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CANADIAN EXPLORATION SERVICES LTD

Atacama Resources International Inc.

Q2359 – Atacama 3 Property
Magnetic and VLF EM Surveys

C Jason Ploeger, P.Geo.
Melanie Postman, B.Sc.

March 23, 2018

Abstract

CXS was contracted by Atacama Resources International to perform approximately 12 kilometers of magnetometer and VLF EM survey over the Atacama 3 Property in Otto Township, near Kirkland Lake, Ontario.

The area exhibited minimal culture with a set of railway tracks running through the north-east corner of the survey area. A strong magnetic east-west trending signature is observed in the southern region of the survey area. Associated with this signature is a strong VLF EM axis.

Atacama Resources International Inc.

Q2359 – Atacama 3 Property
Magneto and VLF EM Surveys

C Jason Ploeger, P.Geo.
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March 23, 2018

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1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the **Atacama 3 Property**.

1.2 CLIENT

ATACAMA RESOURCES INTERNATIONAL

1200 South Pine Island Road
Plantation, Florida
33324

1.3 LOCATION

The Atacama 3 Property is located approximately 6 kilometers southwest of Kirkland Lake, Ontario. The property covers a portion of mining claims 4248205 and 4246936 located in Otto Township within the Larder Lake Mining Division.



Figure 1: Location of the Atacama 3 Property

1.4 ACCESS

Access to the Atacama 3 Property was attained with a 4x4 truck via Kirkland Lake, Ontario. Highway 66 was travelled east from the town of Kirkland Lake for approximately 4.5 kilometers. Highway 112 was then travelled south for approximately 3.5 kilometers. Access from this point was by foot for approximately 300 meters west along a trail 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 GPS operator would establish sample locations while remaining approximately 12.5m in front of the magnetometer operator. GPS waypoints and magnetic samples were taken every 12.5m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.

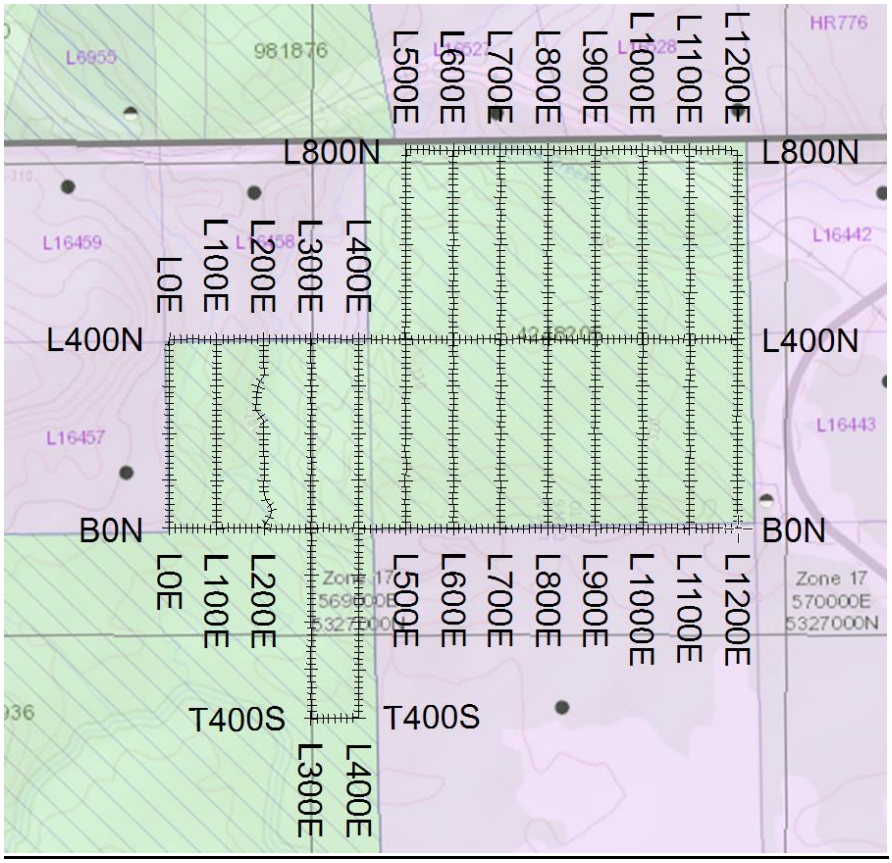


Figure 2: Claim Map with the Atacama 3 Property Traverse

2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

Date	Description	Line	Min Extent	Max Extent	Total Survey (m)
October 20, 2017	Mobilize to Kirkland Lake. Locate survey area and clear access.				
October 21, 2017	Begin magnetic and VLF survey.	1200E	400N	800N	400
		1100E	600N	800N	200
		1000E	600N	800N	200
		900E	737.5N	800N	62.5
		500E	0N	800N	800
		400E	0N	400N	400
		300E	0N	400N	400
	Creek in the middle of direct path. 2 slight curves in line.	200E	0N	400N	400
		100E	0N	400N	400
		0E	0N	400N	400
		0N	0E	500E	500
		400N	0E	1200E	1200
		800N	500E	1200E	700
October 22, 2017	Complete magnetic and VLF survey. Mobilize to Larder Lake.	1200E	0N	362.5N	362.5
		1100E	0N	587.5N	587.5
		1000E	0N	587.5N	587.5
		900E	0N	725N	725
		800E	0N	800N	800
		700E	0N	800N	800
		600E	0N	800N	800
		400E	12.5S	400S	387.5
		300E	12.5S	400S	387.5
		400S	300E	400E	100
		0N	512.5E	1200E	687.5
Total Line Kilometers	**12.2875**				

Table 1: Survey Log

2.2 PERSONNEL

Claudia Moraga of Britt, Ontario conducted all the magnetic data collection with Bruce Lavalley of Britt, Ontario, being responsible for GPS control and waypoint collection.

2.3 SAFETY

Canadian Exploration Services prides itself in creating and maintaining a safe work environment for its employees. Each crew member is briefed on the jobsite location, equipment safety, standard operating procedures along with our health and safety manual. An emergency response plan is generated relating to the specific job and with the jobsite predominantly in the field, which is unpredictable. Morning safety briefings are essential. Topics are generally chosen based off jobsite characteristics of the area, time of year and crew experience.

2.4 SURVEY SPECIFICATIONS

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

A total of 12.2875 line kilometers of magnetometer and VLF was read over the Atacama 3 Property between October 21st and October 22nd, 2017. This consisted of 983 magnetometer and VLF EM samples taken at a 12.5m sample interval.

3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

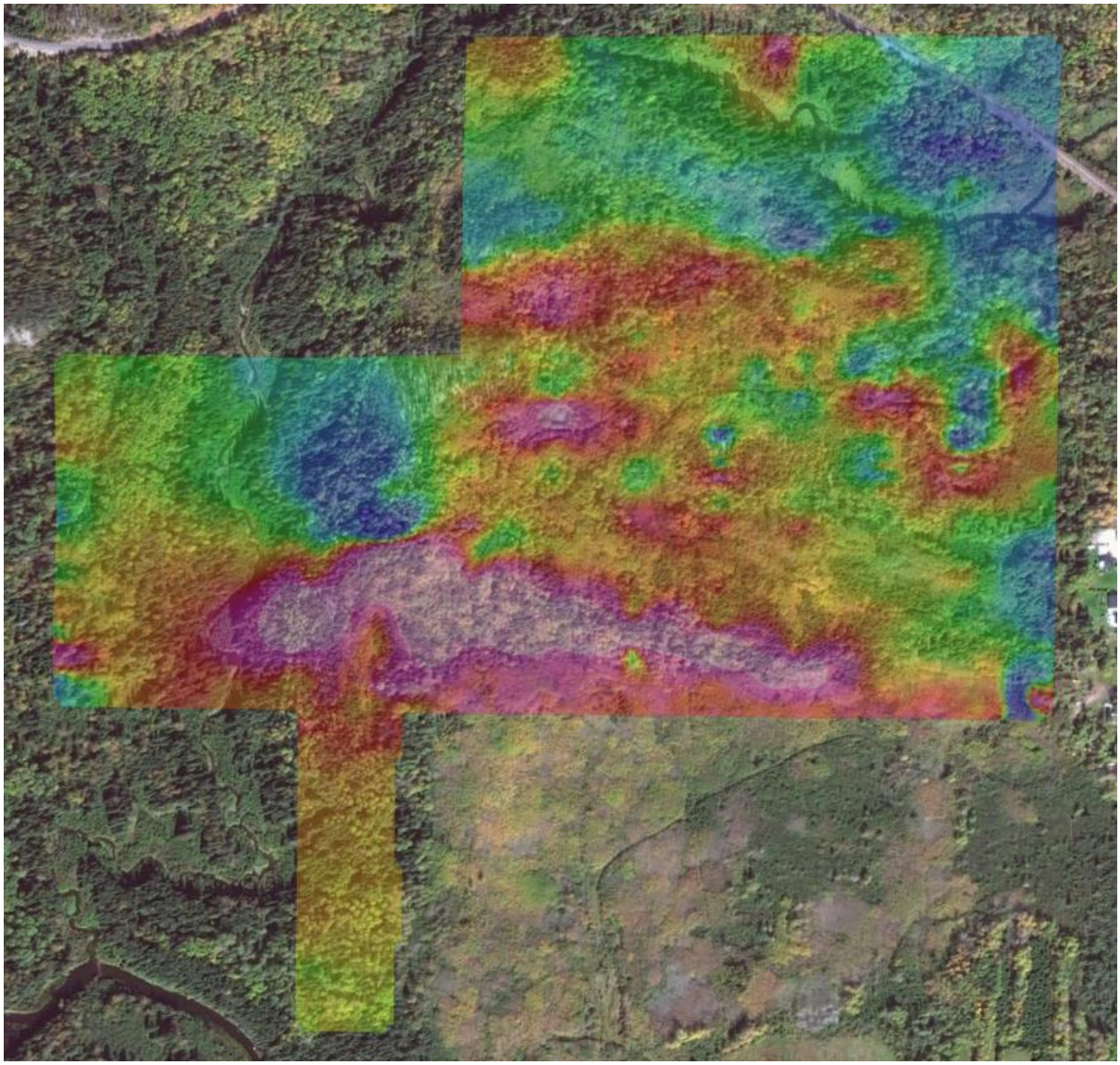


Figure 3: Magnetometer Plan Map on Google Earth

Minimal culture was noted through the traverse area. A railway crossed the north-east section of the survey area, through 1100E, 1200E, and 800N, spanning a length of 0.3 km. Highway 112 is also in close proximity to the eastern edge of the survey area, with a minimum distance of approximately 0.1 km away from 1200E.

Four trenches of various sizes were seen throughout the survey area located at; 1000E and 362.5N, 800E and 575N, 600E and 350N, and 600E and 325N. Two shafts were located; 800N and 662.5E, and 800E and 125N.

A strong magnetic response trending east-west occurs along the southern edge of the survey area, just north of line 0N between lines 300E and 900E. This magnetic signature exhibits flanking VLF EM responses along both the north and south flanks of the magnetic signature. This may suggest the presence of an iron formation or an ultramafic. The anomaly between line 300E and 400E exhibits a lateral north-south shift indicating a structural feature crossing this area, which may indicate favorable alteration.

A second region exhibits an extremely magnetic high signature and a corresponding VLF EM signature. This may be a mineralized area or a result of culture. Two trenches were noted on this anomaly. I would recommend prospecting these trenches to better understand the source of this anomaly.

A moderate magnetic anomaly appears to cross the survey area in an east west direction near 500N. Associated with the entire length of the magnetic signature is a moderate VLF EM axis. This axis may represent a structural feature or a weak graphitic horizon with an increase in magnetite rich minerals as it strikes west. A trench was located on the north flank of the magnetic anomaly. Prospecting this trench may help to indicate the source of the anomaly.

I would recommend prospecting the area. Areas of historic work were noted during the course of the survey. All the anomalies should be systematically looked at. I would also recommend a compilation of the historic data to help determine the potential sources of these anomalies.

A grid should also be cut over the entire survey region. The strength of these anomalies also justifies an IP survey, a HLEM survey and MMI.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Melanie Postman, hereby declare that:

1. I am a soon-to-be Geoscientist-in-Training with residence in Virginiatown, Ontario and am presently employed as a Junior Geophysicist with Canadian Exploration Services Ltd. of Larder Lake, Ontario.

2. I graduated with a Bachelor of Science Honors specialization degree in geophysics for professional registration from the University of Western Ontario, in London Ontario, in 2017.

3. I am currently undergoing the application process to register as a Geoscientist-in-Training to later become a practicing member of the Association of Professional Geoscientists.

4. I have previous geophysical work experience during and following my education.

5. I do not have nor expect an interest in the properties and securities of **Atacama Resources International Inc.**

6. 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 opinion based on my consideration of the information available to me at the time of writing this report.

Melanie Postman, B.Sc.
Junior Geophysicist
(non-professional)

Larder Lake, ON
March 23, 2018

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 and interest in the properties and securities of **Atacama Resources International Inc.**

7. I am responsible for the final 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.

March 23, 2018

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.

VLF EM SURVEY

The frequency domain VLF electromagnetic survey is designed to measure both the vertical and horizontal in-phase (IP) and Quadrature (OP) components of the anomalous field from electrically conductive zones. The sources for VLF EM surveys are several powerful radio transmitters located around the world which generate EM radiation in the low frequency band of 15-25kHZ. The signals created by these long-range communications and navigational systems may be used for surveying up to several thousand kilometers away from the transmitter. The quality of the incoming VLF signal can be monitored using the field strength. A field strength above 5pT will produce excellent quality results. Anything lower indicates a weak signal strength, and possibly lower data quality. A very low signal strength (<1pT) may indicate the radio station is down.

The EM field is planar and horizontal at large distances from the EM source. The two components, electric (E) and magnetic (H), created by the source field are orthogonal to each other. E lies in a vertical plane while H lies at right angles to the direction of propagation in a horizontal plane. In order to ensure good coupling, the strike of possible conductors should lie in the direction of the transmitter to allow the H vector to pass through the anomaly, in turn, creating a secondary EM field.

The VLF EM receiver has two orthogonal aerials which are tuned to the frequency of the transmitting station. The direction of the source station is located by rotating the

sensor around a vertical axis until a null position is found. The VLF EM survey procedure consists of taking measurements at stations along each line on the grid. The receiver is rotated about a horizontal axis, right angles to the traverse and the tilt recorded at the null position.

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 C

GARMIN GPS MAP 64



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:	8.1 oz (230 g) with batteries
Battery:	2 AA batteries (not included); NiMH or Lithium recommended
Battery life:	16 hours
Waterproof:	yes (IPX7)
Floats:	no

High-sensitivity re-ceiver:	yes
Interface:	high-speed USB and NMEA 0183 compatible
Maps & Memory:	
Basemap:	yes
Ability to add maps:	yes
Built-in memory:	4 GB
Accepts data cards:	microSD™ card (not included)
Custom POIs (ability to add additional points of interest)	yes
Waypoints/favorites/locations:	5000
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)
Geocaching-friendly:	yes (paperless)
Custom maps compatible:	yes
Hunt/fish calendar:	yes
Sun and moon information:	yes
Tide tables:	yes
Area calculation:	yes
Picture Viewer	yes

- *Specifications obtained from www.garmin.com*

APPENDIX D

LIST OF MAPS (IN MAP POCKET)

Magnetometer Plan Map (1:2500)

1) Q2359-Atacama-3-Mag-Cont

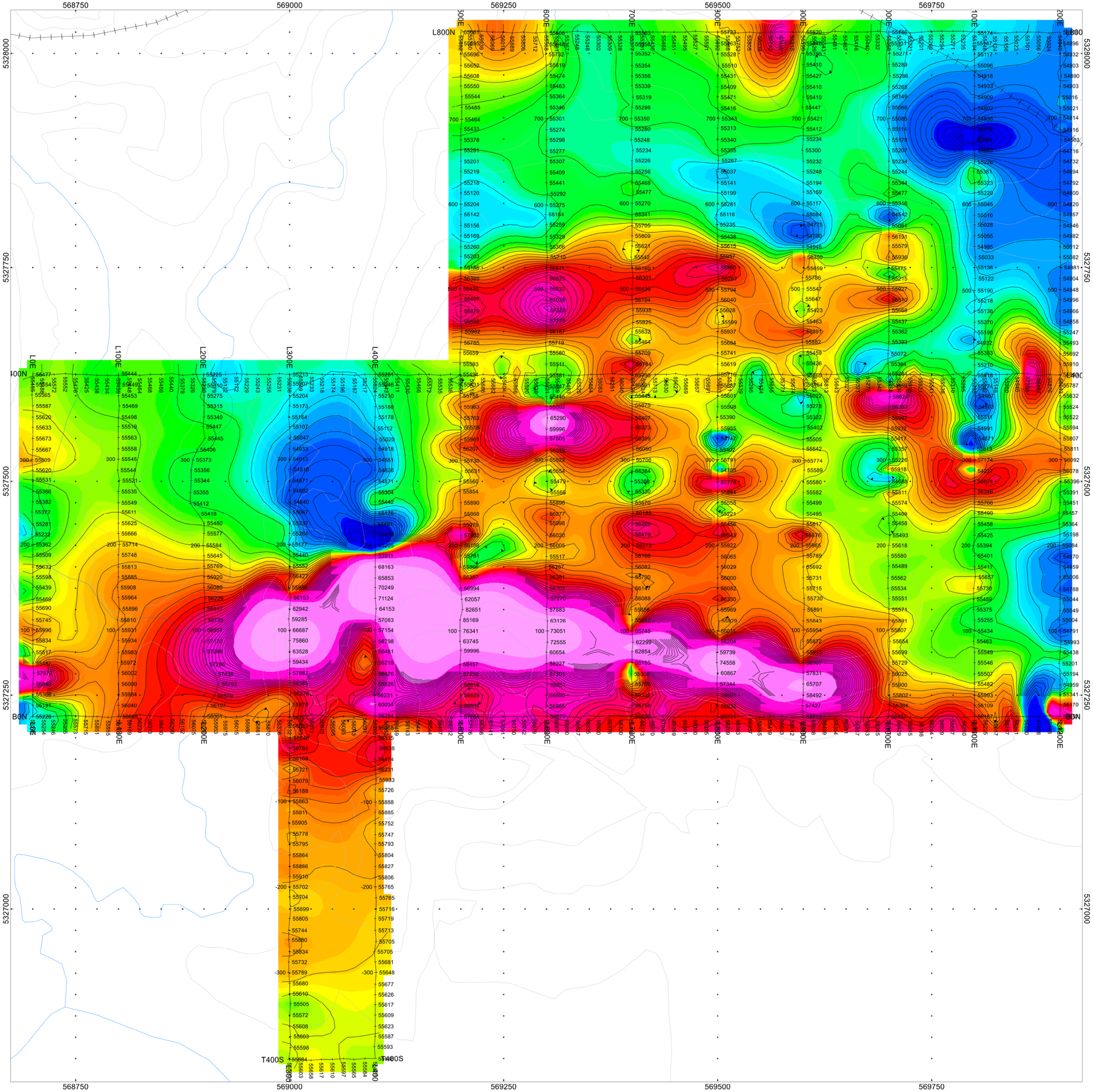
VLF EM Profiled Plan Map (1:2500)

2) Q2359-Atacama-3-VLF-NAA
3) Q2359-Atacama-3-VLF-NML

Claim Map with Magnetic Traverses (1:20000)

4) Q2359-Atacama-3-Traverses

TOTAL MAPS = 4





Atacama 3 Property
Otto Township, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP
Base Station Corrected

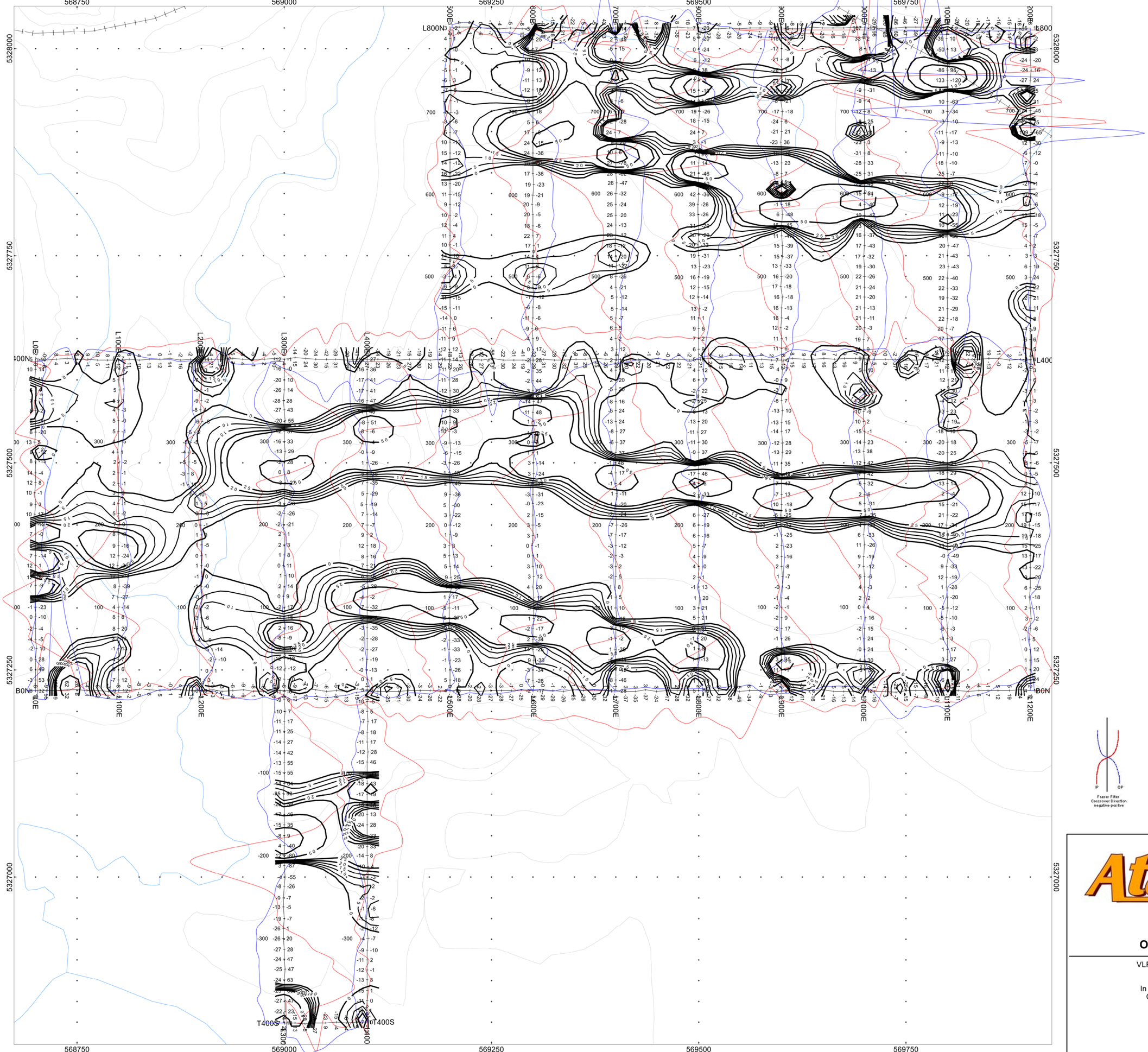
Posting Level: 0nT
Field Inclination/Declination: 74degN/12degW
Station Seperation: 12.5 m interval
Total Field Magnetic Contours: 100nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Receiver Operated By: Claudia Moraga
GPS Operated By: Bruce Lavalley
Processed by: Melanie Postman, B.Sc.
Map Drawn By: Melanie Postman, B.Sc.
March 2018

CANADIAN EXPLORATION SERVICES LTD

Drawing : Q2359-Atacama3-Mag-Cont



Scale 1:2500

50 0 50 100 150

(meters)

NAD83 / UTM zone 17N

IP OP

Fraser Filter
Crossover Direction
negative-positive

Atacama 3 Property
Otto Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE
24.0 kHz NAA - CUTLER USA

In Phase: Posted Right/Bottom (Red)
Out Phase: Posted Left/Top (Blue)

Vertical Profile Scales: 2 %/mm

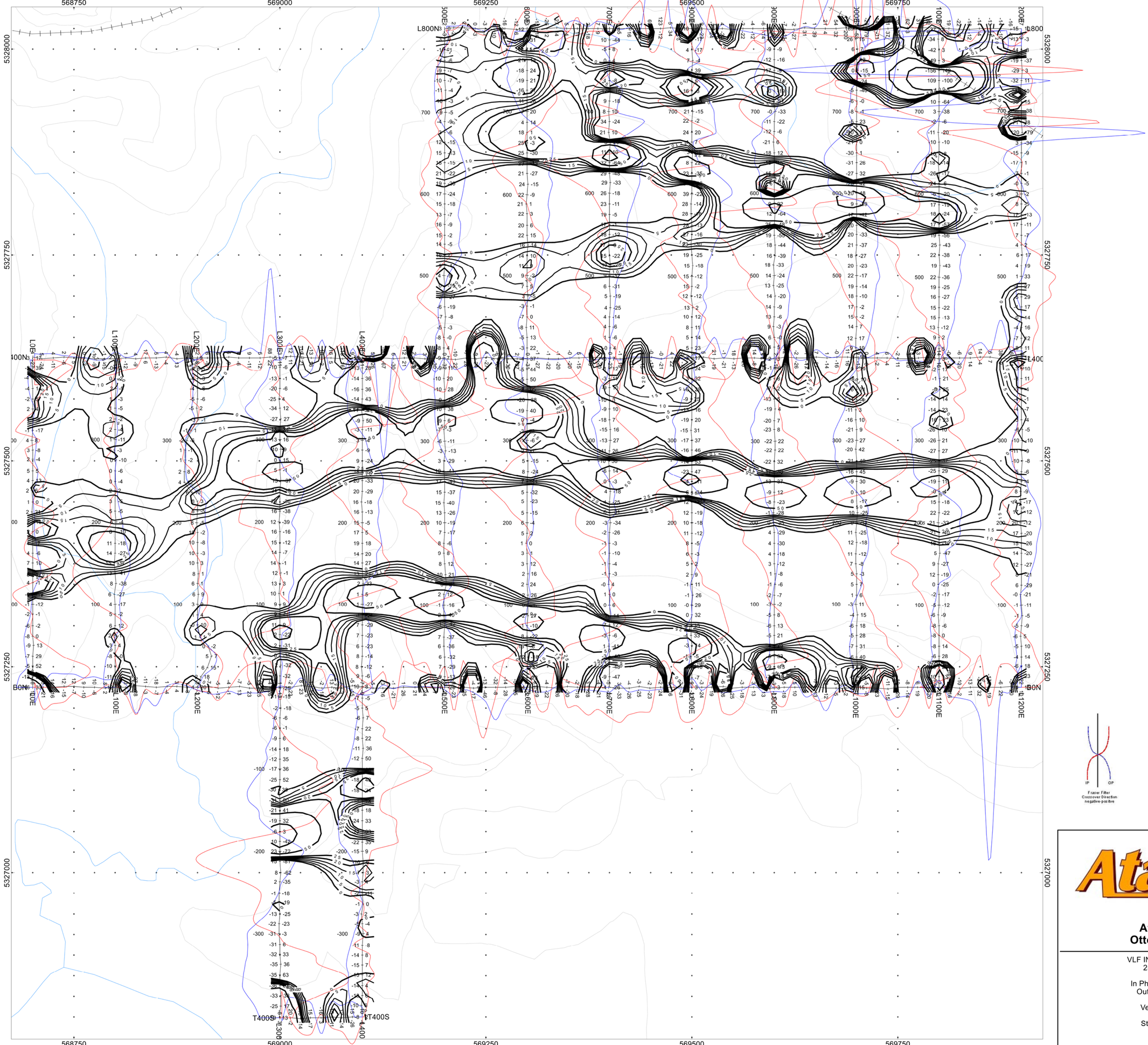
Station Seperation: 12.5 meters
Posting Level: 0

GSM-19 MAG/VLF v7

Receiver Operated By: Claudia Moraga
GPS Operated By: Bruce Lavalley
Processed by: Melanie Postman, B.Sc.
Map Drawn By: Melanie Postman, B.Sc.
March 2018

CANADIAN EXPLORATION SERVICES LTD

Drawing : Q2359-Atacama-3-VLF-NAA



Scale 1:2500

50 0 50 100 150

(meters)

NAD83 / UTM zone 17N

IP OP

Fraser Filter
Crossover Direction
negative-positive

Atacama
RESOURCES INTERNATIONAL

Atacama 3 Property
Otto Township, Ontario

VLF IN PHASE/OUT PHASE PROFILE
25.2 kHz NML - LaMoure USA

In Phase: Posted Right/Bottom (Red)
Out Phase: Posted Left/Top (Blue)

Vertical Profile Scales: 2 %/mm

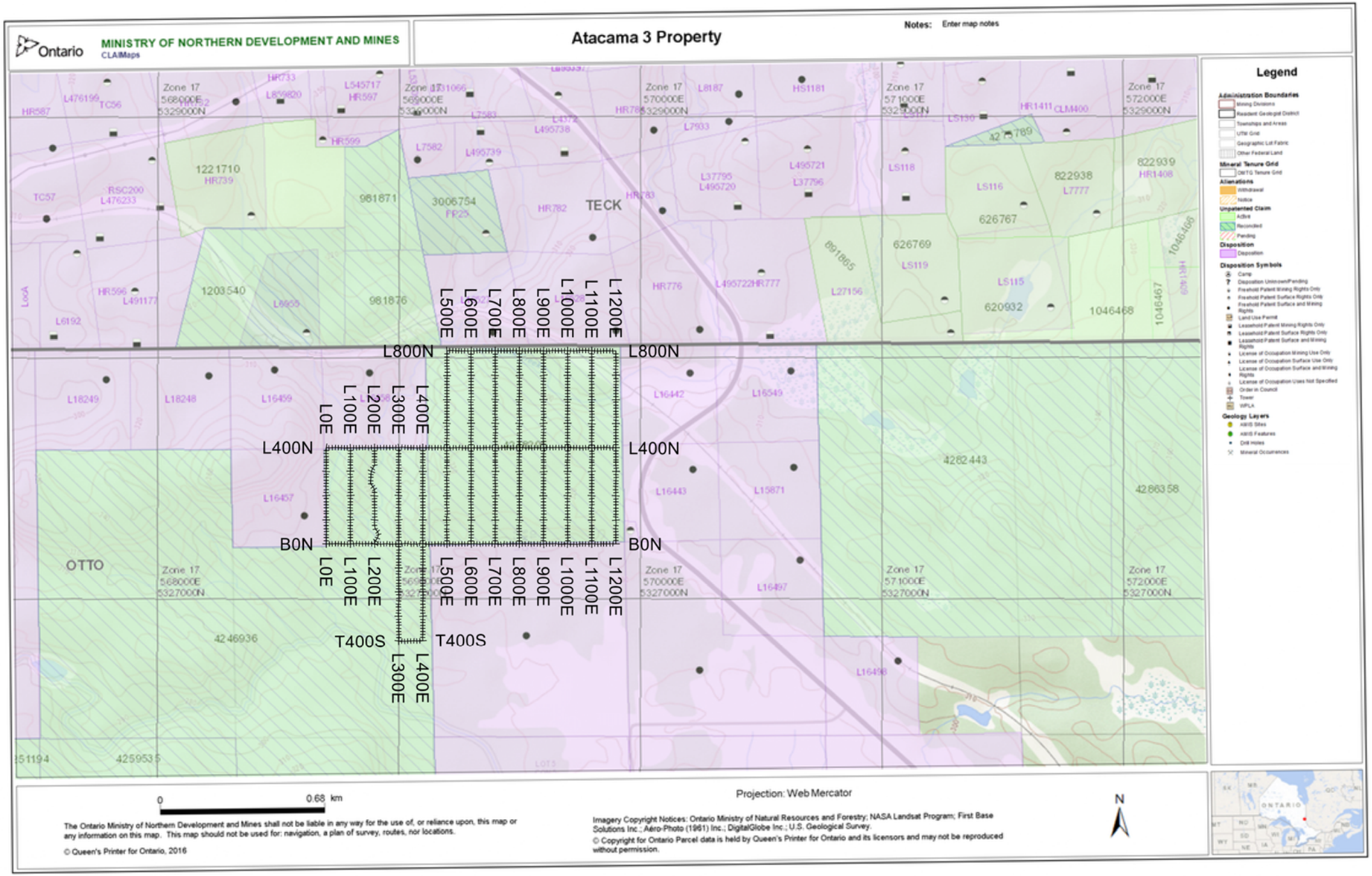
Station Seperation: 12.5 meters
Posting Level: 0

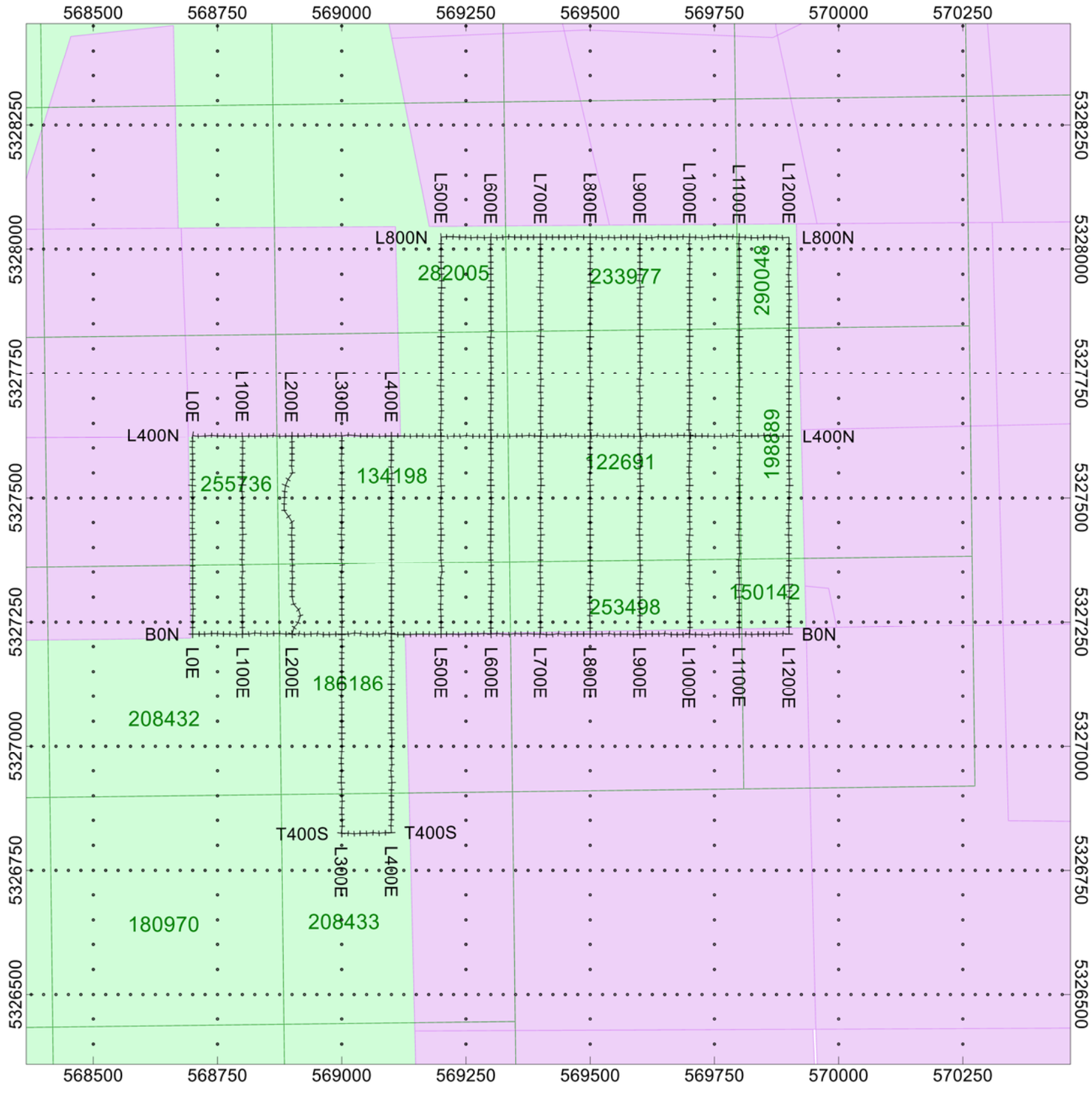
GSM-19 MAG/VLF v7

Receiver Operated By: Claudia Moraga
GPS Operated By: Bruce Lavalley
Processed by: Melanie Postman, B.Sc.
Map Drawn By: Melanie Postman, B.Sc.
March 2018

CXS
CANADIAN EXPLORATION SERVICES LTD

Drawing : Q2359-Atacama-3-VLF-NML


Ontario
MINISTRY OF NORTHERN DEVELOPMENT AND MINES
CLAIMaps
Atacama 3 Property
Notes: Enter map notes
Legend
Administration Boundaries
Mineral Tenure Grid
Alienations
Unpatented Claim
Disposition
Disposition Symbols
Geology Layers
TECK
OTTO
L800N
L400N
B0N
T400S
L0E
L100E
L200E
L300E
L400E
L500E
L600E
L700E
L800E
L900E
L1000E
L1100E
L1200E
Zone 17 568000E 5329000N
Zone 17 570000E 5329000N
Zone 17 571000E 5329000N
Zone 17 572000E 5329000N
Zone 17 568000E 5327000N
Zone 17 570000E 5327000N
Zone 17 571000E 5327000N
Zone 17 572000E 5327000N
0
0.68 km
Projection: Web Mercator
N
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ONTARIO



Scale 1:10000

100 0 100 200 300 400 500 600

(meters)

NAD83 / UTM zone 17N

Atacama 3 Property
Otto Township, Ontario

TRAVERSE MAP ON CELL FABRIC

Map Drawn By: C Jason Ploeger
July 2018

CANADIAN EXPLORATION SERVICES LTD

Drawing : Q2359-Atacama3-Traverses-Cells