



**CANADIAN EXPLORATION SERVICES LTD**

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**ASHLEY**  
GOLD MINES LIMITED

**Spectrometer  
Survey  
Over the  
  
Thompson Silver Property  
Donovan Township,  
Ontario**

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## 1. SURVEY DETAILS

### 1.1 PROJECT NAME

This project is known as the **Thompson Silver Property**.

### 1.2 CLIENT

Ashley Gold Mines Limited

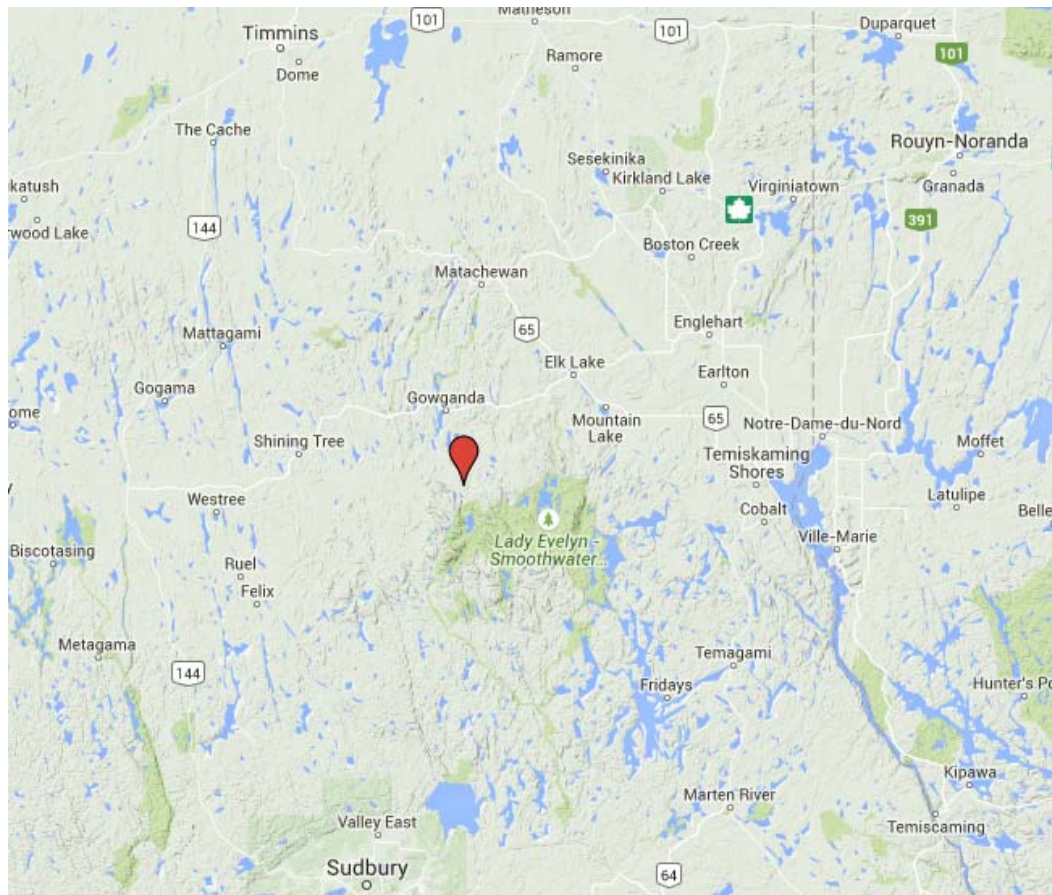
P.O. Box 219

Larder Lake, Ontario

P0K 1L0

### 1.3 LOCATION

The Thompson Silver Property is located approximately 20 km SSE of Gowganda, Ontario. The surveyed area covers parts of claims 4271099 and 4273069 located in Donovan Township, within the Larder Lake Mining Division.



**Figure 1: Location of the Thompson Silver Property**

## 1.4 ACCESS

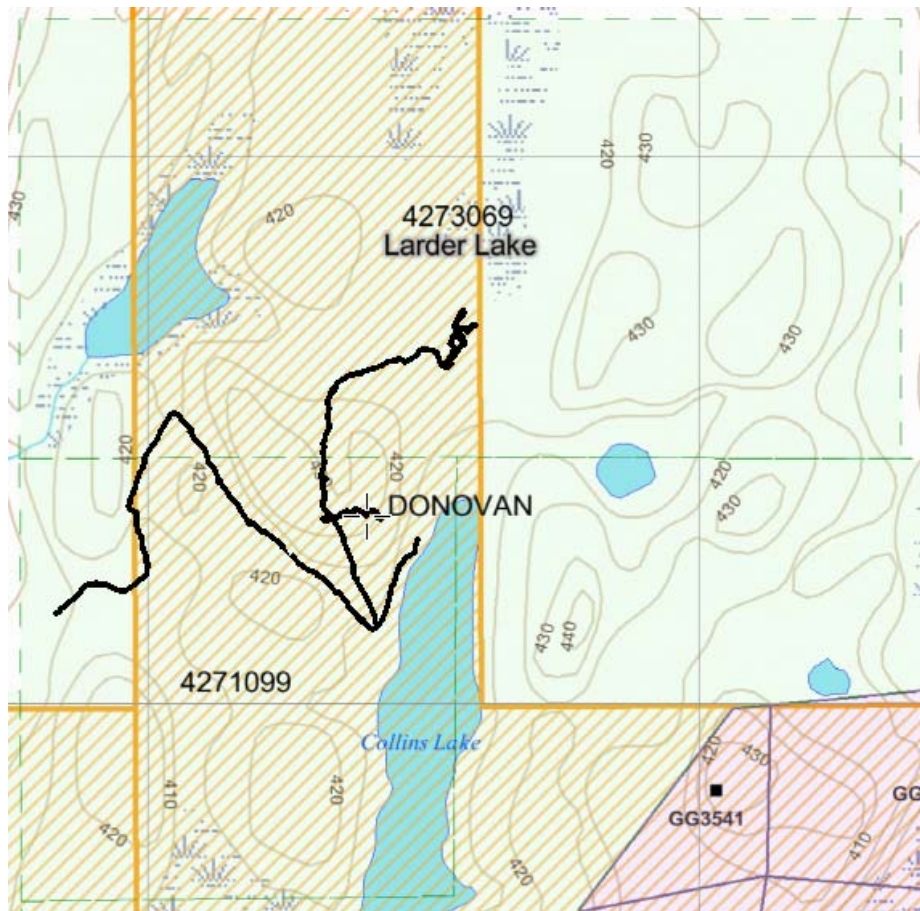
Access to the property was attained with a 4x4 truck via highway 560 approximately 33km west of Elk Lake Ontario. One would then take the Beauty Lake road south from highway 560 for approximately 22km to the OFSC trail just before the bridge on the Montreal River. From the Beauty Lake road, one takes the OFSC trail south for approximately 3km to the Gowganda-Duggan site. From here one takes the Thompson Silver access trail east for 1km to arrive on the claim.

## 1.5 SURVEY GRID

The traversed lines were established using a GPS in conjunction with the execution of the survey. A random path was taken for the traverses.

## 1.6 SURVEY AREA

The survey area was for reconnaissance and therefore randomly generated in the field based on topography and vegetation.



**Figure 2: Spectrometer Traverses on Claim Map**

## 2. SURVEY WORK UNDERTAKEN

### 2.1 SURVEY LOG

Date	Description	Total Survey (km)
June 9, 2015	Locate access and rehab access. Perform spectrometer survey.	2.9

**Table 1: Survey Log**

### 2.2 PERSONNEL

David LaRocque of Larder Lake, Ontario operated the Spectrometer along with acquiring the GPS waypoints.

### 2.3 SURVEY SPECIFICATIONS

The survey was conducted with a Radiation Solutions RS-230 – BGO SUPER-SPEC spectrometer. The operator traversed the outlined block until the unit detected a cps above background. Once this was detected, the operator backtracked 50m, a GPS waypoint was taken with a corresponding 60 second stacked Spectrometer assay for K%, U ppm and Th ppm. At this point the operator took a sample every 25m until the anomalous region was traversed. Otherwise the operator took an assay and GPS reading every 100m. All data was both electronically noted and written in a notebook.

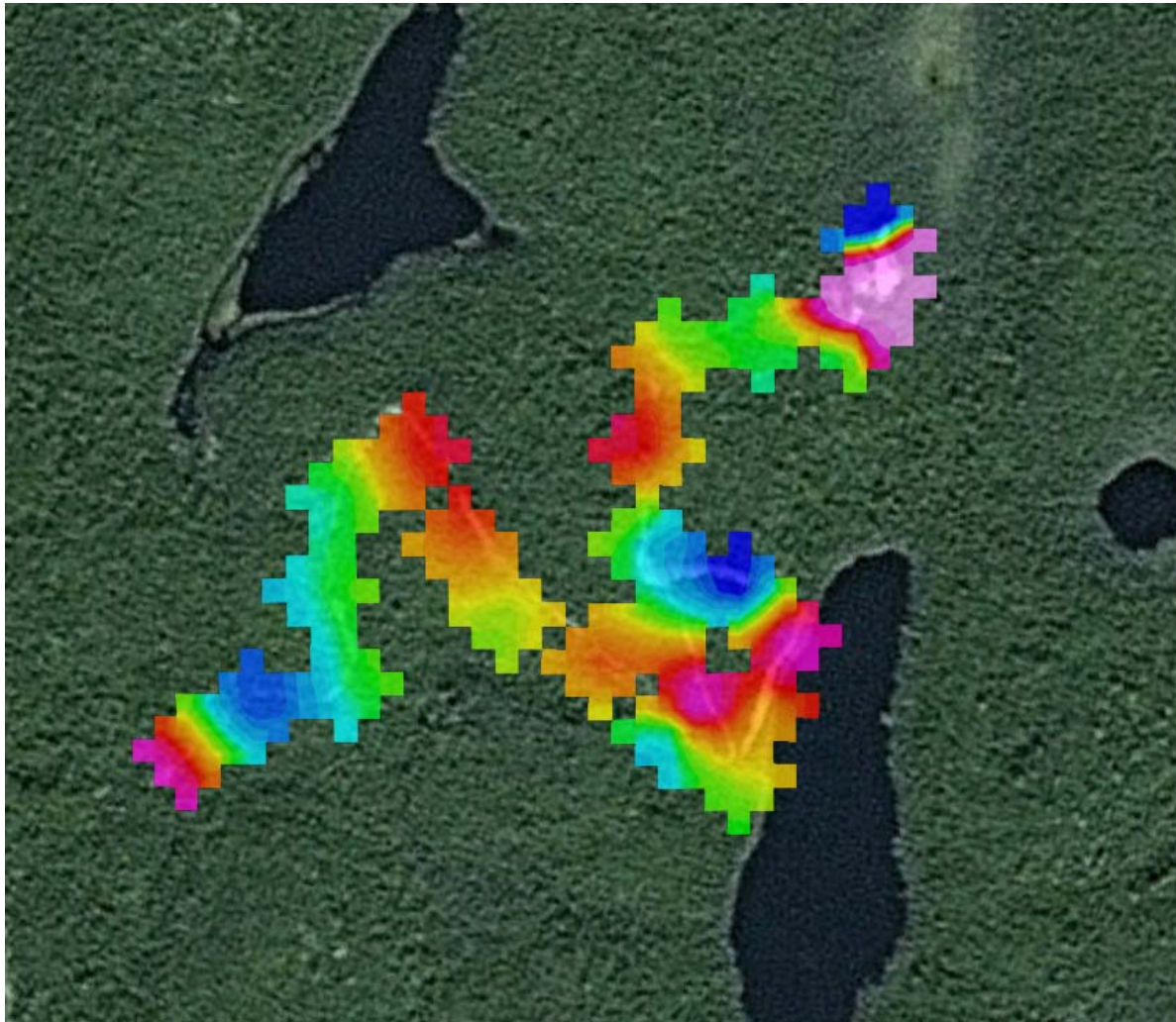
The background of the instrument was automatically set during the auto-calibration process and it was around 50nGy/h. The device was set to emit an audible alarm if the background was exceeded by two times the level. This was considered by the operator to be anomalous and at this point the operator increased the sample density.

A total of 2.9 kilometers of no grid spectrometer was performed on June 9, 2015. This consisted of 28 K, U and Th samples taken at approximately 100 meter intervals.



### 3. OVERVIEW OF SURVEY RESULTS

#### 3.1 SUMMARY



**Figure 3: Google Image with Uranium Overlay**

The survey did not indicate any strong anomalous regions. The Thompson Showing along with a window Archean iron formation was targeted during this survey.

The area surrounding the Thompson Showing appeared to indicate a stronger U and Th response. This may be an indication of the alteration patterns surrounding the silver mineralization. The Archean window appeared to exhibit a decrease in the U and Th.

With an increase in U and Th response surrounding the Thompson Showing, I would recommend further reconnaissance of the area to determine other regions where these responses may coincide.

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## APPENDIX A

### STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

1. I am a professional geophysicist with residence in Larder Lake, Ontario and am presently employed as a Geophysicist and Geophysical Manager of Canadian Exploration Services Ltd. of Larder Lake, Ontario.
2. I am a Practicing Member of the Association of Professional Geoscientists, with membership number 2172.
3. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.
4. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.
5. I am a member of the Ontario Prospectors Association, a Director of the Northern Prospectors Association and a member of the Society of Exploration Geophysicists.
6. I do not have nor expect an interest in the properties and securities of **Ashley Gold Mines Limited**.
7. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.



C. Jason Ploeger, P.Geo., B.Sc.  
Geophysical Manager  
Canadian Exploration Services Ltd.

Larder Lake, ON  
July 22, 2015

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## APPENDIX B

### THEORETICAL BASIS AND SURVEY PROCEDURES

**Gamma-Ray Spectrometry (GRS)** provides a direct measurement of the surface of the earth, with no significant depth of penetration. This at-surface characteristic allows us to reliably relate the measured radioelement contrasts to mapped bedrock and surficial geology, and alteration associated with mineral deposits. All rocks, and materials derived from them are radioactive, containing detectable amounts of a variety of radioactive elements. A gamma-ray spectrometer is designed to detect the gamma rays associated with these radioactive elements and to accurately sort the detected gamma rays by their respective energies. It is this sorting ability that distinguishes the spectrometer from instruments that measure only total radioactivity.

#### Why do we need to know about K, U, and Th?

Potassium (K), uranium (U) and thorium (Th) are the three most abundant, naturally occurring radioactive elements. K is a major constituent of most rocks and is the predominant alteration element in most mineral deposits. Uranium and thorium are present in trace amounts, as mobile and immobile elements, respectively. As the concentration of these different radio elements varies between different rock types, we can use the information provided by a gamma-ray spectrometer to map the rocks. Where the 'normal' radioelement signature of the rocks is disrupted by a mineralizing system, corresponding radioelement anomalies provide direct exploration guidance.

Ground surveys do not require a corresponding airborne survey. They are easily conducted by one person as a reconnaissance survey or more formally using a series of grid lines. The resulting geochemical information provides an important additional layer of information significantly improving bedrock and surficial mapping and ore vectoring.

#### The Gamma-ray Energy Spectrum

The primary acquisition data set is a multichannel gamma-ray energy spectrum. The area from 0 to 0.4 MeV is not used and consists of counts created by Compton scattering. For geological mapping, the  $K^{40}$  (potassium),  $Bi^{214}$  (uranium) &  $Tl^{208}$  (thorium) peaks are of interest. During the aerial survey, the full spectrum of counts is recorded once per second, using a 256-channel histogram. During post-flight data processing, the counts for the radio elements of interest ( $K^{40}$ ,  $Bi^{214}$ ,  $Tl^{208}$ ) are accumulated. The summation includes the counts for a range of energies (a 'window' or 'region of interest') centred on each peak.

The accumulated count rates are then converted to **equivalent** ground concentrations of **potassium, uranium & thorium** using a set of calibration constants that are a characteristic of each spectrometer system.



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## APPENDIX C

### RS-230 BGO Super Spec Gamma Spectrometer Handheld Gamma-Ray Spectrometer



#### Specifications

##### Memory:

- Internal Data Storage memory
- Assay + 1024 channel Spectra: 128 samples

##### Data Input / Output:

- (Using supplied RS-Analyst software)
- USB
- Bluetooth
- GPS link via Bluetooth

##### Temperature Range:

- 20 to +50 degrees Celsius

##### Control:

- Single one button, Thumb activated

##### Alarm:

- Audio via miniature speaker
- Variable audio threshold set point
- Audio proportional to count rate

##### Weight:

- 4.5 lb (2.04 kg) including batteries

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### **RS-230 Size & Package Style**

- 10.2" x 3.2" x 3.8" (259 mm x 81. mm x 96 mm)
- 1 mm aluminum outer case
- In a flashlight configuration with side support strap and handle

### **Display:**

- 128 x 64 pixels, 1 1/8 x 2 3/8"
- Graphic LCD display with white backlight and automatic dimming

### **Readout:**

- Search Mode: Counts in CPS from 0 to 65,535 and Histogram chart
- Assay Mode: Display in %K, ppm of U & Th

### **Energy Response:**

30 keV – 3000 keV

### **Internal Sampling:**

20 readings per second

### **Batteries:**

- Internal battery pack module (4xAA) easily replaceable
- Rechargeable or Alkaline (optional)
- Life: 8 + hours at 20 degrees C

The performance of the 6.3 in<sup>3</sup> (103 cm<sup>3</sup>) higher density Bismuth Germanate (BGO) detector is an equivalent of a 21 in<sup>3</sup> (390 cm<sup>3</sup>) Sodium Iodide (NaI) commonly used with larger portable units and approximately more than 3 times the same size NaI crystal.

- The spectrometer is auto-stabilizing on the naturally occurring (K, U, & Th) radioactivity and does not require any test sources.

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**APPENDIX C****GARMIN GPS 76****GPS Performance**

Receiver: WAAS-enabled, 12 parallel channel GPS receiver continuously tracks and uses up to 12 satellites to compute and update your position

**Navigation Features**

**Waypoints/icons:** 500 with name and graphic symbol, 10 nearest (automatic), 10 proximity

**Routes:** 50 reversible routes with up to 50 points each, plus MOB and Trac-Back® modes

**Tracks:** Automatic track log; 10 saved tracks let you retrace your path in both directions

**Trip computer:** Current speed, average speed, resettable max. speed, trip timer and trip distance

**Alarms:** Anchor drag, approach and arrival, off-course, proximity waypoint, shallow water and deep water

**Tables:** Built-in celestial tables for best times to fish and hunt, sun and moon rise, set and location

**Map datums:** More than 100 plus user datum

**Position format:** Lat/Lon, UTM/UPS, Maidenhead, MGRS, Loran TDs and other grids, including user grid

**Acquisition times**

**Warm:** Approximately 15 seconds

**Cold:** Approximately 45 seconds

**AutoLocate®:** Approximately 2 minutes

**Update rate:** 1/second, continuous

**GPS accuracy**

**Position:** < 15 meters, 95% typical\*

**Velocity:** 0.05 meter/sec steady state

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**WAAS accuracy**

**Position:** < 3 meters, 95% typical\*

**Velocity:** 0.05 meter/sec steady state

**Power**

**Source:** Two "AA" batteries (not included)

**Battery Life:** Up to 16 hours

**Physical**

**Size:** 2.7"W x 6.2"H x 1.2"D (6.9 x 15.7 x 3.0 cm)

**Weight:** 7.7 ounces

**Display**

1.6"W x 2.2"H (4.1 x 5.6 cm)

180 x 240 pixels, high-contrast

FSTN with bright backlighting

**Case:** Fully gasketed, high-impact plastic alloy, waterproof to IEC 529 IPX7 standards

**Interfaces:** RS232 with NMEA 0183, RTCM 104 DGPS data format and proprietary Garmin®

**Antenna:** Built-in quadrifilar, with external antenna connection (MCX)

**Differential:** DGPS (USCG and WAAS capable)

**Temperature range:** 5°F to 158°F (-15°C to 70°C)

**Dynamics:** 6 g's

**User data storage:** Indefinite, no memory battery required

*Specifications obtained from [www.garmin.com](http://www.garmin.com)*



## APPENDIX C

### GARMIN GPS MAP 62S



Physical & Performance:	
Unit dimensions, WxHxD:	2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm)
Display size, WxH:	1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm)
Display resolution, WxH:	160 x 240 pixels
Display type:	transflective, 65-K color TFT
Weight:	9.2 oz (260.1 g) with batteries
Battery:	2 AA batteries (not included); NiMH or Lithium recommended
Battery life:	20 hours
Waterproof:	yes (IPX7)
Floats:	no
High-sensitivity receiver:	yes

Interface:	high-speed USB and NMEA 0183 compatible
Maps & Memory:	
Basemap:	yes
Preloaded maps:	no
Ability to add maps:	yes
Built-in memory:	1.7 GB
Accepts data cards:	microSD™ card (not included)
Waypoints/favorites/locations:	2000
Routes:	200
Track log:	10,000 points, 200 saved tracks
Features & Benefits:	
Automatic routing (turn by turn routing on roads):	yes (with optional mapping for detailed roads)
Electronic compass:	yes (tilt-compensated, 3-axis)
Touchscreen:	no
Barometric altimeter:	yes
Camera:	no
<u>Geocaching-friendly:</u>	yes (paperless)
<u>Custom maps compatible:</u>	yes
Photo navigation (navigate to geotagged photos):	yes
Outdoor GPS games:	no
Hunt/fish calendar:	yes
Sun and moon information:	yes

Tide tables:	yes
Area calculation:	yes
Custom POIs (ability to add additional points of interest):	yes
Unit-to-unit transfer (shares data wirelessly with similar units):	yes
Picture viewer:	yes
Garmin Connect™ compatible (online community where you analyze, categorize and share data):	yes

- *Specifications obtained from [www.garmin.com](http://www.garmin.com)*

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## APPENDIX D

### LIST OF MAPS (IN MAP POCKET)

Posted Colour Contour Maps (1:2500)

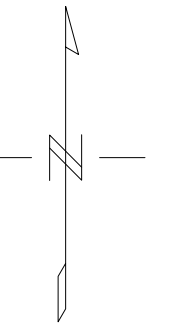
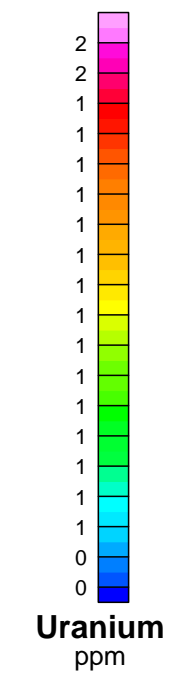
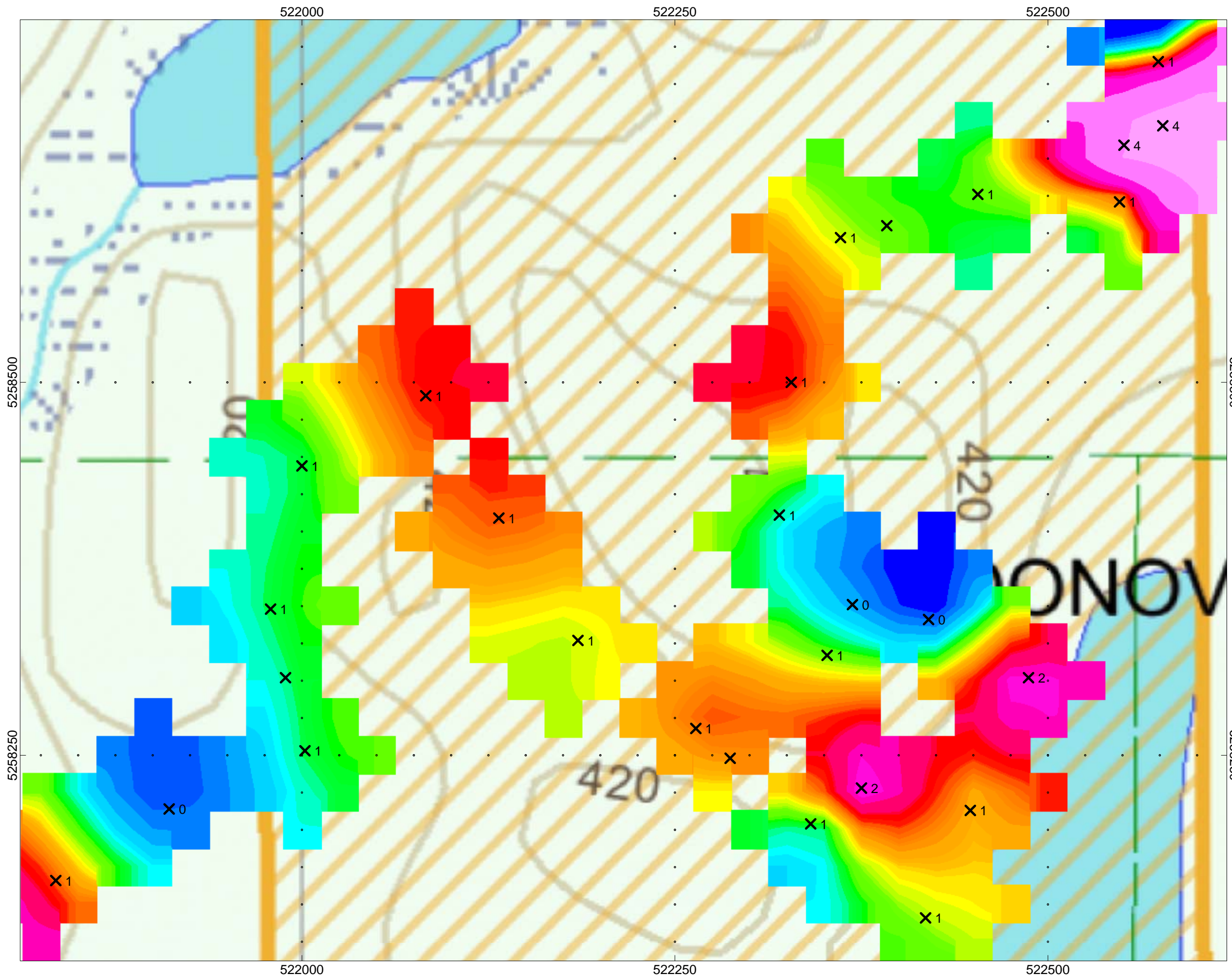
- 1) ASHLEY-DONOVAN-SPECTROMETER-K
- 2) ASHLEY-DONOVAN-SPECTROMETER-U
- 3) ASHLEY-DONOVAN-SPECTROMETER-Th
- 4) ASHLEY-DONOVAN-SPECTROMETER-OUTCROP

Grid Sketch on Claim Map (1:20000)

- 5) ASHLEY-DONOVAN-TRAVERSES

**TOTAL MAPS = 5**





**THOMPSON PROPERTY**  
**Donovan Township, Ontario**

URANIUM CONTOURED PLAN MAP  
Readings Taken On Ground

Posting Level: 0 ppm  
Station Separation: varies during GPS traverse  
U Contours: 0 ppm

RS-230 BGO SUPER SPECTROMETER

Operated By: David LaRocque  
Processed by: C Jason Ploeger, B.Sc.  
Map Drawn By: C Jason Ploeger, B.Sc.  
July 2015



Drawing: ASHLEY-DONOVAN-SPECTROMETER-U



Date / Time of issue: Fri May 23 14:46:21 EDT 2014

PLAN  
G-3424

ADMINISTRATIVE DISTRICTS / DIVISIONS

Larder Lake  
TIMISKAMING  
KIRKLAND LAKE



LAND TENURE WITHDRAWAL DESCRIPTIONS (list may not be complete)

Identifier	Type	Date	Description
W-ONT-63/96	Wm	Sep 17, 1996	SEC 35/50 W-ONT-63/96 SEPT 17/96 M+S COMPREHENSIVE PLANNING COUNCIL. Notice, this withdrawal area is under the MNR North Lady Evelyn River Head Waters - G1865 (Special Management Area)

## IMPORTANT NOTICES

Areas under which special regulation, limitations or conditions exist that affect normal prospecting, staking and mineral development activities

Type	Description
Document	Document describing the project and its objectives.
Document	Document describing the project and its objectives.

Those wishing to stake mining claims should consult with the Provincial Mining Recorder's Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown herein. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recordors' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

### General Information and Limitations

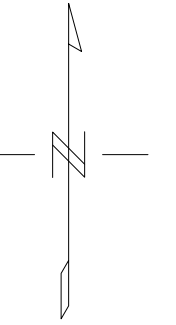
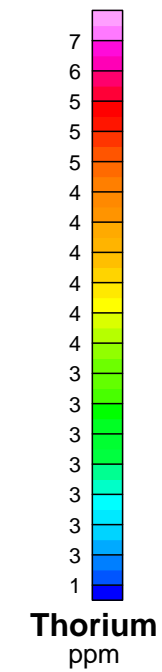
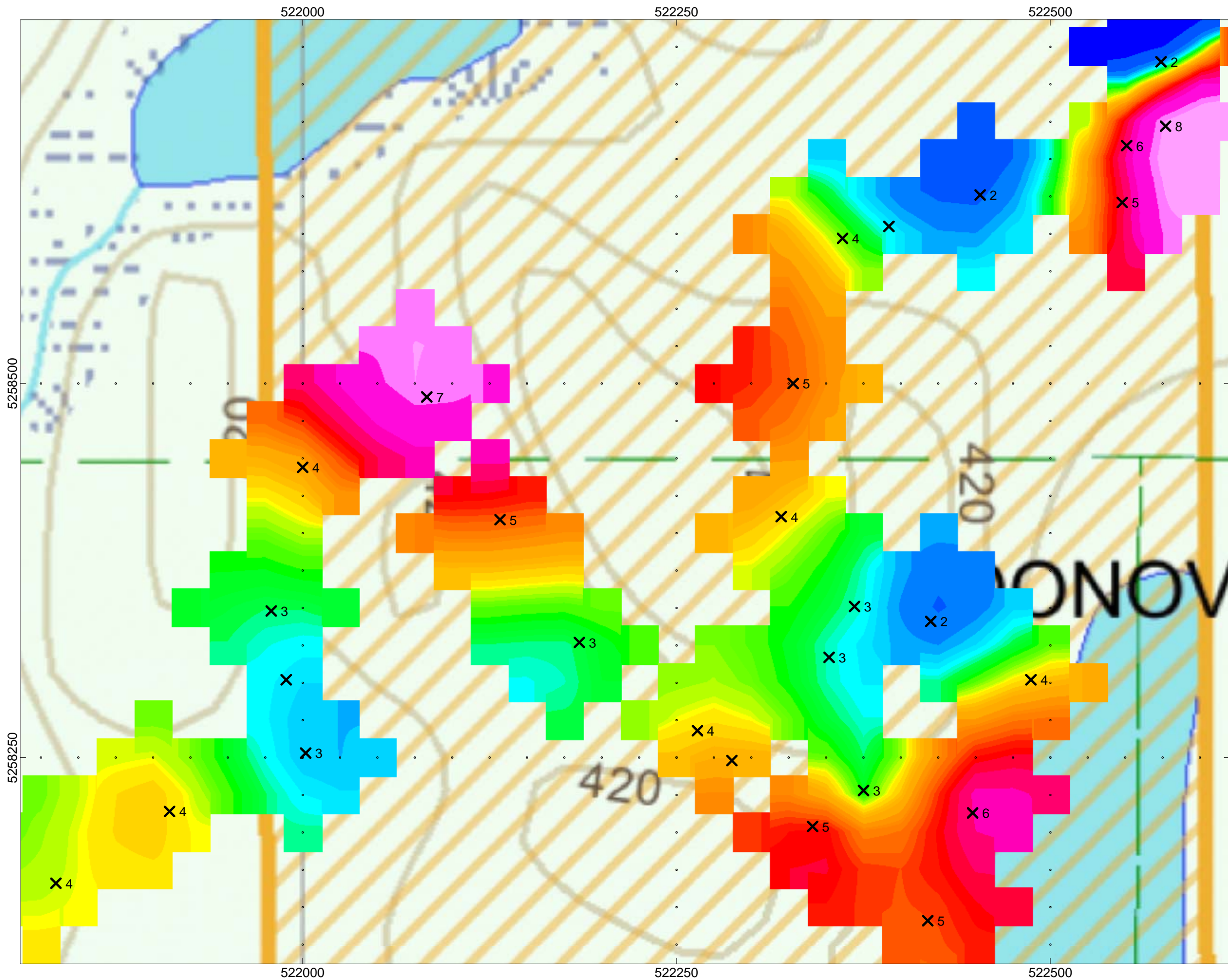
Contact Information:  
 Provincial Mining Records' Office  
 Willet Green Miller Centre 933 Ramsey Lake Road  
 Sudbury ON P3E 6B5  
 Home Page: [www.mndm.gov.on.ca/MNDM/MINES/](http://www.mndm.gov.on.ca/MNDM/MINES/)

Toll Free  
Tel: 1 (888) 415-6645  
Fax: 1 (877) 870-1444

Map Datum: NAD 83  
5742 Projection: UTM (6 degree)  
Topographic Data Source: Land Information Ontario  
Mining Land Tenure Source: Provincial Mining Records Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.





**THOMPSON PROPERTY**  
**Donovan Township, Ontario**

THORIUM CONTOURED PLAN MAP  
Readings Taken On Ground

Posting Level: 0 ppm  
Station Separation: varies during GPS traverse  
Th Contours: 0 ppm

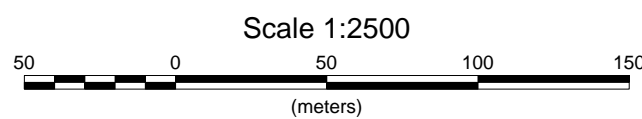
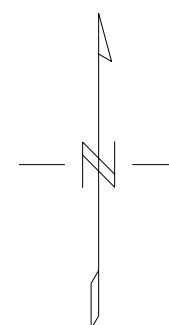
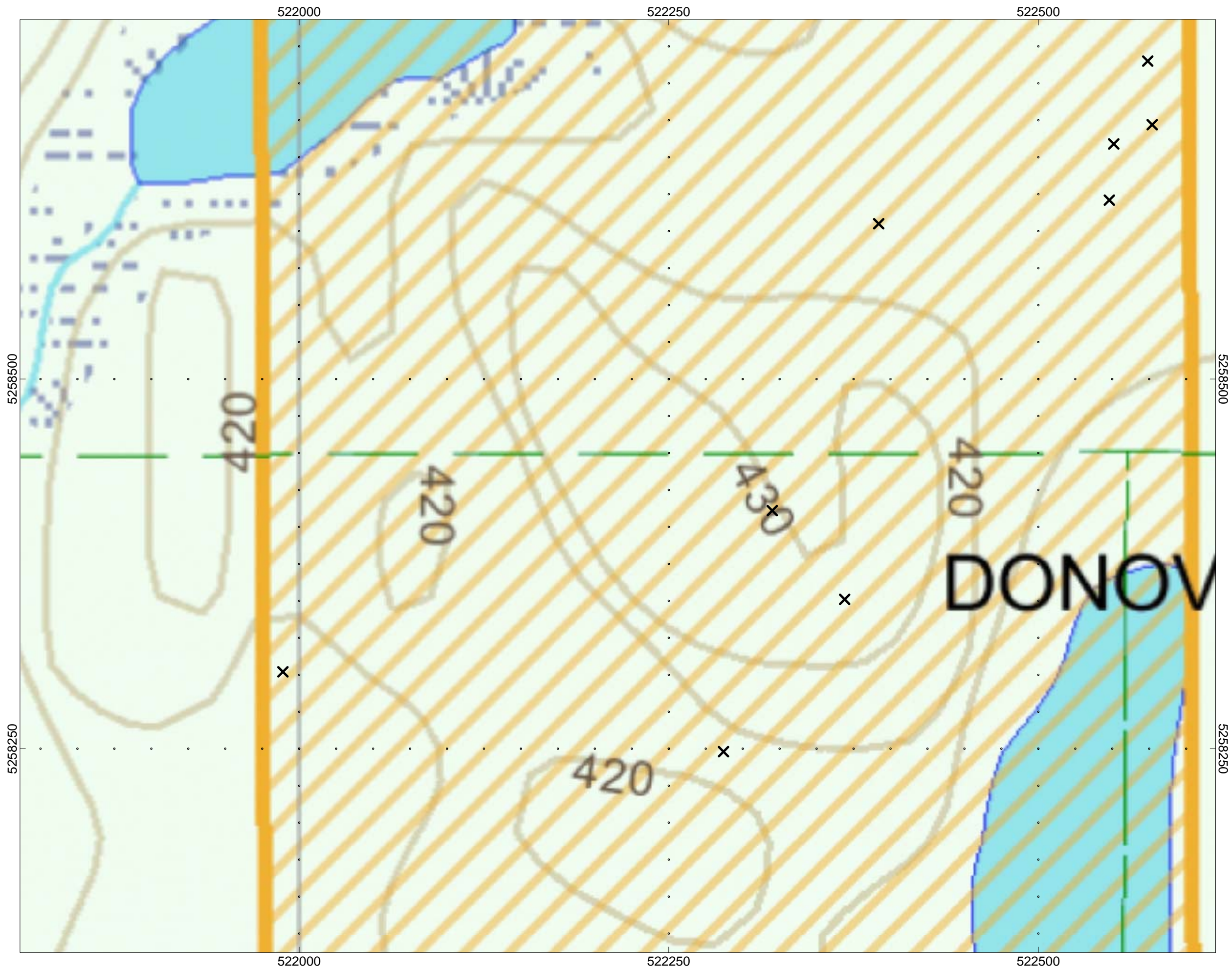
RS-230 BGO SUPER SPECTROMETER

Operated By: David LaRocque  
Processed by: C Jason Ploeger, B.Sc.  
Map Drawn By: C Jason Ploeger, B.Sc.  
July 2015



Drawing: ASHLEY-DONOVAN-SPECTROMETER-Th





**THOMPSON PROPERTY**  
**Donovan Township, Ontario**

OUTCROP LOCATION PLAN MAP

X - Outcrop observed

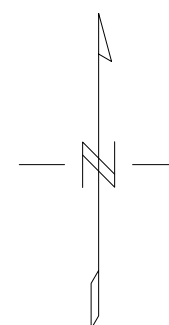
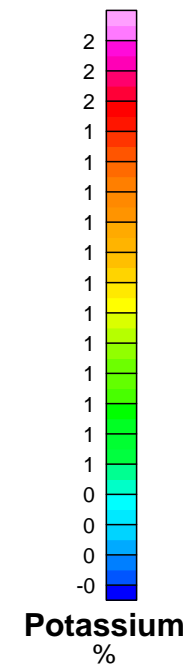
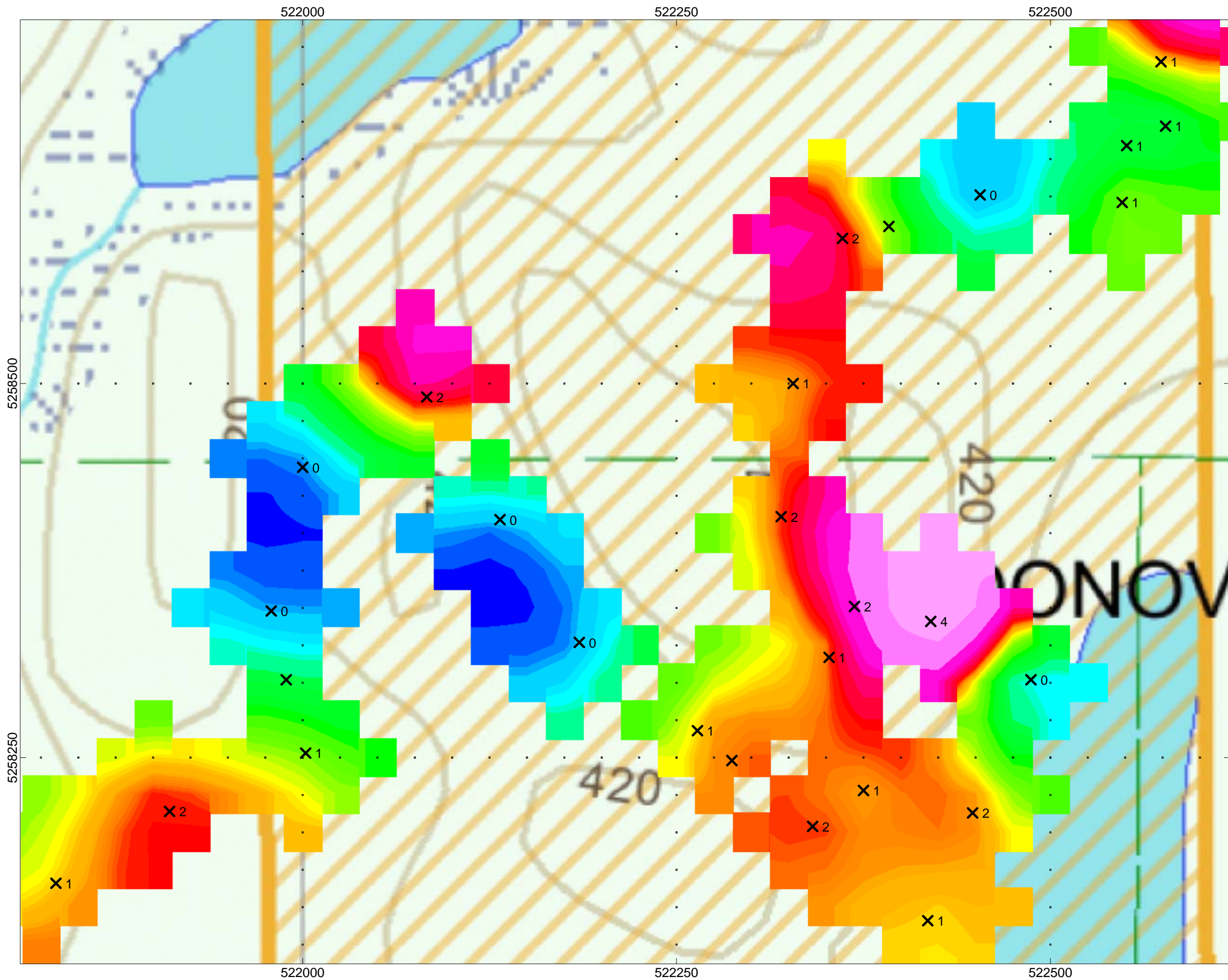
RS-230 BGO SUPER SPECTROMETER

Operated By: David LaRocque  
Processed by: C Jason Ploeger, B.Sc.  
Map Drawn By: C Jason Ploeger, B.Sc.  
July 2015



Drawing: ASHLEY-DONOVAN-SPECTROMETER-OUTCROP





**THOMPSON PROPERTY**  
**Donovan Township, Ontario**

POTASSIUM CONTOURED PLAN MAP  
Readings Taken On Ground

Posting Level: 0 %  
Station Separation: varies during GPS traverse  
K Contours: 0 %

RS-230 BGO SUPER SPECTROMETER

Operated By: David LaRocque  
Processed by: C Jason Ploeger, B.Sc.  
Map Drawn By: C Jason Ploeger, B.Sc.  
July 2015



Drawing: ASHLEY-DONOVAN-SPECTROMETER-K