Title was registered for the same lot and concession numbers, but in the adjoining Brudenell Township at the Land Registry Office. Later in 1995, the Land Registry Office accidentally created a new PIN for the same lot and concession numbers, but for the Crown Land in Lyndoch Township. This error went unnoticed until Allen Dubblestein questioned the correctness of the SRO designation.

It is assumed that when William Brereton staked the Malcolm and Little-Bryan in 2010, he passed over these SRO lots because they were withdrawn from staking under pending changes in the Mining Act.

At the request of the writer, the Ministry (MNDM) contacted the Surveyor General Office and had the Land Registration corrected. In the mean time, the writer applied to record the lots and when all was verified, the claims were recorded in Marc Forget's name. The properties are shown on the Claim Map at the beginning of this report. The complex nature and long history of land tenure in the Province of Ontario is why the Ministry (MNDM) encourages all prospectors to double check information obtained from Claimaps. The information on their website is obtained from many sources outside of the Ministry and errors simply get passed on.

The importance of these lots and adjoining ground in the Little-Bryan (now staked by Allen Dubblestein) should not be underestimated. A prominent TDEM anomaly (only discovered in 2012), is identical in every respect to the south limb. The anomalies traverse these properties and *has never been systematically explored.* Therefore, on August 26, the writer spent a few days mapping and prospecting the anomalies.

The strike lengths of a series of very strong TDEM anomalies traverse all three properties. After recording the claims, the properties were prospected at the recon level by the writer. Within two days, five showings of graphite in bedrock were discovered along the central axis of the TDEM anomaly. Flagging was used to mark the locations and a rock saw used to extract some samples, but no assays have been completed to date.

Interestingly, the writer also saw older flagging that coincided with the strike of the graphite showings. This may have been the work of MPH Consulting personnel (2012) in anticipation of future work, but this has not been confirmed. There is some historical evidence (MNDM records) that Little and Bryan planned on doing some stripping and drilling along the mineralized zone in , but there is no physical evidence or records that this work was ever completed.

#### **Discussion & Recommendations**

Results from OEC Phase II strongly suggest that good grade and tonnage of graphite is realizable in the Malcolm prospect, but not yet proven. On average, grades range from 2% to 6% Cg over eight metres. The Central Zone has a proven mineralized surface area exceeding 4000 square metres and Southeast Zone may be as large or larger.

Grab samples are very biased and do not represent grade either way: some grab samples over represent grade (>10%) and some grab samples under represent grade (<2%). Estimates of grade from visual inspection is strongly discouraged because they vary considerably from actual assays and are simply not reliable.

Channel samples from this study are more indicative of grade because they almost constitute a mini-bulk sample across many meters. Flake graphite occurs inconsistently throughout the stratigraphic column and is reflected in the variations of grade from one meter sample to the next. The most common associates of graphite are calcite, sand and sulphur: but not always together in the same sample.

This suggests that organic life (assuming the graphite is biogenic) was growing and waning in environments close to the boundary between the carbonate and sand facies during a period of time when volcanic activity (underwater fumaroles) was indiscriminate. This explains why some samples are rich in graphite and poor in sulphur and the exact opposite. The single most common connection with graphite is the transitional facies of the carbonate sequence. For example, the laterite of trench 10 assayed 9% Cg, is sand that probably had calcite cementation and sulphur. A similar laterite is found in trench 8 stratigraphically sandwiched between a calcitic marble and quartzite unit. Calcite is easily decomposed by sulphuric acid.

Though the channel samples yielded much better data than a grab sample, they are one dimensional. The very nature of the MNDM Exploration Plan limitation on stripping and the one dimensional geometry of a typical trench seriously constrains a meaningful lateral grade of a showing.

# It is therefore recommended that the Central and Southeast Zones be completely stripped under an Exploration Permit and channel sampled every ten metres along strike to ascertain the average grade in two dimensions.

Deep overburden in the West Zone has created a unique challenge. Though geophysical data (TDEM & VLF-EM) strongly implies that excellent mineralized rock lies along the bottom of the scarp, we failed to reach bedrock with the method used in this project. The mini-excavator used in this project was limited to an effective reach of about 3 metres.

Although more costly, deeper and larger pits (instead of trenches) could reach mineralized bedrock. This is still far less costly than drilling and because graphite extraction is almost always surface mined, depth of overburden must be determined sooner or later.

#### It is therefore recommended that the West Zone be explored with a full sized excavator with a reach of six metres by digging deeper and larger test pits, also under an Exploration Permit.

### **Statement of Qualifications**

Marc Forget is the qualified MAAP supervisor for this project. He has successfully managed and completed eight OEC projects to date. Marc, a retired engineering technologist, received his post secondary education in chemistry and electronics engineering. Marc has over forty years of experience in the fields of science and technology, including systems engineering, project management and senior management in both the private and public sectors. Marc has combined his knowledge of chemistry and physics to earth sciences and has applied his management and technical knowledge to mineral exploration.

Chris Fouts is a graduate geologist, University of Western Ontario (1986) and has worked in the field of geology since then. Chris has extensive hands-on knowledge of the rock formations of the Central Metasedimetary Belt and is keenly aware of their complicated structure and lithology. Chris is a very good field geologist and has a keen eye for the twist and turns in these rock formations. His project and field experience helped maximize excavator time while the writer was busy channel sampling.

#### Acknowledgements

Marc Forget wishes to thank Peter LeBaron, District Geologist of the Ontario Geological Survey, for his invaluable assistance in the evaluation of this property and project. Marc also thanks the Ontario Exploration Corporation for their financial assistance and MNDM for helping in the resolution of land tenure issues.

Chris Fouts, project geologist, was responsible for the discovery of the Southeast Zone and suggested that the two types of gneisses probably have very different provenance (an unconformity?), hence the correlation of the units with River's 2008 paper.

### **Claim Holder Contact Information**

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#### **Technical References**

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#### **Financial Statement**

Below is a detailed account of expenses including costs for "labour in kind" and equipment rentals supplied by the claim holder. All items below are supported by copies of receipts or invoices. Expenses in kind (NA) are supported by references in the Daily Work Log, and work performed or activity references contained in this report. Use the Item number below as a reference for copies of invoices following the Daily Work Log.

Contingencies were:

- 1. The cabin in Combermere was double booked for Thanksgiving weekend and the claim holder (Marc Forget) had to book a room in Bancroft for one night. (see below)
- 2. The total weight of samples exceeded the capacity of the trailer and a second trip from Marmora to the cabin (Combermere) and back was required to haul the samples out.
- 3. A generator and sump pump was required to de-water several trenches.
- 4. The excavator broke down on Saturday, October 10, and a replacement was floated in late Monday, requiring us to work the following Saturday. A credit for the lost time was applied on the invoice for the second week. Total hours therefore balance.

Product Code	Description	Units	Cost	Subtotal	HST	ltem
RX1-Graphite	Crush & Pulverize + collect dust	47	10.50	493.50	64.16	1
4F-C Graphitic	% Graphite (Infrared Analysis)	47	25.00	1,175.00	152.75	1
4F-S	% Sulphur (Infrared Analysis)	4	17.00	68.00	8.84	1
UT-4	Au, Pd, Pt Fire Assay MS Finish	1	23.00	23.00	2.99	2
1C-Exp	ICP-MS Multi-element-4 Acid Digest	2	20.00	40.00	5.20	2
Sample Disposal Fee		47	0.25	11.75	1.53	3
Shipping to ActLabs	Marc delivered 630 km @\$0.50/km	630	0.50	315.00	40.95	NA
Excavator	Bobcat 45 Excavator	93	80.00	7,440.00	967.20	4, 5
Float Excavator	Bobcat 45 Excavator	2	250.00	500.00	65.00	4, 5
Trailer Rental	Marc's trailer for equipment, samples	2	250.00	500.00	65.00	NA
ATV Rental	Allen's ATV	2	500.00	1,000.00	130.00	6
Rock Saw Rental	Marc's Rock Saw	2	250.00	500.00	65.00	NA
Chain Saw Rental	Marc's Chain Saw	2	100.00	200.00	26.00	NA
Pump & Generator	Marc's dewatering system	2	250.00	500.00	65.00	NA
Prospecting Labour	Marc (Daily rate)	12	250.00	3,000.00	390.00	NA
Report Writing/Maps	Marc (Daily rate)	4	300.00	1,200.00	156.00	NA
Geologist	Mapping Stratigraphy	11	500.00	5,500.00	715.00	7, 8
Mileage (in km)	Marc (Mobilization & Demobilization)	1200	0.50	600.00	78.00	NA
Mileage (in km)	Marc (Daily Commute from cabin)	960	0.50	480.00	62.40	NA
Meals	Marc	1	122.47	122.47	15.92	9, 10
Motel (Combemere)	Marc (weeks) Cabin	2	500.00	1,000.00	0.00	11
Motel (Bancroft)	Overnight due to double booking	1	89.96	89.96	11.69	12
Fuel	For rock saw & ATV	1	47.40	47.40	6.16	13
Safety Supplies	Pit Shoring, respirators, gloves	1	227.43	227.43	29.57	14
Prospecting Supplies	Markers, flagging tape, polybags, pails	1	430.59	430.59	55.98	15
Prospecting/Mapping	2 days on Northwest Zone Aug 26 & 27	2	250.00	500.00	65.00	NA
			Subtotal	25,964.10	3,245.34	

TOTAL = 29,209.44

	Daily Work Log (Week 1)					
			Marc		Hours	
Date	Work Performed		(km)	Marc	Chris	Brad
4-Oct	Mobilized from Marmora to Gun Mountain Chateau, Combermere		150			
5-Oct	Daily commute to and from project site and back		80			
0.000	Marc & Chris reviewed exploration plan, toured entire property. Marc showed Chris how to use Beep-Mat			2	2	
	Started Beep Mat survey of Central Zone, located MPH 5014168, Chris proficient with Beep-Mat			2	2	
	Chris continued geological Mapping and detailed Been-Mat survey of Central Zone			-	4	
	Marc surveyed out stripping for Central Zone			4	·	
	Excavator delayed one day due to previous commitment			·		0
6-Oct	Daily commute to and from project site and back		80			2
0.000	Excavator arrived around 8 am. Unloaded & walked excavator up to Central Zone		00	2		2
	Marc supervised excavation of T1 showed Chris what was required. Chris supervised T2 T3 & T4			2	4	6
	Marc started channel sampling T1			4	•	Ũ
	Chris continued geological mapping of Central Zone & Been-Mat survey. Conductor goes under swamp			•	4	
7-Oct	Daily commute to and from project site and back		80		•	2
1 000	Excavation of T5 to T8 in Central Zone		00			8
	Chris now supervised trenching while Marc continued channel sampling T2			4	4	Ũ
	Chris & Marc continued with manning and been-mat survey in central zone discovered new BM anomaly			4	4	
8-Oct	Daily commute to and from project site and back		80	•	•	2
0.000	Brad started test nits NW of T9 (now the Southeast Zone)					8
	Chris manned & supervised test nitting area NW of T9 See test nitting mans for Central & East Zones				8	Ũ
	Marc channel started sampling T3 & T4 (had to build scaffolds)			8	Ũ	
9-Oct	Daily commute to and from project site and back		80			2
0.000	Brad moved excavator to new been-mat anomaly: T9 Chris supervised trenching & manned		00		3	3
	Brad moved excavator to face of quartzite knob. Knocked down talus. Chris supervised & mapped				5	5
	Marc finished channel sampling T4 and sampling (no channels) T5 & T6. No samples from T7 & T8			8	Ũ	Ũ
10-Oct	Daily commute to and from project site and back		80			2
10 000	Excavator Broke down at quartzite knob in North Fast Zone: blew main hydraulic seal on forearm		00	2		1
	Marc & Chris carried on manning & been-mat survey			6	8	•
	Noticed T9 was starting to flood due to high water table. Pump was required			Ũ	Ũ	
11-Oct	Picked-up generator & pump in Marmora, set-up sump at T9 and started numping to test		300	4		
	refresh rate with one nump (second nump was not required)			•		
		- Totals	930	52	48	43
		Dave		6	6	4
		Days		Ū	Ū	-

			Marc		Hours	
Date	Work Performed		(km)	Marc	Chris	Brad
12-Oct	Daily commute to and from project site and back		80			
	Chris & Brad took Thanksgiving off. Brad floated replacement excavator in at end of day (no charge)				0	0
	Marc used time to check on water levels and carry out samples back to cabin.			8		
13-Oct	Daily commute to and from project site and back		80			2
	Chris mapped & supervised test pitting between T9 & T10 to try and intercept mineralization (failed)				8	
	Brad excavated the rest of quartzite knob and test pits between T9 & T10 and finished excavating T10-12					8
	Marc moved pump & equipment to T8 and started pumping out water at end of day			8		
14-Oct	Daily commute to and from project site and back		80			2
	Chris supervised T10 excavation & continued mapping (complicated by proximity of trail and drainage)				8	
	Brad finished ground levelling, trail repair and ditching around T10.					7
	Marc finished channel sampling T10, T11 & T12 in Northeast Zone (required pumping)			8		
	Walked excavator from East Zone to West Zone					1
15-Oct	Daily commute to and from project site and back		80			2
	Chris mapped & supervised test pitting in West Zone. See map for details. Deep drift.			1	4	
	Brad excavated 4 test pits in West Zone					4
	Marc recalled excavator to Southeast Zone to enlarge trench 9. Sent excavator back to West Zone			7	4	4
16-Oct	Daily commute to and from project site and back		80			2
	Chris continued mapping & supervising test pitting in West Zone. See map for details. Deep drift.				8	
	Brad excavated 8 additional test pits in West Zone					8
	Marc finished channel sampling trench 9 in Southeast Zone (required pumping)			8		
17-Oct	Daily commute to and from project site and back		80			2
	Contract with Chris terminated on Friday				0	
	Marc supervised four test pits in West Zone, packed up and transferred equipment to Little-Bryan site			8		
	Brad excavated four test pits in West Zone, packed up his equipment, walked Bobcat out to float					8
18-Oct	Hauled samples to Marmora & returned to Combermere		300			
	to begin Little-Bryan OEC Phase II					
		Totals	780	48	32	50
		Days		6	4	6
Invoices



### Innovative Technologies

# Item 1

This is your final copy. If you require an original to be mailed by post please advise, otherwise this email will be deemed sufficient.

Invoice No.:	A15-09644
Purchase Order:	OEC-2015-05
In∨oice Date:	19-Nov-15
Date submitted:	09-Nov-15
Your Reference:	MALCOLM PROJECT
GST # :	R121979355

Frontenac Ventures 8 North Hastings Ave Marmora ON K0K 2M0 Canada

### ATTN: Marc Forget

### INVOICE

No. samples	Description	Unit Price	Total
47	RX1-Graphite	\$ 10.50	\$ 493.50
4	4F-S	\$ 17.00	\$ 68.00
47	4F-C-Graphitic	\$ 25.00	\$ 1,175.00
		Subtotal:	\$ 1,736.50
		HST-13%	: \$ 225.75
	A	MOUNT DUE: (CAD)	: \$ 1,962.25

Net 30 days. 1 1/2 % per month charged on overdue accounts.

The above amount has been charged by Visa.Thank you for your payment! Auth#027550,Nov.23,2015.

ACTIVATION LABORATORIES LTD.

41 Bittern Street, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL ancaster@actlabs.com ACTLABS GROUP WEBSITE http://www.actlabs.com

Please reference the invoice number when making a payment by Bank/Wire transfer. Intermediary Bank Fees are the responsibility of the client.

of the client. Thank you!





### Innovative Technologies

Item 2

This is your final copy. If you require an original to be mailed by post please advise, otherwise this email will be deemed sufficient.

In∨oice No.:	A15-09644B
Purchase Order:	OEC-2015-05
In∨oice Date:	18-Dec-15
Date submitted:	09-Nov-15
Your Reference:	MALCOLM PROJECT
GST # :	R121979355

Frontenac Ventures 8 North Hastings Ave Marmora ON K0K 2M0 Canada

### ATTN: Marc Forget

### INVOICE

No. samples	Description	Unit Price		Total
2	1C-Exp	\$ 20.00		\$ 40.00
1	UT-4	\$ 23.00	0	\$ 23.00
		Subtotal:	5	\$ 63.00
		HST-13%	:	\$ 8.19
		AMOUNT DUE: (CAD)	:	\$ 71.19

Net 30 days. 1 1/2 % per month charged on overdue accounts.

Bank Transfers can be made to: ACTIVATION LABORATORIES LTD at ROYAL BANK OF CANADA 59 WILSON STREET WEST ANCASTER, ONTARIO CANADA L9G 1N1 TRANSIT #: 00102 003 ACCOUNT #: 100 154 4 SWIFT CODE#: ROYCCAT2 Please reference the invoice number when making a payment by Bank/Wire transfer. Intermediary Bank Fees are the responsibility

of the client. Thank you!



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### Innovative Technologies

# Item 3

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In∨oice No.:	A15-09644C
Purchase Order:	OEC-2015-05
In∨oice Date:	04-Jan-16
Date submitted:	09-Nov-15
Your Reference:	MALCOLM PROJECT
GST # :	R121979355

Frontenac Ventures 8 North Hastings Ave Marmora ON K0K 2M0 Canada

### ATTN: Marc Forget

N

### INVOICE

lo. samples	Description	Unit Price		Total
47	disposal	\$ 0.25		\$ 11.75
		Subtotal:	5	\$ 11.75
		HST-13%	:	\$ 1.53
	-	AMOUNT DUE: (CAD)		\$ 13.28

Net 30 days. 1 1/2 % per month charged on overdue accounts.

Bank Transfers can be made to: ACTIVATION LABORATORIES LTD at ROYAL BANK OF CANADA **59 WILSON STREET WEST** ANCASTER, ONTARIO CANADA L9G 1N1 TRANSIT #: 00102 003 ACCOUNT #: 100 154 4 SWIFT CODE#: ROYCCAT2

Please reference the invoice number when making a payment by Bank/Wire transfer. Intermediary Bank Fees are the responsibility

of the client. Thank you!



ACTIVATION LABORATORIES LTD.

41 Bittern Street, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613 E-MAIL ancaster@actlabs.com ACTLABS GROUP WEBSITE http://www.actlabs.com

	Rallison Excavating RR #4 Bancroft, ON KOL 1C0 Phone 613-332-1066 Fax 613-332-9902				
	OUR NUMBER 825223 DATE OCT 10/15 CUSTOMER'S ORDER				
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Blueline DC172

INVOICE

©Blueline®, 2010

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	and the second					
				GST		

### Chris Fouts (613) 332-1077 c.fouts50@gmail.com

Item 7

c.touts50@gmail.com Mailing address: 29 Jade Bay Rd., R.R.#1, Bancroft, ON K0L 1C0

Business number: 81785 0738 RT 0001

### INVOICE

Marc Forgot 8 North Hastings Ave. Marmora, ON K0K 2M0 (613) 472-0406 October 16, 2015

Geological consulting on the Malcolm Prospect, Phase 2: 10 days@ \$500.00/day \$5,000.00 Oct. 5, 6, 7, 8, 9, 10, 13, 14, 15, 16 - Geol mapping, Beep Mat prospecting, Sampling

HST TOTAL \$ 650.00 \$5,650.00

Payable upon remittance Please make cheque payable to: Chris Fouts 29 Jade Bay Rd., R.R. #1 Bancroft, ON K0L 1C0

### **Thank You**

### Chris Fouts (613) 332-1077

c.fouts50@gmail.com Mailing address: 29 Jade Bay Rd., R.R.#1, Bancroft, ON K0L 1C0



### INVOICE

Marc Forgot Frontenac Resources 8 North Hastings Ave. Marmora, ON K0K 2M0 (613) 472-0406

Geological consulting on the Malcolm Prospect, Phase 2: 1 day @ \$500/day \$500.00 Data compilation and write up

Item 8

November 27, 2015

\$ 65.00

\$565.00

HST TOTAL

Payable upon remittance Please make cheque payable to: Chris Fouts 29 Jade Bay Rd., R.R. #1 Bancroft, ON KOL 1C0

**Thank You** 

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Thank yo Your	u Call again receipt
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Tin Hortons Store 4748 Barrys Bay, On Oct 05 2015 05:51 an Trans# 127736 TRANSACTION RECORD Card Number : xxxxxxxxx1207 Card Entry : TRP CHIP Card Entry : CHERDING	Irans type : Putchhot Amount : 5.37 Auth # : 08866 Sequence # : 0000006 Reference # : 0000006 Firace # : 0000006649 Firace # : 0000006649 Firace # : 05:51:23 ApPlication Label: Interac	10.00000027/1010       10.8000008000       151.2800 </td <td>HST 888264504 Iake-out 027736 1 Breakfast Sandu - Sausage 2.99</td> <td>English Muffin Forskied Sandwich Breakfed Sandwich Breakfest Conbo A 1 Mashbrown 1 Md Original Bland Double Double Subtotal Subtotal HST Total HST 0.26 HST 0.26 HST 0.26 HST 0.26 HST 0.26</td> <td>Total         5.87           Debit Auth #=061886         5.87           Monday October 05,2015         5.81           Minitt # 1 Reg. # 2         05:51:37           Trans # 127736         17736</td> <td>uteri up we up at www.telltimbortons.com? 1-883-601-1616 Thank you for your patronage! Register and reload your Tim Card at www.timhortons.com Customer Copy</td>	HST 888264504 Iake-out 027736 1 Breakfast Sandu - Sausage 2.99	English Muffin Forskied Sandwich Breakfed Sandwich Breakfest Conbo A 1 Mashbrown 1 Md Original Bland Double Double Subtotal Subtotal HST Total HST 0.26 HST 0.26 HST 0.26 HST 0.26 HST 0.26	Total         5.87           Debit Auth #=061886         5.87           Monday October 05,2015         5.81           Minitt # 1 Reg. # 2         05:51:37           Trans # 127736         17736	uteri up we up at www.telltimbortons.com? 1-883-601-1616 Thank you for your patronage! Register and reload your Tim Card at www.timhortons.com Customer Copy
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### **River View Hotel & Resort**

### INVOICE

Invoice: 883299		Date: October 19, 2015											
Name of Guest: N	larc Forget	Paymen	t: by cash										
Check In	Check Out	Suite/Cottage	Subtotal										
October 4, 2015	October 10, 2015	3	\$500.00										
October 11, 2015	October 17, 2015	3	\$500.00										
		Тах	xes included										
		то	TAL \$1,000.00										
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		BALANCE D	DUE nil										

Korigli Elfa Agent:

Thank you for staying at the River View Hotel & Resort!

39261 Combermere Rd, COMBERMERE ON K0J-1L0. (613) 756-3633

Marc Forget -> 8 North Hastings Ave Marmora, On

# Item 12

KOK 2M0

Date Oct09

Description PAID BY VISA - Thank you

Total Outstanding -101.65

Thank you for choosing Bancroft Inn & Suites 528 Hastings St. N., RR #1, Bancroft, Ontario K0L 1C0 www.bancroftinnandsuites.com 1-888-219-4900 We look forward to seeing you again soon!

Our H.S.T. # is 894218593RT

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	WELCOME           Shell Canada           358 John Street           KOJ 180           Barry's Day         ON           513-755-6446           XXXXXXXXXXX1135           VISA           PURCHASE         C           INV NO. 8010694502           2015/10/13 19:22           VISA           PURCHASE         C           INV NO. 8010694502           2015/10/13 19:22           VISA           PURCHASE           C           INV NO. 8010694502           2015/10/13 19:22           VISA           CREDIT           AID           A0000000031010           IVR 0080008000           TSI F800           V-Power           PUMP NO.           07           LIRES           27.815           PRICE/L           \$139           TOTAL FUEL           \$31.68           01 APPROVED - THANK           YOU 001           APPROVAL NO. 0666100           TERMINAL NO.           89801060           VERIFIED BY PIN           IMPORTANT <td< th=""><th>WELCOME         Shell Canada         2 MATTHEW ST PO BOX         KOK 2M0         MARMORA         ON         G13 472 6298         XXXXXXXXXX1135         VISA         PURCHASE         C         INV NO. 8004197838         2015/10/11 18:01         VISA         PURCHASE         C         INV NO. 8004197838         2015/10/11 18:01         VISA         C         INV ACCEDIT         AID         A0000000031010         TVR 0080008000         TSI F800         V-Power         PUMP NO.         04         LITRES         19.557         PRICE/L         \$21.88         OI APPROVED - THANK         YOU OOI         APPROVAL NO. 047555         TERMINAL NO.         89800410         VERIFIED BY PIN         IMPORTANT         retain this copy for         YOUR records         FUEL INCLUDES         HST - Fuel         YOU         VOI - 1374000322RT         TOTA</th></td<>	WELCOME         Shell Canada         2 MATTHEW ST PO BOX         KOK 2M0         MARMORA         ON         G13 472 6298         XXXXXXXXXX1135         VISA         PURCHASE         C         INV NO. 8004197838         2015/10/11 18:01         VISA         PURCHASE         C         INV NO. 8004197838         2015/10/11 18:01         VISA         C         INV ACCEDIT         AID         A0000000031010         TVR 0080008000         TSI F800         V-Power         PUMP NO.         04         LITRES         19.557         PRICE/L         \$21.88         OI APPROVED - THANK         YOU OOI         APPROVAL NO. 047555         TERMINAL NO.         89800410         VERIFIED BY PIN         IMPORTANT         retain this copy for         YOUR records         FUEL INCLUDES         HST - Fuel         YOU         VOI - 1374000322RT         TOTA
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Page # Res. # Checked in Departing Nights **Room Rate** Room

Reference

-067001 Fri Oct 9/15 - 7:12pm Sat Oct 10/15 1 89.96 242

> Credits 101.65 101.65

Charges

0.00



INVOICE



## Universal Field Supplies

NUMBER	DATE
0000137576	09/29/2015

GST REGISTRATION NO: 817076052 RT0(

CUSTOMER: Frontenac Exploration 8 North Hastings St. Marmora ON K0K 2M0 Item 15

SHIP TO: SAME

(613) 472-0406 Ext.

INVOICE DATE	P.O. NUMBER	PST NUMBER	ORD	ER DATE	PACKING SL	IP NO. CU	JSTOMER NO.				
Sep-29-15	Marc Forgot		28	-Sep-15	00005328	24	96137				
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PART NUMBER DESCRIPTION			REQ.	QUANTI SHIPPI	TY ED B.O.	UNIT PRICE	EXTENDE PRICE				
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PSCB3102Y16362 BARRICADE TAPI	E YELLOW CAUTION 3" x	1000'	2	2		8.80000	17.6				
PSCCM1BG125265 FLAG TAPE BLUE	E GLO ARCTIC 1" x 125'		10 10			1.64000	16.4				
PSCCM1OG125265 FLAG TAPE ORG	GLO ARCTIC 1"X125'		10	10		1.64000	16.4				
PSC4530BG STAKE FLAG BLU	E GLO 30" METAL SHAFT		100 100			0.15000	15.0				
LOMT78C ALUMINUM WRITI	E ON TAGS 7/8" X 3" PKG	OF 100	2	2		9.85000	19.7				
JLD37 ALL WEATHER PE	EN	the second	2	2		16.8 <mark>6000</mark>	33.7				
JL <mark>D540F</mark> NOTEBOOK HARE	DBOUND GEOLOGICAL RI	R	2	2		33.80000	67.6				
JLDC540F BOUND BOOK CC	RDURA POUCH		2	2		39.66000	79.3				
JLD157 NOTEBOOK - DAII	LY LOG 4" x 6"		3 3			9.25000	27.7				
DTI86270 Marker, Black Redi	mark - Bullet Point		12	12		2.00000	24.0				

#### CONTINUE

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### CUSTOMER COPY

Claims must be made within 5 days of receipt of goods. Goods are not returnable without written instructions from the company. 2% per month charged on overdue accounts.

1540 Trinity Dr., Unit 4, Mississauga, ON L5T 1L6 P: (905)795 1610 Fax :(905) 795 1632 Toll Free: 1 800 387 4940 Arboriculture -Environmental Sciences-Forestry-Mineral Exploration-Safety- First Aid- PPE-Survey- Engineering

### **Universal Field Supplies**

IN	VO	ICE	-
NUMBER		DA	TE

0000137576

09/29/2015

GST REGISTRATION NO: 817076052 RT0(

CUSTOMER: Frontenac Exploration 8 North Hastings St. Marmora ON K0K 2M0 Item 15

SHIP TO: SAME

(613) 472-0406 Ext.

INVOICE DATE	P.O. NUMBER	PST NUMBER	ORDE	R DATE	PACKING SL	IP NO.	CUS	STOMER NO.			
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See special shipp	ing notes below	CREDIT CARD		0	ur dock		HOU				
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CANADIAN DOLLAR

TOTAL	GST / HST	PST	SHIPPING	DISC AMT	DISC %	SUBTOTAL
\$ 425.75	48.98		20.00			356.77
_	48.98		20.00			356.77

Claims must be made within 5 days of receipt of goods. Goods are not returnable without written instructions from the company. 2% per month charged on overdue accounts.

1540 Trinity Dr., Unit 4, Mississauga, ON L5T 1L6 P: (905)795 1610 Fax :(905) 795 1632 Toll Free: 1 800 387 4940 Arboriculture - Enviromental Sciences-Forestry-Mineral Exploration-Safety- First Aid- PPE-Survey- Engineering

### Appendix A: Alternative Stratigraphic Model

The writer previously posited that two parallel, east striking TDEM conductors, roughly 1.5 km apart, suggested a recumbent anticlinal fold, and have been referred to as "limbs". The notion of folded structures was important to exploration because of substantial lateral offsets at two locations and a secondary set of parallel TDEM conductors in the west part of the property. Simple geometric up dip projections from known TDEM anomalies was not providing a completely reliable method to find surface showings, therefore more detailed stratigraphy was needed to better understand and predict the location of surface showings. Field evidence from this survey does not entirely support the anticlinal recumbent folding hypothesis, nor does it nullify the hypothesis. New field evidence now tentatively supports a duplexing model.

Duplexing (Mitra, 1986) occurs during the activation of a passive margin by an active volcanic arc or continental collision for example. To better understand this mechanism, refer to the diagram on the next page. Horizontal detachment of sedimentary formations along favourable zones override underlying formations to form a simple duplex during early stages. Many world class hydrocarbon systems are favourable zones (including evaporite deposits). These deposits are structurally incompetent and form over very large surface areas along the coast of continental shelves and are primary exploration targets for the petroleum industry.

Tertiary detachment (triplexing) initiates the imbrication stage (also called multiple duplexing). Significant volumes of imbricated rock can create huge mountain chains during this stage. Deeply buried horses can soften under intense heat and pressure and these ductile formations can fold into classic multiple anticlinal or synclinal accordion like folds. Foreland overlaps can and do create very large foreland anticlinal structures. We thought that this was the case at the Malcolm Prospect. Hinterland structures are typically homoclinal. Two striking features of imbricated systems is the dominant homoclinal nature of the uplifted formations and the periodic repetition of duplexed strata, including favourable zones such as hydrocarbon deposits (including graphite).

The volume of the pile, assuming no compression, is equal to the volume of the shortened crust. This mechanism is therefore a very efficient way to accommodate crustal rock during the shortening of arc hinterland during volcanic arc genesis: it makes room for the encroaching volcanic arc. Upon cessation of tectonism, the pile erodes leaving behind horst and graben like structures of repeating lithologic units (also Ridge and Valley). The paucity of field evidence for folding is equally telling as is the evidence in support of a duplexing model.

Hydrocarbon systems are not only favourable "weak" detachment zones, they are also favourable zones for delamination by magma sills during back-arc volcanism. Although not shown on the diagram below, imagine mafic magma sills delaminating formations along favourable zones (indicated in red) during back-arc extension.

The full extent of gabbro sills in the Malcolm is not perfectly understood, but preliminary evidence supports a simple duplex model. The gabbro sills seem to form hanging wall cap rocks over some mineralized zones and are part of the "ridge" structures of the ridge and valley sequence at the Malcolm. These sills were emplaced prior to uplift. A prominent offset in the East Zone, attributed to a cross cutting fault, is post uplift. We conclude at least two major deformation events occurred after emplacement of gabbro sills.



Cross section of passive margin at the beginning of detachment along weak lithological boundaries (thrust faults), such as hydrocarbon deposits (in red).



Stacking of horses create multiple duplexes and subsequent imbrication of the sedimentary pile. This is a very efficient method of crustal shortening without the need for compression.



Hybrid duplexes include homoclinal (fore-fold) and anticlinal (aft-fold) geometries.



Post tectonic erosion leaves a ridge and valley structure. Field evidence supports a homoclinal duplex ramp model for the Malcolm Prospect.

Figure ??: Progressive Evolution of Duplex and Imbricate Structures Adapted from Mitra (1986)

### Observations and Discussion of field evidence that support a duplexing model

### Field Evidence:

- 1. Two narrow east striking TDEM conductors about 1.5 kilometres apart with strike lengths nearing 5.5 kilometres, and dip 60° to the southeast.
- 2. Both conductors have identical mineralogy: graphite and pyrrhotite bearing quartz rich gneisses associated with arenite and marble hanging & foot walls.
- 3. Repetition of gabbroic sills, but randomly located along strike.
- 4. Gabbro sills have textural and mineralogical differences. Some are magnetic and others are not (magnetite). Some are granular and some have elongated or stretched minerals suggesting some shearing.
- 5. Gabbro sills always dip 60° to the southeast and suggest emplacement prior to uplift.
- 6. Gneissic ridges always dip to the southeast on average about 60°.
- 7. There is no evidence of gabbros or gneisses dipping to the northwest (no fold limbs).
- 8. Repetition of two gneissic ridges on the kilometre scale.
- 9. Repetition of both graphite units on the kilometre scale, and both dipping to the southeast (homoclinal?) as evidenced by TDEM and VLF-EM data. It was this feature that originally suggested an overturned anticline.
- 10. Repetition of the carbonate sequence and associated homoclinal dip (see Little-Bryan).
- 11. No field evidence of boundins and pinching of the mineralized zone (lack of compressive features).
- 12. Brecciated and pulverized nature of some of the graphitic quartzites and gneisses. Some breccia suggest conglomerates due to "rolling" of clasts (ball bearings) during kinematic transport. This phenomenon persists along all five kilometres of graphitic rocks and suggests thrust faulting along the mineralized zone.
- 13. Marbles intercalate with the gneisses without any evidence of fold axes as shown in cartoon #4.
- 14. Serpentine marbles intercalate with diopside along strike of the carbonate sequence. This suggests a hydrothermal system was active during thrusting and coincidentally explains how massive amounts of CO<sub>2</sub> was removed from the system.
- 15. A cross cutting fault that offsets the south limb suggests post imbrication tectonics, probably associated with the Ottawan Orogeny.

### Discussion:

The range of texture, mineralogy and emplacement of gabbro sills could be attributed to multiple pulses of different magma during back-arc extension and prior to duplexing of the sedimentary pile. Several excellent contacts of gabbro with hanging wall rock (mostly arenites) have been located in the field and little to no contact alteration was observed. The significance of these sills is that they form a protective cap rock and have shielded softer graphite bearing rock from erosion.

Two topographically dominant hornblende quartz gneiss ridges and concordant graphite deposits are consistent with a duplexed ramp hypothesis. Intercalated within these major east striking ridges is a thick carbonate sequence. The carbonate sequence may be a horse of older and deeper passive margin sediments.

The occurrence of hydrocarbon (now graphite) and sulphur (now pyrrhotite) bearing sands over top of the carbonate sequence is a sign of rapid changes in basin geometry and anoxic conditions associated with approaching fore-arc and back-arc volcanism. High purity marbles and sandy marbles attested by pure white diopside found in the Little-Bryan prospect, changed rapidly to carbonaceous and sulphurous arenaceous sands and was subsequently buried under continental epiclastics (now gneisses).

### **Conclusion:**

Most notable is the absence of a fold axis, stratigraphic reversal and dip so characteristic of anticlinal folds. All the rock units are homoclinal, dipping on average 60° to the southeast, including mineralized zones. Field data tentatively supports eroded basal remnants of a *simple duplex ramp structure* and not an *anticline* as originally proposed. Further investigation of the north limb, its' associated lithology and stratigraphy will help clarify this point: **Is there a anticline axis?** 

The carbonate sequence to the east in the Little-Bryan Prospect is dominated by dolomite and diopside, which is in the middle of the garnet isograd. The paucity of alumina rich minerals throughout the pile is also notable. The rock is dominated by pure carbonates and pure quartz. This is consistent with a deep seated passive margin carbonate horse that protrudes between gneissic detachment ramps. Therefore, a homoclinal duplex ramp is plausible.

The significance to graphite exploration for this new model is important. A fold would imply periodic compressive shortening and boudinage of the deposit, whereas the simple duplex model would imply no shortening but partial destruction of the deposit during thrusting along the fault boundary. Brecciated graphite rocks support this. Airborne TDEM data clearly shows two major linear anomalies as shown is the figure below: a north and a south conductor. Also shown, but on patented land, is conductor N and S is on unpatented land. They also dip to the southeast, but suddenly disappear in the east before Graham Lake. There is a significant lateral offset of the southern conductor and is associated with a known fault. We posit, for the moment, that S & N conductors are repeated duplexes as well, and not fold limbs. This ground has been staked and will become part of a larger exploration program to clarify the two possible models (recumbent anticline versus simplex duplex) and discover more graphite showings.



Airborne TDEM profiles of the Malcolm and Little-Bryan Prospects

### Brecciated graphitic rock from the Malcolm and Little-Bryan Prospects



MP-04: Malcolm Prospect



MP-06: Malcolm Prospect



TW: Little-Bryan Prospect



MP-08: Little-Bryan Prospect

Appendix B: Laboratory Certificates



### Innovative Technologies

Date Submitted:09-Nov-15Invoice No.:A15-09644Invoice Date:16-Dec-15Your Reference:MALCOLM PROJECT

Frontenac Ventures 8 North Hastings Ave Marmora ON K0K 2M0 Canada

ATTN: Marc Forget

### **CERTIFICATE OF ANALYSIS**

47 Crushed Rock samples were submitted for analysis.

The following analytical package was requested:

Code 4F-C-Graphitic Infrared Code 4F-S Infrared

REPORT A15-09644

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

CERTIFIED BY:

Emmanuel Eseme , Ph.D. Quality Control



ACTIVATION LABORATORIES LTD.

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#### Results

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Analyte Symbol	C-Graph	Total S	Pd	Pt	Au	в	Li	Na	Mg	AI	к	Са	Cd	V	Cr	<mark>Mn</mark>	⊦e	Ht	NI	Er	Ве	Но	Hg
Unit Symbol	%	%	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb
Lower Limit	0.05	0.01	1	1	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10
Method Code	IR	CS	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
MG-01	3.64																						
MG-02	4.70																						
MG-03	2.68	6.28	7	< 1	< 2	< 1	4.4	1.56	1.59	4.54	0.15	3.86	0.6	<mark>153</mark>	<mark>80.4</mark>	<mark>671</mark>	15.0	1.0	<mark>178</mark>	1.4	0.6	0.5	< 10
MG-04	4.19		9	12	16																		
MG-05	3.95																						
MG-06	1.37																						
MG-07	0.47																						
MG-08	3.59																						
MG-09	3.40																						
MG-10	1.99																						
MG-11	0.65																						
MG-12	2.97																						
MG-13	1.17																						
MG-14	2.59																						
MG-15	4.46																						
MG-16	1.81	0.38																					
MG-17	2.95																						
MG-18	1.20																						
MG-19	1.56																						
MG-20	1.95																						
MG-21	1.75																						
MG-22	0.52																						
MG-23	2.50																						
MG-24	2.45																						
MG-25	3.84																						
MG-26	4.54																						
MG-27	0.62	3.62																					
MG-28	1.10																						
MG-29	2.97																						
MG-30	2.27																						
MG-31	1.28																						
MG-32	3.41																						
MG-33	0.51																						
MG-34	5.42																						
MG-35	3.58	2.32																					
MG-36	7.86																						
MG-37	6.15																						
MG-38	6.24																						
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	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.05	0.1 TD M0	0.05	0.02	0.1 TD M0	0.2	0.1 TD MO	0.1 TD M0	0.2	0.1 TD MO	1 TD M0	0.1 TD M0	0.05	0.1 TD M0		0.1	0.1 TD MO		0.1 TD MO	0.1 TD M0	0.1 TD M0	0.1 TD M0
MC 01	TD-IVIS	TD-IVIS	I D-IVIS	1 D-1VIS	TD-IVIS	1 D-1VIS	TD-IVIS	TD-IVIS	I D-IVIS	TD-IVIS	TD-IVIS	I D-IVIS	1 D-1VIS	ID-IVIS	TD-IVIS	TD-IVIS	TD-IVIS	TD-IVIS	TD-IVIS	TD-IVIS	I D-IVIS	TD-IVIS	TD-IVIS
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MG-02	0.44	0.15	<b>E1 0</b>	0.00	0.62	7.4	112	12.0	2.2	1 0	12.4	40	2.0	24.2	101	2	0.2	0.2	75	4.2	11.6	10	0 7
MG-03	0.44	0.15	<mark>51.2</mark>	0.90	0.63	7.4		12.0	3.2	1.6	13.4	40	2.8	21.3	< 0.1	3	0.3	0.3	75	4.3	11.0	1.0	0.7
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Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	ID-MS	TD-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	ID-MS	TD-MS
MG-01																	
MG-02																	
MG-03	2.1	2.3	0.3	2.3	275 275	< 0.1	0.2	1.3	0.2	0.2 <mark>.</mark>	283 283	0.6	0.051	0.05	4.2	0.3	0.4
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Unit Symbol	%	%	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb
Lower Limit	0.05	0.01	1	1	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10
Method Code	IR	CS	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas						< 1	12.7	0.05	0.29	3.73	0.04	0.85	2.1	71	13.8	819	21.6	0.7	37.5		1.0		3440
GXR-1 Cert						15.0	8.20	0.0520	0.217	3.52	0.050	0.960	3.30	80.0	12.0	852	23.6	0.960	41.0		1.22		3900
DH-1a Meas																							
DH-1a Cert																							
GXR-4 Meas						< 1	11.3	0.34	1.42	4.92	1.69	0.89	0.3	84	47.3	154	2.81	1.1	40.4		1.7		100
GXR-4 Cert						4.50	11.1	0.564	1.66	7.20	4.01	1.01	0.860	87.0	64.0	155	3.09	6.30	42.0		1.90		110
SDC-1 Meas						20	38.0	1.13	0.87	6.45	1.14	0.95		61	71.6	917	4.57	1.1	37.6	3.3	2.5	1.2	< 10
SDC-1 Cert						13.00	34.00	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30	38.0	4.10	3.00	1.50	200.00
GXR-6 Meas						2	39.8	0.07	0.52	> 10.0	1.05	0.18	< 0.1	118	46.2	1000	4.97	1.7	24.5		0.9		60
GXR-6 Cert						9.80	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30	27.0		1.40		68.0
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GS900-5 Meas		0.35																					
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SBC-1 Meas							179						0.4	234	79.5			2.8	88.3	3.3	2.8	1.2	
SBC-1 Cert							163.0						0.40	220.0	109			3.7	82.8	3.80	3.20	1.40	
OREAS 45d (4-Acid)							22.8	0.06	0.21	5.83	0.31	0.17		66	475	486	13.6	1.1	237	1.2	0.7	0.4	
Meas																							
OREAS 45d (4-Acid)																							
Cart							21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert			5000		004		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas			5360	1110	801		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
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Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert Graphite 4A Meas	4.18		5360 4880.00 4570 4880.00 1970 1830 1730 1830	1110 1090.00 1090.00 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Meas CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 Meas Graphite 4A Meas Graphite 4A Cert	4.18		5360 4880.00 4570 4880.00 1970 1830 1830	1110 1090.00 1000 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Meas	4.18 4.18 4.18		5360 4880.00 4570 4880.00 1970 1830 1830 1830	1110 1090.00 1000 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Cert Graphite 4A Cert Graphite 4A Cert	4.18 4.18 4.18 4.18 4.18		5360 4880.00 4570 4880.00 1970 1830 1830 1830	1110 1090.00 1090.00 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 CDN-PGMS-24 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Meas	4.18 4.18 4.18 4.18 4.18 4.16		5360 4880.00 4570 4880.00 1970 1830 1730 1830	1110 1090.00 1090.00 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185		235.0	549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Meas Graphite 4A Meas Graphite 4A Cert Graphite 4A Cert Graphite 4A Cert	4.18 4.18 4.18 4.18 4.16 4.16 4.18		5360 4880.00 4570 4880.00 1970 1830 1730 1830	1110 1090.00 1090.00 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185			549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 CDN-PGMS-24 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 CERT Graphite 4A Meas Graphite 14 Meas	4.18 4.18 4.18 4.18 4.18 4.18 4.16 4.18 14.4		5360 4880.00 4570 4880.00 1970 1830 1730 1830	1110 1090.00 1090.00 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101	0.245	8.150	0.412	0.185			549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 CDN-PGMS-24 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 Meas CDN-PGMS-25 CDN-PGMS-25 CDN-PGMS-25 Meas CDN-PGMS-25 Cert Graphite 4A Meas Graphite 14 Meas Graphite 14 Meas	4.18 4.18 4.18 4.18 4.18 4.18 4.18 4.18		5360 4880.00 4570 4880.00 1970 1830 1730 1830	1110 1090.00 1000 408 400 388 400	801 806.000 873 806.000 485 483 440 483		21.50	0.101		8.150	0.412	0.185			549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Meas Graphite 4A Meas Graphite 4A Meas Graphite 14 Meas Graphite 14 Meas Graphite 14 Meas	4.18 4.18 4.18 4.18 4.18 4.18 4.18 14.18 14.4 14.55 14.3		5360 4880.00 4570 4880.00 1970 1830 1730 1830	1110 1090.00 1090.00 408 400 388 400 	801 806.000 873 806.000 485 483 440 483		21.50	0.101		8.150	0.412	0.185			549.0	490.000	14.520	3.830	231.0	1.38	0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Cert Graphite 4A Meas Graphite 4A Cert Graphite 4A Meas Graphite 14 Meas Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert	4.18 4.18 4.18 4.18 4.18 4.18 4.18 4.18		5360 4880.00 4570 1970 1830 1730 1830 1830	1110 1090.00 1090.00 408 400 388 400 	801 806.000 873 806.000 485 483 440 483					8.150	0.412	0.185			549.0	490.000	14.520	3.830	231.0		0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Cert CDN-PGMS-25 Cert CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Cert Graphite 4A Cert Graphite 4A Cert Graphite 4A Cert Graphite 4A Cert Graphite 14 Meas Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert	4.18 4.18 4.18 4.18 4.18 4.18 4.18 4.18		5360 4880.00 4570 1970 1830 1730 1830 1830	1110 1090.00 1090.00 408 400 388 400 	801 806.000 873 806.000 485 483 440 483					8.150	0.412	0.185			549.0	490.000		3.830	231.0		0.79	0.46	
Cert CDN-PGMS-24 Meas CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-24 Cert CDN-PGMS-25 Meas CDN-PGMS-25 Meas CDN-PGMS-25 Meas CDN-PGMS-25 Cert Graphite 4A Meas Graphite 4A Meas Graphite 4A Cert Graphite 4A Meas Graphite 4A Cert Graphite 4A Cert Graphite 4A Cert Graphite 14 Meas Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert Graphite 14 Cert Graphite 14 Meas Graphite 14 Cert Graphite 14 Meas Graphite 14 Cert Graphite 14 Meas Graphite 14 Meas Graphite 14 Meas Graphite 14 Meas	4.18 4.18 4.18 4.18 4.18 4.18 4.18 4.18		5360 4880.00 4570 1970 1830 1730 1830 1830 1 1830 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	1110 1090.00 1090.00 408 400 388 400 	801 806.000 873 806.000 485 483 440 483 					8.150	0.412	0.185			549.0	490.000	14.520	3.830	231.0		0.79		

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Bit         B	Analyte Symbol	C-Graph	Total S	Pd	Pt	Au	В	Li	Na	Mg	AI	К	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Но	Hg
symple         y        y        y        y <th< td=""><td>Unit Symbol</td><td>%</td><td>%</td><td>ppb</td><td>ppb</td><td>ppb</td><td>ppm</td><td>ppm</td><td>%</td><td>%</td><td>%</td><td>%</td><td>%</td><td>ppm</td><td>ppm</td><td>ppm</td><td>ppm</td><td>%</td><td>ppm</td><td>ppm</td><td>ppm</td><td>ppm</td><td>ppm</td><td>ppb</td></th<>	Unit Symbol	%	%	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb
mem         bit         low         low <td>Lower Limit</td> <td>0.05</td> <td>0.01</td> <td>1</td> <td>1</td> <td>2</td> <td>1</td> <td>0.5</td> <td>0.01</td> <td>0.01</td> <td>0.01</td> <td>0.01</td> <td>0.01</td> <td>0.1</td> <td>1</td> <td>0.5</td> <td>1</td> <td>0.01</td> <td>0.1</td> <td>0.5</td> <td>0.1</td> <td>0.1</td> <td>0.1</td> <td>10</td>	Lower Limit	0.05	0.01	1	1	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10
signed Mode         Mode        Mode        Mode     <	Method Code	IR	CS	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
attraction         attrac	Graphite 14 Cert	14.55																						
cond         cond        cond        cond        c	SdAR-M2 (U.S.G.S.) Meas							18.6						4.9	21	44.6			1.3	50.6	2.6	5.8	0.8	1100
Geb         Geb         T         P        P         P         P <td>SdAR-M2 (U.S.G.S.) Cert</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>17.9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>5.1</td> <td>25.2</td> <td>49.6</td> <td></td> <td></td> <td>7.29</td> <td>48.8</td> <td>3.58</td> <td>6.6</td> <td>1.21</td> <td>1440.00</td>	SdAR-M2 (U.S.G.S.) Cert							17.9						5.1	25.2	49.6			7.29	48.8	3.58	6.6	1.21	1440.00
Gendom     Gendom </td <td>MG-03 Orig</td> <td></td> <td></td> <td>7</td> <td>&lt; 1</td> <td>&lt; 2</td> <td></td>	MG-03 Orig			7	< 1	< 2																		
65 m 6     9m	MG-03 Dup			8	< 1	< 2																		
Sho DaySho Day<	MG-10 Orig	2.00																						
GA:00         1.86         I        I         I         I </td <td>MG-10 Dup</td> <td>1.98</td> <td></td>	MG-10 Dup	1.98																						
Gend Bind         Ind         I	MG-20 Orig	1.95																						
Galoge     2.52     V   <	MG-20 Dup	1.95																						
Gend Biole       Zes	MG-30 Orig	2.25																						
bis disc         bis dis         bis dis         bis disc	MG-30 Dup	2.28																						
G-55 m/G         M        M         M         M </td <td>MG-35 Orig</td> <td></td> <td>2.33</td> <td></td>	MG-35 Orig		2.33																					
G-40     2.44     1.4	MG-35 Dup		2.31		1		1							1			1			1				
G-0.0.         2.4  <	MG-40 Orig	2.42																						
GeNNO-5000.36 <td>MG-40 Dup</td> <td>2.43</td> <td></td>	MG-40 Dup	2.43																						
Ch-NN-Open         0.36         v         <	MG-RIND Orig	0.35																						
method Bunk         < 0.05	MG-RIND Split	0.36																						
Immed Binnk         COD         Co         Co        Co	Method Blank	< 0.05																						
Interd Blank	Method Blank	< 0.05																						
Imbified Blank         Imbifie	Method Blank	< 0.05																						
Imprind Blank         v         <	Method Blank						< 1	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 10
Interned Blank         I <thi< th="">         I         <thi< th=""> <t< td=""><td>Method Blank</td><td></td><td></td><td>&lt; 1</td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></thi<></thi<>	Method Blank			< 1	2	2																		
Analyte Symbol         Ag         CS         Co         Eu         Bi         Se         Zn         Ga         As         Rb         Y         Zr         Nb         Mo         In         Sn         Sb         Te         Ba         La         Ce         Pr         Nd           LowerLimit         0.05         0.05         0.1         0.05         0.2         0.1	Method Blank			< 1	< 1	< 2																		
Anglve Symbol         Ag         Cs         Cs         Cs         Eu         Bi         Se         Zn         Ga         As         Pb         V         Zr         Nb         Mo         In         Sn         Sb         Te         Ba         La         Ce         Pr         Mod           LowerLimit         0.05         0.05         0.1         0.05	QC																							
Unit Symbol         ppm         ppm <th< td=""><td>Analyte Symbol</td><td>Aq</td><td>Cs</td><td>Co</td><td>Eu</td><td>Bi</td><td>Se</td><td>Zn</td><td>Ga</td><td>As</td><td>Rb</td><td>Y</td><td>Zr</td><td>Nb</td><td>Мо</td><td>In</td><td>Sn</td><td>Sb</td><td>Те</td><td>Ва</td><td>La</td><td>Ce</td><td>Pr</td><td>Nd</td></th<>	Analyte Symbol	Aq	Cs	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Мо	In	Sn	Sb	Те	Ва	La	Ce	Pr	Nd
Lower Limit         0.05         0.1         0.05         0.1         0.05         0.1         1         0.1         1         0.1         1         0.	Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Method Code         TD-MS	Lower Limit	0.05	0.05	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1
SR-1 Meas       29.0       2.9       6.8       0.51       1370       11.7       742       2.0       375       3.3       27.8       33       1.0       16.6       0.6       24       13.1       5.6       1040       6.8       14.2       7.6         GXR-1 Cert       31.0       3.00       8.20       0.600       1380       16.6       760       13.8       427       14.0       32.0       80.0       0.800       18.0       0.70       54.0       122       13.0       760       7.50       17.0       18.0         DH-1a Meas  <	Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Cert         31.0         3.00         8.20         0.690         1380         16.6         760         13.8         427         14.0         32.0         38.0         0.800         18.0         0.770         54.0         122         13.0         750         7.50         17.0         18.0           DH-1a Meas         Image: Stress of the stres stress of the stress of	GXR-1 Meas	29.0	2.29	6.8	0.51	1370	11.7	742	2.0	375	3.3	27.8	33	1.0	16.6	0.6	24	13.1	5.6	1040	6.8	14.2		7.6
DH-1a Meas         Image	GXR-1 Cert	31.0	3.00	8.20	0.690	1380	16.6	760	13.8	427	14.0	32.0	38.0	0.800	18.0	0.770	54.0	122	13.0	750	7.50	17.0		18.0
DH-1a Cert         N	DH-1a Meas																							
GXR-4 Meas       3.63       2.09       12.8       1.23       20.1       5.7       70.5       12.9       97.2       102       13.4       45       8.7       284       0.2       8       3.9       0.8       211       50.2       96.5       10       37.1         GXR-4 Cert       4.00       2.80       14.6       1.63       19.0       5.60       73.0       20.0       98.0       160       14.0       186       10.0       310       0.270       5.60       4.80       0.970       1640       64.5       102       45.0         SDC-1 Meas       3.63       17.4       1.38       0       1       18       15.5       0.6       86.6       41       2.2       0       1       <0.1	DH-1a Cert																							
GXR-4 Cert       4.00       2.80       14.6       1.63       19.0       5.60       73.0       20.0       98.0       160       14.0       186       10.0       310       0.270       5.60       4.80       0.970       1640       64.5       102       14       5.50         SDC-1 Meas       3.36       17.4       1.38       1.0       118       15.5       0.6       86.6       41       2.2       1       1       <0.1	GXR-4 Meas	3.63	2.09	12.8	1.23	20.1	5.7	70.5	12.9	97.2	102	13.4	45	8.7	284	0.2	8	3.9	0.8	221	50.2	96.5		37.1
SDC-1 Meas       3.36       17.4       1.38       1       118       15.5       0.6       86.6       41       2.2       1       < 0.1       543       36.8       80.3       37.6         SDC-1 Cert       4.00       18.0       1.70       1       103.00       21.00       227.00       290.00       21.00       1       0.54       630       42.00       93.00       40.00         GXR-6 Meas       0.31       3.11       12.0       0.50       0.30       <0.1       132       19.8       208       57.6       11.8       64       1.1       0.88       <0.1       1       0.7       4.01       13.0       28.5       10.5         GXR-6 Cert       1.30       4.20       138       0.760       0.90       0.940       118       35.0       330       90.0       14.0       10       7.50       2.40       0.260       1.70       3.60       0.108       130.0       13.0	GXR-4 Cert	4.00	2.80	14.6	1.63	19.0	5.60	73.0	20.0	98.0	160	14.0	186	10.0	310	0.270	5.60	4.80	0.970	1640	64.5	102		45.0
SDC-1 Cert       4.00       18.0       1.70       Image: Married Marrie Admarri Admarried Married Married Married Married M	SDC-1 Meas		3.36	17.4	1.38			118	15.5	0.6	86.6		41	2.2			1	< 0.1		543	36.8	80.3		37.6
GXR-6 Meas       0.31       3.11       12.0       0.50       0.30       < 0.1       132       19.8       208       57.6       11.8       64       1.1       0.88       < 0.1       1       0.7       < 0.1       1170       10.3       28.5       10.5         GXR-6 Cert       1.30       4.20       13.8       0.760       0.290       0.940       118       35.0       330       90.0       14.0       110       7.50       2.40       0.260       1.70       3.60       0.18       13.0       13.9       36.0       13.0         BaSO4 Meas       Image: Constraint of the state of th	SDC-1 Cert		4.00	18.0	1.70			103.00	) 21.00	0.220	127.00	)	290.0	0 21.00			3.00	0.54		630	42.00	93.00		40.00
GXR-6 Cert       1.30       4.20       13.8       0.760       0.290       0.940       118       35.0       330       90.0       14.0       110       7.50       2.40       0.260       1.70       3.60       0.0180       1300       13.9       36.0       13.0         BaSO4 Meas       Image: Comparison of the	GXR-6 Meas	0.31	3.11	12.0	0.50	0.30	< 0.1	132	19.8	208	57.6	11.8	64	1.1	0.88	< 0.1	1	0.7	< 0.1	1170	10.3	28.5		10.5
BaSO4 MeasImage: Second se	GXR-6 Cert	1.30	4.20	13.8	0.760	0.290	0.940	118	35.0	330	90.0	14.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0
BaSO4 CertImage: Second se	BaSO4 Meas																							
BaSO4 MeasImage: Second se	BaSO4 Cert																							
Baso4 Cert       Image: Second s	BaSO4 Meas																							
BaSO4 Meas       Image: Solution of the system	BaSO4 Cert																							
Baso4 Cert       Image: Constraint of the straint of the	BaSO4 Meas																							
DNC-1a Meas       55.1       0.51       0.51       71.7       11.8       3.9       16.7       37       1.3       0.5       91       3.2       4.4         DNC-1a Cert       57.0       0.59       70.0       15       5       18.0       38.0       3       0.96       118       3.6       5.20         GS900-5 Meas       0       0       0.96       118       3.6       0.6       10       0.6       0.6       10       0.6	BaSO4 Cert																							
DNC-1a Cert         57.0         0.59         70.0         15         5         18.0         38.0         3         0.96         118         3.6         5.20           GS900-5 Meas         Image: Constraint of the state of the st	DNC-1a Meas			55.1	0.51			71.7	11.8		3.9	16.7	37	1.3				0.5		91	3.2			4.4
GS900-5 Meas	DNC-1a Cert			57.0	0.59			70.0	15		5	18.0	38.0	3				0.96		118	3.6			5.20
G\$900-5 Cert	GS900-5 Meas																							
	GS900-5 Cert																							

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Analyte Symbol	Ag	Cs	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Мо	In	Sn	Sb	Te	Ва	La	Ce	Pr	Nd
Unit Symbol	ppm	ppm	ppm	ppm	ppm																		
Lower Limit	0.05	0.05	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS																		
SBC-1 Meas		6.83	21.0	1.68	0.89		211	16.5	25.4	102	32.8	111	11.4	2.76		4	0.9		690	44.6	97.7	11.3	45.2
SBC-1 Cert		8.2	22.7	1.98	0.70		186.0	27.0	25.7	147	36.5	134.0	15.3	2.40		3.3	1.01		788.0	52.5	108.0	12.6	49.2
OREAS 45d (4-Acid)		3.25	28.0	0.54	0.55		44.6	17.0	7.6	41.8	11.5	45	0.8	0.48	< 0.1	< 1	< 0.1		164	15.3	33.9	3.6	13.0
Meas																							
OREAS 45d (4-Acid) Cert		3.910	29.50	0.57	0.31		45.7	21.20	13.80	42.1	9.53	141	14.50	2.500	0.096	2.78	0.82		183.0	16.9	37.20	3.70	13.4
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24																							
Meas																							
CDN-PGMS-24 Cert																						<u> </u>	
CDN-PGMS-25 Meas																							
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Graphite 14 Cert																							
Graphite 14 Meas																							
Graphite 14 Cert																							
SdAR-M2 (U.S.G.S.) Meas		1.43	12.8	1.16	1.20		825	7.2		69.0	25.0	75	11.5	11.9					837	38.9	82.8	9.1	33.8
SdAR-M2 (U.S.G.S.) Cert		1.82	12.4	1.44	1.05		760	17.6		149	32.7	259	26.2	13.3					990	46.6	98.8	11.0	39.4
MG-03 Orig																			1				
MG-03 Dup	1			1	1					1				1		1			1	1		<u> </u>	
MG-10 Orig													1										
MG-10 Dup	1			1	1					1						1						<u> </u>	
MG-20 Orig	i	İ		İ	1	1	1	İ		İ	İ		1	1	1	i	İ		1	1	1		
MG-20 Dup																							
MG-30 Orig																							
MG-30 Dup																							
MG-35 Orig																							
MG-35 Dup	i	İ		İ	1	1	1	İ		İ	İ		1	1	1	i	İ		1	1	1		
MG-40 Orig																							
MG-40 Dup						1	1						1		1				1		1		
MG-RIND Orig													1										
MG-RIND Split	1			1	1					1						1						<u> </u>	
Method Blank						1	1						1	1	1				1	1			
Method Blank																							
					1														<u> </u>		1		

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Analyte Symbol	Ag	Cs	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Мо	In	Sn	Sb	Те	Ва	La	Ce	Pr	Nd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.05	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Method Blank																							
Method Blank	< 0.05	< 0.05	< 0.1	< 0.05	< 0.02	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank																							
Method Blank																							
QC																							
Analyte Symbol	Sm	Gd	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Та	Sr	W	Re	TI	Pb	Th	U	1					
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	1					
Lower Limit	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1	1					
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	1					
GXR-1 Meas	2.6	3.5	0.6	4.0	1030		0.3	1.9	0.3	< 0.1	260	104		0.32	664	2.5	29.2	1					
GXR-1 Cert	2.70	4.20	0.830	4.30	1110		0.430	1.90	0.280	0.175	275	164		0.390	730	2.44	34.9	1					
DH-1a Meas																> 500	2330	1					
DH-1a Cert																910	2629	1					
GXR-4 Meas	5.8	3.7	0.5	2.4	6020		0.2	0.9	0.1	0.5	192	28.8		2.82	48.8	21.1	5.7	1					
GXR-4 Cert	6.60	5.25	0.360	2.60	6520		0.210	1.60	0.170	0.790	221	30.8		3.20	52.0	22.5	6.20	1					
SDC-1 Meas	7.5	6.3	1.0	5.8	34.9		0.5	3.1		0.1	162	0.2		0.59	25.4	12.5	2.8	1					
SDC-1 Cert	8.20	7.00	1.20	6.70	30.000		0.65	4.00		1.20	180.00	0.80		0.70	25.00	12.00	3.10	1					
GXR-6 Meas	2.2	1.8	0.3	2.0	72.3			1.4	0.3	< 0.1	38.9	0.4		1.81	93.8	4.6	1.4	1					
GXR-6 Cert	2.67	2.97	0.415	2.80	66.0			2.40	0.330	0.485	35.0	1.90		2.20	101	5.30	1.54	1					
BaSO4 Meas																		1					
BaSO4 Cert																		1					
BaSO4 Meas																		1					
BaSO4 Cert																		1					
BaSO4 Meas																		1					
BaSO4 Cert																		1					
DNC-1a Meas					118			1.8			135				6.3								
DNC-1a Cert					100.00			2.0			144.0				6.3								
GS900-5 Meas																							
GS900-5 Cert																							
SBC-1 Meas	9.0	7.2	1.0	6.0	36.8		0.5	3.3	0.5	0.6	164	1.4		0.82	37.0	16.2	5.9						
SBC-1 Cert	9.6	8.5	1.20	7.10	31.0000		0.56	3.64	0.54	1.10	178.0	1.60		0.89	35.0	15.8	5.76						
OREAS 45d (4-Acid) Meas	2.8	2.2	0.3	2.1	374			1.3	0.2	< 0.1	27.8	0.5		0.23	21.5	15.5	2.9						
OREAS 45d (4-Acid) Cert	2.80	2.42	0.400	2.26	371.0			1.33	0.18	1.02	31.30	1.62		0.27	21.8	14.5	2.63						
CDN-PGMS-24																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24																		1					
Meas									1				1		1								
CDN-PGMS-24 Cert				1		1	1	1	1	1	1		1		1			1					
CDN-PGMS-25 Meas																							
CDN-PGMS-25 Cert																		]					
CDN-PGMS-25 Meas																							
CDN-PGMS-25 Cert	T	T		Т		Г		T	Г	T			Т	T	T	T	T	1					

Graphite 4A Meas

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Analyte Symbol	Sm	Gd	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Та	Sr	W	Re	TI	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Graphite 4A Cert																	
Graphite 4A Meas																	
Graphite 4A Cert																	
Graphite 4A Meas																	
Graphite 4A Cert																	
Graphite 14 Meas																	
Graphite 14 Cert																	
Graphite 14 Meas																	
Graphite 14 Cert																	
Graphite 14 Meas																	
Graphite 14 Cert																	
SdAR-M2 (U.S.G.S.) Meas	6.5	4.8	0.7	4.3	250		0.4	2.5	0.4	0.6	131	1.3			775	13.9	2.4
SdAR-M2 (U.S.G.S.) Cert	7.18	6.28	0.97	5.88	236.0000		0.54	3.63	0.54	1.8	144	2.8			808	14.2	2.53
MG-03 Orig																1	
MG-03 Dup																1	
MG-10 Orig																	
MG-10 Dup																1	1
MG-20 Orig																1	
MG-20 Dup																1	
MG-30 Orig																1	1
MG-30 Dup																	
MG-35 Orig																	
MG-35 Dup																	
MG-40 Orig																	
MG-40 Dup																1	
MG-RIND Orig																	
MG-RIND Split																1	1
Method Blank	l I	1	1	1		l	1	1			1		1		İ	1	
Method Blank																	1
Method Blank			1			1										1	
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
Method Blank														1		<u> </u>	<u> </u>
Method Blank				1			1					1	1	1		<u> </u>	<u> </u>

Field #	UTM E	UTM N	Rock Name	Minerals present	Description	Strike	Dip	MA	Date
Hunt Camp	316390	5014098	Hunt Camp						
MP03	316458	5014155	???		test pit from Phase 1; flat o/c beside trail; strong MA (moves compass ~160 deg); rusty metaseds; some pinch & swell	061	050S	Y	Oct-06
MP03W	316006	5014155	arenite	qtz, bio, graph, amph, fsp, po	17 m W of MP03; tough, competent rock, rusty; graphite	016	050S	weak	
MPE01	317256	5014814	n/a		location of Phase one pit which showed graphite	incon	incon		Oct-09
MPE02	317252	5014819	hb-qtz gneiss	qtz/fsp, amph	fg wht & blk gneiss; sandy tex, pervas rust; NVS; no MA; no acid	incon	incon	Ν	Oct-08
MPE03	317249	5014827	arenite	qtz, amph, po	thick weathered rusty rind up to 3 cm thick, ~85% fg wht qtz/fsp, ~10% fg blk amph, ~5% dk grn amph laths up to 1 cm long, rusty sulph, friable rock, no graph	incon	incon	weak	Oct-09
MPE04	317252	5014826	arenite	fsp/qtz, graph, bio, mgt	v friable (disintegrates in hand), dk grey, sandy tex, found in pod like structures in MPE03 material, vfg to fg with qtz/fsp sand; graph ~5%, NVS, mgt grains on magnet	none	none	Ν	Oct-09
MPE05	317256	5014825	n/a		~3 m depth no bedrock (dipping steeply), no beeps, water & cavitation - refill				Oct-09
MPE06	317246	5014854	arenite	qtz/fsp, amph, bio	Sandy tex, friable, pervas rusting thru & thru, ~60 - 45% fg wht fsp/qtz, ~40 - 55% blk fg amph & bio, mafic ricj areas, NVS, no graph, weak fol; fill in pit	049	55 SE	Ν	Oct-09
MPE07	317248	5014806	arenite		45 cm depth, metased bedrock, fg dissem sulph ~5%, no graph, refill	incon	incon	weak	Oct-09
MPE08	317258	5014807	arenite		point where sil unit drops away, no graph, no readings, refill	incon	incon		Oct-09
MPE09	317252	5014802	arenite		contact of sil unit and graph bearing metased; most western exposure before dipping down into marsh; good graph showings	incon	incon		Oct-09
MPE10	317223	5014781	diopsidic arenite	qtz/fsp, cal, diop, sulph,	fg wht gtz/fsp~65% with dk grn pytox ~25%, trace fg - med gr sulph (po), fg - med gr wht cal (vig acid)~4% no graph; areas show equant diop, others show flattened "eyes"	none	none	Y	Oct-09
MPE11	317129	5014718	n/a		~2.5m depth, water & cavitation; refill				Oct-09
MPE12	317046	5014647	hb-gtz gneiss	gtz/fsp, amph	rded o/c SE of marsh; whr & blk gneiss, NVS, no MA, no rust, fol only noted by layering; land drops guickly to NW	020	030 SE	Ν	Oct-09
MPE13	317061	5014563	dk siliceous metased	gtz, graph	fg dk grey siliceous grains with vfg dissem sulph throughout (~5%), sandy tex, weak MA overall, but strong in spots; top of ridge running ~ N-S	none	none	weak	Oct-09
MPE14	317123	5014453	hb-qtz gneiss	gtz/fsp, amph, bio	low rded knob of land; well fol fg wht and blk gneiss, sandy tex, rust spots but NVS; light and dark layered	158	040 E	Ν	Oct-10
MPE15	317147	5014483	amphibolite	gtz/fsp, amph, bio	fg dk grey amphibolite with salt & pepper look, slightly sandy tex suggests metased rather than metam basalt; well fol; NVS; no MA	incon	incon	N	Oct-10
MPE16	317133	5014470	hb-atz aneiss	gtz/fsp. amph. bio	subcrop: wht & blk aneiss: NVS. no MA	012	045 SE	N	Oct-10
MPE17	317172	5014491	hb-qtz qneiss	gtz/fsp, amph, bio	o/c along steep hillside striking ENE; wht & blk gneiss as above	018	040 SE	N	Oct-10
MPE18	317181	5014488	hb-atz aneiss	gtz/fsp. amph. bio	subcrop at bottom of steep hill rising to SSW: whit & blk gneiss as above	026	040 SE	N	Oct-10
MPE19	317180	5014493	arenite	gtz/fsp. amph. bio	top of hill from MPE18: med to cg vellowy wht fsp/gtz with blk amph with brn mica rims: friable:NVS: var comp & tex	incon	incon	N	Oct-10
MPE20	317193	5014476	hb-atz aneiss	gtz/fsp. amph. bio	along hillside: wht & blk gneiss. NVS. well fol	060	045 SE	N	Oct-10
MPE21	317072	5014445	n/a		weak mag signals, no conductivity				Oct-10
MPE22	317069	5014457	n/a		mag signals, no conductivity				Oct-10
MPE23	317069	5014457	n/a		mag signals, no conductivity				Oct-10
MPE24	317067	5014467	n/a		mag signals, no conductivity				Oct-10
MPE25	317090	5014535	n/a		mag signals, no conductivity				Oct-10
MPE26	317138	5014570	basalt / skarn		rded o/c on S side; fg, dk grev rock contacts wht interlocking grains, 2 mm - 1 cm gr size, wht fsp, blk amph laths up to 2 cm long, weakly fol, NVS, trace graph	120	incon		Oct-10
MPF26A	317138	5014570	skarn metased	atz/fsp amph bio graph po	tough but easily scratched, no acid reaction, dk grey bio-rich zones in It grey to wht matrix, trace to 2% graph throughout, with discon graph yein, trace sulph	incon	incon	N	Oct-10
MPE26B	317138	5014570	skarn metased	gtz/fsp amph graph	what to it grees $\sim$ 90% to fsp/gtz variable or size 10% blk amph laths up to 2 cm long trace graph flakes in thin yeins ( $\sim$ 3 mm) thru sample, tough NVS	NONE	NONE	N	Oct-10
MPE26C	317138	5014570	arenite	atz amph graph	dk grey, vfg to fodark silica with amph. trace graph flakes 0.3 - 0.8 mm, tough rock, NVS, laths of dk grn amph up to 1 cm across: 1 cm wide vein of vfg soft material, no acid reaction	incon	incon	N	Oct-10
MPE26D	317138	5014570	hasalt	ovrox fsp. mat	dk grev fa janeous rock v minor rusting along joints NVS definite MA	none	none	Y	Oct-10
MPE27	317128	5014576	arenite	atz/fsp. amph. graph	inclusive as to o/c or large float of graph bearing metased	incon	incon	N	Oct-10
MPE28	317117	5014588	n/a		mag signals no conductivity				Oct-10
MPE30	317036	5014557	n/a		mag signals, no conductivity				Oct-13
MPE31	317178	5014597	hb-atz aneiss	atz/fsp. amph. fsp.	subcrop, whit & blk metased gneiss, well fol, with 3 cm thick vein of cg whit fsp with blk amphilaths up to 1 cm, var gr size, NVS, no readings	054	070 SE	N	Oct-13
MPE32	317211	5014537	dabbro		o/c along hillside, mag readings all along hillside; fg - med gr ign tex gabbro	none	none		Oct-13
MPE33	317287	5014690	pegmatite	fsp. atz. bio	o/c along ridge edge down steenly to N genrly down to S pegmatite wht fsp. gtz up to 4 cm across some graphic grapite no access: cutting blk well fol gneiss	none	none	N	Oct-13
MPE34	317261	5014696	hb-atz aneiss	gtz/fsp_amph	o/c along bottom of steep hillside rising to S: whit & blk gneiss, sandy tex: NVS, minor gtz crisscutting veinlets	058	S		Oct-13
MPE35	317246	5014715	n/a				0		Oct-13
MPE36	317083	5014517	hb-atz aneiss	atz/fsp. amph	weak mag readings whr & blk gneiss NVS sandy tex: refill pit ~1 m depth	360	unk		Oct-13
MPE37	317078	5014456	marble	cal diop phlogo/muscov graph	fo It grey cal marble (vig acid): carrying fo dk grn anbedral diop, fo mica and grant flakes ~5%; no rust: NVS, no MA: ~1.2 m depth - leave open	none	none	N	Oct-13
MPE38	317075	5014436	marble	cal diop phlogo graph	for vellows whit call mbl (vig deid), surfying in ambedral silicates (diop?) and minor for phlogo: trace vfor graph: NVS: no MA: in places grades into med or cal: 1.5 m depth	075	035 S	N	Oct-13
MPE39	317123	5014566	dionsidic arenite	fsp. diop. graph	for whit to it grey for and dion, or size 0.5 - 1.5 mm up to 3 mm; sandy, trace Co, trace vfo dissem suitable no acod; MVS; no MA; grades to it growshow skarn; downslope from MPE27	none	nhone	N	Oct-13
MPE40	317122	5014553	hasalt / diorite	fsp. pyrox amph	vfg to fg dark interlocking grained dense tough rock: subconchoidal breakage: NVS: strong MA: no rust on fresh surfaces: no fol: bottom of slone from MPE27	none	none	Y	Oct-13
MPE41	317116	5014588	n/a		$\sim$ 1.5 m denth bit area clay water cavitation: refill	none	none		Oct-13
MPF42	01110	0011000	n/a		$\sim$ 2.5 m depth no bedrock float of med or whit cal mbl $\sim$ 15 cm across: refill				Oct-13
MPP001	316657	5014175	n/a		strong conductivity				Oct-05
MPP002	316631	5014170	Been Mat		good conductivity in stream/marsh area				Oct-05
MPP004	316703	5014200	n/a						Oct-05
MPP005	316699	5014214	n/a		weak signal along gentle hillside				Oct-05
MPP006	316718	5014218	n/a		weak signal angular cobbles, rusty graphite bearing				Oct-05
			-			1			

Field #	UTM E	UTM N Rock Name	Minerals present	Description	Strike	Dip	MA	Date
MPP007	316745	5014235 hb-qtz gneiss	qtz/fsp, amph, bio	subcrop, fg (0.5 mm), white & black gneiss, sandy tex; strong fol; thin, discontinuous wht fsp layers ~5 mm thick, NVS	inconcl	incon		Oct-05
MPP008	316764	5014224 gabbro	fsp, pyrox, amph, sulph	flat o/c along trail; v. competent rock; med to dk grey, fg, v. weak fol.; weak MA; po ~2%	073	incon	Y	Oct-05
MPP009	316805	5014246 diopsidic arenite	cal, diop, qtz	subangular o/c along short scarpe; med gr wht mbl; ~5% silicates (diop); NVS; no graphite; no fol; contact to var gr ign rock	inconcl	incon	N	Oct-05
MPP010	316825	5014229 diopsidic arenite	fsp, qtz, amph	g rded o/c (~7x12 m); med gr, wht & blk sandy gneiss w lg laths of amph; NVS; no fol.	none	none		Oct-05
MPP011	316844	5014254 diopsidic arenite	fsp, amph, qtz	E edge of lg o/c area; med gr amph lath metased gneiss, weak fol, anhedral gr	none	none		Oct-05
MPP012	316857	5014330 hb-qtz gneiss	qtz/fsp, amph, bio	Hillside rising to the NW; bottom of hillside, small o/c; f gr, qtz/fsp & amph / bio gneiss; well fol; NVS	inconcl	inconcl	N	Oct-05
MPP013	317018	5014287 diopsidic arenite	fsp, amph, qtz	Lg rded o/c ~15 m S of trail; med gr, leucogabbro with frags of blk well fol amphibolite; weakl fol; NVS	165	SE	N	Oct-05
MPP014	317047	5014411 n/a		Low lying land 23 m W of trail; weak Beep Mat signals				Oct-05
MPP015	317087	5014405 amphibolite	amph, fsp/qtz	Low rded hillock ~10 m high, 30 - 40 m sq; fg dark amohibolite with sandy tex; NVS, no MA, well fol	176	080E	Y	Oct-05
MPP016	316675	5014155 marble	cal, diop, phlogo	calcitic marble, med gr, wht & clean, with thgin layer og grn diop?; equant gr; NVS, minor phlogo	inconcl	incon	N	Oct-06
MPP017	316665	5014177 arenite	qtz/fsp, amph	N end of trench, at waters edge in marsh; trench bears 139 deg; bedrock slopes uphill at ~30 deg; rusty orange surface	inconcl		Y	Oct-06
MPP018	316642	5014172 Location		N end of trench, E of TR-08, W of TR-09; bearing 139 deg				Oct-07
MPP019	316655	5014160 n/a		S end of trench, as above				Oct-07
MPP020	316646	5014152 Location		N end of trench S across marsh from TR-08; at water line by marsh; bearing 126 - 131 deg				Oct-07
MPP021		n/a		S end of trench, as above				Oct-07
MPP022	316650	5014145 conglomerate	qtz/fsp, amph, bio?	fg, dark grey, pervas rusty graph bearing metased conglomerate with patchy sulph ~2%, sandy tex; grades to friable wht/blk metased	inconcl	inconcl	weak	Oct-07
MPP023	317047	5014411 n/a		good conductivity signals - start of trenching in area ; bedrock ~ 1.2 m deep				Oct-07
MPP024	317063	5014428 n/a		contact of graph bearing metaseds with gneisses; wht & blk sandy metased, 2 cm thick per layer, NVS	160	45 ENE		Oct-07
MPP025	317056	5014398 diopsidic arenite	diop, qtz	Test pit; white, med gr siliceous marble (skarn) with frags of amphibolite; no rust, no graph; fill in pit	incon	incon		Oct-07
MPP026	317053	5014404 n/a		Intersection of trenches; new trench bearing 156 - 167 deg; 8 m long; strong MA; graph showing bearing 013 - 030 deg				Oct-07
MPP027	317058	5014394 marble		E end of cross cutting trench; white marble	incon	incon		Oct-07
MPP028	317028	5014392 diopsidic arenite	diopside, qtz, graph, blk amph	Test pit; dk grn, f to med gr, interlocking anhedral to subhedral grains of diopside, minor qtz + blk amph, trace graph flakes up to 0.5 mm, sandy tex, tough, NVS,	none	none	Ν	Oct-07
MPP029	317047	5014411 basalt amphibolite	fsp, amph, bio, sulph	Extend first trench to NE; point marks contact to gabbro/sil unit; trench bearing 058 deg; water seepage problem ; dk grey, fg, ign tex; trace fg dissem sulph, no fol, little rust	none	none	weak	Oct-07
MPP030	317031	5014408	fsp, phlogo, graph	Test pit NE of first trench extension; v. tough, gabbro/marble mix; fill in pit; It grey fg to med gr fsp some polysynth twinning, minor fg phlogo + trace fg graph, no acid, NVS	inconcl	inconcl	N	Oct-08
MPP031	317020	5014421 hb-qtz gneiss	qtz/fsp, amph, bio?	~6 m to N of above pt; higher ground, 30 cm depth; mbl/gab contact; no signals; rebury; fg yellowy wht grains, sandy tex, slightly friable but tough, weal fol; NVS	inconcl	inconcl	Ν	Oct-08
MPP032	317003	5014420 n/a		Test pit into low ground; at 3 m no bedrock, cavitation & water; no readings; refill				Oct-08
MPP033	316994	5014410 n/a		Test pit; ~2.5 m depth hit right soil and angular pcs of med gr wht to yellowy wht dol mbl (no acid reaction); refill				Oct-08
MPP034	316991	5014407 diopsidic arenite	diop, amph, sulph	Test pit; 60 - 100 cm depth, skarn, amph, diop, amph laths (no acid reaction); refill; fg - med gr, yellowy grn sandy tex, qtz veinlets, rusty ext & pervas spots	none	none	weak	Oct-08
MPP035	316977	5014446 n/a		bottom of hillside; ~3 m no bedrock; no signals; refill				Oct-08
MPP036	316971	5014449 arenite	qtz, fsp, amph, po, py, graph	fg dark siliceous sandy tex with small pebbles of qtz + fsp, pervas rusting, graph flakes ~2 - 5%, fg dissem po, py along joint face; tough rock; MA	060	030SE	Y	Oct-08
MPP037	316939	5014443 arenite	qtz/fsp, diop, amph, graph	top of ridge by blue flag; ~30 cm depth; graph bearing metased; sil metased w po about 3.5 m to S; wht/yellowy wht fg, friable sandy tex, pervas rusting, no acid, friable but tough	010 - 015	024 E	Y	Oct-08
MPP038	316880	5014301 n/a		Marc's geophysical target; dig 2.5 m through humus and peat; water and cavitatiion; no bedrock, no readings; refill				Oct-08
MPP040	316416	5014074 Beep Mat		Good conductivity signals				Oct-14
MPP040A	316413	5014089 Beep Mat		Good conductivity signals				Oct-14
MPW01	315555	5013601 conglomerate	qtz, fsp, amph, muscov, graph	fg, wht and blk sandy tex metased with pervas rusting of roange and yellow; sm pebbles of qtz & fsp; no acid, NVS, no MA; trace to 2% vfg graph, light density	128	030 NE	N	Oct-14
MPW02	315539	5013628 hb-qtz gneiss	qtz/fsp, amph	lg rded o/c along hillside, down to NE; wht & blk gneiss, fg; NVS	126	NE		Oct-14
MPW03	315563	5013578 arenite	qtz/fsp, mica, graph	vfg to fg yellowy wht fsp/qtz; v friable, sandy tex; pervas rusting giving yellow/orange rust colour; weak undulating fol; NVA; no MA; no Acid; light density, well fol, no readings	078	080 NE	N	Oct-14
MPW04	315573	5013587 arenite	qtz/fsp, amph. graph, cpy?	fg dark qtz rich, tough, pervas rust thru & thru; graph ~2%, wht/blk metased w patchy sulph, no MA, sandy tex, no acid; well fol, good readings	076	075 NE	N	Oct-14
MPW05		arenite	qtz/fsp, diop, amph, graph	fg, v friable yellowy grn sandy diop with yellowy wht/blk metased; pervas rusting, trace to 2% graph; NVS; no MA, no acid; one pc has graph restricted to layer along side of sample	none	none	Ν	Oct-14
MPW06	315566	5013601 conglomerate	qtz, fsp, bio	vfg to fg dark siliceous metased with abundant well rded pebbles of qtz & fsp 2 - 15 mm across; NVS no MA, no fol, no graph; areas rich in fg bio; ~2.2 m depth, blocky bedrock	incon	incon	N	Oct-14
MPW07	315565	5013591 conglomerate	qtz, fsp	vfg pervas rusty orange siliceous metased with rded pebbles up to 5 mm; very tough rock, diff to sample; NVS; weak MA, no acid; clast of graph bearing metased; depth ~2.5 m	078	NE	weak	Oct-14
MPW07A	315565	5013591 arenite	qtz, graph, sulph (pi & py), talc	fg dark qtz rich, tough, graph ~2%, fg dissem sulph ~2% (po & py), no MA; along fracture of one sample is v thin layer of talc	incon	incon	Ν	Oct-14
MPW08	315586	5013660 ???		flat o/c along hillside; undulating fol; discont layers, no rust, NVS.	135	045 SW		Oct-14
MPW09	315949	5013915 Beep Mat		good conductivity signal - metal garbage				Oct-15
MPW10	315628	5013914 Creek Bed		Creek, roughly bearing 022 degrees; no bedrock visible, spongey ground				Oct-15
MPW11	315597	5013831 Creek Bed		Creek, ground in & around is black and boggy, no o/c walking along creek, med to large rded boulders, mostly wht&blk metased gneiss, some red felsic gneiss, numerous mag beeps	5			Oct-15
MPW12	315988	5013930 Beep Mat		good conductivity signal - metal garbage				Oct-15
MPW13	316004	5013920 Test Pit		Test pit - ~3 m depth abundant rded boulders of various lith, water seepage, v tight cobble rich soil & boulders; abundant mbl and wht diop boulders at depth; frll in				Oct-15
MPW14	316003	5013933 Test Pit		Test pit - ~3 m depth no water but tight soil with abundant cobbles & boulders; no readings; fill in				Oct-15
MPW15	315997	5013951 Test Pit		Test pit - ~2 m depth abundant cobbles Z& boulders, ~2.5m gray soil, ~3 m no readings; fill in				Oct-15
MPW16	315986	5013982 Test Pit		Test pit - ~2.5 m skarn; fill in				Oct-15
MPW16A	315984	5013979 Test Pit		Test pit - ~2.5 m skarn; fill in; end of pit above				Oct-15
MPW17	315958	5013924 Test Pit		Test pit - ~2 m depth to knob of bedrock showing skarn (diop) & wht mbl; angular float piece is graphite rich metased; Nwards bedrock drops away, a lot of mbl boulders - fill in				Oct-16

Field #	UTM E	UTM N	Rock Name	Minerals present	Description	Strike	Dip	MA	Date
MPW18	315917	5013897	Test Pit		Test pit - ~3.5 m no bedrock, numerous mbl & skarn boulders - fill in				Oct-16
MPW19	315917	5013914	Test Pit		Test pit - ~3 m depth, grey soil hard as rock, abundant gravel & cobbles, slight water seepage, distinctly less mbl boulders; fill in				Oct-16
MPW20	315902	5013921	Test Pit		Test pit - ~3 m tight grey soil with gravel, cobbles & boulders; no reradings				Oct-16
MPW21	315881	5013938	Test Pit		Test pit - ~1.5 m grey sandy soil with Ig boulders (felsic & amph schist), ~2.5 m Ig subangular boulders of mbl to skarn; fill in				Oct-16
MPW22	316023	5014021	hb-qtz gneiss	qtz/fsp, amph, bio	fg alt. light/dark layered gneiss; lighter qtz/fsp rich layers with blk amph/bio rich layers; NVS, no MA; slightly sandy tex; pervas rust along certain layers; well fol; ~1m depth; old test pit	079	060 SE	N	Oct-16
MPW23	315864	5013874	Test Pit		test pit - ~3.5 m no bedrock; numerous cobbles & boulders - fill in				Oct-16
MPW24	315853	5013914	Test Pit		test pit - ~2 m depth, hard soil with abundant cobbles & boulders; littlr mbl or skarn, mostly red felsic geniss; fill in				Oct-16
MPW25A	315835	5013965	amphibolite	amph, bio, sulph	fg dark grey amphibolite with minor bio, weak fol; NVS but weak MA (po); adjoins pervas rusty orange coloured fg siliceous metased with NVS & no MA; ~ 70 cm depth; fill in	no	no	weak	Oct-16
MPW25B	315835	5013965	arenite	qtz/fsp, amph	fg sandy tex, friable qtz/fsp with minor blk amph, pervas rust spots and rind; NVS; no MA; no acid; sample removed beside MPW25A; as above	no	no	Ν	Oct-16
MPW26	315839	5013950	Test Pit		test pit - ~1.5 m lg boulder of mbl & skarn and lg boulder of wht & blk gneiss - fill in				Oct-16
TAR	316880	5014304	n/a		Marc's geophysical target from TEDM info ; dig 2.5 m through humus and peat; water and cavitatiion; no bedrock, no readings; refill	n/a	n/a	n/a	Oct-05
TR08	316602	5014149	Location		S end of trench from Phase One	n/a	n/a	n/a	Oct-05
TR08A	316602	5014149	conglomerate	qtz/fsp, amph, graph, sulph	fg wht qtz/fsp ~85% with blk amph ~15%, rded pebbles up to 10mm, pervas rusting, fg dissem sulph, graph flakes ~3 - 5%, thick rusted rind ~3cm	incon	incon	N	Oct-05
TR08B	316602	5014149							Oct-05
TR08C	316602	5014149	conglomerate	qtz/fsp, amph, mica	~70% fg blk amph + bio, ~30% wht qtz/fsp, vfg, small rded pebbles, NVS, no MA, minor rusty layers, some disrupted layers with amph laths upto 2 cm across, sandy texture	incon	incon	N	Oct-05
TR08D	316602	5014149	arenite	qtz, amph, +/- bio, graph	grey to dk grey, sandy tex, tough, not friable, scratchable, NVS, fg but with some blk amph laths up to 1.0 cm across, v rusty surfaces, trace graph flakes	incon	incon	Ν	Oct-05
TR08E	316602	5014149	marble	cal, qtz, act, muscov, graph	t grey to wht grey, fg calcareous metased, with anhedral diopside + fibrous act; ~5% fg dissem sulph (po), vigorous acid reaction, trace graphite	incon	incon	N	Oct-05
TR08FA	316602	5014149	marble	cal, phlogo, diop, graph	fg wht cal marble (vig acid), with abundant fg phlogo, minor It grn diop, fg dissem rust spots, trace graph, weak fol; beside TR08FB	incon	incon	N	Oct-05
TR08FB	316602	5014149	arenite	qtz/fsp, amph, pyrox, graph, po	fg wht qtz/fsp ~75% with fg - med gr blk amph ~20%, grn pyrox ~5%, trace graph, vfg dissem rust spots, heavy rusting along ext; beside TR08FA	incon	incon	weak	Oct-05
TR09	316717	5014201	n/a		highly weathered, var gr size 0	52 - 056	SE	strong	Oct-05
TR09A	316717	5014201	arenite	qtz/fsp, amph	froable & light, pervas rusting thru & thru, var gr, but generally fg with small pebbles, NVS, laterite?	incon	incon	Ν	Oct-05
TR09B	316717	5014201	marble	cal, diop, qtz, phlogo	fg yellowy wht cal (vig acid) carrying ~15% grn anhedral diop, ~20% fg siliceous grains, ~2% fg phlogo; NVS; weak MA, no graph; no fol	none	none	weak	Oct-05
TR09C	316717	5014201	arenite	qtz/fsp, amph, mica					Oct-05
TR09D	316717	5014201	arenite	qtz/fsp, amph, graph	bag of sand; v friable, fg to vfg wht qtz/fsp, minor vfg blk amph ~20%; minor fg graph ~2%; NVS; no MA; sand feels "soft" and I expected acid reaction, but none	none	none	N	Oct-05
TR09E	316717	5014201	arenite	fsp, amph/bio, graph	highly friable, pervasive rusting, ~80% fg wht fsp/qtz with qtz pabbles up to 5 mm, ~20% fg blk amph + bio, trace graph flakes up to 1 mm, NVS, no acid reaction	incon	incon	N	Oct-05
TR09F	316717	5014201	conglomerate	qtz/fsp, amph, mica	bag of sand; v friable sand with small rded pebbles up to 1 cm across, minor rust	incon	incon	Ν	Oct-05



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### Legend

Building as Symbol Building to Scale Runway Heliport \ Hospital Heliport Seaplane Base Ferry Route Trail Head \ Winter Road Road with Bridge Road with Tunne Primary, Kings or 400 Series Highwa 524 Secondary Highwa 801 Tertiary Highwa District, County, Regic or Municipal Road (407) Toll Highway One Way Road Road with Permane Road with Address Ran Hydro Line Communication Lin Natural Gas Pipeline, Water Pipe Spot Heigh Index Contour Contour Wooded Are: Watercours Falls Rapids Rapids \ Falls Rapids Rocks Lock Gate Dam \ Hydro Wa Dam \ Hydro Wa nternational Bounds Upper Tier \ District Municipal Boundary Lower Tier \ Single Tie Municipal Boundary Lot Line Indian Reser Military Land Gneissosit Bedding

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Road with Permanent Blocked Passage Road with Address Range Hydro Line, Communication Line Natural Gas Pipeline, Water Pipelin Provincial \ State Bounda International Boundar Upper Tier \ District Municipal Boundary Lower Tier \ Single Tier Municipal Boundary

Little-Bryan Claims




## Malcolm Northwest Geological Map (2015)

## Building as Symbol 7 Building to Scale × Airport <u>F</u> Heliport \ Hospital Helipor ...... Seaplane Base Ferry Route ∎. Trail Head \ Trail Railway \ Train Station Railway with Bridg -) - ( Railway with Tunne Road (Major - Minc Winter Road Road with Bridge ) C Road with Tunnel Primary, Kings or 400 Series Highway 524 Secondary Highway 801 Tertiary Highway 28 District, County, Region (407) Toll Highway -> One Way Road • Road with Permanent Blocked Passage Road with Address Ranges Hydro Line, Communication Line or Unknown Transmission Line Natural Gas Pipeline, Water I or Unknown Pipeline Spot Height Index Contour Contour Wooded Area Wetland Vaterbody Waterbody El Watercourse Falls Rapids Rapids \ Falls Rapids Rocks Lock Gate << Dam \ Hydro Wal Dam \ Hydro Wal Provincial \ State Bo International Boundary Upper Tier \ District Municipal Boundary Lower Tier \ Single Tier Municipal Boundary Lot Line Indian Reserve Provincial Park A National Park Military Lands Gneissosity Bedding Little-Bryan Claims

Legend