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# TELLURITON CORPORATION

# Magnetometer Survey Over the Melba Property Phase-1 Grid

# Melba Township, Ontario





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#### **1. SURVEY DETAILS**

#### 1.1 PROJECT NAME

This project is known as the **Melba Property – Phase 1**.

#### 1.2 CLIENT

Telluriton Corporation

P.O. Box 282 Kirkland Lake, Ontario P2N 3H7

#### 1.3 LOCATION

The Melba Mine Property is located in Melba Township approximately 23 km north of Kirkland Lake, Ontario. The property consists of 12 mining claims and 18 mining leases.

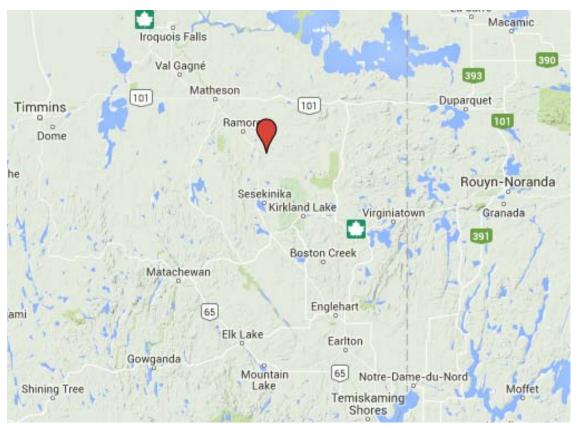


Figure 1: Location of the Melba Property



Magnetometer Survey Melba Property – Phase 1 Grid Melba Township, Ontario

# TELLURITON CORPORATION

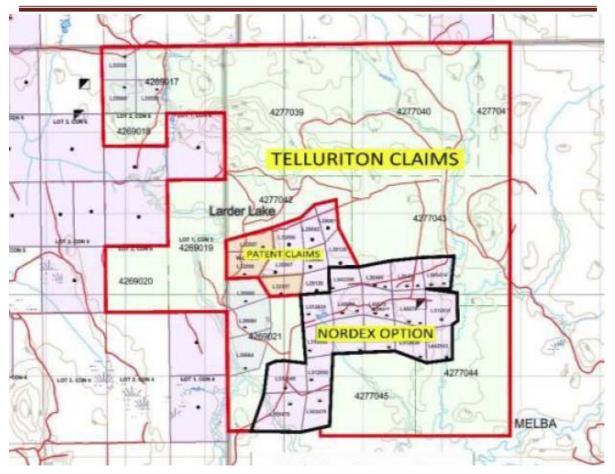


Figure 2: Melba Mine Property Map

# 1.4 ACCESS

Access to the property was attained with a 4x4 truck via Highway 11 approximately 10 kilometer south of the town of Ramore, Ontario. From here, the Wavell Road was travelled east for one kilometer then the Grouse Road for an additional eight kilometers. At this point an ATV was used to travel the final seven kilometers to the survey area.

# 1.5 SURVEY GRID

The survey grid consists of 9.6 kilometers of recently established grid lines. The lines are spaced at 100 meter increments with stations picketed at 25m intervals. The baseline runs at 120°N for a total length of 1000m.



Magnetometer Survey Melba Property – Phase 1 Grid Melba Township, Ontario

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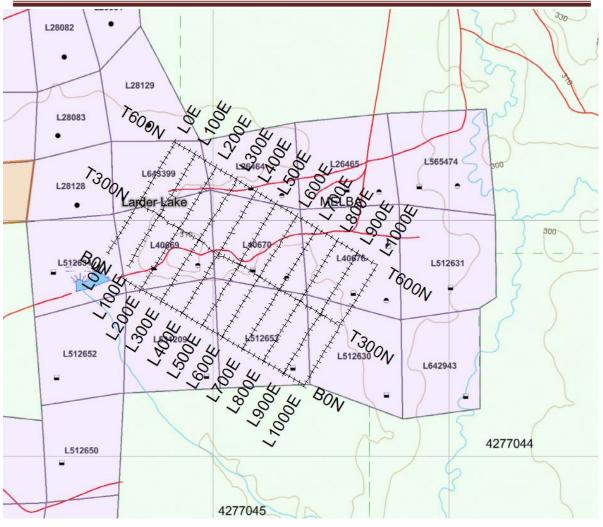


Figure 3: Claim Map with Melba Property-Phase 1 Grid



# 2. SURVEY WORK UNDERTAKEN

## 2.1 SURVEY LOG

			Min	Max	Total Survey
Date	Description	Line	Extent	Extent	(m)
23 June 2015	Locate survey area and begin magnetometer survey.	500E	0N	600N	600
		600E	0N	600N	600
		700E	0N	600N	600
		800E	0N	600N	600
		900E	0N	600N	600
		1000E	0N	600N	600
		0N	500E	1000E	500
		300N	500E	1000E	500
		600N	500E	1000E	500
25 June 2015	Complete the magnetometer survey.	0E	50N	600N	550
		100E	50N	600N	550
		200E	0N	600N	600
		300E	0N	600N	600
		400E	0N	600N	600
		0N	100E	500E	400
		300N	0E	500E	500
		600N	0E	500E	500

# Table 1: Survey Log

# 2.2 PERSONNEL

Jason Ploeger of Larder Lake, Ontario conducted all of the data collection.

# 2.3 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 v7 Overhauser magnetometer in walkmag mode. Samples were collected every second with a simultaneous GPS position acquired. A second GSM-19 was employed as a base station for diurnal correction.

A total of 9.45 line kilometers of Magnetometer was read over the Melba Property between June 23<sup>rd</sup> and June 25<sup>th</sup>, 2015. This consisted of 11729 magnetometer samples taken.





# 3. OVERVIEW OF SURVEY RESULTS

**3.1 SUMMARY INTERPRETATION** 

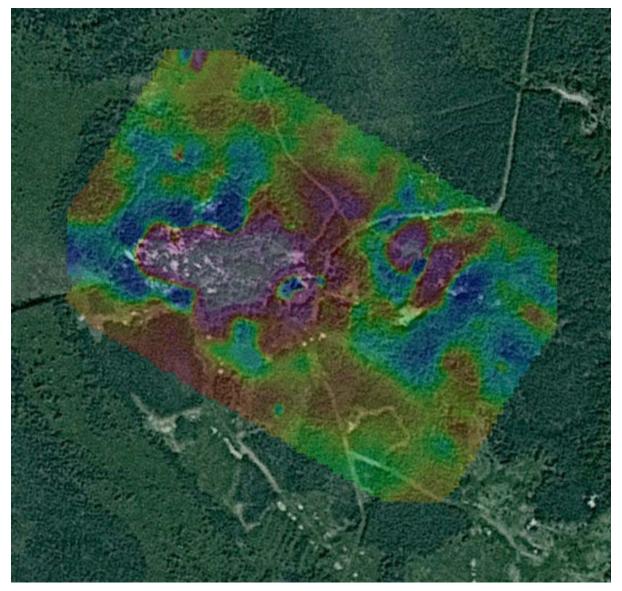


Figure 4: Google Image with Magnetic Overlay

The survey was designed to test the magnetic signature surrounding and on strike of the historic Melba Mine. Station 500E and 300N is located at the historic shaft with the strike of the baseline paralleling the auriferous veins. Surrounding the shaft collar for approximately 25 meters can be found debris and culture that may have interfered with the magnetic response.

A strong magnetic signature occurs in the vicinity of the center of the survey area.



This signature resembles that of a gabbro/porphyry or an ultramafic unit. The magnetic high appears to correlate with the topographic high with outcropping or shallow overburden. The Melba Mine appears to sit on the eastern flank of this anomaly.

Within this magnetic anomaly occurs at least two linear magnetic low features which parallel line 300N. The first of these occurs within 25 meters of line 300N and crosses lines 300E and 400E. The second of these occurs between 200N and line 225N over lines 200E through 400E. The first of these may indicate the alteration relating to the Melba Mine as it would be close to the strike of the mine workings. The magnetic low signature near 200N should be investigated to determine its source as it may indicate an additional target similar to that of the mine.

A smaller intense magnetic dipole occurs on line 700E near 475N. This anomaly may be related to the larger main anomaly as it is located on strike with it, however may be a unique constrained feature. If this feature is related this would indicate the presence of high angle structure crossing this area. The strike of the structure cannot easily be seen in the dataset, however again the Melba Mine would be flanking it. Studying the historic mine information may provide evidence of this.



# **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 **Telluriton Corporation.**
- 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 6, 2015



#### **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 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

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	GSM-19	Överhauser Magnetometer				0	1

# **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  $\pm 200\%$  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  $\pm 10^{\circ}$  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).





# **APPENDIX C**

#### **GARMIN GPS MAP 62S**



Physical & Performance:				
Unit dimensions,	2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm)			
WxHxD:				
Display size, WxH:	1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm)			
Display resolution,	160 x 240 pixels			
WxH:				
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 recom-			
	mended			
Battery life:	20 hours			
Waterproof:	yes (IPX7)			
Floats:	no			
High-sensitivity re- ceiver:	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 <sup>™</sup> card (not included)
Waypoints/favorites/loc	ations:	2000
Routes:		200
Track log:		10,000 points, 200 saved tracks
Features & Benefits:		
Automatic routing (turn	by turn routing	yes (with optional mapping for detailed
on roads):		roads)
Electronic compass:		yes (tilt-compensated, 3-axis)
Touchscreen:		no
Barometric altimeter:		yes
Camera:		no
Geocaching-friendly:		yes (paperless)
Custom maps compatib	<u>lle</u> :	yes
Photo navigation (navig	jate to ge-	yes
otagged photos):		y 0.5
Outdoor GPS games:		no
Hunt/fish calendar:		yes
Sun and moon information	tion:	yes



Magnetometer Survey Melba Property – Phase 1 Grid Melba Township, Ontario



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 <sup>™</sup> 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)

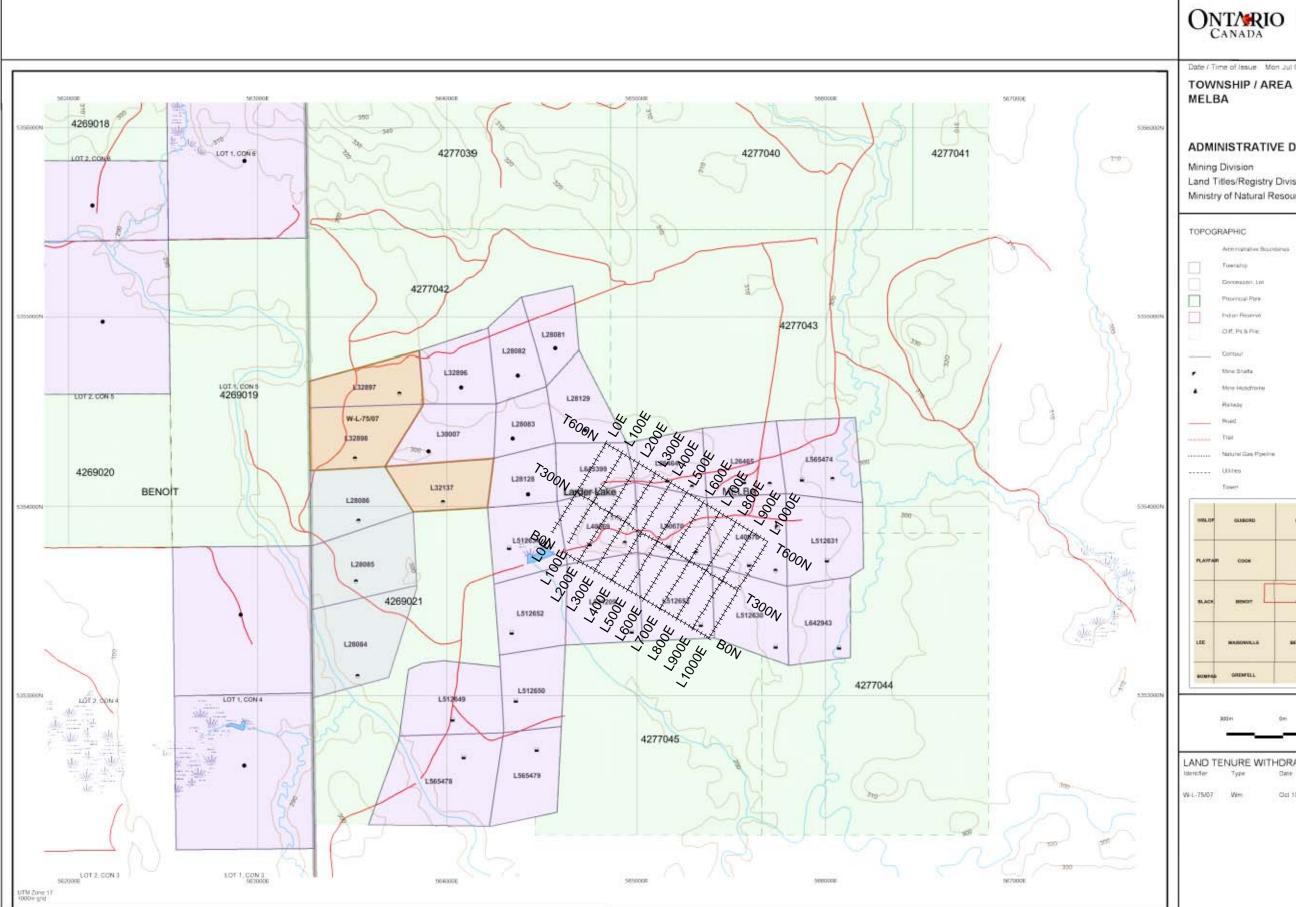
Posted contoured TFM plan map (1:2500)

# 1) TELLURITON-MELBA-PHASE1-MAG-CONT-Q2088

Claim Map with Magnetic Traverses (1:20000)

2) TELLURITON-MELBA-PHASE1-GRID-Q2088

TOTAL MAPS = 2



These wisking to scake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navgational, survey, or land the determination purposes as the information shown on this map is completed 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.

General Information and Limitations

General Information: and Limitations
Contact Information: Toll Free
Tel: 1 (688) &15-9845 etc 5742Projector: UTM 18 degree)
Wild Green Main Centre 333 Ramsey Lake Read
Fax: 1(877) 570-1444
Topographic Data Source: Land Information Ontatio
Southury ON 792 685
Home Page: www.mindm.gov.os.cv/MNOWWINESRLANDS/mismingpe.ttm
Main Canada Canada

This map may not show unregistered land lenure and interests in land including certain patents, leases, easements, right of ways fooding rights. Iscences, or other forms of disposition of rights, and interest from the Crown. Also certain land terure and land uses that restrict or prohibit here entry to stake mining claims may not be flustrated.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Minis wab site

MINISTRY OF NORTHERN DEVELOPMENT AND MINES PROVINCIAL MINING NECONDERES OFFICE

Mining Land Tenure Map

Date / Time of Issue Mon Jul 06 14 22 01 EDT 2015

#### PLAN G-3216

#### ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Larder Lake
Land Titles/Registry Division	COCHRANE
Ministry of Natural Resources District	KIRKLAND LAKE

00	RAPHIC		Land Tenure			
	Attriviative Bound	6474G		Freehold Paters		
1	Township			• 5	ntase And Mining Rights	
	Concession Lot				rtace Rights Ovly	
	Provincial Park			·	rang Rights Only	
1	Indian Reserve			Least out Parent		
	Off, PL& Pie				Hace And Mining Bights	
	Contou)			• 3	rface Rights Only	
	Mine Shets			-	ning Rights Only	
	Mine Headmine			Liberce of Occupit	01	
	Ratesy			- <u>B-</u>	ies Not Specified	
	Road			• 5	intese And Mining Rights	
	THE			Surface Rights City		
	Natural Gas Pipeline			• 54	rang Rights Only	
	Utites				ni Use Permi	
	Tower				der In Gauno LiNati open für statung i	
_	M7023			123	ater Power Lease Agreement	
HISLOF	GLABORD	INCHALD	GARRISON	1234567	Mong Care	
				1234587	Fiel Driv Mining Claims	
PLAYEA	R COOK	BARNET	THACKORAY		URE WITHDRAWALS	
	1	-		1234	Arwas Withdrawn Prem Disposition	
-	BENDIT	MELEA	BILCY	Wan	Mining Acts Withdrawal Types Surface And Mining Bights Withdrawa	
				Wa War	Burkala Rights Only Withitsen Mining Rights Only Withitsen	
ue	BASOWALLS	SERVICE	MORMETTE	W se W s W e	Deter In Council Withdramer Types Surface And Mining Highs Wethdram Surface Playts Only Withdram Meeting Highs Only Withdram	
-	GREWFELL	TECK	LEBEL	Na	IMPORTANT NOTICES	

LAND TENURE WITHDRAWAL DESCRIPTIONS (list may not be complete) Cate. Description

Oct 10, 2007

-sa (ret)=" http://www.mci.mintm.gov.on.ca/mines/lantis/wdtreoptinders2007/w/75-07\_e.tmm">-WeL-75/07 M withdrawel S 35 Mintig Act RSO 1999; October 10, 2007 Click to ink to withdrawal order-r/a>-

