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Ontario

Spectrometer Survey Over the HUDSON BAY PROPERTY Leith Township, Ontario

C Jason Ploeger, B.Sc, P.Geo
October 21, 2015

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LIST OF TABLES AND FIGURES

1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Hudson Bay Property**.
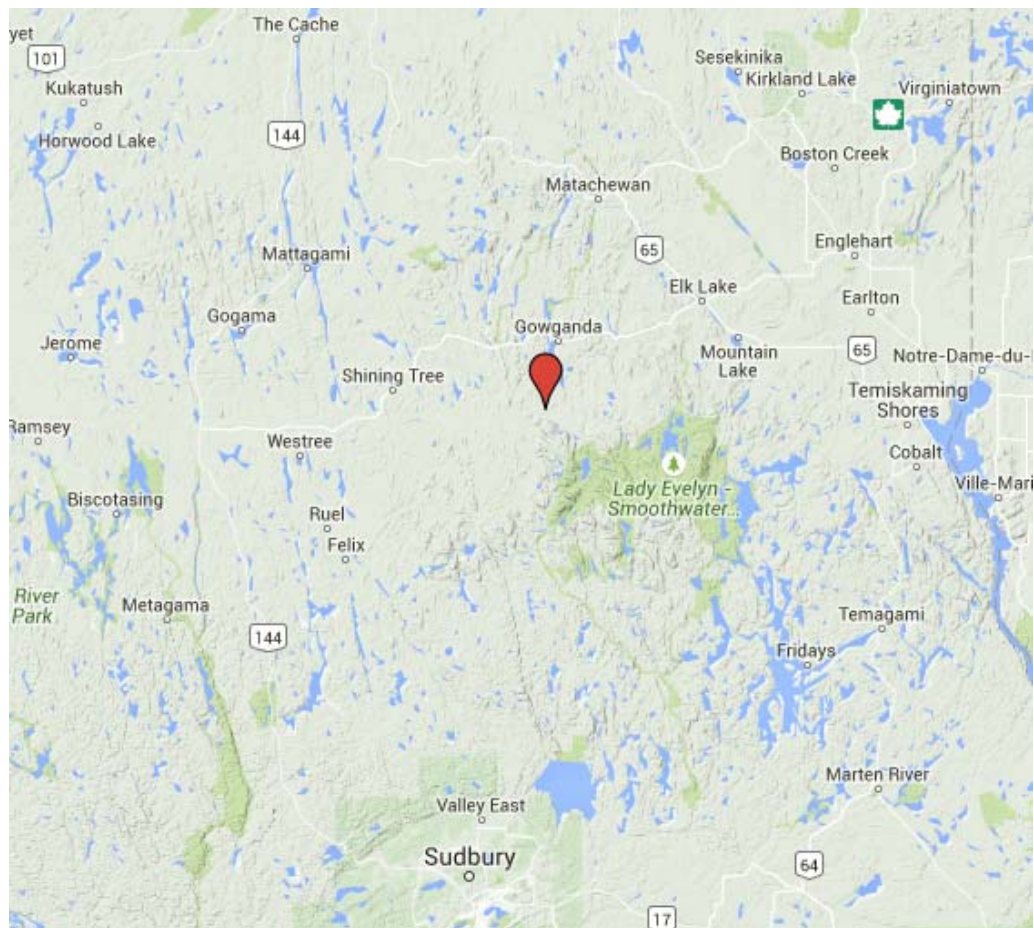
1.2 CLIENT

Ashley Gold Mines Limited

P.O. Box 219

Larder Lake, Ontario

P0K 1L0

1.3 LOCATION

The Hudson Bay Property is located approximately 15 km south of Gowganda, Ontario.

Figure 1: Location of the Hudson Bay 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 30km to the Rusty Lake Road. From the Beauty Lake road, one takes the Rusty Lake Mine Road for approximately 3km to the Rusty Lake Mine site.

1.5 SURVEY AREA

The survey area was designed to be a reconnaissance survey over the claim with some readings being taken at the historic work areas. The traverses were performed with a spectrometer reading taken every 100 meters along the traverse.

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Total Survey (km)
October 17, 2015	Locate survey area and conduct survey.	1.465

Table 1: Survey Log

2.2 PERSONNEL

David LaRocque of Larder Lake, Ontario operated the Spectrometer system along with the navigation using a GPS to previously established points.

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 1.465 kilometers of no grid spectrometer survey was performed on October 17, 2015. This consisted of 10 K, U and Th samples taken.

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY
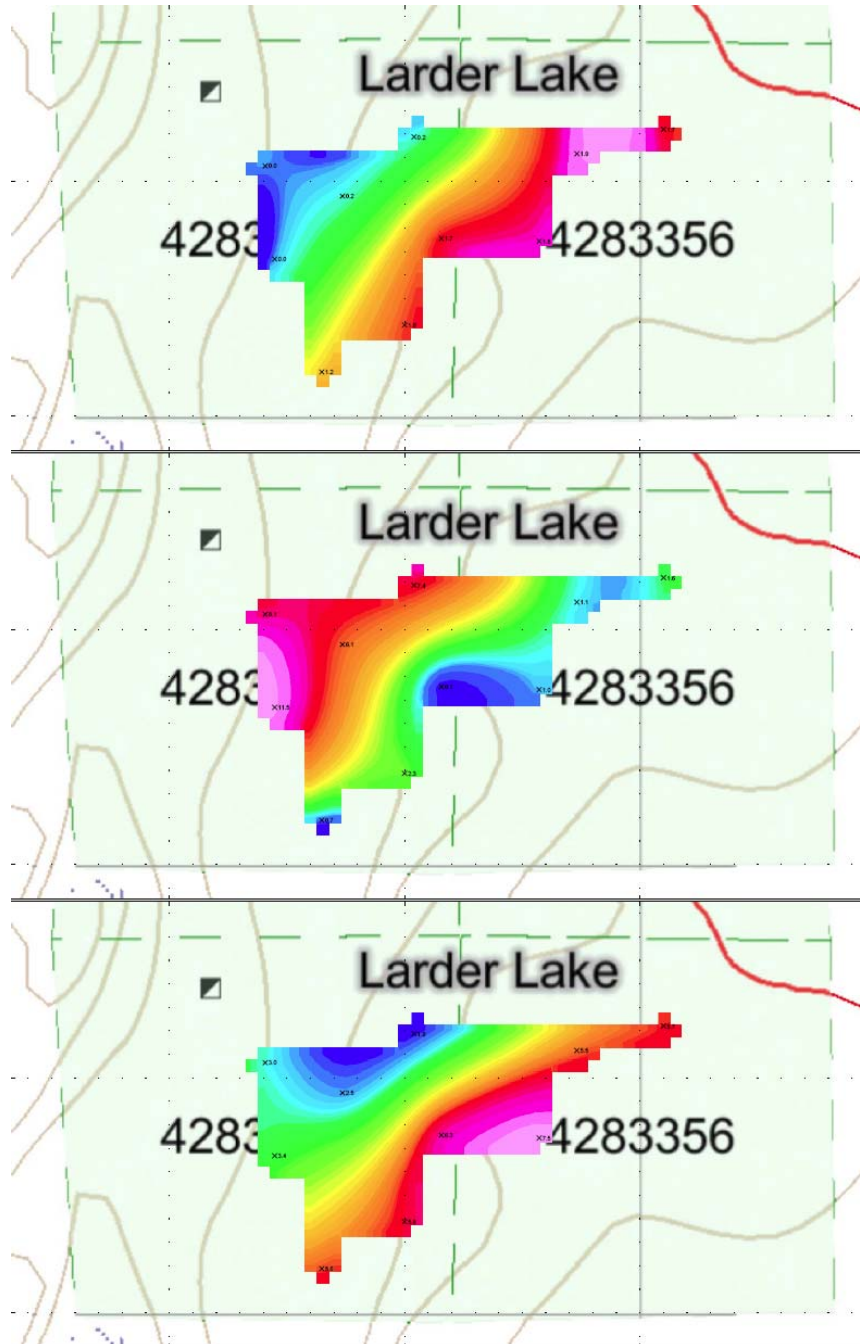
Figure 2: Spectrometer Readings

No strongly anomalous regions were noted with the spectrometer.

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
October 21, 2015

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.

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

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^3 (103 cm^3) higher density Bismuth Germanate (BGO) detector is an equivalent of a 21 in^3 (390 cm^3) 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.

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
Geocaching-friendly:	yes (paperless)
Custom maps compatible:	yes
Photo navigation (navigate to ge-otagged photos):	yes
Outdoor GPS games:	no
Hunt/fish calendar:	yes
Sun and moon information:	yes

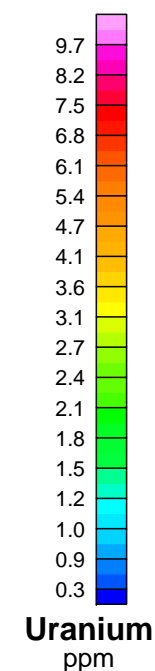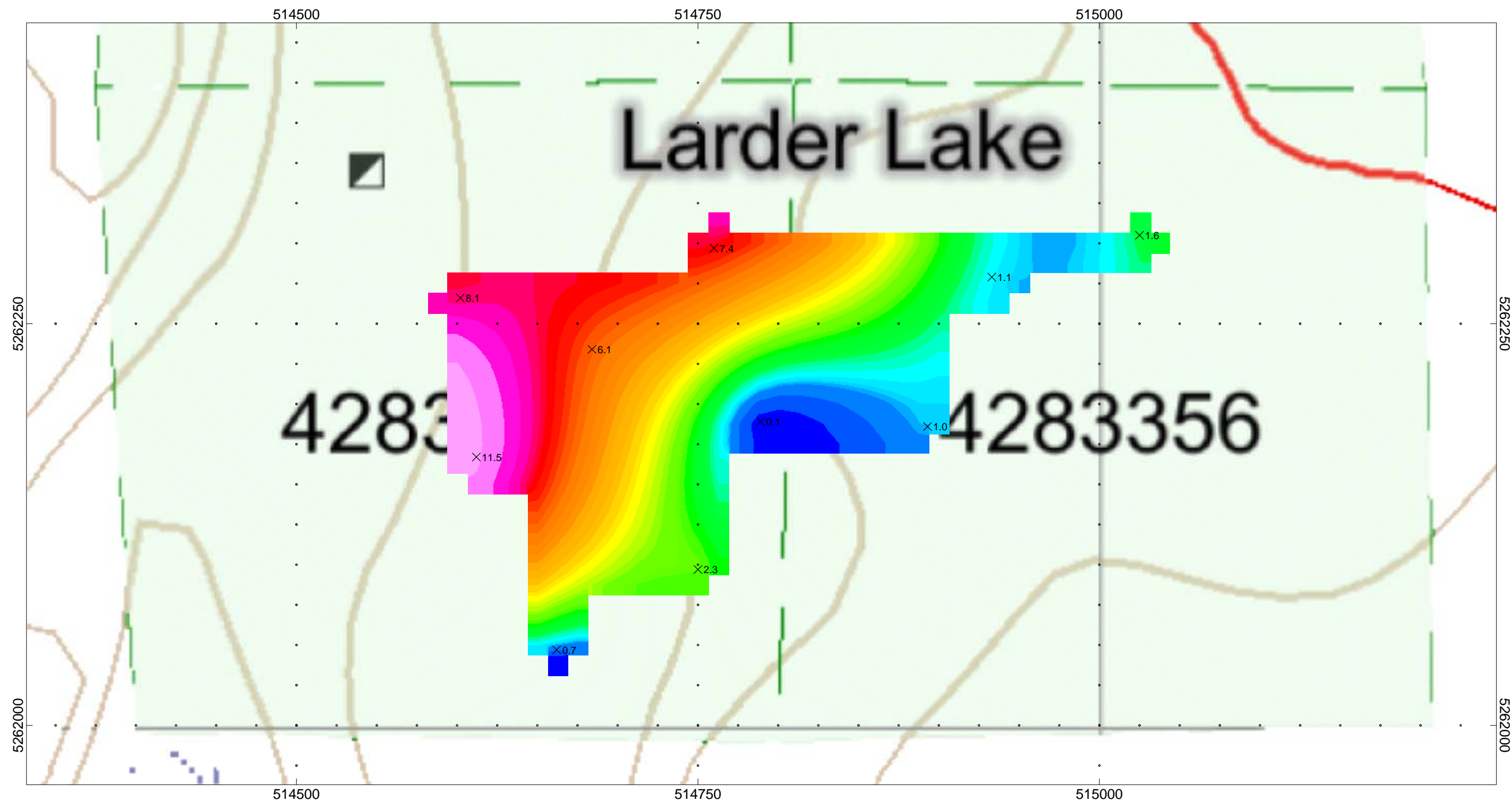| Tide tables:	yes
Area calculation:	yes
Custom POIs (ability to add additional points of interest):	yes
Unit-to-unit transfer (shares data wire-lessly with similar units):	yes
Picture viewer:	yes
Garmin Connect™ compatible (online community where you analyze, catego-rize and share data):	yes

- *Specifications obtained from www.garmin.com*

APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Posted spectrometer plan maps (1:2500)

1) ASHLEY-HUDSON BAY SOUTH-SPECT-U
2) ASHLEY-HUDSON BAY SOUTH -SPECT-Th
3) ASHLEY-HUDSON BAY SOUTH -SPECT-K
4) ASHLEY-HUDSON BAY SOUTH -SPECT-OUTCROP

TOTAL MAPS = 4

Larder Lake

4283356

Uranium
ppm

9.7
8.2
7.5
6.8
6.1
5.4
4.7
4.1
3.6
3.1
2.7
2.4
2.1
1.8
1.5
1.2
1.0
0.9
0.3

Station readings:
×7.4
×1.6
×1.1
×8.1
×6.1
×0.1
×1.0
×11.5
×2.3
×0.7

HUDSON BAY PROPERTY
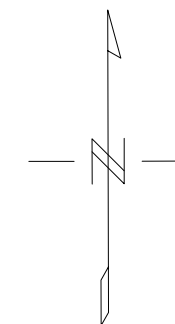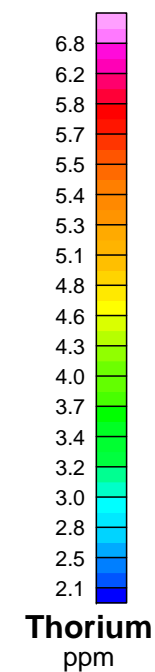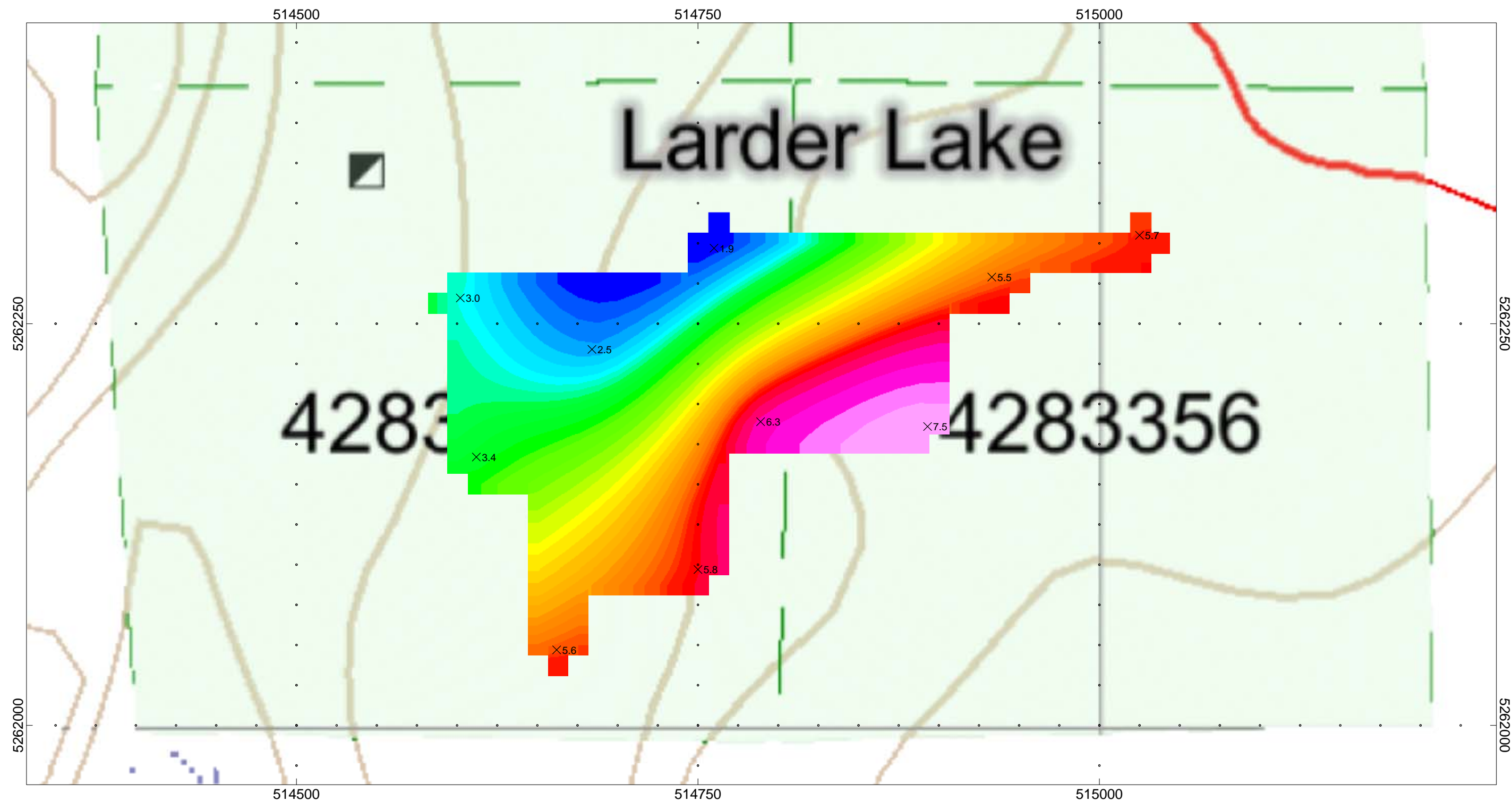**Leith Township, Ontario**

URANIUM CONTOURED PLAN MAP
Readings Taken On Ground

Posting Level: 0 ppm
Station Seperation: 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.
October 2015

Scale 1:2500

50   0   50   100   150

(meters)
NAD83 / UTM zone 17N

ASHLEY GOLD MINES LIMITED

CXS CANADIAN EXPLORATION SERVICES LTD

Drawing: ASHLEY-HUDSON BAY-SOUTH-SPECT-U

Thorium
ppm

Larder Lake

×5.7
×5.5
×1.9
×3.0
×2.5
×6.3
×7.5
×3.4
×5.8
×5.6

4283
4283356

Scale 1:2500

50   0   50   100   150

(meters)

NAD83 / UTM zone 17N

ASHLEY
GOLD MINES LIMITED

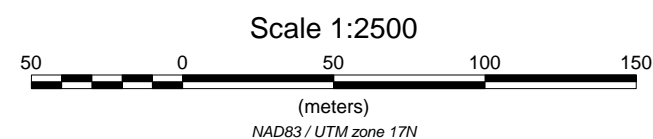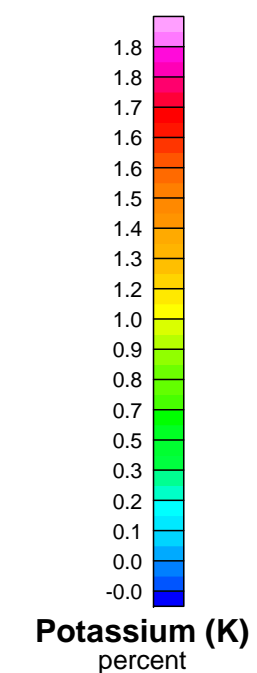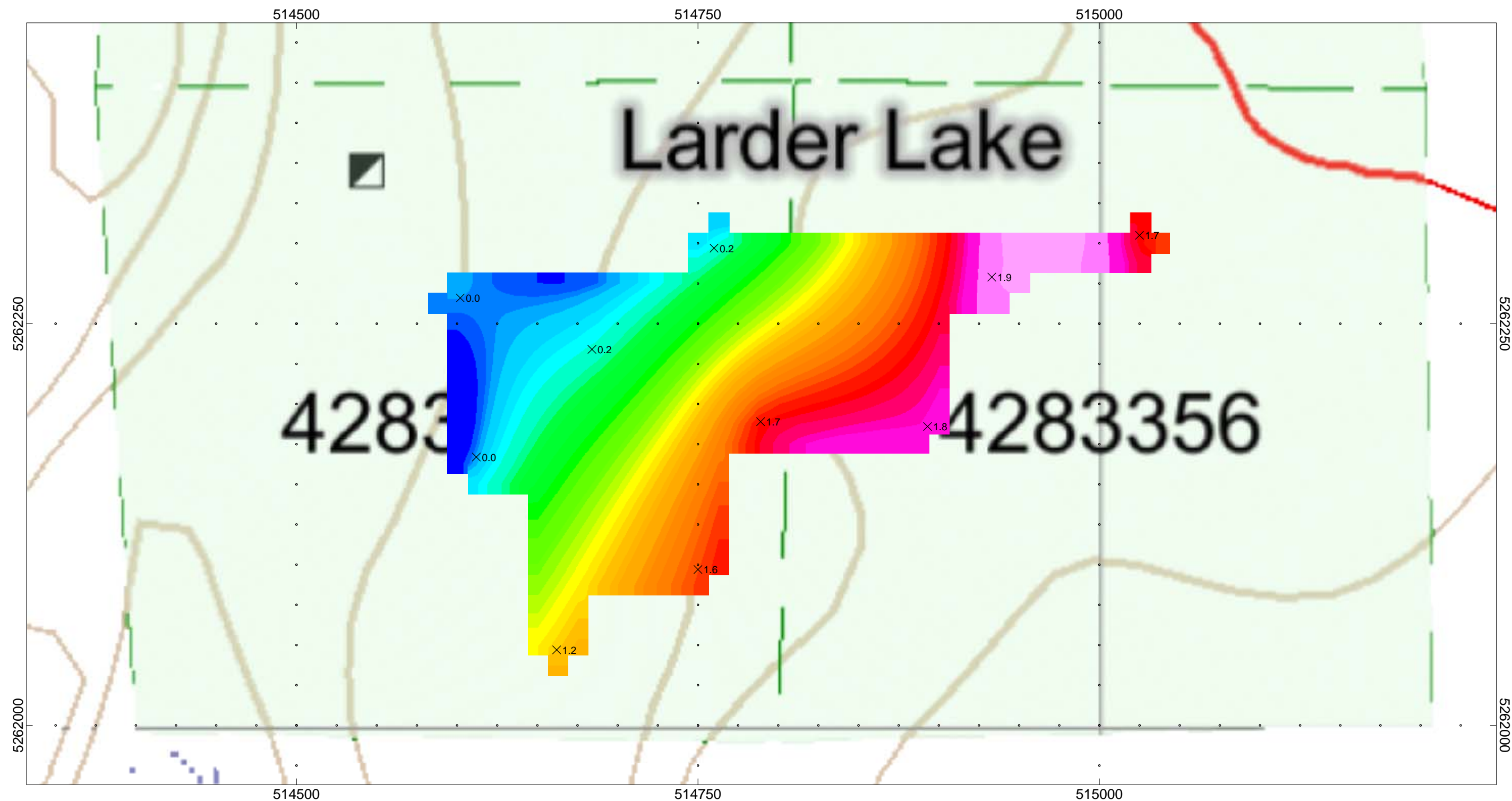**HUDSON BAY PROPERTY**
Leith Township, Ontario

THORIUM CONTOURED PLAN MAP
Readings Taken On Ground

Posting Level: 0 ppm
Station Seperation: 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.
October 2015

CXS
CANADIAN EXPLORATION SERVICES LTD

Drawing: ASHLEY-HUDSON BAY-SOUTH-SPECT-Th

Larder Lake

4283

4283356

Potassium (K)
percent

1.8
1.8
1.7
1.7
1.6
1.6
1.5
1.4
1.3
1.2
1.0
0.9
0.8
0.7
0.5
0.3
0.2
0.1
0.0
-0.0

Readings (on map): ×0.2, ×0.0, ×0.2, ×0.0, ×1.7, ×1.8, ×1.6, ×1.2, ×1.9, ×1.7

Grid coordinates: 514500, 514750, 515000
5262250, 5262000

Scale 1:2500

50 0 50 100 150
(meters)

NAD83 / UTM zone 17N

ASHLEY GOLD MINES LIMITED

HUDSON BAY PROPERTY
Leith Township, Ontario

POTASSIUM CONTOURED PLAN MAP
Readings Taken On Ground

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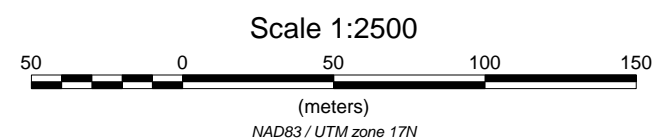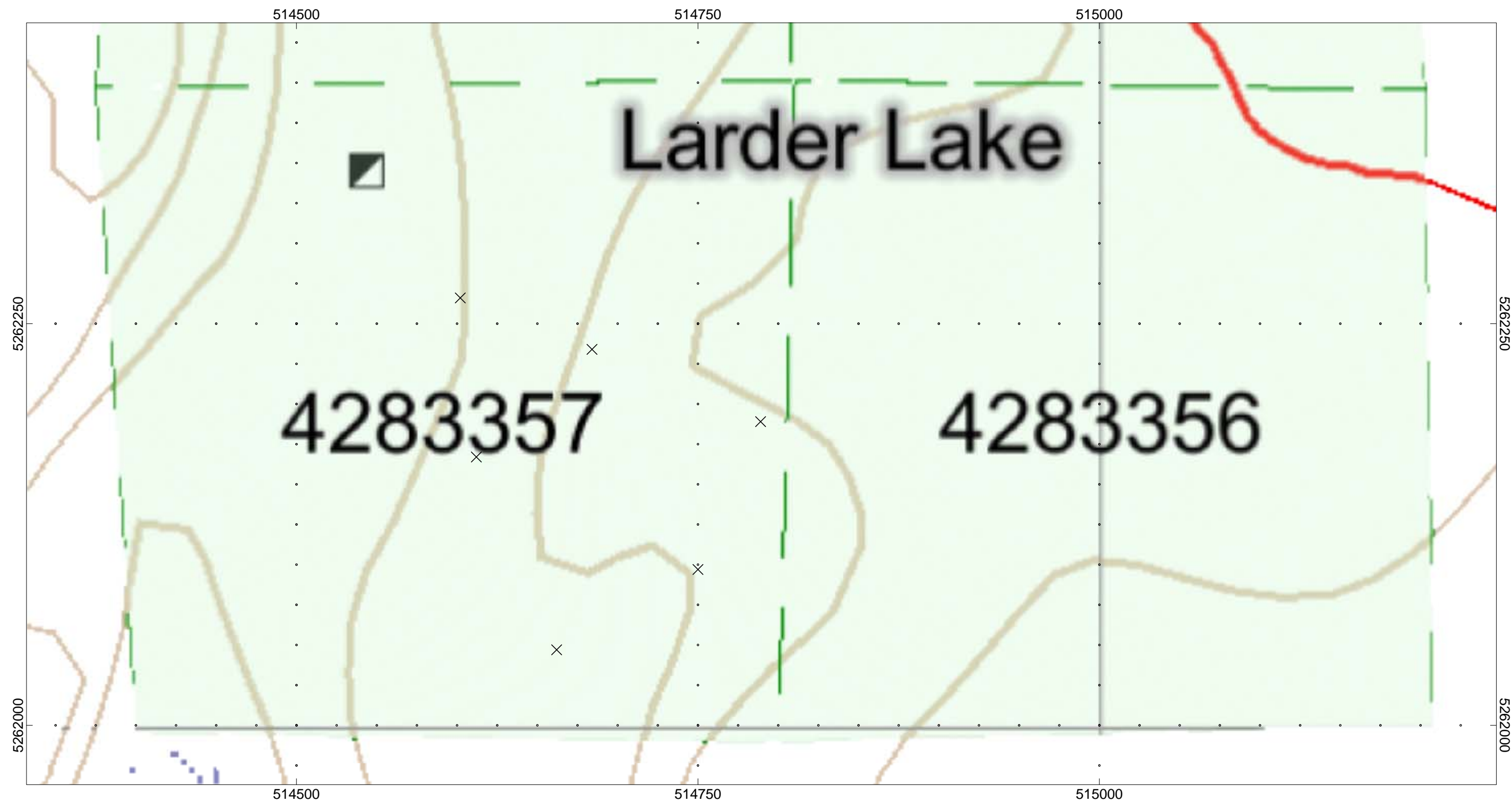K Contours: 0 %

RS-230 BGO SUPER SPECTROMETER

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

CXS
CANADIAN EXPLORATION SERVICES LTD

Drawing: ASHLEY-HUDSON BAY-SOUTH-SPECT-K

514500   514750   515000

Larder Lake

5262250

4283357   4283356

5262250

5262000

514500   514750   515000

5262000

X   Outcrop Location

ASHLEY
GOLD MINES LIMITED

HUDSON BAY PROPERTY
Leith Township, Ontario

OUTCROP LOCATION MAP

RS-230 BGO SUPER SPECTROMETER

CXS
CANADIAN EXPLORATION SERVICES LTD

Scale 1:2500

50   0   50   100   150

(meters)
NAD83 / UTM zone 17N

Drawing: ASHLEY-HUDSON BAY-SOUTH-SPECT-OUTCROP