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Ontario

CANADIAN EXPLORATION SERVICES LTD

Atacama Resources International Inc.

Q2359 – Atacama 1 and 2 Properties Magnetometer Survey

C Jason Ploeger, P.Geo. – September 20, 2017

Abstract

CXS was contracted by Atacama Resources International Inc. to process and report on the data collected from a magnetometer survey over their Atacama 1 and 2 properties in Eby and Otto Townships.

Approximately 28.5 km of magnetic data was provided and processed. From this, numerous magnetic features were identified along with some targets for follow up exploration.

Atacama Resources International Inc.

Q2359 – Atacama 1 and 2 Properties
Magnetometer Survey

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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Atacama 1 and 2 Properties**.

1.2 CLIENT

Atacama Resources International Inc.

1200 South Pine Island Road
Plantation, Florida
33324

1.3 LOCATION

The Atacama 1 and 2 Properties is located approximately 10.5 km west of Kirkland Lake, Ontario. The traverse area covers a portion of mining claims 4283359, 4283360, 4282198 and 4282199 along with mining leases L511579, L511580, L476737, L476738 and L476739, located in Eby and Otto Townships within the Larder Lake Mining Division.

Figure 1: Location of the Atacama 1 and 2 Properties

1.4 ACCESS

Access to the property was attained with a 4x4 truck via Highway 11 approximately 3 kilometers south of its intersection with highway 66. From here, an ATV trail was travelled to the east for approximately 1.6 kilometers to the survey area.

1.5 SURVEY AREA

The traversed lines were established using a GPS in conjunction with the execution of the survey. The lane guidance system on the magnetometer kept the operator within a specific corridor.

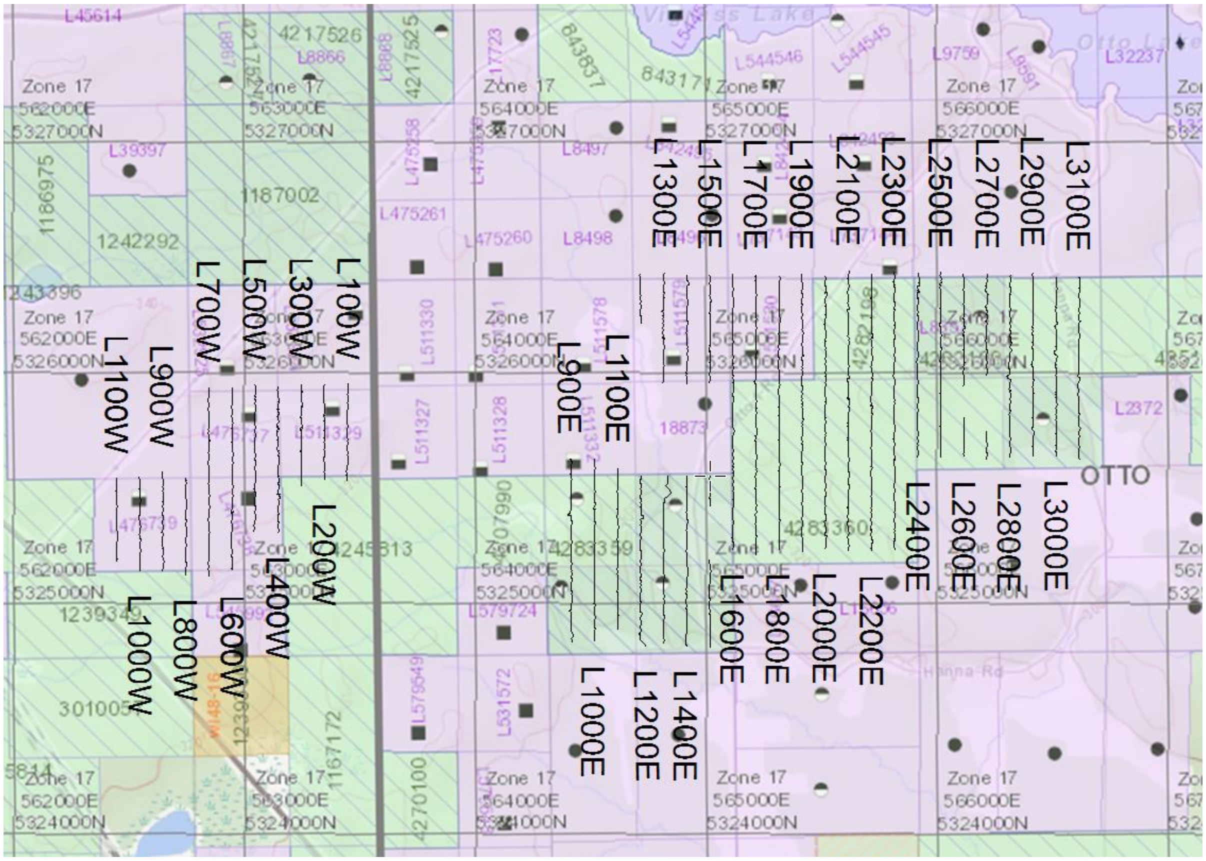


Figure 2: Claim Map with Magnetic Traverses

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
October 10, 2015	Begin magnetometer survey.	400W	648S	11S	637
		300W	446S	8S	438
		200W	415S	3S	412
		100W	422S	0S	422
November 07, 2015	Continue magnetometer survey.	1100W	770S	408S	362
		1000W	813S	402S	411
		900W	813S	381S	432
		800W	831S	408S	423
		700W	836S	16S	820
		600W	810S	23S	787
		500W	640S	6S	634
November 08, 2015	Continue magnetometer survey.	3100E	331S	462N	793
		3000E	317S	200N	517
November 10, 2015	Continue magnetometer survey.	3000E	200N	462N	262
		2900E	317S	481N	798
		2800E	323S	471N	794
		2700E	332S	472N	804
		2600E	319S	473N	792
		2500E	323S	477N	800
		2400E	321S	478N	799
November 11, 2015	Continue magnetometer survey.	2300E	721S	482N	1203
		2200E	724S	473N	1197
		2100E	725S	488N	1213
		2000E	2000E	716S	466N
		1900E	1900E	729S	473N
		1800E	722S	75N	797
November 15, 2015	Continue magnetometer survey.	1800E	75N	465N	390
		1700E	744S	468N	1212

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
		1600E	720S	474N	1194
		1500E	1143S	472N	1215
		1400E	1139S	400S	739
November 20, 2015	Continue magnetometer survey.	1400E	0	469N	469
		1300E	1127S	476N	1203
		1200E	1138S	475N	913
		1100E	1069S	365S	704
November 21, 2015	Complete magnetometer survey.	1000E	1120S	331S	789
		900E	1122S	327S	795

Table 1: Survey Log

2.2 PERSONNEL

Lucas Curah of Swastika, Ontario conducted all the magnetic data collection.

2.3 DISCLAIMER

Canadian Exploration Services Ltd was not responsible for the field operations of this survey. Canadian Exploration Services Ltd cannot warrant or validate the quality or accuracy of the data. Any opinions formed or discussed in this report is based upon the raw data set presented to Canadian Exploration Services Ltd.

2.4 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 v7 Overhauser magnetometer with a second GSM-19 magnetometer for a base station mode for diurnal correction.

A total of 28.604 line kilometers of magnetometer was read over the Atacama Project between October 10 and November 21, 2015. This consisted of 21550 magnetometer samples taken at a 2 second sample interval.

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

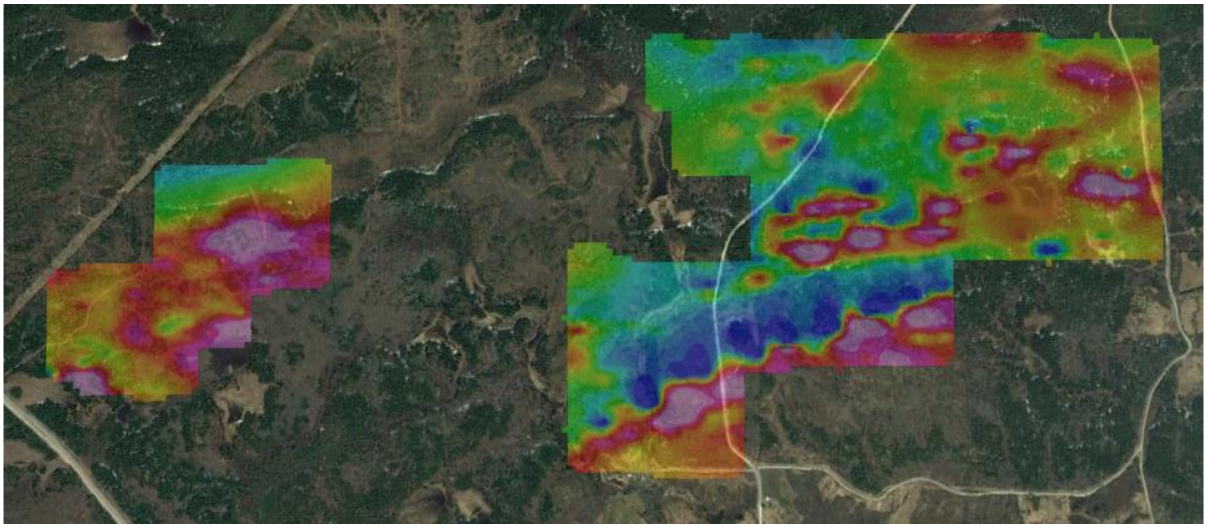


Figure 3: Magnetometer Plan on Google Earth

The magnetic signature indicates the presence of several magnetic units through the survey area.

Generally the background magnetic signature appears to fall in the 55900nT range. This most likely represents a mafic unit within the volcanic pile. To the east, an increase in magnetic signature of 100-200nT is noted. This may indicate a shift to a more felsic unit within the magnetic pile.

Over lines 800W through 100W, between 700S and 200S, appears an overprint of a magnetically elevated region. This most likely represents a single or series of intrusive bodies. These may be gabbro or porphyritic type intrusive. These intrusive bodies may produce favorable alteration. I would recommend prospecting this area.

A strong unconstrained magnetic signature occurs along the southern edge of the survey area from 900E at 1100S through to 500S on line 2300E. South of this appears a moderately stronger magnetic signature. This indicates that the intense signature may be related to a contact or possibly a shallow south dipping magnetic unit. This region should be prospected to better determine the source of the strong signature.

Through the volcanic pile can be seen numerous linear magnetic high features. These linear features most like represent intrusive dikes. These may represent targets for further exploration.

In the vicinity of lines 2400E and 2500E at 100S appears a north-south offset within the dataset. Where this offset intersects the magnetically elevated linear features, the signature drops. This indicates that an alteration has occurred resulting in the destruction of magnetite. I would recommend focusing on this area as favorable alteration may have occurred.

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 have but do not expect an interest in the properties and securities of **Atacama Resources International Inc.**

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.

September 20, 2017

APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

TOTAL FIELD MAGNETIC SURVEY

Base station corrected Total Field Magnetic surveying is conducted using at least two synchronized magnetometers of identical type. One magnetometer unit is set in a fixed position in a region of stable geomagnetic gradient, and away from possible cultural effects (i.e. moving vehicles) to monitor and correct for daily diurnal drift. This magnetometer, given the term 'base station', stores the time, date and total field measurement at fixed time intervals over the survey day. The second, remote mobile unit stores the coordinates, time, date, and the total field measurements simultaneously. The procedure consists of taking total magnetic measurements of the Earth's field at stations, along individual profiles, including Tie and Base lines. A 2 meter staff is used to mount the sensor, in order to optimally minimize localized near-surface geologic noise. At the end of a survey day, the mobile and base-station units are linked, via RS-232 ports, for diurnal drift and other magnetic activity (ionospheric and sferic) corrections using internal software.

For the gradiometer application, two identical sensors are mounted vertically at the ends of a rigid fiberglass tube. The centers of the coils are spaced a fixed distance apart (0.5 to 1.0m). The two coils are then read simultaneously, which alleviates the need to correct the gradient readings for diurnal variations, to measure the gradient of the total magnetic field.

APPENDIX C

GSM 19

Specifications

Overhauser Performance

Resolution: 0.01 nT
Relative Sensitivity: 0.02 nT
Absolute Accuracy: 0.2nT
Range: 20,000 to 120,000 nT
Gradient Tolerance: Over 10,000nT/m
Operating Temperature: -40°C to +60°C

Operation Modes

Manual: Coordinates, time, date and reading stored automatically at min. 3 second interval.
Base Station: Time, date and reading stored at 3 to 60 second intervals.
Walking Mag: Time, date and reading stored at coordinates of fiducial.
Remote Control: Optional remote control using RS-232 interface.
Input/Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Operating Parameters

Power Consumption: Only 2Ws per reading. Operates continuously for 45 hours on standby.
Power Source: 12V 2.6Ah sealed lead acid battery standard, other batteries available
Operating Temperature: -50°C to +60°C

Storage Capacity

Manual Operation: 29,000 readings standard, with up to 116,000 optional. With 3 VLF stations: 12,000 standard and up to 48,000 optional.

Base Station: 105,000 readings standard, with up to 419,000 optional (88 hours or 14 days uninterrupted operation with 3 sec. intervals)

Gradiometer: 25,000 readings standard, with up to 100,000 optional. With 3 VLF stations: 12,000, with up to 45,000 optional.

Omnidirectional VLF

Performance Parameters: Resolution 0.5% and range to ±200% of total field. Frequency 15 to 30 kHz.

Measured Parameters: Vertical in-phase & out-of-phase, 2 horizontal components, total field coordinates, date, and time.

Features: Up to 3 stations measured automatically, in-field data review, displays station field strength continuously, and tilt correction for up to ±10° tilts.

Dimensions and Weights: 93 x 143 x 150mm and weighs only 1.0kg.

Dimensions and Weights

Dimensions:
Console: 223 x 69 x 240mm
Sensor: 170 x 71mm diameter cylinder
Weight:
Console: 2.1kg
Sensor and Staff Assembly: 2.0kg

Standard Components

GSM-19 magnetometer console, harness, battery charger, shipping case, sensor with cable, staff, instruction manual, data transfer cable and software.

Taking Advantage of a "Quirk" of Physics

Overhauser effect magnetometers are essentially proton precession devices except that they produce an order-of magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field. The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal-- that is ideal for very high-sensitivity total field measurement. In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and reduces noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously - which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds). The unique Overhauser unit blends physics, data quality, operational efficiency, system design and options into an instrumentation package that ... exceeds proton precession and matches costlier optically pumped cesium capabilities

APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Magnetometer Plan Map (1:5000)

1) Q2359-Atacama-Atacama1-2-Mag-Cont

Traverse Plan Map (1:20000)

2) Q2359-Atacama-Atacama1-2-Traverse

TOTAL MAPS = 2

Atacama
RESOURCES INTERNATIONAL

Atacama 1 and 2 Properties
Eby and Otto Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

Posting Level: 0nT
Field Inclination/Declination: 74degN/12degW
Station Seperation: Walkmag 2 second interval
Total Field Magnetic Contours: 100nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Receiver Operated By: Lucas Curah
Processed by: Jason Ploeger
Map Drawn By: C Jason Ploeger, P.Geo
September 2017

CXS
CANADIAN EXPLORATION SERVICES LTD

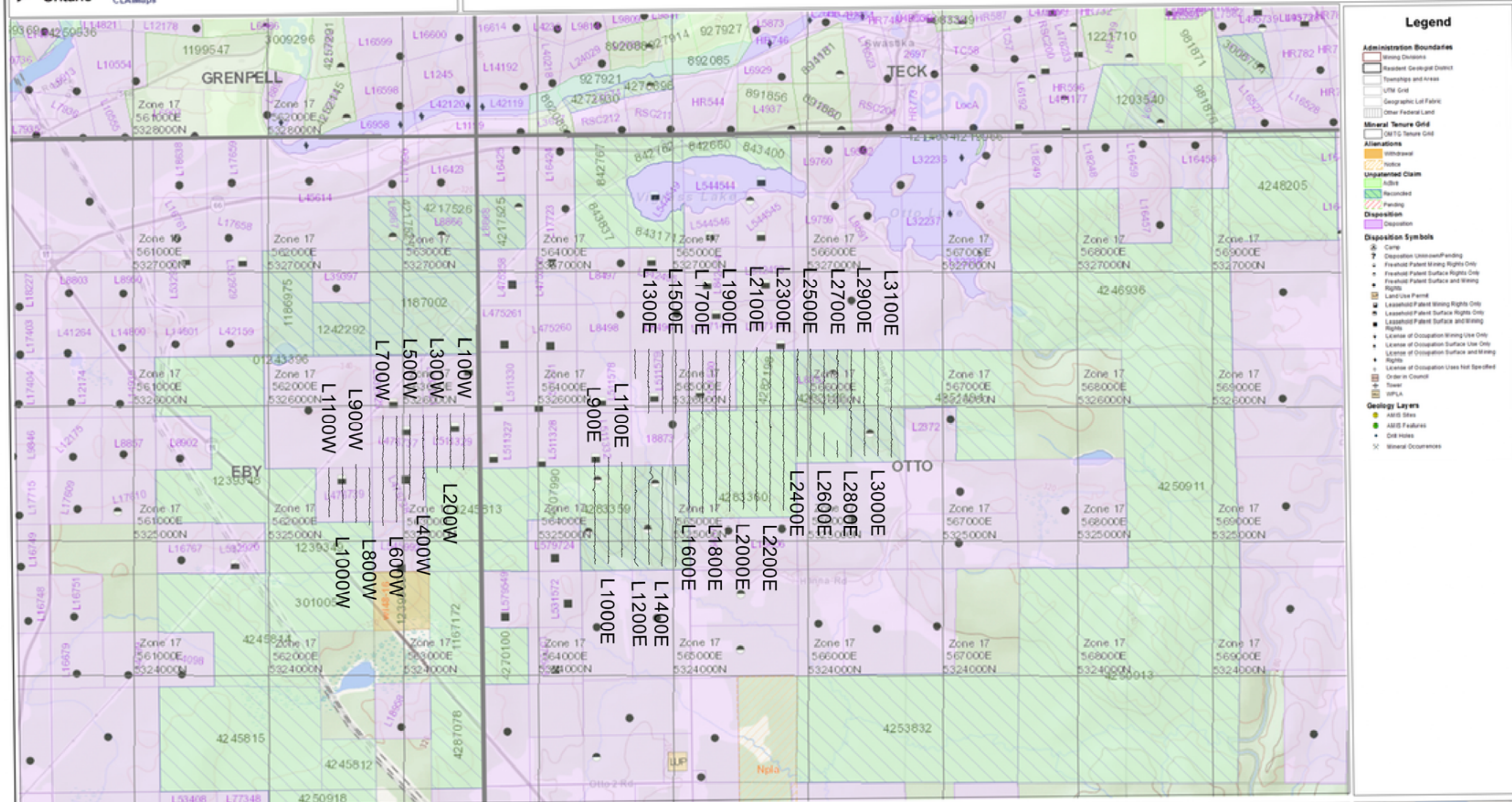
Drawing : Q2359-Atacama-Atacama1-2-Mag-Cont

Ontario

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

CLAIMaps

Notes: Enter map notes



0 1.36 km

Projection: Web Mercator

N

The Ontario Ministry of Northern Development and Mines shall not be liable in any way for the use of, or reliance upon, this map or any information on this map. This map should not be used for: navigation, a plan of survey, routes, nor locations.