Report on Prospecting
Lackner Property
Lackner and
McNaught Townships
Chapleau Area, Ontario
Claim Map Areas G-1160 and G-1178

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Lackner Property, Chapleau Area, Ontario

Prospecting Map 1 – Scale 1:5000

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Lackner Property, Chapleau Area, Ontario

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Lackner Property, Chapleau Area, Ontario

Prospecting Map 3 – Scale 1:5000

INTRODUCTION

This report summarizes the results of prospecting on the Lackner Property carried out from May 8-24, 2010. The Lackner property consists of 18 contiguous mining claims (132 units) in Lackner (G-1160) and McNaught Townships (G-1178). It is part of the Porcupine Mining Division located in Timmins, Ontario.

PROPERTY, LOCATION AND ACCESS

The Lackner property is located approximately 23 kilometres east of the town of Chapleau, Ontario (Figure 1). The property can be reached via Highway 101 northeast from Chapleau. Follow Highway 101 northeast for 17 km then 12 km southeast on a logging road, where access to the western and central portion of the claims can be gained. Alternatively follow Highway 101 a further 2 km northeast then 9 km south east on a logging road which leads to the northeast portion of the property. Access within the property is via a combination of both truck and all terrain vehicles. The older logging roads and trails require all terrain vehicle access since they are no longer maintained.

PHYSIOGRAPHY

The Lackner property consists of rolling and sometimes steep hills and low swampy areas. The low lying areas of the property consist of sphagnum bogs with black spruce trees and Labrador Tea ground vegetation. Outcrop is most abundant along the west and north sides of the complex. The complex forms a prominent topographic high with hills rising 150m above the typical, undulating topography of the Canadian Shield. Lackner Lake occupies the centre of the complex and has a generally marshy shoreline. Two canyons on the northeast rim of the complex provide the best outcrop exposure.

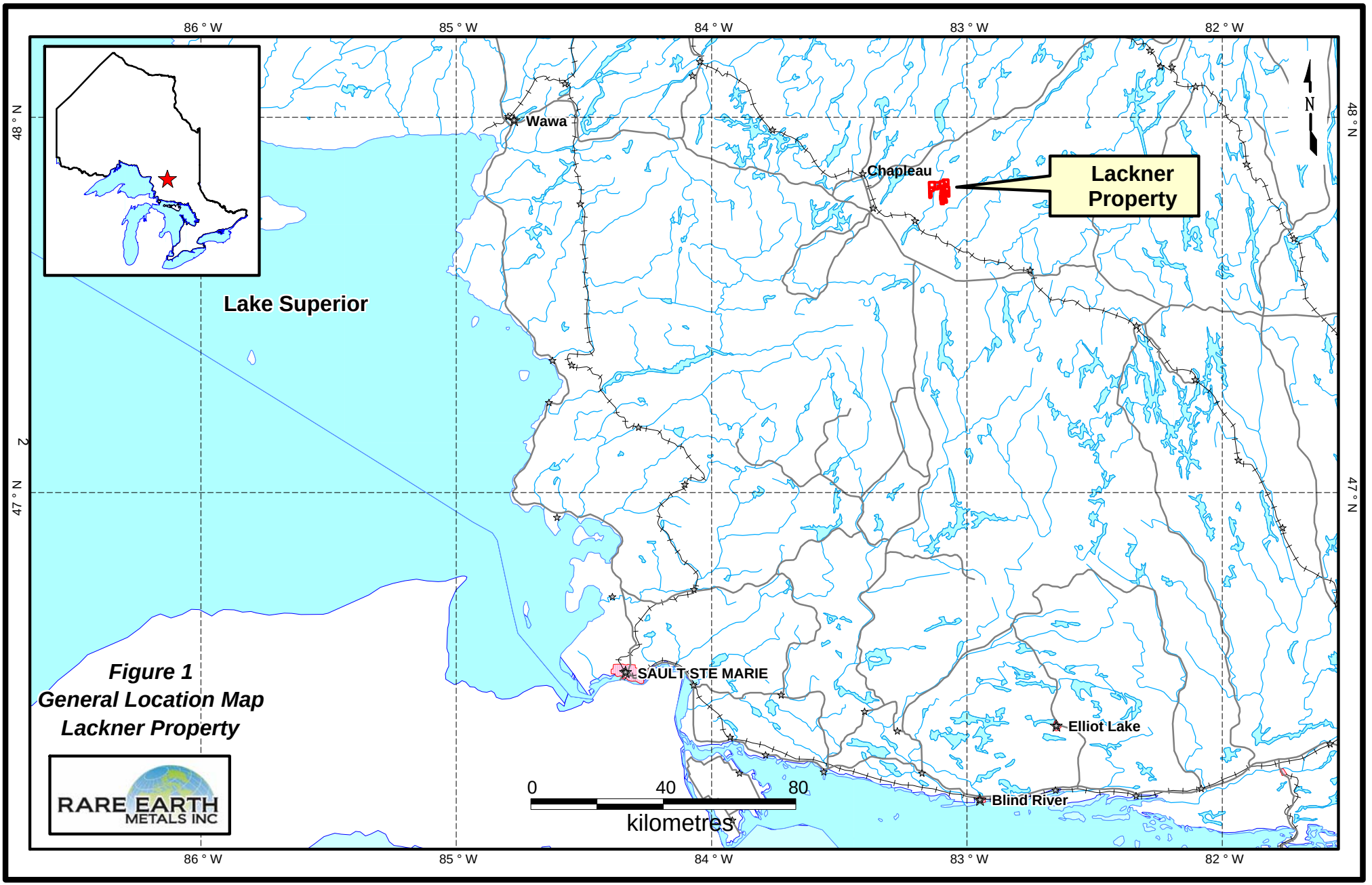

Figure 1
General Location Map
Lackner Property

RARE EARTH METALS INC

GEOLOGY

The Lackner Lake property is underlain by the Lackner Lake Alkalic Rock complex which has been extensively described by Sage (1988). The complex consists of arcuate bands and partial rings of ijolite, malignite and nepheline syenite. Minor carbonatite is associated with the malignite and ijolite rocks. The complex has been emplaced into the gneisses of the Kapuskasing Structural Province which has been dated by rubidium-strontium isotopic techniques at 1138 +/- 29 Ma.

The complex hosts uranium, thorium, rare earth elements, apatite and titaniferous magnetite mineralization. The complex has been extensively prospected for niobium, and diamond drilling has outlined four low grade zones which together total in excess of 110 million tonnes.

CLAIM STATUS

A complete list of all the mining claims that make up the Lackner Lake property is provided in Table 1 and shown in Figure 2. The property consists of 18 contiguous claims (132 units) registered to Rare Earth Metals Inc., 6378366 Canada Inc. and Joseph Bonhomme. On September 9, 2009 Rare Earth Metals Inc. entered into an option agreement to acquire an interest in the Lackner claims from 6378366 Canada Inc. and Joseph Bonhomme.

PROSPECTING METHODS AND PROCEDURES

Prospecting was carried out to follow up on an airborne spectrometer survey carried by Rare Earth Metals in 2009. Outcrop ridges were examined and simultaneous scintillometer readings were taken to measure the gamma ray intensities from the natural

TABLE 1
Lackner Property Claims

Township/Area	Claim Number	Units	Recording Date	Claim Due Date	Work Required	Total Applied	Total Reserve
LACKNER	4211088	1	Mar 12, 2008	Mar 12, 2010	$400.00	$0.00	$0.00
LACKNER	4211089	12	Mar 12, 2008	Mar 12, 2010	$4,800.00	$0.00	$0.00
LACKNER	4211090	16	Mar 12, 2008	Mar 12, 2010	$6,400.00	$0.00	$0.00
MCNAUGHT	3009985	5	Mar 12, 2008	Mar 12, 2010	$2,000.00	$0.00	$0.00
LACKNER	4214381	9	Jun 5, 2007	Jun 5, 2010	$3,600.00	$3,600.00	$0.00
LACKNER	4204336	1	Dec 29, 2006	Dec 29, 2010	$400.00	$800.00	$0.00
LACKNER	4204337	2	Dec 29, 2006	Dec 29, 2010	$800.00	$1,600.00	$348.00
LACKNER	4204338	4	Dec 29, 2006	Dec 29, 2010	$1,600.00	$3,200.00	$0.00
LACKNER	4204340	9	Dec 29, 2006	Dec 29, 2010	$3,600.00	$7,200.00	$3,235.00
LACKNER	4204341	2	Dec 29, 2006	Dec 29, 2010	$800.00	$1,600.00	$0.00
LACKNER	4204342	3	Dec 29, 2006	Dec 29, 2010	$1,200.00	$2,400.00	$0.00
LACKNER	3009969	10	Mar 12, 2008	Mar 12, 2011	$4,000.00	$4,000.00	$2,920.00
LACKNER	4214382	8	Jun 5, 2007	Jun 5, 2011	$3,200.00	$6,400.00	$2,336.00
LACKNER	4214383	9	Jun 5, 2007	Jun 5, 2011	$3,600.00	$7,200.00	$2,628.00
LACKNER	4244819	11	Nov 16, 2009	Nov 16, 2011	$4,400.00	$0.00	$0.00
LACKNER	4248651	2	Nov 16, 2009	Nov 16, 2011	$800.00	$0.00	$0.00
MCNAUGHT	4244820	16	Nov 16, 2009	Nov 16, 2011	$6,400.00	$0.00	$0.00
MCNAUGHT	4248760	12	Mar 23, 2010	Mar 23, 2012	$4,800.00	$0.00	$0.00

* Note: Mar. 12 Due Date Claims
Work Report Pending

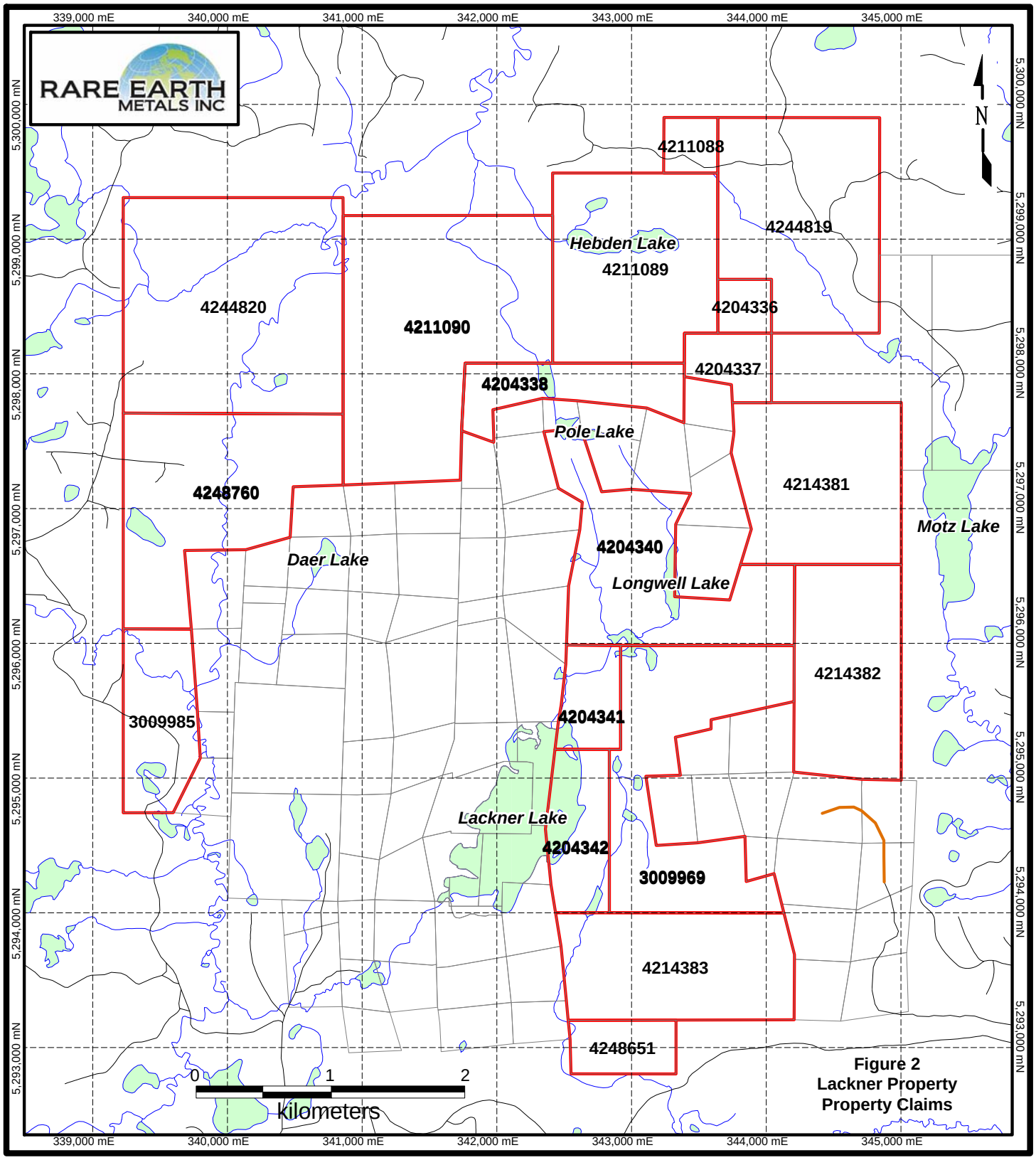

Figure 2
Lackner Property
Property Claims

materials potassium, uranium and thorium in counts per second (CPS). The instrument used was the SAIC GR-110G/E portable gamma ray scintillometer with specifications listed in Appendix 1. All sample and traverse locations were tracked using a handheld portable GPS unit. Tracks and sample locations were downloaded to a portable computer each day. The data was then converted to desktop GIS (MapInfo) format and plotted on 1:5000 scale maps. A listing of sample locations, sample numbers and descriptions is provided in Table 2 and a daily log of activities relevant to the property claims is listed in Table 3.

ANALYTICAL METHODS

A total of 33 rock samples were collected on the property and 26 samples were submitted to Actlabs Thunder Bay laboratory location for gold analysis using fire assay with AA finish (Code 1A2). Testing for rare earth elements will be determined at a future date. Analytical results are shown in Appendix 2 and Assay Certificate is listed in Appendix 3.

TABLE 2
Sample Locations and
Descriptions

Sample #	UTM EASTING	UTM NORTHING	Sample Type	ROCK TYPE	Counts per Second (CPS)	COMMENTS/Description	ZONE
599701	343715	5299584	Rock	Mafic	700	Magnetite, trace bournite, trace pyrite, black mica	17T
599702	343715	5299584	Rock	Mafic	400	Out crop, slightly magnetic	17T
599703	343985	5297732	Rock	Granite	1500	Out crop, slightly magnetic, mica	17T
599704	343931	5297693	Rock	Granite	800	Out crop, mica, mildly magnetic	17T
599705	343922	5297635	Rock	Granite	1000	Out crop, slightly magnetic, mica, trace pyrite	17T
599706	343838	5297559	Rock	Granite	1100	Out crop, slightly magnetic, mica	17T
599707	342439	5297508	Rock	Granite	2400	Out crop, very magnetic, biotite, calcite	17T
599708	342733	5297804	Rock	Granite	1200	Out crop, magnetite, trace pyrite	17T
599709	342728	5297801	Rock	Granite	1100	Out crop, magnetite, trace pyrite	17T
599710	342853	5297822	Rock	Granite	2500	Out crop, magnetite, trace pyrite	17T
599711	342847	5297824	Rock	Granite	1500	Out crop, magnetite, trace pyrite	17T
599712	342980	5297771	Rock	Granite	2000	Out crop, magnetite, trace pyrite	17T
599713	343025	5297764	Rock	Granite	1300	Out crop, magnetite, trace pyrite	17T
599714	342627	5297799	Rock	Granite	1700	Out crop, magnetite, trace pyrite	17T
599715	342612	5297806	Rock	Granite	1200	Out crop, magnetite, trace pyrite	17T
599716	344523	5295432	Rock	Granite	800	O/c ?, very magnetic	17T
599717	344523	5295432	Rock	Granite	800	O/c ?, non magnetic, calcite	17T
599724	342813	5293220	Out crop	Granite	800	Mildly magnetic, trace pyrite, magnetite	17T
599725	342763	5293178	Out crop	Granite	1000	Mildly magnetic, trace pyrite, magnetite	17T
599729	341818	5298579	Out crop	Granite	800	Mildly magnetic	17T
599730	341768	5298604	Out crop	Granite	2000	Mildly magnetic, crumbly	17T
599731	341743	5298583	Out crop	Granite	1800	non- magnetic	17T
599732	343593	5299245	Out crop	Granite	1300	mildly magnetic, trace pyrite, biotite	17T
599733	339986	5298432	Out crop	Gabbro		magnetite, trace pyrite, possible pyrrhotite	17T
599734	340000	5298441	Out crop	Gabbro		magnetite, trace pyrite, possible pyrrhotite	17T
599735	339948	5298521	Out crop	Gabbro		magnetite, trace pyrite, possible pyrrhotite	17T
599736	342806	5297019	Out crop	Gabbro	1100	Trace pyrite, mildly magnetic	17T
599737	342802	5297046	Out crop	Gabbro	1400	Trace pyrite, mildly magnetic	17T
599738	342734	5297249	Out crop	Granite	1700	Mildly magnetic	17T
599564	344231	5299317	rock	Mafic o/c	400	Altered Mafic ?, magnetic, py, dense rock, black mica	17T
599565	344233	5299304	rock	Mafic o/c	700	Altered Mafic ?, magnetic, py, dense rock, black mica	17T
599566	344211	5299391	rock	Mafic o/c	400	Altered Mafic ?, magnetic, bournite, py, dense rock, black mica	17T
599567	344726	5297413	rock	Granite o/c	270	Granite, weakly magnetic	17T

TABLE 3

Daily Log

Date	Claim	Observation or Comments	Sample
09-May-10	4211089	Checking out airborne radiometric anomalies, rusty mafic zone along the side of the road 700 cps, in SE quadrant of claim	499701
09-May-10	4214381, 4244819	Checking out airborne radiometric anomalies, rusty mafic zone along the side of the road 700 cps, in SE quadrant of claim	599565-599567
10-May-10	4214381	Checking out airborne radiometric anomalies, mafic zone NW quadrant 400cps	599702
10-May-10	4214381	Checking out airborne radiometric anomalies, granite NW quadrant 1500cps	599703
10-May-10	4214381	Checking out airborne radiometric anomalies, granite NW quadrant 800cps	599704
10-May-10	4214381	Checking out airborne radiometric anomalies, granite NW quadrant 1000cps	599705
10-May-10	4214381	Checking out airborne radiometric anomalies, granite NW quadrant 1100cps	599706
11-May-10	4204340	Checking out airborne radiometric anomalies, granite NW quadrant 2400cps	599707
12-May-10	4204338	Checking along south boundary line where airborne radiometric anomalies where high, cps range from 1100-2500	599708-715
13-May-10	4214382	Checking out total Mag. Airborne, at south end of block. Lots of overburden, granite out crop. 800cps	599716-717
16-May-10	4214383	Checking out total Mag. Airborne, at south end of block. Lots of overburden, granite out crop. 1000cps	599724
16-May-10	4248651	Checking out total Mag. Airborne, at south end of block. Lots of overburden, granite out crop. 800cps	599725
17-May-10	4214381	Lots of overburden, Boulder with 1000cps, 17 T 343904E 5297613N	
18-May-10	4244820	Checking out airborne radiometric anomalies, centre of claim, weekly to mildly magnetic, lots of overburden, 800-2000 cps	599729-731
19-May-10	4244819	Checking out airborne radiometric anomalies, SW quadrant, granite	599732
21-May-10	4204337	Lots of overburden, 1000cps in a boulder 17 T 343598E 5298093N	
21-May-10	420438, 4204337	Lots of overburden, 800cps in a boulder 17 T 343819E 5297847, 1000 cps in a boulder 17 T 343598E 5298093 N.	
22-May-10	4244820	Checking out total Mag. Airborne, gabbro dyke trace magnetite, trace pyrite, most of anomaly is in swamp, highest mag. Readings are on out crop.	599733-335
23-May-10	4204340	Checking out airborne radiometric anomalies, Nw quadrant,dug a foot of overburden where counts were higher, 1100 cps	599736
23-May-10	4204340	Checking out airborne radiometric anomalies, centre,very little exposure, boulders in area had counts from 900-1200cps	599737
23-May-10	4204340	Checking out airborne radiometric anomalies, Nw quadrant, little exposure where counts were , 1400 cps UTM of general area 343000E 5296750N	
24-May-10	3009969	Checking out airborne radiometric anomalies centre of claim. Boulder 1200 cps 17 T 343264E 5295520N, big boulder field.	
24-May-10	4204340	Checking out airborne radiometric anomalies centre of claim. Boulder 1500 cps 17 T 343540E 5295929N, big boulder field.	
24-May-10	4204340-3009969	Checking out total Mag. Airborne on claims. Lots of overburden, never seen any out crop	

PERSONNEL

The following personnel were employed to do the field prospecting and their signatures are provided in appendix 4.

Rob Dyer
6593 Townline Road
Thunder Bay, ON
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Cal Crocker
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A0G 1C0

Respectfully submitted

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June 1, 2010

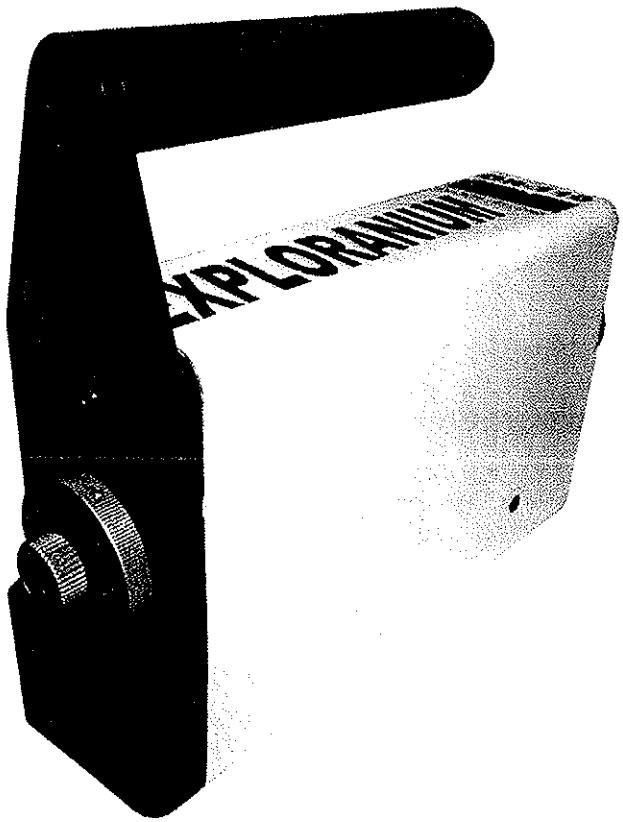
REFERENCES

Sage, R.P., (1988)

Geology of Carbonatite – Alkalic Rock Complexes in Ontario: Lackner Lake Alkalic Rock Complex, District of Sudbury, Ontario Geological Survey, Study 32, 141p.

Appendix 1

Operator Manual
SAIC GR-110G/E
Portable Gamma Ray Scintillometer



GR-110G/E
Portable Gamma Ray Scintillometer

Operator Manual

Revision 9.1, July 12, 2006

Part Number: 86170-1

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PROPRIETARY NOTICE

USERS ARE HEREBY NOTIFIED THAT THIS MANUAL CONTAINS TECHNICAL INFORMATION OF A PROPRIETARY NATURE. THIS INFORMATION IS NECESSARY FOR TECHNICALLY KNOWLEDGEABLE USERS TO UNDERSTAND SYSTEM OPERATION AND TO SATISFY THEMSELVES THAT THE SYSTEM IS PERFORMING CORRECTLY.

SAIC EXPLORANIUM ACCEPTS THAT IT IS THE RIGHT OF SUCH USERS TO BE PRIVY TO THIS INFORMATION. HOWEVER THIS DOCUMENTATION IS PROVIDED SOLELY FOR THE BENEFIT OF OWNERS OF THE GR-110G/E SYSTEM AND DISSEMINATION OF THE DETAILED TECHNICAL INFORMATION PROVIDED MAY BE CONSIDERED AS LEGALLY CONTRAVENING THE NORMAL SUPPLIER/CUSTOMER RELATIONSHIP.

UNAUTHORIZED RELEASE OF DETAILED TECHNICAL INFORMATION TO A THIRD PARTY WILL BE CONSIDERED AS A CONTRAVENTION OF USER AGREEMENTS.

Revision History

Revision	Date	ECO	Description
Rev 9.1	Jul 12/06	GR110/0134	Reformat document to new style, and update all logos and warranty.
Rev 9.0	Feb 23/01	-	N/A
Rev 8.0	Feb 09/98	481	Revised to include uR, uSv, & E instrument instructions

Manufactured by SAIC Exploranium, 6108 Edwards Blvd, Mississauga, Ontario, Canada, L5T 2V7

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1.0 GENERAL INFORMATION

1.1 INTRODUCTION

The Model GR-110G Total Count Scintillometer is a complete field system designed for man-carry applications requiring accurate and reliable determination of gamma-ray intensities from the natural radioactive materials - Potassium, Uranium and Thorium. Analysis of gamma ray intensity aids in determining rock types, geological contacts, radioactive mineral concentrations and additional information useful in mineral exploration. The inherent simplicity of the GR-110G allows rapid, accurate measurements to be obtained from a compact field instrument. This is a precision instrument however and reasonable attention must be given to handling, battery condition and sudden temperature changes.

GR-110E

The GR-110E is identical in function to the GR-110G. The main difference lies in the location of the scintillation detector, which is mounted on an extendable shaft. This adapts the instrument to be more useful when the material to be scanned is at some distance from the user - railcars, for example. To extend the sensor simply twist the black sleeve near the sensor head clockwise, extend the pole, and lock into position by twisting the black sleeve firmly counter-clockwise.

1.2 THEORY OF OPERATION

(see Appendix A for Hazardous Waste Usage)

The GR-110G Scintillometer is an instrument that measures the intensity of radioactive emissions. A Sodium-Iodide crystal converts gamma rays into flashes of light whose brilliance is proportional to the energy level of the gamma radiation measured. These light flashes are detected by a high gain photomultiplier tube (PMT), amplified, and fed to circuitry which accepts only those signals above a certain energy. These signals (or pulses) are counted over a 1 second period and displayed on a Liquid Crystal Display in counts per second. In addition, a special circuit turns the count rate into a variable frequency audio system, which gives a loud audio response. The audio frequency and displayed signal count rate, is a measure of the intensity of all gamma-ray energy above the preset threshold.

Gamma rays are emitted by certain atoms of elements, which are inherently unstable and decay spontaneously with a characteristic half-life. The emission energy is usually expressed in thousands or millions of electron volts (keV or MeV). Table 1 lists the unstable elements of interest to geological surveys and the actual daughter emission peaks actually measured by the GR-110G.

Parent Atom	Daughter Product	Energy emissions
Potassium 40 (K-40)	Potassium 40	1.46 MeV
Uranium 238 (U-238)	Bismuth 214	.609 - 2.44MeV
Thorium 232 (Th-232)	Thallium 208	.277 - 2.62MeV

Table 1

In normal GR-110G, radioactive emissions are measured in counts per second and display reads 9999 for 1 sec, 999.9 for 10 seconds. Units are Counts/sec.

In µR/h version of GR-110G, the display reads:
999.9 for 1 sec, 99.99 for 10 seconds. Units are µR/hour.

In uSv/h version of GR-110G, the display reads:
9.999 for 1 sec, 9999 (note 1) for 10 seconds. Units are µSv/hour.

Note 1: number of digits limitation of display, it reads 9999 instead of 0.9999
Note 2: µR/h & µSv/h versions are indicated on Serial Number sticker.

1.3 SPECIFICATIONS

ENERGY RESPONSE:	Energy threshold set depending on selection: 1,10 sec count rates - approximately 45 keV. HI - approximately 400 keV
CRYSTAL DETECTOR:	1.5" x 1.5" x 2" (38 x 38 x 50 mm) Sodium-Iodide, Thallium activated Crystal, NaI (Tl). This 4.5 cu.ins. (0.075L) crystal gives the instrument very high sensitivity.
DISPLAY:	4 digit LCD display - maximum count rate 9,999.
CONTROLS:	2 concentric control rotary controls
OUTER KNOB:	**OFF** - power OFF **B** - Battery/Display 888 on the display. Flashing if battery error **1** - 1 sec count rate - counts in cps, max 9999 **10** - 10 sec count rate - max count = 999.9 **HI** - 1 sec count rate with high energy threshold
CENTRE KNOB:	Audio alarm threshold, fully adjustable over the 100-5,000 cps range.
POWER REQUIREMENT:	2 Alkaline "D" cells each 1.5V DC Battery life - 30 hours
TEMPERATURE RANGE:	-20 degree C to +60 degrees C The lower limit is limited by the response time of the LCD display however the audio and electronic systems work to -40 degrees C.
WEIGHT:	3.3 lbs - (1.5 kgs) [without batteries]
HOUSING:	Heat treated, rugged can.

1.4 INVENTORY INSPECTION

When received from the manufacturer, the Portable Gamma Ray Scintillometer, Model GR-110G should include the following items:

1 - GR-110G instrument
1 - Test Sample (Cesium-137)
2 - "D" Cell Alkaline Batteries
1 - Leather case with shoulder strap
1 - Operator Manual
1 - ABS - Rugged carrying case for shipping/storage

1.5 INSTRUMENT STORAGE

After use, the GR-110 should be stored so as to prevent damage, loss, or possible contamination through contact with radioactive dust particles.

If the instrument is to be shipped as air or surface freight, or long-term storage is anticipated (one month or longer), the batteries should be removed from the console to safeguard against damage from electrolytic leakage or corrosion of battery contacts. Always inspect the batteries, or install new batteries, before using the GR-110G after long storage.

2.0 FIELD OPERATIONS

2.1 INTRODUCTION

The GR-110G comes complete and ready for field operation. A few simple procedures should be observed to ensure optimum results and it is recommended that the operator follow each step as outlined to become familiar with the operation of the instrument.

2.2 NEW INSTRUMENT CHECKOUT

When the instrument is first received from the manufacturer, examine the batteries (separately packed) for any leakage. If the batteries appear in good condition, unscrew battery port cap (counter clockwise), install cells positive end in and refit cap securely.

2.3 BATTERY TEST/DISPLAY TEST

Turn the power switch to the **B** position. The LCD display should show **8888.** If the display is flashing or the audio system is pulsing, this is an indication that the batteries should be replaced.

2.4 AUDIO TEST

The central knob controls the audio system. Fully rotate the knob counter-clockwise (CCW) and the unit should give a loud noise to indicate correct operation. Rotate control knob clockwise to reduce then cut off the audio signal.

2.5 INSTRUMENT OPERATION

When the initial battery test is completed, rotate the outer knob to the **1** position to select 1 sec sample rate operation, the GR-110G is now ready for normal field operation. The instrument is now operating with a 45 keV energy threshold, 1 second repetition rate and is displaying the count rate in counts per second.

2.6 AUDIO ALARM SYSTEM

The sophisticated audio alarm system incorporates many features as detailed below:

- When the audio control knob is rotated full counter-clockwise (CCW) , an audio tone is generated as an audio test

- When the audio knob is turned fully clockwise (CW) the audio is effectively disabled for any count rates below 5000 cps
- In between these extremes, the audio control acts as an audio threshold. For example - if there is a local background of 105 cps and the audio knob is adjusted to just above this level (that is just above the point where the audio can be heard) - the audio will be silent. Any radiation level above 105 cps will cause the audio to sound as the radiation level will exceed the preset threshold level and alert the operator to the presence of higher than normal count rates. In this mode, the instrument can be used as a "hands-free/eyes-free" system being carried attached to the users belt.

- Another method of use is as an audio rate meter. The audio system, when above its threshold, increases pitch as a function of count rate. By sweeping the instrument over an interesting area, a pitch change in the audio will indicate an increase in radioactive intensity so in this mode, as it does not require monitoring of a meter or the display, the user can very quickly identify the source with the highest count rate.

- The audio system has been designed to give audio output over the range of 300 to 3,000 Hz. This is the optimum range for the human ear to detect frequency change.

NOTE: It should be noted that if the natural background levels are close to that of the preset audio threshold level, occasional audio bursts will occur due to the random nature of the radioactive events.

2.7 LOW TEMPERATURE OPERATION

At temperatures below 0°C (32°F), the life of batteries is severely affected. The GR-110G should only be used for short periods of time at low temperature to preserve battery life, however lower temperatures do not affect the circuit components.

When using Liquid Crystal Displays as in this instrument, low temperatures affect the response time of the digital display, so in very cold temperatures the display changes very slowly. However, most users keep the unit when not in use inside a building, so the display is usually not affected for the relatively short period of time in the cold.

2.8 OVERFLOW

With digital accumulation systems based on a fixed count rate, a problem can occur if the count rate exceeds the given range at which time it may effectively go through zero (0) and start counting again. To alert the user that the GR-110 is operating in this overflow condition the display stays at 9999. Thus in an instrument with a 4 digit display, like the GR-110G, a real count rate of 15,230 counts per second would be displayed as 9,999 counts per second.

2.9 CARRYING POUCH

The carrying pouch has been designed for maximum convenience to the user. It can be used as a belt-mount in either the horizontal of vertical position, or it may be shoulder-slung. If at all possible, the instrument should be used inside the case, thus giving it one more stage of protection against shock.

2.10 OTHER OPERATIONAL SETTINGS

In areas where count rates are low, a 1 second count rate may give very erratic data. In these conditions use of the 10 second count rate is recommended to give improved quality data but note that the data is still reported in counts/second (cps).

Under certain geological conditions (e.g. high Uranium) use of the HI selection may be appropriate as this reduces the effective count rate by removing all counts below the relatively high 400 keV threshold. Since the gamma-ray spectrum has increasing count rates in the lower portion of the spectrum (below 500 keV) use of the HI will substantially reduce the actual count rate as seen on the display. This setting should NOT be used in low count rate areas, as the lower portion of the spectrum is needed to improve count rate stability.

2.11 POSSIBLE SURVEY DIFFICULTIES

DIFFICULTY	PROBABLE CAUSE	CORRECTIVE ACTION
Display all O's	1. Defective crystal.	1. Return to manufacturer. (see Appendix Z)
	2. Defective power supply for crystal.	2. Return to manufacturer. (see Appendix Z)
Audio pulses	1. Low battery.	1. Replace batteries.

3.0 BATTERY REPLACEMENT

3.1 BATTERY TYPES

Alkaline batteries are supplied with the instrument and the operational life of these batteries is approximately 30 hours unless affected by cold temperatures.

3.2 LOW VOLTAGE INDICATOR

A pulsing audio and flashing display warns of low battery problems.

3.3 BATTERY REPLACEMENT

The following steps should be followed for correct replacement of batteries:

1. Unscrew the battery port cap counter-clockwise
2. Tilt instrument to slide out discharged batteries.
3. Install new batteries with positive end in, towards the handle. When installed, both batteries should be facing the same direction.
4. Refit battery port cap and tighten clockwise firmly to affect the water-tight seal on the tetra seal and on the face of the battery port.

NOTE: It should be realized that tightening up the battery cap effectively not only tightens the cap against its seal but increases the weatherproofing of the system by compressing the rubber seal. Therefore, it is imperative that a reasonable degree of tightness should be achieved at this point. Be very cautious about over-tightening, as if this is done it is possible to damage the threads and thus effectively cross thread the cap.

4.0 SURVEY GUIDELINES

4.1 INTRODUCTION

Essentially all soils and rocks emit gamma radiation from 3 naturally occurring radioactive elements - Potassium-40, Bismuth-214 and Thallium-208. The gamma-ray radiation from these 3 isotopes is interpreted as being representative of their respective "parent" elements - Potassium-40, Uranium-238 and Thorium-232.

The GR-110 count rate also includes some Cosmic ray pulses which are extra-terrestrial high-energy radiation which contribute usually less than 10% to the measured radiation.

The operator should refrain from carrying radium-dial watches or artificial isotopes and radioactive minerals which will affect the natural radiation environment. If such samples are to be carried during the survey, the operator should step 10 - 15 feet or more away from these items while taking measurements. It is possible that the small test source could affect measurements, and should also be handled in the same manner.

4.2 TEST SOURCE

The radioactive test source is provided simply to check that the unit is operational. It is not a calibration source. The GR-110G is factory calibrated with a special source and equipment, and should not need further internal adjustment.

To test instrument operation, remove unit from its leather case, hold test source at the end of the instrument below the battery cap. The display should indicate 650 counts per second +/- 100 to show that instrument operation is normal. If natural background is above 100 cps, this can affect the reading. If readings are above the stated range, check natural background and if in excess of 100 cps, add to the 650 cps Count Rate (e.g. if natural background = 200 cps, then acceptable range is 750 $\pm$ 100 cps).

APPENDIX A – HAZARDOUS WASTE USAGE

1. The GR-110G uses a Sodium-Iodide detector to achieve very high sensitivity. An Exposure Rate of 1 mR/h of Cesium-137 will give a count rate of approximately 5,000 counts/sec on a GR-110G. When the GR-110G is switched ON, each digit on the display indicates 1 count/sec thus 9999 (= full scale) is equivalent to 2 mR/h for Cesium-137. You will note that the "normal" radioactive background in most areas will be in the range of 50-100 counts on the display.

2. This very high level of sensitivity allows the GR-110G to be used to identify radioactive material at a distance, even if covered by some level of material.

3. Accurate measurements of Exposure Rate and Absorbed Dose requires the use of specialized equipment made for this. This type of equipment uses G-M tubes (or an Ionization chamber) but this equipment offers levels of sensitivity about 100 times less than the GR-110G.

Users who want accurate measurement of DOSE RATE please request information on the GR-135 system from SAIC Exploranium.

APPENDIX Z – WARRANTY

SAIC EXPLORANIUM WARRANTY

SAIC Exploranium warrants the GR-110G/E to be free of defects in material and workmanship for a period of one year from the date of purchase. The warranty does not cover consumables or damage caused by improper use or unauthorized repairs. To make a warranty claim, the product must be returned, freight prepaid, to SAIC Exploranium's factory in Mississauga, Canada. SAIC Exploranium will repair or replace the product, at its discretion, and return the product, freight prepaid.

For Warranty Issues:

Ship to:	**SAIC EXPLORANIUM** **6108 Edwards Blvd.** **Mississauga, Ontario, L5T 2V7** **Canada**
	Attn: Service Department
Phone:	**905 670 7071**
Fax:	**905 670 7072**

For Product Questions:

Contact:	**Help Desk**
Phone:	**877 482 2474 or 858 826 9400**
Fax:	**858 826 1500**

Appendix 2

Analytical Results
Actlabs

Final Report
Activation Laboratories

Analyte Symbol	Au
Unit Symbol	ppb
Detection Limit	5
Analysis Method	FA-AA
599564	< 5
599565	< 5
599566	< 5
599567	< 5
599724	< 5
599725	< 5
599729	< 5
599730	< 5
599731	< 5
599701	< 5
599702	< 5
599703	< 5
599704	< 5
599705	< 5
599706	< 5
599707	< 5
599716	< 5
599717	< 5
599708	< 5
599709	< 5
599710	< 5
599711	< 5
599712	13
599713	7
599714	< 5
599715	< 5
599718	< 5 *
599719	< 5 *
599720	< 5 *
599721	< 5 *
599722	< 5 *
599723	< 5 *
599726	< 5 *
599727	< 5 *
599728	< 5 *

* Note: Samples take off property, not submitted for assessment

Appendix 3

Assay Certificate
Actlabs

Quality Analysis ... *Innovative Technologies*

Date Submitted: 25-May-10
Invoice No.: A10-2444 (i)
Invoice Date: 31-May-10
Your Reference: Lackner-P1

Rare Earth Metal Inc.
3250 W Arthur Street
RR#2
Thunder Bay On P7C 4V1
Canada

ATTN: Mick Stares

CERTIFICATE OF ANALYSIS

35 Rock samples were submitted for analysis.

The following analytical package was requested: Code 1A2-Tbay Au - Fire Assay AA

REPORT **A10-2444 (i)**

Notes:
Total includes all elements in % oxide to the left of total.
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL ancaster@actlabsint.com ACTLABS GROUP WEBSITE http://www.actlabsint.com

Analyte Symbol	Au
Unit Symbol	ppb
Detection Limit	5
Analysis Method	FA-AA
599564	< 5
599565	< 5
599566	< 5
599567	< 5
599724	< 5
599725	< 5
599729	< 5
599730	< 5
599731	< 5
599701	< 5
599702	< 5
599703	< 5
599704	< 5
599705	< 5
599706	< 5
599707	< 5
599716	< 5
599717	< 5
599708	< 5
599709	< 5
599710	< 5
599711	< 5
599712	13
599713	7
599714	< 5
599715	< 5
599718	< 5
599719	< 5
599720	< 5
599721	< 5
599722	< 5
599723	< 5
599726	< 5
599727	< 5
599728	< 5

Quality Control

Analyte Symbol	Au
Unit Symbol	ppb
Detection Limit	5
Analysis Method	FA-AA
CDN-GS-1D Meas	1050
CDN-GS-1D Cert	1050.00
CDN-GS-1E Meas	1150
CDN-GS-1E Cert	1160.00
CDN-GS-1E Meas	1170
CDN-GS-1E Cert	1160.00
599701 Orig	< 5
599701 Dup	< 5
599709 Orig	6
599709 Dup	< 5
599721 Orig	< 5
599721 Split	< 5
599721 Orig	< 5
599721 Dup	< 5

Appendix 4

Personnel Signatures

Personnel Declaration

The following personnel were employed by Rare Earth Metals Inc. to carry prospecting duties on the Lackner Property between May 8 and May 24, 2010.

Rob Dyer

Signed: _____
June 1, 2010

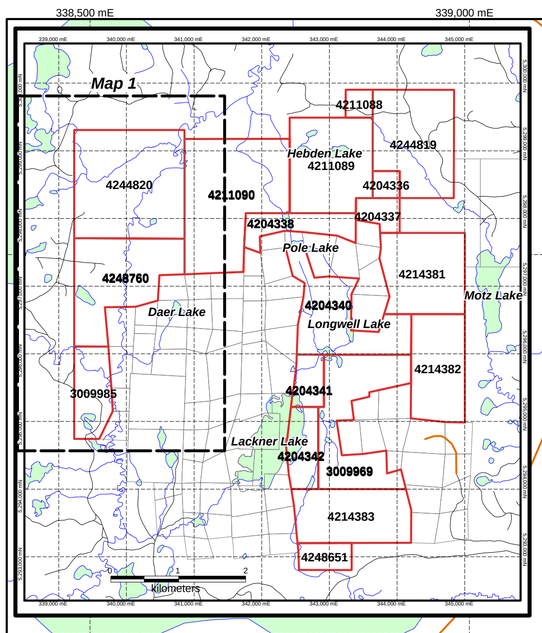
Cal Crocker

Signed: _____
June 1, 2010

Pocket 1

Lackner Property
Chapleau Area Ontario
Prospecting
Map 1
Scale 1:5000

338,500 mE
339,000 mE
339,500 mE
340,000 mE
340,500 mE
341,000 mE
5,299,500 mN
5,299,000 mN
5,298,500 mN
5,298,000 mN
5,297,500 mN
5,297,000 mN
5,296,500 mN
5,296,000 mN
5,295,500 mN
5,295,000 mN



N

4244820

599735
599734
599733

Traverse May 22

heavy overburden

4211090

4248760

Traverse May 22

Daer Lake

S53780
S53774
S53781
S53783
S53772
S53773
S53782
S53500
S53771
S53770
S53785
S53784
S53085
S52947
S53086
S53081
S52948
3009985
S52949
WD275
S52950
WD276

Marsh/Muskeg
Existing Trail/Path
Traverse Location
599724 Sample Number

Rare Earth Metals Inc.

Lackner Property
Chapleau Area, Ontario
Prospecting
Map1

Date:26/5/2010
Author: PN
Office: Thunder Bay
Drawing: Map1
Scale: 1:5000
Projection: UTM Zone 17 (NAD 83)

0 75 150 300
metres

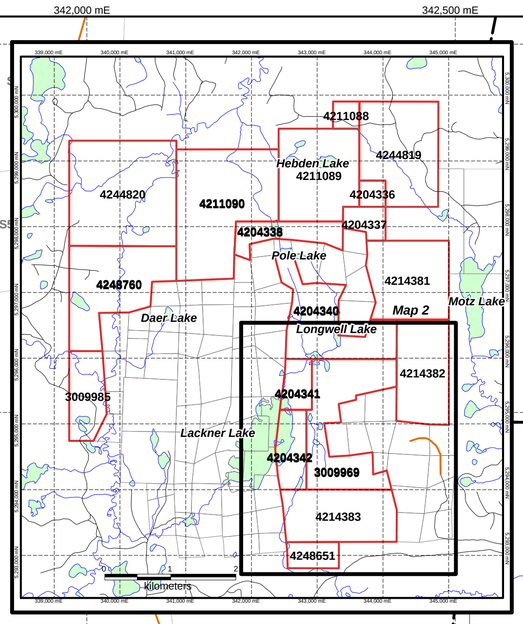
Pocket 2

Lackner Property
Chapleau Area Ontario
Prospecting
Map 2
Scale 1:5000

342,000 mE | 342,500 mE | 343,000 mE | 343,500 mE | 344,000 mE | 344,500 mE | 345,000 mE

5,296,500 mN | 5,296,000 mN | 5,295,500 mN | 5,295,000 mN | 5,294,500 mN | 5,294,000 mN | 5,293,500 mN | 5,293,000 mN

N



Longwell Lake

S58587

4204340

Boulder Field

4214382

Boulder Field

4204341

Boulder Field

Boulder Field

Traverse May 24

heavy overburden

599717

599716

Traverse May 13

S108542

S108543

Boulder Field

heavy overburden

3009969

heavy overburden

S108544

S108083

S108547

S108546

S108545

S53463

S52491

S52487

Lackner Lake

4204342

S108541

S53465

S108082

S108084

S53464

S52490

S108085

S108081

4214383

S53461

S52486

S108086

S108080

S53466

S53462

599724

599725

Traverse May 16

heavy overburden

4248651

Marsh/Muskeg

Existing Trail/Path

Traverse Location

599724 Sample Number

Rare Earth Metals Inc.

Date:26/5/2010	Lackner Property Chapleau Area, Ontario Prospecting Map2
Author: PN	
Office: Thunder Bay	
Drawing: Map1	
Scale: 1:5000	Projection: UTM Zone 17 (NAD 83)

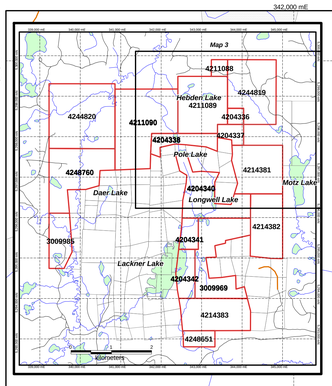
0 75 150 300

metres

Pocket 3

Lackner Property
Chapleau Area Ontario
Prospecting
Map 3
Scale 1:5000

342,000 mE
343,000 mE
344,000 mE
345,000 mE
346,000 mE
5,300,000 mN
5,299,000 mN
5,298,000 mN
5,297,000 mN



Traverse May 9
heavy overburden
599702
599701
599,566
599,564
599,565
599732
Traverse May 19
heavy overburden
Traverse May 9
Pootoosh Lake
Hebden Lake
Traverse May 18
599730
599731
599729
4211088
4211089
4244819
4211090
4204336
heavy overburden
Traverse May 21
numerous boulders
numerous boulders
numerous boulders
4204337
4252990
4252991
4204338
599709
599715
599711
599710
599712
599714
599708
599713
Traverse May 12
S54098
S54101
S53645
S58584
599703
599704
599705
599706
Traverse May 10
Pole Lake
599707
Traverse May 11
numerous boulders
S53644
S58585
S53643
S53789
S54097
599738
Traverse May 17
numerous boulders
599,567
Traverse May 9
heavy overburden
heavy overburden
4214381
S58586
S53780
599737
599736
Traverse May 23
heavy overburden
S53788
S73753
Motz Lake
S53783
S53787
S53458
Longwell Lake
S58587
4214382
S53784
S53459
S53786
4204340
Boulder Field

N

Marsh/Muskeg
Existing Trail/Path
Traverse Location
599724 Sample Number

Rare Earth Metals Inc.

Lackner Property
Chapleau Area, Ontario
Prospecting
Map 3

Date 26/5/2010	
Author: PN	
Office: Thunder Bay	
Drawing: Map1	
Scale: 1:5000	Projection: UTM Zone 17 (NAD 83)

0 75 150 300
metres