

42003NE0016 42004NE0015 PUKASKWA RIVER

010

REPORT ON

COMBINED HELICOPTER-BORNE

MAGNETIC, ELECTROMAGNETIC,

AND VLF-EM SURVEY

FOX RIVER CLAIMS

ONTARIO

# RECEIVED

DEC 1 2 1983

MINING LANDS SECTION

for
CAPTAIN CONSOLIDATED RESOURCES LTD.
by
AERODAT LIMITED
JULY 1983



42C03NE0016 42C04NE0015 PUKASKWA RIVER

Ø10C

# TABLE OF CONTENTS

				Page No.
1.	INTRO	DUCTION		1 - 1
2.	SURVE	AREA/CLAIM NUMBER	RS AND LOCATIONS	2 - 1
3.	AIRCR	AFT EQUIPMENT		3 - 1
	3.1	Aircraft		3 - 1
	3.2	Equipment		3 - 1
		3.2.1 Electromag	gnetic System	3 - 1
		3.2.2 VLF-EM		3 - 1
		3.2.3 Magnetome	ter	3 - 2
		3.2.4 Magnetic I	Base Station	3 - 2
		3.2.5 Radar Alt	lmeter	3 - 2
		3.2.6 Tracking (	Camera	3 - 3
		3.2.7 Analog Red	corder	3 - 3
		3.2.8 Digital Re	ecorder	3 - 4
4.	DATA	PRESENTATION		4 - 1
	4.1	Base Map and Fligh	ht Path Recovery	4 - 1
	4.2	Electromagnetic P	rofile Maps	4 - 2
	4.3	Magnetic Contour	Maps	4 - 4
	4.4	VLF-EM Contour Mag	ps	4 - 5
	4.5	Electromagnetic S Symbolization	urvey Conductor	4 - 6
	4.6	Interpretation Ma	ps	4 - 8
	APPEN	DIX I - Genoral Conside	Interpretive rations	

#### LIST OF MAPS

(Scale: 1/15,840)

Map	1	Interpreted Conductive Units
Map	2	Airborne Electromagnetic Survey Profile Map (955 Hz. coaxial)
Map	3	Total Field Magnetic Map
Map	4	VLF-EM Total Field Contours

Data provided but not included in report:

- 1 master map (2 colour) of coaxial and coplanar profiles with flight path
- 2 anomaly list providing estimates of depth and conductivity thickness
- 3 analogue records of data obtained in flight

#### 1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Captain Consolidated Resources Ltd. by Aerodat Limited. Equipment operated included a 3 frequency electromagnetic system, A VLF-EM system, and a magnetometer.

The survey was flown on March 6 to March 22, 1983 from an operations base at Wawa Ontario. A total of 562 line miles were flown, at a nominal line spacing of 660 feet. Of the total flown, this report describes 100.25 line miles.

# 2. SURVEY AREA/CLAIM NUMBERS AND LOCATIONS

The mining claim numbers and locations covered by this survey are indicated on the map in the following pocket.

#### 3. AIRCRAFT EQUIPMENT

#### 3.1 Aircraft

The helicopter used for the survey was an Aerospatial Astar 350D owned and operated by North Star Helicopters. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a nominal altitude at 60 meters.

#### 3.2 Equipment

#### 3.2.1 Electromagnetic System

The electromagnetic system was an Aerodat/
Geonics 3 frequency system. Two vertical
coaxial coil pairs were operated at 955 and
4130 Hz and a horizontal coplanar coil pair
at 4500 Hz. The transmitter-receiver separation was 7 meters. In-phase and quadrature
signals were measured simultaneously for the
3 frequencies with a time-constant of 0.1
seconds. The electromagnetic bird was towed
30 meters below the helicopter.

#### 3.2.2 VLF-EM System

The VLF-EM System was a Herz 2A. This instrument measures the total field and vertical

quadrature component of two selected frequencies.

The sensor was towed in a bird 15 meters below
the helicopter.

The sensor aligned with the flight direction is designated as "LINE", and the sensor perpendicular to the line direction as "ORTHO".

The "LINE" station used was NAA, Cutler Maine,

17.8 KHz or NLK, Jim Creek Washington, 24.8 KHz.

The "ORTHO" station was NSS, Annapolis Maryland,

21.4 KHz. The NSS transmitter was operating on a very limited schedule and was not available during a large part of the survey.

#### 3.2.3 Magnetometer

The magnetometer was a Geometrics G-803 proton precession type. The sensitivity of the instrument was 1 gamma at a 1.0 second sample rate. The sensor was towed in a bird 15 meters below the helicopter.

# 3.2.4 Magnetic Base Station

An IFG proton precession type magnetometer was operated at the base of operations to record diurnal variations of the earths magnetic field. The clock of the base station was synchronized with that of the airborne system

to facilitate later correlation.

#### 3.2.5 Radar Altimeter

A Hoffman HRA-100 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

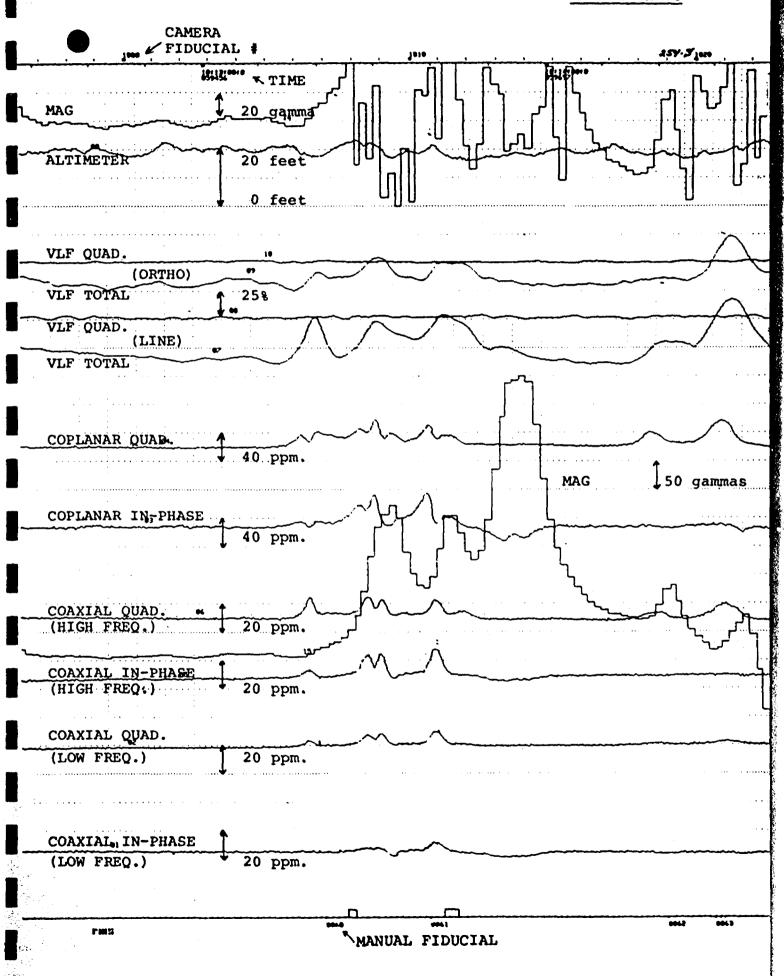
#### 3.2.6 Tracking Camera

A Geocam tracking camera was used to record flight path on 35 mm film. The camera was operated in strip mode and the fiducial numbers for cross reference to the analog and digital data were imprinted on the margin of the film.

#### 3.2.7 Analog Recorder

A RMS dot-matrix recorder was used to display the data during the survey. A sample record with channel identification and scales is presented on the following page.

#### ANALOG CHART



# 3.2.8 <u>Digital Recorder</u>

A Perle DAC/NAV data system recorded the survey data on cassette magnetic tape. Information recorded was as follows:

Equipment	Interval			
EM	0.1 second			
VLF-EM	0.5 second			
magnetometer	0.5 second			
altimeter	1.0 second			
fiducial (time)	1.0 second			
fiducial (manual)	0.2 second			

#### 4. DATA PRESENTATION

#### 4.1 Base Map and Flight Path Recovery

The base map photomosaic at a scale of 1/15,840 was constructed from available aerial photography. The flight path was plotted manually on this base and digitized for use in the computer compilation of the maps. The flight path is presented with fiducials for cross reference to both the analog and digital data.

#### 4.2 Electromagnetic Profile Maps

The electromagnetic data was recorded digitally at a high sample rate of 10/second with a small time constant of 0.1 second. A two stage digital filtering process was carried out to reject major sferic events, and reduce system noise.

Local atmospheric activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with a geological phenomenon. To avoid this possibility, a computer algorithm searches out and rejects the major "sferic" events.

The signal to noise was further enhanced by the application of a low pass filter. The filter was applied digitally. It has zero phase shift which prevents any lag or peak displacement from occurring and it suppresses only variation with a wavelength less than about 0.25 seconds. This low effective time constant permits maximum profile shape resolution.

Following the filtering processes, a base level correction was made. The correction applied is a linear function of time that ensures that the corrected amplitude of the various inphase and quadrature components

is zero when no conductive or permeable source is present. This filtered and levelled data was then presented in profile map form.

The in-phase and quadrature responses of the coaxial 955 Hz configuration are plotted with the flight path and presented on the photomosaic base.

The in-phase and quadrature responses of the coaxial 4500 Hz and the coplanar 4130 Hz configuration are plotted with flight path and are available as a two colour overlay.

#### 4.3 Magnetic Contour Maps

The aeromagnetic data was corrected for diurnal variations by subtraction of the digitally recorded base station magnetic profile. No correction for regional variation is applied.

The corrected profile data was interpolated onto a regular grid at a 2.5 mm interval using a cubic spline technique. The grid provided the basis for threading the presented contours at a 10 gamma interval.

# 4.4 VLF-EM Contour and Profile Maps

The VLF-EM "LINE" signal, was compiled in map form. The mean response level of the total field signal was removed and the data was gridded and contoured at an interval of 2%. When the "ORTHO" signal was available it was compiled in a similar fashion.

#### 4.5 Electromagnetic Conductor Symbolization

The electromagnetic profile maps were used to identify those anomalies with characteristics typical of bedrock conductors. The in-phase and quadrature response amplitudes at 4130 Hz were digitally applied to a phasor diagram for the vertical half-plane model and estimates of conductance (conductivity thickness) were made. The conductance levels were divided into categories as indicated in the map legend; the higher the number, the higher the estimated conductivity thickness product.

As discussed in Appendix I the conductance should be used as a relative rather than absolute guide to conductor quality. A conductance value of less than 2 mhos is typical for conductive overburden material and electrolytic conductors in faults and shears. Values greater than 4 mhos generally indicate some electronic conduction by certain metallic sulphides and/or graphite. Gold, although highly conductive, is not expected to occur in sufficient concentration to directly produce an electromagnetic anomaly; however, accessory mineralization such as pyrite or

graphite can produce a measurable response.

With the aid of the profile maps, responses of similar characteristics may be followed from line to line and conductor axes identified.

The distinction between conductive bedrock and overburden anomalies is not always clear and some of
the symbolized anomalies may not be of bedrock origin.
It is also possible that a response may have been
mistakenly attributed to overburden and therefore not
included in the symbolization process. For this reason,
as geological and other geophysical information becomes
available, reassessment of the significance of the
various conductors is recommended.

#### 4.6 INTERPRETATION MAPS

The conductive trends are shown and discriminated for descriptive purposes.

These conductors are described below:

- Weak conductor on magnetic flank, mapped as granite/greenstone contact.
- 2 Moderate, bedrock conductor on south flank of magnetic high. Two segments separated by diabase dyke.
- 3 Weak, short conductor
- Fair conductor contains magnetic minerals, near granite contact.
- 5 Weak conductor on south flank of magnetic trend
- 6 Weak conductor
- 7 Fair, shallow conductor follows magnetic high.
  Mapped as greenstone.
- Moderate to fair conductor with some magnetic association near granite contact.

- 9 Poor, questionable conductor
- 10 Fair, magnetic conductor in area mapped as granite. May be extension of 7.
- 11 Moderate to fair isolated magnetic conductor
- 12 Poor conductor along VLF trend
- Weak conductor on south flank of isolated magnetic high.
- 14 Weak conductor associated with irregular magnetic profiles.
- 15 Fair conductor follows magnetic high. Mapped as iron formation.
- 16 Fair isolated magnetic conductor may be related to 15.
- 17 Associated magnetic bedrock conductor near mapped gabbro intrusive
- 18 Weak, questionable conductor
- 19 Questionable magnetic conductor
- 20 Good short magnetic conductor at location erroneously mapped as trondjhemite.
- 21 Bedrock conductors associated with magnetic high.

22,23 Bedrock conductors on flank of magnetic high, not granite.

Respectfully submitted,

July 21, 1983.

Fenton Scott, P.Eng.

anal 63.1263

#### APPENDIX I

#### GENERAL INTERPRETIVE CONSIDERATIONS

#### Electromagnetic

The Aerodat 3 frequency system utilizes 2 different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at 2 widely separated frequencies and the horizontal coplanar coil pair is operated at a frequency approximately aligned with one of the coaxial frequencies.

The electromagnetic response measured by the helicopter system is a function of the "electrical" and "geometrical" properties of the conductor. The "electrical" property of a conductor is determined largely by its conductivity and its size and shape; the "geometrical" property of the response is largely a function of the conductors shape and orientation with respect to the measuring transmitter and receiver.

#### Electrical Considerations

For a given conductive body the measure of its conductivity or conductance is closely related to the measured phase shift between the received and transmitted electromagnetic field. A small phase shift indicates a relatively high conductance, a large phase shift lower conductance. A small phase shift results in a large in-phase to quadrature

ratio and a large phase shift a low ratio. This relationship is shown quantitatively for a vertical half-plane
model on the accompanying phasor diagram. Other physical
models will show the same trend but different quantitative
relationships.

The phasor diagram for the vertical half-plane model, as presented, is for the coaxial coil configuration with the amplitudes in ppm as measured at the response peak over the conductor. To assist the interpretation of the survey results the computer is used to identify the apparent conductance and depth at selected anomalies. The results of this calculation are presented in table form in Appendix I and the conductance and in-phase amplitude are presented in symbolized form on the map presentation.

The conductance and depth values as presented are correct only as far as the model approximates the real geological situation. The actual geological source may be of limited length, have significant dip, its conductivity and thickness may vary with depth and/or strike and adjacent bodies and overburden may have modified the response. In general the conductance estimate is less affected by these limitations than the depth estimate but both should be considered a relative rather than absolute guide to the anomalies properties.

Conductance in mhos is the reciprocal of resistance in ohms and in the case of narrow slab like bodies is the product of electrical conductivity and thickness.

Most overburden will have an indicated conductance of less than 2 mhos; however, more conductive clays may have an apparent conductance of say 2 to 4 mhos. Also in the low conductance range will be electrolytic conductors in faults and shears.

The higher ranges of conductance, greater than 4 mhos, indicate that a significant fraction of the electrical conduction is electronic rather than electrolytic in nature. Materials that conduct electronically are limited to certain metallic sulphides and to graphite. High conductance anomalies, roughly 10 mhos or greater are generally limited to sulphide or graphite bearing rocks.

Sulphide minerals with the exception of sphalerite, cinnabar and stibnite are good conductors; however, they may occur in a disseminated manner that inhibits electrical conduction through the rock mass. In this case the apparent conductance can seriously under rate the quality of the conductor in geological terms. In a similar sense the relatively non-conducting sulphide minerals noted above may be present in significant concentration in association with minor conductive

sulphides, and the electromagnetic response only relate to the minor associate mineralization. Indicated conductance is also of little direct significance for the identification of gold mineralization. Although gold is highly conductive it would not be expected to exist in sufficient quantity to create a recognizable anomaly but minor accessory sulphide mineralization could provide a useful indirect indication.

In summary the estimated conductance of a conductor can provide a relatively positive identification of significant sulphide or graphite mineralization; however, a moderate to low conductance value does not rule out the possibility of significant economic mineralization.

#### Geometrical Considerations

Geometrical information about the geologic conductor can often be interpreted from the profile shape of the anomaly. The change in shape is primarily related to the change in inductive coupling among the transmitter, the target, and the receiver.

In the case of a thin, steeply dipping, sheet-like conductor, the coaxial coil pair will yield a near symmetric peak over the conductor. On the other hand the coplanar coil pair will pass through a null couple relationship and yield a minimum over the conductor, flanked by positive side lobes. As the dip of the conductor decreases from vertical, the coaxial

anomaly shape changes only slightly, but in the case of the coplanar coil pair the side lobe on the down dip side strengthens relative to that on the up dip side.

As the thickness of the conductor increases, induced current flow across the thickness of the conductor becomes relatively significant and complete null coupling with the coplanar coils is no longer possible. As a result, the apparent minimum of the coplanar response over the conductor diminishes with increasing thickness, and in the limiting case of a fully 3 dimensional body or a horizontal layer or half-space, the minimum disappears completely.

A horizontal conducting layer such as overburden will produce a response in the coaxial and coplanar coils that is a function of altitude (and conductivity if not uniform). The profile shape will be similar in both coil configurations with an amplitude ratio (coplanar/coaxial) of about 4/1.

In the case of a spherical conductor, the induced currents are confined to the volume of the sphere, but not relatively restricted to any arbitrary plane as in the case of a sheet-like form. The response of the coplanar coil pair directly over the sphere may be up to 8 times greater than that of the coaxial coil pair.

In summary a steeply dipping, sheet-like conductor will display a decrease in the coplanar response coincident with the peak of the coaxial response. The relative strength of this coplanar null is related inversely to the thickness of the conductor; a pronounced null indicates a relatively thin conductor. The dip of such a conductor can be infered from the relative amplitudes of the side-lobes.

Massive conductors that could be approximated by a conducting sphere will display a simple single peak profile form on both coaxial and coplanar coils, with a ratio between the coplanar to coaxial response amplitudes as high as 8.\*

Overburden anomalies often produce broad poorly defined anomaly profiles. In most cases the response of the coplanar coils closely follow that of the coaxial coils with a relative amplitude ratio of 4.\*

Occasionally if the edge of an overburden zone is sharply defined with some significant depth extent, an edge effect will occur in the coaxial coils. In the case of a horizontal conductive ring or ribbon, the coaxial response will consist of two peaks, one over each edge; whereas the coplanar coil will yield a single peak.

\* It should be noted at this point that Aerodat's definition of the measured ppm unit is related to the primary field sensed in the receiving coil without normalization to the maximum coupled (coaxial configuration). If such normalization were applied to the Aerodat units, the amplitude of the coplanar coil pair would be halved.

#### Magnetics

The Total Field Magnetic Map shows contours of the total magnetic field, uncorrected for regional variation. Whether an EM anomaly with a magnetic correlation is more likely to be caused by a sulphide deposit than one without depends on the type of mineralization. An apparent coincidence between an EM and a magnetic anomaly may be caused by a conductor which is also magnetic, or by a conductor which lies in close proximity to a magnetic body. The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite. Conductive and magnetic bodies in close association can be, and often are, graphite and magnetite. It is often very difficult to distinguish between these cases. If the conductor is also magnetic, it will usually produce an EM anomaly whose general pattern resembles that of the magnetics. Depending on the magnetic permeability of the conducting body, the amplitude of the inphase EM anomaly will be weakened, and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign.

#### VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is elliptically polarized in the vicinity of electrical conductors. The Herz Totem uses three coils in the X.

Y. Z. configuration to measure the total field and vertical quadrature component of the polarization ellipse.

The relatively high frequency of VLF 15-25 KHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce measurable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground the depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be

in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field response is an indicator of the existence and position of a conductivity anomaly. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

The vertical quadrature component over steeply dipping sheet like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the

depth.

The amplitude of the quadrature response, as opposed to shape is function of target conductance and depth as well as the conductivity of the overburden and host rock. As the primary field travels down to the conductor through conductive material it is both attenuated and phase shifted in a negative sense. The secondary field produced by this altered field at the target also has an associated phase shift. This phase shift is positive and is larger for relatively poor conductors. This secondary field is attenuated and phase shifted in a negative sense during return travel to the surface. The net effect of these 3 phase shifts determine the phase of the secondary field sensed at the receiver.

A relatively poor conductor in resistive ground will yield a net positive phase shift. A relatively good conductor in more conductive ground will yield a net negative phase shift. A combination is possible whereby the net phase shift is zero and the response is purely in-phase with no quadrature component.

A net positive phase shift combined with the geometrical cross-over shape will lead to a positive quadrature response on the side of approach and a negative on the side of departure. A net negative phase shift would produce the reverse. A further sign reversal occurs with a 180 degree

change in instrument orientation as occurs on reciprocal line headings. During digital processing of the quadrature data for map presentation this is corrected for by normalizing the sign to one of the flight line headings.



900

71. Anderson Jan 16.84 R/3/84-DK Initial Check Assessed Approved Reports of Work sent out Notice of Intent filed Approval after Notice of Intent sent out Duplicate sent to Resident Geologist Duplicate sent to A.F.R.O.

2 5	26	S				>						r - n <b>a 4</b> 92	Parks & Fig.	· · · · · · · · · · · · · · · · · · ·	7. 53M
	ومسي							/	/			•	,	J 1	6917
	"ر ِ			<u> </u>	ر. در مانان		• /	/	<b>ሉ</b>			1-1	SSM "	SSM	SSM
كمر	<i>,</i> ·				(N	· /		اسمدا	كر	SSN I	SSM .	SSM	55M	691727 SSM	35 M
					5/1		سسر	, 		691674	ا محد ا دوفاوی	i I 691711	,   691713	691726	   <b>69</b> 1;
<i>j</i> '		$\tilde{j}$				/ ;	_		SSM	SSW)	SSM	SSM	SS H	I SSM	85M 
.)	لأر	e. T		~ <u>~</u>	$\mathbb{T}/$	1			691673 T	254675 35M	691699   85M	!	Ļ <b>-&gt;</b>	691725   85M (	<u></u> .
				V3.	9/	مر. در عن				691676		1	` \	i '	В
	}		كمر	\_^-	1			•				Lesw -	<u> </u>	ISSW.	<u> </u>
-	ď	ار ع	~~~		<i>'</i>				/-	691677	   <b>69</b> 1701	·1	<i>***</i>	   691723 	16917
_	سكر	- oay		/	بيالح	· ·	_		SSM P	i	i	17.0	Y .	SSM	85M   6917
~~~,}	•	$\bigcirc$				-	~~~	SSM		55N	691702	<b>7</b> .	+	691722  SSM	1 SSM
u.	}		81	/	1		`.		ļ	i <i>'</i>	<u>.</u>	1	! !	691721	6917
	بكة		<i>}</i> /	,		SSM	35M			691679   35M	<del> </del>	<u>_</u>		SSM	) <u>s</u> s:
	U		1	رسم		691650	-   691659	[ 64 1661	691660	691680	1691706	1	691719	  691720	<b>5</b> 51;
$\mathcal{D}$		//	/ 1	1	SSM C		ISSM ALF	Issm H	SSM	ISSM	SSM	lipssm	SSM	Issm .	     
		SI	SSM	Reu	691649	691651	!	<del>-</del>	691667 SSM	691601	J	1691775 TSSM	j — — ·	691793  SSM	135
8.		[3]	691649	がう	SSM     691648		155M DHS 1691637	OLI:	DAT	55M E D	1 1	 	1	ممير أ	1
>		SSM	SSM	;	SSM	,— — <u> </u>	SSM	SSN	SSM	SSM	JSSM 1	SSM	÷ ~	ISSM	SSM
1		691638 	691641	691644	691647 	691653	[691636		_	RCE S	<b>T</b>	6917/73	691778	  691791	6917:
25	~ f.		55M 691640	591645	SSM	SSM	SSM	5 240	36M	lese 1	SSM	SSM	ISSM.	SSM	SSM
- U	<b>ASP</b>				33M	691654	691655 45H	108432 155M	T08431	700129	**	\$91772		<del>/</del>	
. ,	70045	7 <b>00+9</b> 0	  7≈8479∕	708464	20963	:	i			55M	58M 	(38M (691771	35M	53M  691789	169
/							  ssm=	-	SSM {	₽	<b>}- ∮</b>		<u>_</u>		1531
U /	700404	700 tar	206178	700468	708462	700437	706434	1	1691692	7	1 691763	1	ì	691700	عرا
3571	1 1	SSM		SSM	l .			SSM	ISSM -	SSM	SSM	691769	35M	SSM	<u> </u>
/ 1 1	700493 33M	700462 55M		L		↓	69169,7	<b></b>	  69 69	691696	  691764 	ے حاتے'۔		691787	6911
	700492			E 1	SSM RESC: 709460	'52M 	SSM	;	SSM	SSM	1// /	Ssy	Işs <b>i</b>	35M	Issm
\ <u>55</u> M	SSM.	SSN	BAM	SSM	85M	SSM	SSIFF	SEM	SSM	691687	VSSM	691768   \$5M	691783	<u>.                                    </u>	692   55M
109478	1208491	708184	704475	708468	708159	708450	704403	708448	691609	691688	<b>P</b> > /	691767	,	l	i
SSM	SSM	SSM	3M	MZZ	SSM	SSH	ISM	SSM	-	1		1			
```\! <u></u> -	708490						708446	700447	1						7
	33M  708483	708 486	l '	709470		SSH1	709443				•		پېسىر د	Jun. 12	_
~ \ <del> </del>	as <u>M</u>	1	l		ا ما	SSM	Sam -	1				لكسر فرسيه	بري سيدر		
<i>~</i>	108488	706487	70847	70017/	7084 50	13000	1	1 \	رسہ 🗸	/	! ر	,	~~	\ \	
7	سست		<u></u>		<del>' /</del>	Ž1	<u> </u>	4	-}_	`	محر		,	7	
• •					'	<b>C</b>				`	J			<u>ب</u>	

# ICE USE ONLY



# **Ministry of Natural Resources**

# GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

	•				
			LECTRO RIYAGNATIV	, MAGNETIC	VLF-EM
Township or	Arca	KKY7K P	LA RIVER		MINING CLAIMS TRAVERSED
Claim Holde	r(s) <i>BR</i>	IAIV MU	BRAY CINTRUS	7)	List numerically
	LAPT	AIN LONS	OLIDATED RESOL	JRCES	
Survey Com	panyA	ERO DAT	LIMITED		5.5 M 691 638 (prefix) (number)
Author of R	eport _EE	WIDN S	COTT		(prefix) (number)
Address of A	Author	Z MALAB	AR PLACE DON	MILLS	285
Covering Da	tes of Surve	y MARCH	(linecutting to office)	22/83	***************************************
			1		
Total Miles	of Line Cut	74			
	PROVISIO REQUEST			DAYS per claim	
<u> </u>	KEQ OBO.		Geophysical		·
ENTER 4	0 days (inc	ludes	-Electromagnetic_	1	***************************************
	ng) for first		-Magnetometer	ì	
survey.			-Radiometric	i i	
	0 days for		-Other		
	l survey usi	ng	Geological		
same grid.	•		Geochemical		
AIRBORNE	CREDITS	(Special provisi	on credits do not apply to air		
Magnetomet	ter_ <i>19.9</i> _		etic <u>129</u> Radiome	tric <u>19.2</u>	
		•	ys per claim)	0.	
DATE: No	v. 20/8	≥ SIGNA	TURE: Ten 6	with	RECEIVED
		and the same of th	Author of Rep	ort or Agent	N. C.
					ÜECTZTSET
Res. Geol		Ovaliti	cations		AGNING
		Quann	cations		MINING LANDS SECTION
File No.	Type	Date	Claim Holde	er .	
	- 1) P -				
			*************************		
			***************************************	••••••	
	 	ļ	***************************************	••••••	
	••••••				
	•••••		***************************************		
	• • • • • • • • • • • • • • • • • • • •			•••••	TOTAL CLAIMS 144

# GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Nu	ımber of Stations		Number	of Readings					
Sta	ation interval		Line spa	icing					
Pro	ofile scale			···					
Co	ontour interval		·····						
a	Instrument								
3	Accuracy - Scale co	nstant							
	Diurnal correction m	ethod							
¥	Base Station check-in	n interval (hours)							
	Base Station location	and value							
					<del></del>				
얽	Instrument								
EI EI	Coil configuration _								
<u>ELECTROMAGNETIC</u>	Coil separation				-				
N N	Accuracy								
II.	Method:	☐ Fixed transmitter	☐ Shoot back	In line	☐ Parallel line				
E	Frequency		(anadis VI E station)						
in)	(specify V.L.F. station)  Parameters measured								
	a and meter's measure								
	Instrument								
7									
GRAVITY									
S		nd location							
	Instrument								
	Method Time			Frequency Domain					
	***********	ne		Frequency					
Ħ	– Off tir	me		Range					
X	– Delay	time							
SII	- Integr	ation time							
RESISTIVITY	Power								
<b>4</b>									
	·								

INDUCED POLARIZATION

SELF POTENTIAL	
Instrument	Range
Survey Method	
Corrections made	
RADIOMETRIC	
Instrument	
Values measured	
Energy windows (levels)	
Height of instrument	Background Count
Size of detector	
Overburden	clude outcrop map)
(type, depth — inc	ciude outerop map)
OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)	
Type of survey	
Instrument	
Accuracy	
Parameters measured	
Additional information (for understanding results)	
AIRBORNE SURVEYS	
Type of survey(s) //AGNETIC	EM VLF
Instrument(s) 680METRUS 6-803 AE	TOTEM 7.A
Accuracy D.S.GAMMAS (specify for each	(MM) 0/91
Aircraft used AERO SPATIAL - A-STAR	HELICOMER
Sensor altitude/57'	100' 150'
Navigation and flight path recovery method	L IVAVIGATION - MANUAL AND
AUTOMATIC FIDUCIALS -ON BOI	_
Aircraft altitude 200'	Line Spacing660'
Miles flown over total area 562	Over claims only 7/17

### GEOCHEMICAL SURVEY - PROCEDURE RECORD

·	
Total Number of Samples	ANALYTICAL METHODS
Type of Sample(Nature of Material)	Values expressed in: per cent
(Nature of Material)  Average Sample Weight	nnm I i
Method of Collection	Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)
Soil Horizon Sampled	
Horizon Development	
Sample Depth	,
Terrain	
Tulan	·
Drainage Development	-
Estimated Range of Overburden Thickness	
Estimated Range of Overburden Timekness	
	A
	Reagents Used
SAMPLE PREPARATION (Includes drying, screening, crushing, ashing)	Commercial Laboratory (tests
	Name of Laboratory
Mesh size of fraction used for analysis	Extraction Method
	Analytical Method
	Reagents Used
General	General —
Ocherat	

## R. BRIA HURRAY - CLAIM IT

55 ·	3>M631684	32	>2	•,
40 '	\$6	23	99	Address man September of the in Green man and an arrange
41.	21	34	800	
42.	18	35	41	,
43	21	36	62,	-
44,	90			
47	•I	33M 691 758		
46 '	92	5%		·
47 .	رو	60	TOTAL	144 CLAIM
48 `	<b>94</b>	61		
45	517	62		<del></del>
50 .	56	63	······································	
SI ·		0 64		
32 ·	99	635		
<u></u>	691 700	66		
54.		67		
<b>5</b> Υ •	62	49.		
<i>5</i> L •	63	62		
57 .		70_		
58.	۵۲	71		<del></del>
37 .	66	72. "	†	**************************************
60.	07	73		
61 .	02	74		
62 .	05	3 <i>5</i> ~		
63:		76	······································	<del></del>
Ç4 ·	<u> </u>			
6v.		78_	· · · · · · · · · · · · · · · · · · ·	1
66.		75		
67 .	14	80		
68 .			· · · · · · · · · · · · · · · · · · ·	
65.	16	82		
70 .		. 63	antani di Santani da Maria da	
71 .		24	imitellian diliteratud disentistimanistiksi pinetapaanistasuumi	* •
12 •		est		
73 .		86		
74 •		\$7		
15:		42		
76.		: 29		
17.	24	90		
18.		91		
79:	<u> </u>	91		
\$0°		93		
80 ·		54		<del></del>
82.		95		
£5.				
⊅≥				



### Technical Assessment **Work Credits**

				2.6151
Dete Marc	h 29,	1984	Mining R Work No.	ecorde 6 9 12 893 rt of

Recorded Holder		
	R. BRIAN MURRAY (IN TRUST)	
Township or Area	PUKASKWA RIVER AREA	

Type of survey and nu Assessment days credit			м	lining	Clair	ms Assessed	
Geophysical  Electromagnetic	27 days	SSM				inclusive inclusive	
Magnetometer	27		708458	to	69	inclusive inclusive	
XXXXXXXX VLF	27 days						
Induced polarization	days						
Other	days						
Section 77 (19) See "Mining Claim	ns Assessed" column						
Geological	days						
Geochemical	days						
Man days 🔲	Airborne 🔼						
Special provision	Ground 🔲	·					
Credits have been reduced coverage of claims.	d because of partial						
Oredits have been reduced to work dates and figures of							
Special credits under section 77 (1	(6) for the following r	mining claims					

No credits have been allowed for the following mining claims

Insufficient technical data filed

SSM 708444-45 708452 to 55 inclusive 708470 to 74 inclusive 708486 to 500 inclusive

he Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on ach claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77 (19) — 60:

28 (83/6)

# Ontario

### **Ministry of Natural Resources**

### GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Claim Holde Survey Com Author of R Address of A	r(s) RB  7E  pany A  ceport FE  Author 17	E LAKE ERODAT ENTON SO MALABA	RRAY (IN TRUST)  RESOURCES	MINING CLAIMS TRAVERSED List numerically  SSM 708427 (prefix) (number)
		27.8		
ENTER 4 line cutting survey. ENTER 2 additional same grid. AIRBORNE	CREDITS	ludes  each  ng  (Special provision Electromagne (enter da	Geophysical  -Electromagnetic  -Magnetometer  -Radiometric  -Other  Geological  Geochemical  on credit do not apply to sirborne surveys) etic 22.2 Radiometric  ys per claim)  TURE: Lake Lake  Author of Report or Agent	.2 RECEIVED
Res. Geol		Qualifi	cations <u>63.1263</u>	- ÜEC 1 2 1983
File No.	Type	Date	Claim Holder	MINING LANDS SECTION
				TOTAL CLAIMS 66

### **GEOPHYSICAL TECHNICAL DATA**

GROUND SURVEYS - If more than one survey, specify data for each type of survey Number of Stations \_\_\_\_\_\_Number of Readings \_\_\_\_\_ Station interval \_\_\_\_\_\_Line spacing \_\_\_\_\_ Profile scale \_\_\_\_\_ Contour interval Instrument \_\_\_\_\_ Accuracy - Scale constant Diurnal correction method \_\_\_\_\_ Base Station check-in interval (hours) Base Station location and value Instrument \_\_\_\_\_ SLECTROMAGNETIC Coil configuration \_\_\_\_\_ Coil separation \_\_\_\_\_ Accuracy \_\_\_\_\_ ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line Method: (specify V.L.F. station) Frequency\_\_\_\_ Parameters measured \_\_\_\_\_ Instrument \_\_\_\_\_ Scale constant \_\_\_\_\_ GRAVITY Base station value and location \_\_\_\_\_\_ Elevation accuracy\_\_\_ Instrument \_ ☐ Frequency Domain Parameters - On time \_\_\_\_\_\_ Frequency \_\_\_\_\_ - Off time . \_\_\_\_\_ Range \_\_\_\_\_ RESISTIVITY - Delay time \_\_\_\_\_ - Integration time Power \_\_\_\_ Electrode array \_\_\_\_\_

Electrode spacing \_\_\_\_\_

INDUCED POLARIZATION

Type of electrode \_\_\_\_\_

### GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken			
Total Number of Samples	ANALITIC	AL METHOD	<u>.</u> S
Type of Sample (Nature of Material)		per cent p. p. m.	
Average Sample Weight  Method of Collection		p. p. b.	As (circle)
Soil Horizon Sampled			
Horizon Development			tests)
Sample Depth			·
Terrain			
	D . 11 1		
Drainage Development			
Estimated Range of Overburden Thickness			tests
	Poster Allen Mask of		
	Analytical Method		
	Reagents Used		
SAMPLE PREPARATION (Includes drying, screening, crushing, ashing)	Commercial Laboratory	(	tests
Mesh size of fraction used for analysis	Name of Laboratory_		
	Extraction Method		
**************************************	Analytical Method		
	Reagents Used		
General	General ————		
		<del></del>	
· ·			

Instrument		· ·
Survey Method		
Corrections made		
RADIOMETRIC		
Instrument		
Values measured		
Energy windows (levels)		
Height of instrument	Backg	round Count
Size of detector		
Overburden		
(1	type, depth - include outcrop map)	
OTHERS (SEISMIC, DRILL WELL LOGGE	NG ETC.)	
Type of survey		
Instrument		
Accuracy		
Parameters measured		
Additional information (for understanding re	esults)	
AIRBORNE SURVEYS		l se m
Type of survey(s) MAGNETIC	EM	VLF
Instrument(s) _GEOMETRICS 0-803	(specify for each type of survey)	
Accuracy D.S GAMMAS	(specify for each type of survey)	190 (IMM)
·	STAR HELLOPTER	
Sensor altitude /50'	100'	150'
Navigation and flight path recovery method	VISUAL NAVIBATION	
FIRIGIALS - DN BOARD CAL		
Aircraft altitude 208'		Spacing blot
Miles flown over total area 3 547		claims only. 378



Report of Work (Geophysical, Geological, Geochemical and Expenditures) A128-83

Instructions: — Please type or print.

— If number of mining claims traversed exceeds space on this form, attach a list.

Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

— Do not use shaded areas below.

NOV A  A.M.  71819110111121 12319101 59  Calculation of Expenditure Days Credits  Total Expenditures  Total Expenditures  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  For Office Use Only  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  For Office Use Only  Total Days Credits Paccorded  Recorded  ALTECHED  Total Days Credits Mining Recorded  Recorded  ALTECHED  Total Days Credits Paccorded  Alternative Days Credits Paccorded  Recorded  ALTECHED  Total Days Credits Paccorded  ALTECHED  Total Days Credits Paccorded  ALTECHED  Total Days Credits Paccorded  ALTECHED  Total Days Credits  For Office Use Only  Total Days Credits  Total Days Credits  For Office Use Only  Total Days Credits  For Office Use Only  Total Days Credits  Total Days				T	he Minin	g Act			-		shaded areas beli	
A BEAN HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE ST. PAYSILLE ST. PA	Type of Survey(s)	_			М.			Townsh	ip c	r Area	·	
A BEAN HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE 2.07, 122 ST. PAYSILLE ST. TOROWTO GENERAL HURANY (IN TAUST) SUITE ST. PAYSILLE ST. PA	Claim Holder(s)	ELECTROMA	WETIC	1	MAGUE	TIC,	J. LF.	PUK	AS	Prospecto	CIVER,	
AFRODAT IMITED  Nome and actions of Author for Geo-technical report)  FEATON SCOTT 17 Malabad Place Dow Mills, Outharillo, Will St. A. 23 B.3  Pow Mill, Will St. A. 23 B.3  Pow Mill, Will St. A. 23 B.3  Pow Mill St. A. 23 B.3  Pow Mill St. Outharillo, Outharillo, Mills IA4  Tredit Requested per Each Claim in Columns at right  Mining Claims Traversed (List in numerical sequence)  For first survey.  For first survey.  For each additional survey.  Indicate of the Color of	HAROLD SA	ILE								DIE	3263	
AFRODAT IMITED  Nome and actions of Author for Geo-technical report)  FEATON SCOTT 17 Malabad Place Dow Mills, Outharillo, Will St. A. 23 B.3  Pow Mill, Will St. A. 23 B.3  Pow Mill, Will St. A. 23 B.3  Pow Mill St. A. 23 B.3  Pow Mill St. Outharillo, Outharillo, Mills IA4  Tredit Requested per Each Claim in Columns at right  Mining Claims Traversed (List in numerical sequence)  For first survey.  For first survey.  For each additional survey.  Indicate of the Color of	% BRIAN HURRAY	(IN TRUST) S	שודל 2	0	7, 122	. Sτ.	PATRI	ick St	Γ,	Toro	סדטע	
Name and Address of Author of Gao-Technical report)	Control Company					6	OI SUIVEV	tirom & to	"		TOTAL MINES OF ILIT	
Conditis Requested per Each Claim in Columns at right  Geophysical Claim in Columns at right  For first survey:  Enter 40 days. (This induced line outsing)  For each additional survey:  General 20 days (for each)  Geophysical Claim induced line outsing)  For each additional survey:  Complete reverte lide  and enter totalful here  Geophysical Claim in Columns in Columns at right  All Card Claim in Columns in Columns at right  Many survey:  Geophysical Claim in Columns at right  All Card Claim in Columns in Columns at right  Many survey:  Geophysical Claim in Columns at right  All Card Claim in Columns at right  All Card Claim in Columns at right  Fet of the Card Claim in Columns at right  For Office Use Only  Fattle Columns at right  For Office Use Only  Fattle Court in the Report of Work annexed wheat faving performed in columns at right.  For Office Use Only  Fattle Court in the Report of Work annexed wheat faving performed in columns at right.  For Office Use Only  Fattle Court in the Report of Work annexed wheat faving performed in columns at right.  For Office Use Only  Fattle Court in the Report of Work annexed wheat faving performed in white search of the section of the section of the section of the section of the claim holder's challes of the section o	Name and Address of Author (o	IMITEP of Geo-Technical report)				Day	/ Mo.	Yr.   Day	.1_!	Mo. Yr.		
Chedits Requested per Each Claim in Columns at right  Graphystal	FENTOH S.	COTT, 17 M.	ALABAR	P	LACE-	DON M	lius, C	DNTAR	ر0			
For first survey: Enter 40 days. (This includes line cutting) For each additional survey: Using the same grid: Enter 20 days (for each) For each additional survey: Using the same grid: Enter 20 days (for each) For each additional survey: Using the same grid: Enter 20 days (for each) Geological Geological Geological AND 17 (7883 4.77 A	Credits Requested per Each (	Claim in Columns at r	ight		Mining C	laims Tr	aversed (1	List in nu	mei	ical seque		
Enter 40 days. (This includes line cutting)  For each additional survey; Using the same grid:  Enter 20 days (for each)  Enter 20 days (for each)  Enter 20 days (for each)  Complete revene side and enter totals here  Amn Days  Complete revene side and enter totals here  Amn Days  Complete revene side and enter totals here  Amn Days  Complete revene side and enter totals here  Amn Days  Complete revene side and enter totals here  Amn Days (and the second	1	Geophysical										
includes line cutting) For each additional survey:  - Realizative Control  - Realizative Co	• • • • • • • • • • • • • • • • • • • •	- Electromagnetic			SSM	691	638			SSM	691661	
The part storing file and grid.  Einer 20 days flor each Geological Geologica		- Magnetometer					39				62	
Enter 20 days (for each)  Geological  Geological  Complete revene side and enter total(s) here  Electromagnetic  Radiometric  Outh  Magnetometric  Outh  Mag		- Radiometric					40				63	
Man Days   Geophysics   Caphylics   Caph	,	- Other					41				64	
Men Days  Complete reverse ide and enter total(s) here  - Electromagnetic  - Electromagnetic  - Recionatoric  - Nagnetometer  - Recionatoric  - NoV 1 7 983		Geological					42				65	
Complete reverse side and enter total(s) here  Complete reverse side and enter side and enter total(s) here  Complete reverse side and enter side side side in complete side reverse side side side side reverse side side side reverse sid		Geochemical					43				66	
Althorne Credita  Althorne Credita  Note: Special provisions credit do not apply to Althorne Surely.  Note: Special provisions credit do not apply to Althorne Surely.  Magnatomater  Althorne Credita  Note: Special provisions credit do not apply to Althorne Surely.  Magnatomater  Calaim  Collin  Note: Special provisions credit do not apply to Althorne Surely.  Magnatomater  Collin  Note: Special provisions credit do not apply to Althorne Surely.  Magnatomater  20  51  74  Magnatomater  20  52  Total Davy Death Marile  Expenditures (excludes power stripping)  NOV A  A.M.  A.M.  A.M.  Total Davy Credita  Total Davy Credita may be apportioned at the claim holidar's choice. Enter number of deays credits per claim reserved in columns at right.  Total Davy Credita may be apportioned at the claim holidar's choice. Enter number of deays credits per claim reserved by thin import of work.  Total Davy Credita may be apportioned at the claim holidar's choice. Enter number of deays credits per claim reserved in columns at right.  Total Davy Credita may be apportioned at the claim holidar's choice. Enter number of deays credits per claim reserved in columns at right.  Total Davy Credita may be apportioned at the claim holidar's choice. Enter number of deays credits per claim reserved in columns at right.  Total Davy Credita Magnatoma and intimate knowledge of the facts set forth in the Report of Work annexed hereer, having performed the work or with resets dame during and order its its completion and the sonexed apport is true.  Name and Portal Address of Person Certifying  FENTON N Scott 17 MalaBak Place, Dow Mills, Outalio M3 B IA4  Date Certified Occ. 31/83 June Davy  Cartified Occ. 31/83 June Davy  Date Certified Occ. 31/83 June Davy  Dave Davy Credita Occ. 31/83 June Davy  Davy		Geophysical	CIBAUL	T.	TE. MAR	E	1 44				67	
Rediometric Other Other Tili 10 10 11 2 11 2 11 2 11 2 11 2 11 2 11		- Electromagnetic	RED	3	IV	ED	45				68	
Other 7 (8.9.10) 1.12 (1.12) 1.12 1.12 1.12 1.12 1.12 1.12 1.12		- Magnetometer					46				69	
Context   78.9.19.19.11.12.11.2   4.8   71   72   73   74   75   75   75   75   75   75   75			Ł. 1	1	7 1983	}	47				70	
Airborne Credits  Geochemical  Geochemical  Geochemical  Dave per Craim  Note: Special provisions credits do not apply to Airborne Surveys.  Magnatomatier  20 52 73 74  Negliamatric VLF, 20 54 77  Expenditures (excludes power stripping)  For VF C E I V E D 55 78  For Office Use Only Total Dave Credits  Total Dave Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Certification Verifying Report of Work  Part Part Part Part Part Part Part Part		Other 7	8 9 10	f i I	2. 1	Р.М.	48				71	
Airborne Creditu  Note: Special provisions credits do not apoly to Airborne Survey.  Magnetometer  20 52 74  Magnetometer  20 53 74  Marile  75  Expenditures (excludes power stripping)  Expenditures (e		Geological			-1 + 1 + 1 + 1	171717	49		ł "	···	7.2	
Note: Special provisions credits do not apply to Airborne Surveys.  Magnetometer  20 52 75 76  Appenditures (excludes power stripping)  Expenditures (excludes power stripping)  Expenditures (excludes power stripping)  For UFF 20  80  80  80  80  80  80  80  80  80		Geochemical		;			50			-	73	
Expenditures (excludes power stripping)  Expenditures (excludes power strippin	Airborne Credits					*	51			13.2	7. 98 74	
Expenditures (excludes power stripping)  Expenditures (excludes power strippin		Electromagnetic	20				52			أمديت		-
Expenditures (excludes power stripping)  Expenditures (excludes power stripping)  For of Work Performed  RECEIVED  Performed on Claim(s)  NOV 1 983 57 80  A.M. 7(8) 910/11/12/1 12/3/4/11/1 59  Calculation of Expenditure Days Credits  Total Expenditures  Service Cardits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Instructions  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of Mark.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of Mark.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of Mark.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of Mark.  Total Days Credits Mark.  Total number of mining claims covered by this report of Work.  Total Days Credits Mark.  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this report of Work.  Total Days Credits Mark.  Total number of mining claims covered by this report of Work.  Total Days Credits Mark.  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this report of Work.  Total Expenditures  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this report of Work.  Total number of mining claims covered by this re		Magnetometer					53′	17	113	1:0 1/	***************************************	
Type of Work Performed    R E C E   V E   55   78			20		i		54					
Performed on Claim(s)    NOV A   983   57   80		a stripping/	MINING	<u></u>	. 1		55				76	
Performed on Claim(s)  NOV A 983  S7  B0  A.M. 718191011112111211213131111 S9  Calculation of Expenditure Days Credits Total Expenditures  B1  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Certification Verifying Report of Work  Recorded Holder or Agent (Signature)  Certification Verifying Report of Work  The SALE  I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereor, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Name and Postal Address of Person Cartifying  FENTON I Scott 17  MALABAR PLACE, Down Mills, Outable (Signature)  OCT, 31/83  Total number of mining claims covered by this report of work annexed hereor, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Date Cartified  OCT, 31/83  Total number of mining claims covered by this report of Work annexed hereor, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Scott 17  MALABAR PLACE, Down Mills, Outable (Signature)  OCT, 31/83  Total number of mining claims covered by this report of Work annexed hereor, having performed the work or witnessed same during and/or after its completion and the annexed report is true.	Type of Work Performed	R	CE	1		<del>]</del>						
Calculation of Expenditure Days Credits  Total Expenditures  Total Expenditures  Total Expenditures  Total Days Credits  S  + 15 =  Total Days Credits  Total Days Cre	Performed on Claim(s)		MOV	-								
Calculation of Expenditure Days Credits  Total Expenditures  Total Expenditures  S  Total Days Credits  Total Days Credits  Total Days Credits  Total Days Credits may be apportioned at the claim holder's choics. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choics. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choics. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choics. Enter number of days credits per claim selected in columns at right.  Total Days Credits Municipal Recorded  Total Days Credits Municipal Recorded  Total Days Credits Recorded  Total Days Credits Municipal Recorded  Total Days Credits Municipal Recorded  Total Days Credits Recorded  Total Days Credits Municipal Recorded  Total			NUV A									
Total Expenditures  Total Expenditures  Total Expenditures  Total Expenditures  Total Days Credits  Total Days Credits  Total Days Credits  Total Days Credits  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of work.  Total Days Credits may be apportioned at the claim holder's choice. Enter number of work.  Total Days Credits Recorded  Mining Recorded  Min		71819	110,11,12	1 1								
Instructions Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.    For Office Use Only		٦								ļ		
Instructions  Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  For Office Use Only  Total Days Cr. Date Recorded  Recorded Holder or Agent (Signature)  OCT/31/83  Recorded Holder or Agent (Signature)  OCT/31/83  Recorded Holder or Agent (Signature)  Authority of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Name and Postal Address of Person Certifying  FENTON SCOTT 17 MALABAK PLACE, DON MILLS, ONTARIO M38 IA4  Date Certified OCT, 31/83  Total Days Cr. Date Recorded  Mining Recorded  Mining Recorded  Mining Recorded  Banch Procorded  Ba		ام رسا ر <i>ن</i>	1	i	L			l		Total num		
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.  Total Days Cridite Use Only  Total Days Cridite Use		<u> </u>								claims cov	rered by this	60
in columns at right.  Cete  CCT/31/83  Recorded Holder or Agent (Signature)  3600  Pais Approved at Recorded Blanch Interior  Blanc	Total Days Credits may be ap			1	<del></del>	For Off	ice Use O	nly		(A001	TOURL NUMB	FERHED
Certification Verifying Report of Work  I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Name and Postal Address of Person Certifying  FENTON SCOTT 17 MALABAR PLACE, DON MILLS, ONTARIO 1438 1A4  Date Certified Certified Certified OCT, 31/83 Tenfort Certified OCT, 31/83 Tenfort Certified OCT, 31/83		C. John per Glerill selecte			Total Days			1/25		Minio He	1 /	11 /
Certification Verifying Report of Work  I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Name and Postal Address of Person Certifying  FENTON SCOTT 17 MALABAR PLACE, DON MILLS, ONTARIO 1438 1A4  Date Certified Certified Certified OCT, 31/83 Tenfort Certified OCT, 31/83 Tenfort Certified OCT, 31/83	Dete Rec	orded Holder or Agent (S	ignature)		2/1	Date	Approved a	+/83 Negorde	8	By min y	TION TO TAI	111
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.  Name and Postal Address of Person Certifying  FENTON SCOTT 17 MALABAR PLACE, DON MILLS, ONTARIO M3B 1A4  Date Certified Certified by (Signatural OCT, 31/83 Tenton Certified OCT, 31/83 Tenton Certified OCT, 31/83 Tenton Certified OCT, 31/83	OCT/31/83 7	ente teat for	المعميرة	. ]	2000	18	J. Y.	<u>ν/</u>		yle		10
or witnessed same during and/or after its completion and the annexed report is true.  Name and Postal Address of Person Certifying  FENTON SCOTT 17 MALABAR PLACE, DON MILLS, ONTARIO 143B 1A4  Date Certified Certified Certified DCT, 31/83 Tenton CAT  362 (61/9)			SAIL			orth in th	a Renert -	Wash and	De = 4	ed heres	naving performed	the work
FENTON SCOTT 17 MALABAR PLACE, DON MILLS, ONTARIO 1938 1A4  Date Certified Cortified by (Signatural OCT. 31/83 Tentral CAT)  362 (61/9)	or witnessed same during and	or after its completion t	nd the anne	e xe	d report is	true.	o rieport 0	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Date Certified Cartified by (Signatural OCT. 31/83 Fourth Cast			ABAK		PLACE	e, D	ON M	ILLS,	0.	UTARIO	0 1438	144
362 (81/9) - LULID SOM 6911 38	Vin Providence	17 172	- 10/1/5			Date	Certified		-	Cortilied	V (Signatural	
是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	552 (81/9)				·····	المحال	<del>-1, 31</del>	183		Lill		111 38

Mining Claims Traversed (List in numerical sequence)

Mining C		
Profix	lining Claim Number	Expend. Days Cr.
SSH	691684	
3.04132	85	
	86	
	87	
		<del></del>
	88	
	89	
	90	
	91	
	92	
	93	
	94	
	· , 95	
	96	
	97	
	·	
NO.		
N. S. C.	·	

cal seque	lining Claim	15
Profix	Ining Claim Number	Expend, Days Cr.
TOTAL	Number	1
100 to 100		1
Sec. 19		
		1
Rillian St.		1
	<del>                                     </del>	
1.5		
4.00		
2.0		
<b>WEAK</b>		
<b>11/2/20</b>		
2000		<u> </u>
17.		7
100		1
<b>TAXA</b>		
		1
<b>*****</b>		
		1
<b>1200</b>		
Section 1	•	
		1
		1 1
		.j
		<del> </del>
<b>KR43</b>		<del> </del>
		1
		┪╌╌╌┪
		[ ]
		<del>  </del>
<b>第23</b> 3		1 1
10 M		<del></del>
		1 1
		<del>-{</del>
	. •	1 1
STATE OF		
		1 1
(A)		<del> </del>
		1 1
THE PARTY		المستسميل



Ministry of Natural Resources

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

129-83

The Mining Act

Instructions: 

Please type or print.

If number of mining claims traversed exceeds space on this form, attach a list.

Note: 

Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

Do not use shaded areas below.

Type of Survey(s)								-	or Area	^	
AIRBORNE EL	ECTKOMAGNETIC	, MAGA	JET	rig V	.LF.	1	Puk	:AS	KWA	RIVER.	
										r's Licence No.	
GEONGE MOWA		<del> </del>			· · · · · · · · · · · · · · · · · · ·		··		1 11	3271	
TO BRIAN MURRI	AY (IN TRUST)	SITE	2	.07 . 123	L ST. PATKIC	K	St		TORO	U70.	
Co. vey Company					CATE OF SUIVEY	1100	111 201	101	3 83	Total Miles of line	
AEROPA- LI Name and Address of Author to	HITED				Day Mo.				Mo.   Yr.		16.4
FENTON Scot				- D	. Mus C	) <sub>4</sub>	T.4	<i>n</i> .	. ~	13B1A4	
Credits Requested per Each (	Claim in Columns at r	ight	LA		Claims Traversed (1				<del></del>		·
Special Provisions	Geophysical	Days per Claim	7	N	Aining Claim	Ex	pend.	T	N	lining Claim	Expend.
For first survey:	• Electromagnetic	C	1	Profix	Number		ys Cr	4	Prefix SSM	Number	Days Cr.
Enter 40 days, (This includes line cutting)			┨	SSM	691698	<b> </b>		-	33M	691721	<del> </del>
merados ma editings	- Magnetometer		-	1	99	ļ		4		22	
For each additional survey:	- Radiometric		]		700			]		23	
using the same grid: Enter 20 days (for each)	- Other				01					24	
	Geological		1		02			1	Ì	25	
	Geochemical		1			†		1		<del></del>	
Man Days		Covers	_		03	1		4		26	
Complete reverse side		UCASTE	JM PIV.		04	<u> </u>		1		27	
and enter total(s) here	· Electro Tompo E	CE	' اِ	YED	05			╛		28	
		1st	14	ad.	06					29	
,	- Radiometric N	DAX	18	983	07			1	] ]	30,	
·	· Other 7181911	0.11.19	1	1	f-1	<del> </del>		1	l i		1
	<u> </u>	0111112:	╬╌	<del>                                     </del>	08	-		┨			
	Geological	<b></b>	-		09			-	]		-
	Geochemical				10			]		·.	
Airborne Credits		Days per Claim	}		11			ł			
Note: Special provisions	Electromagnetic	20	1		12			1			
credits do not apply	Magneto meter	20	1			-	7		BAULT S	TE. MARIE	1
to Airborne Surveys.			1		13		<b>-∤</b> F	⊉ા	ECE		<del>  </del>
	-Radiometric VLF	20	]		14	ļ	1	[		*-	<b>∦</b>
xpenditures (excludes power Type of Work Performed	er stripping)	. ,	1		15		$\perp$		NOV 1	<del>~ 1083</del>	111
, , , , , , , , , , , , , , , , , , , ,			`		16			μ.		P.M.	!}
Performed on Claim(s)			1		17			βįξ	10:11:1	स र । शहा है। की के हि	
	Wilding 1	· · · ·	1		18			1			11
				] i				1	j 🖣		<del>  </del>
Calculation of Expanditure Days	Credits	otal	1		19			-			<del>  </del>
Total Expanditures		Credits			20	<u> </u>					<u> </u>
\$	+ 15 =									nber of mining	-7 52
nstructions									report of	work.	3 <b>5</b>
<ul> <li>Total Days Credits may be ap choice. Enter number of days</li> </ul>					For Office Use O	nlγ			<u> </u>		
in columns at right.			j	Recorded	C. Date Hecorded	/.			Mining Re	// > /	1 010
Dete , Rec	orded Holdey or Agent (S	ignature)	1	100	Date Approved	19: H	3 10010	8	graneh D	lyli for 1	Styp
OCT. 31/83 7	entre teat fu		[	1980	85.2.			1	lest	*	100
ertification Verifying Repor	t of Work and	R. Mol	1							Z	
I hereby certify that I have a	personal and intimate kn	owledge o	l th	e facts set f	orth in the Report o	f Wo	rk ar	nnex	ed hereto, l	naving performed t	he work
or witnessed same during and		no the and	IE X	en report is	true.				<del> </del>		
FENTON SCOTT	• •	AR P. A		= Dan	MILLS, ON-	-A	ورد	<b>)</b>	M3	BIA4	ĺ
	11.11.11				Date Certified	ئىنى ئىد				y (Signatura)	
Marine was profit to the state of					OCT 31/	83		_		to deast.	
362 (81/9)	The control of the state of the	- 5 10 8 1 - 1 Levi 14		VID ALSO SANGERANISA	er i mate segraphism styllige de styllige	MARKET CO.			Lile o	N. 55M 69	1698

Ministry of Natural Resources Report of Work (Geophysical, Geological, Geochemical and Expenditures) 131-83

Instructions: - Please type or print.

Jan 3 rd.

- If number of mining claims traversed exceeds space on this form, attach a list.

Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

- Do not use shaded areas below.

The Mining Act ype of Survey(s) Township or Area RIVER AIRBORNE ELECTRUMAGNETIC, MAGNETIC, VLF-EM. PUKASKWA Prospector's Licence No. D 18264 Suite 207, 122 % BRIAN MUKRAY, (IN TRUST) ST. PATRICK ST. TORONTO. Total Miles of line Cut Date of Survey (from & to)
6 3 83 22 3
Day | Mo. | Yr. | Day | Mo. AEKUDAT LIMITED 22.3 Name and Address of Author (of Geo-Technical report) PLACE, M3B1A4 FENTON SCOTT, 17 MALABAR Dan MILLS, OUTARIO, Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence) Pays per Claim

ctromsolity STE, MARIE
actromsolity STE, MARIE Mining Claim Number Mining Claim Number Expend, Days Cr. Expend. Days Cr. Geophysical Prefix For first survey: SSM 691781 691758 Enter 40 days. (This includes line cutting) 59 82 For each additional survey: using the same grid: 83 60 61 Enter 20 days (for each) Geolog 74819,10,11 12, 1,231 62 85 Geochemical 63 86 Man Days E C E I V E D Geophysical 64 87 Complete reverse side 65 88 and enter total(s) here 66 89 1283 MOA - Radiometri 67 १० - Other 7,8,9,10,11, 11213141516 21 68 91 Geological 64 92 Geochemical 70 93 Airborne Credits 71 94 Note: Special provisions Electromagnetic 95 20 72 credits do not apply Magnetometer 96 to Airborne Surveys. 73 diometric VLF 20 97 74 Expenditures (excludes power stripping) 98 75 Type of Work Performed 99 76 Performed on Claim(s) 77 800 78 692801 Marie 79 802 Calculation of Expenditure Days Credits Total Days Credits 80 Total Expanditures Total number of mining claims covered by this report of work. \$ + 15 Instructions Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right. For Office Use Only Total Days Cr. Recorded Date Recorded Recorded Holder or Agent (Signature) Dete for B. Harry 01 2700 OCT. 31/83 Certification Verifying Report of Work I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true. Name and Postal Address of Person Certifying M3B 1A4 DNTARIO 17 MALABAR PLACE, DON MILLS, FENTOH SCUTT, Certified by (Signary)

Date Certified OCT 31/83

Leato Fall

SSM 69175



Ministry of Natural Resources

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

#130-83

Instructions: — Please type or print.

— If number of mining claims traversed exceeds space on this form, attach a list.

Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

— Do not use shyded ease below.

Ontario	Geochemical and Expend	itures)	RE	VISED.	Note: -	Only da	vs credits calcul	eted in the
						in the "	itures" section ma 'Expand, Days C	"." columns.
Type of Survey(s)			The Minin	ig Act	Township		se shuded areas belo	ow.
	ELECTROMAGNETIC,	MAGI	ETIC V	LF. E. M			. 0,,,,,,	
Claim Holder(s)	DOY GEOLGE	Halle	4TT 1	7	1,00	Prospecto	RIVER	,
REDE A	roby acount		· · · · · · · · · · · · · · · · · · ·	×		) )	18265	•
Address C/ D	19			- S- D.				
Survey Company	RRAY(IN TRUST) S	UITE	207, 12	Date of Survey	KICK ST	10	RONTO	6.4
AEKODAT	1 141750			6.3	23 22	3 83	3	Cut
Name and Address of Au	ithor (of Geo-Technical report)		<del></del>	Day Mo.	Yr. Day		<u>.I</u>	
FENTON SO	CTT 17 MALAB	AR PL	ACE, D	ON MILLS,	BUTAKIO	, M3	B1A4	
	Each Claim in Columns at r	ight	Mining (	Claims Traversed (	List in nume	erical sequ	ence)	
Special Provisions	Geophysical	Days per Claim	Profix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim  Number	Expend. Days Cr.
For first survey:	- Electromagnetic		SSM	691731	1 2 4 2 4 4	111111		-
Enter 40 days, (The includes line cutting	nis		334	1				
	- Magnetometer		]	7,132				_
For each additional su	rvey: - Radiometric	<u></u>	] ]	733	] ]			
using the same grid: Enter 20 days (for	- Other		1	734				
Enter 20 days (for	Geological		1		<del>  </del>	-		1
	İ			7 135	ļ  <sub>F</sub> -	SAUL)	aums Divide	77
	Geochemical		[	#136	F	EC	EIVE	
Man Days	Geophysical	Days per Claim		1		1-0	£ 12-11	
Complete reverse side	· Electromagnetic		<b>[</b>			NOY	A 5533	
and enter total(s) here			1		1	g   0 = 0 = 1	ρ.	<del>,   </del>
	· - Magnetometer	ļ			1113	3,10,11	12,1,2,3,4,5	g .
	- Radiometric		] [					<u>'</u>
	- Other			į.		1		
	Geological			1		BAINT		
				RECEI	VEB	E O	STE MARIE	┨
Alabana	Geochemical					EC	EIVEC	)
Airborne Credits		Days per Claim		UEC 1 : 1				<u> </u>
Note: Special provisio	ns Electromagnetic	20				NOV :	7 283	
credits do not a to Airborne Sur	'' '   1	20	M	NING LANDS	SECTION	0.10.11	P.M	
to Aliborite Sur				, p	1191	61101111	<u>हा । । इस्तिक्ष</u>	<u></u>
	Andiometric VLF.	20		<u> </u>		1		_
Expenditures (excluder Type of Work Performed	s power stripping)		1	3		1		
				1				
Performed on Claim(s)							<u> </u>	1
				,	<del>  </del>			
Calculation of Expenditur	re Davs Credits			[		1		
Total Expenditures	· T	Otel Credits						
\$	_ 15 =		<u> </u>			Total aus	nber of mining	
<u> </u>							vered by this	6
Instructions Total Davs Credits may	y be apportioned at the claim h	older's	<b></b>			789071 01	WO'R.	
	of days credits per claim selecte		Total Day	For Office Use O	ητιγ	Months Re	cofder	
ar colonia ot right.			Recorded		102	Land	Jesulo loc	mHa
Dete	Recorded Holder or Agent (S		1 2//	Date Approved	as Recorded	Branch O	ay.	
007. 31/83	Tento tolt for	B. Huce	, 360	03.7.	7/ (	Legh		
Certification Verifying	Report of Work Ale A	. Avo	Ý					
I hereby certify that I	have a personal and intimate kn	owledge of	the facts set	forth in the Report (	of Work annex	ced hereto,	having performed t	he work
Name and Postal Address	ng and/or after its completion a	ING THE BUT	even ishout is	Ve.	<u> </u>			
FENTOH S	50077 17 MAI	ARAL	KALF.	Day MILLS.	DUTAK	10.		
TOR TOP	2011, 111,77		,	Don MILLS, Date Certified			by (Signayare)	
				OCT. 31,	183 2	Ten	15 dest	
362 (81/9)						-pei	en sch	691731

<u> </u>			The Mining	Act			shaded areas below	· .
Type of Survey(s)					Township o		_	
AIR BY SUF ELECTR					PUKAS	Prospector	RIVER 's Licence No.	
Address BRIAN MUR	BAY GNTI	345t) /	TEE LA	KE RESONIZ	CES )	A 456		
Address	22 6: 0				7			
Survey Company	12 ST PATRIC	K ST	BEEL, TI	Date of Survey	757 2×8		Total Miles of line (	Cut
SUITE 287 , / Survey Company  AERO DAT  Name and Address of Author (or	f Geo-Technical report)			Day   Mo.	83   22 3 Yr.   Day   A	40.   VI.	37.8	
PA. FENTON S	CATT IT I	1ALABA	VR PL	DON MILL	C ONT	ARID		
Credits Requested per Each (	Claim in Columns at r			aims Traversed (		ical seque	nce)	
Special Provisions	Geophysical	Days per Claim		ining Claim Number	Expend. Days Cr.		ining Claim Number	Expend. Days Cr.
For first survey:	- Electromagnetic			708429		SSM	708 458	1
Enter 40 days. (This includes line cutting)	- Magnetometer		66.484					
- -			1	30	<del>  </del>		59	ļ
For each additional survey: using the same grid:	- Radiometric	<b></b>	15.25	31	<del>  </del>		60	<b> </b>
Enter 20 days (for each)	- Other			32		1.5	61	<u> </u>
	Geological		100	33		1	62	
	Geochemical		200	34		253	63	1
Man Days	Geophysical	Days per	A CONTRACT	35	1	100		<b> </b>
Complete reverse side	- Electromagnetic	Claim	ಕಾಟ ತಿಣ್ಣ ಕ		<del>  </del>	27 (27)	69	<del> </del>
and enter total(s) here				36	+	المحاصر برا	65	<b> </b>
	- Magnatomater		4.	<u> </u>		\$ 0 · \$		<b>}</b>
	- Rediometric		1	38	1	2	67	
	- Other			38			68	
	Geological		23.50	44		150	69	
	Geochemical		<b>.</b> (10)	45		\$5.00 70	70	
Airborne Credits		Days per Claim	42.70	46	1	<b>***</b>	71	1
Note: Special provisions	Electromagnetic		8.2		+		<u>-</u>	<del> </del>
credits do not apply		22.9	1	47_	<del>  </del>		72	·}
to Airborne Surveys.	Magnetometer  VLF-EM	22.9	22.5	49		<b>1000</b>	73	<b></b>
	Radiomenic	22.9	ACAL STREET	49		THE PERSON NAMED IN	74	L
Expenditures (excludes pow Type of Work Performed	er stripping)	<del></del>	A COL	50		77.2	75	
The second secon			31, 4,700,00	51			76	
Performed on Claim(s)			W. Carlo	5.2.	1	1	77	1
			W.		1		78	1
				53	1			<del>  .          </del>
Calculation of Expenditure Day	s Credits	Total		54	<del>  </del>		79	<del>- </del>
Total Expanditures		's Credits	77.70	<u> </u>		STATE OF	80	<u> </u>
\$	+ 15 =			V			mber of mining vered by this	,
Instructions Total Days Credits may be a	anartianed at the state-	holder's				report of	work.	6
Total Days Credits may be a choice. Enter number of day			Total Day	For Office Use		Mining B	ecorder	
in columns at right.			Recorded		-			
Dec 10/00	eorged Holder or Agent	(Signature)		Data Approva	s s Recorded	Branch D	irector	
Certification Verifying Repo	ort of Work	-	ļ <u> </u>					
I hereby certify that I have a	personal and intimate i				of Work anne	xed hereto,	having performed t	he work
or witnessed same during an	d/or after its completion	and the and	nexed report is	true.	·····	····	·	
Name and Postal Address of Par FENTUN SCO	TY IT	MAIA	KAH 1	LACE . A	Por His	LS. 1	M3B/A (Signature)	1
1 200 0000	· <i>(</i>		٠ ٠٠٠٠	Date Certified	<del></del>	Cortified	by (Signature)	
				me 10.	103	1-16	· NIA	-



### Report of Work (Geophysical, Geological, Geochemical and Expenditures)

Instructions: - Please type or print.

If number of mining claims traversed exceeds space on this form, attach a list.

Only days credits calculated in the "Expenditures" section may be entered in the "Expend, Days Cr," columns. Note: -

			The Mining	Act	_	Do not use shed	ed areas below	V.
Type of Survey(s)				,	Township o	r Area		
Claim Holder(s)		······································				Prospector's Lic	ence No.	
Address							<del></del>	
Survey Company				Date of Survey	(from & to)		Miles of line	Cut
Name and Address of Author to	f Geo-Technical report)	aran aran yana ya ka ka angan an	<u></u>	Dey Mo.	Yr. Day 1 h	Ao.   Yr.   3	7.8	
Credits Requested per Each (	Claim in Columns at r	ight	Mining Cla	aims Traversed (	List in nume	rical sequence)		<del></del>
Special Provisions	Geophysical	Days per Claim	Profix	ning Claim Number	Expend. Days Cr.	Mining Prefix	Claim Number	Expend. Days Cr.
For first survey:	- Electromagnatic	-	<u> </u>		1	Frenz	Numoer	10.7.
Enter 40 days, (This includes line cutting)	- Magnetometer		635868	708481	<del> </del>			
•	Radiometric		16.16.1F	82	<del>  </del>			-
For each additional survey: using the same grid:				93	ļ			
Enter 20 days (for each)	- Other		Xagant :	84	<b> </b>	100	***************************************	
	Geological			85			·	
	Geochemical	<b> </b>		86				
Man Days	Geophysical	Days per Claim		87				
Complete reverse side and enter total(s) here	- Electromagnetic			88				
	- Magnotometer		AND MAKES SAL	A				
	- Radiometric			80				-
	- Other	\		91	1	22 34		<del> </del>
	Geological		7 m² 10, 1m²		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· · · · · · · · · · · · · · · · · · ·	<del></del>
	Geochemical		400	92	+	1000		
Airborne Credits	000000000000000000000000000000000000000	Days per	CONTRACT OF	93		-		
		Claim		94				
Note: Special provisions credits do not apply	Electromagnetic	22.9	1	95				
to Airborne Surveys.	Magnetometer VLF-EM	22,9	<b>13</b>	96				
	Rediometric	229	*	97				
Expenditures (excludes pow	ver stripping)			98				
				99			-	
Performed on Claim(s)				708500				
							<del></del>	
								1
Calculation of Expenditure Day Total Expenditures		Total /s Credits						+
\$	+ [15] =		3			Total number		
Instructions						report of work		66
Total Days Credits may be a choice. Enter number of day			72-12	For Office Use		]		
in columns at right.		<del></del>	Recorded	s Cr. Data Recorded	1	Mining Record	1 <b>0</b> f	
Date Re	corded Holder or Agent (	(Signature)		Date Approved	as Recorded	Branch Directo	D <b>r</b>	·

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.



Ministryol Natural Resources

Report of Work

(Geophysical, Geological, Geochemical and Expenditures) # 167.83.

Jebusti

Instructions: — Please type or print.

— If number of mining claims traversed exceeds space on this form, attach a list.

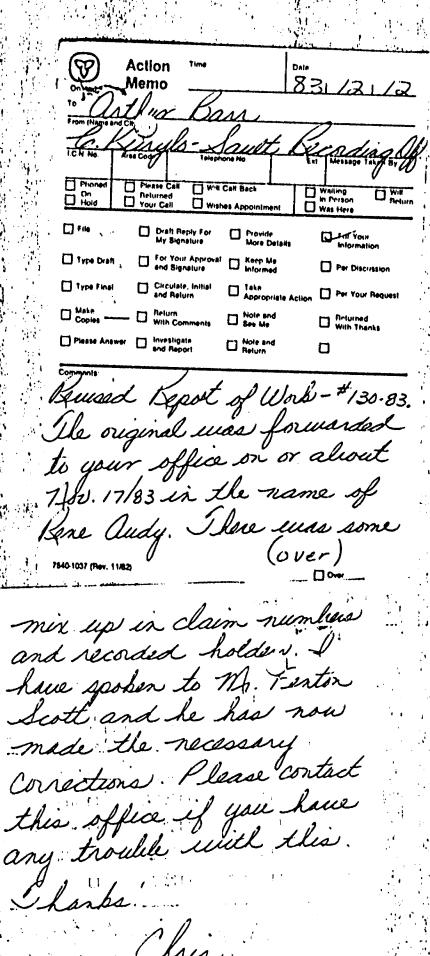
Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

— Do not use shaded areas below. The Mining Act Township or Area PUKASKWA RIVER IRDORNE ELECTROMAGNETIC, MAGNETIC, VLF-EM BRIAN MURRAY (IN TRUST) (TEE LAKE RESOURCES) A 45651 207, 122 St PATRICK STREET, TOROIVTO MST 2×8 Total Miles of line Cut 22 3 9 Day | Mo. | Yr. Day Mo. VI. Author (of Geo-Technical report) FENTON SCOTT 17 MALABAR DON MILLS ONTARIO Credits Requested per Each Claim in Columns at right Mining Claims Traversed (List in numerical sequence) Special Provisions Mining Claim Mining Claim Expend. Days Cr. Geophysical Numbe For first survey: - Electromagnetic 458 SSM 708429 708 SSM Enter 40 days, (This includes line cutting) Magnetometer 59 30 Radiometric For each additional survey: using the same grid: 31 60 - Other 61 Enter 20 days (for each) Geological 62 33 Geochemical 4د Man Days Geophysical 35 64 Complete reverse side · Electromag 36 SAULT STE MARIE 65 and enter total(s) here VEID Magnetome CCE 27 66 67 Radiometri 38 DEC 1 0 1983 Other 39 68 Geological 69 44 7181911911111211115 Geochamical 45 70 Airborne Credits Days par Claim RECEIVED 46 Note: Special provisions ... Electromagnetic 22.1 41 credits do not apply Magnetometer to Airborne Surveys. 22.9 49 73 VLF-EM . . <u> 22.9</u> 49 LANDS SECTICITY Expenditures (excludes power stripping) DURNIN 50 Type of Work Performed 5/ 16 Performed on Claim(s) 77 52 78 53 79 54 Calculation of Expenditure Days Credits Total Days Credits 80 Total Expanditures 15 laims covered by this aport of work. Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right. For Office Use Only Recorded Holder or Agent (Signature) Dec 10/82 4534.2 Kleusp Certification Verifying Report of Work I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work

or witnessed same during and/or after its completion and the annexed report is true. Name and Postal Address of Person Certifying 13B/A4 PLACE FEUTIN 1362 (81/9) 703429 07. SEM

Mining Claims Traversed (List in numerical sequence)

N	lining Claim	Expend.	$\Box$	N	lining Claim	Expend
Profix	Number	Days Cr.		Prefix	Number	Days C
SSM	708481					
201	Į.	<del> </del>	<b> </b> -			
	82	<u> </u> _				
	9)					
		<del> </del>				
	84		1			
!	85					
	1	<del> </del>				
	86					]
·	87	-	[			
		1				
	88					
	81	1 .				}
	ŀ	1				
	70	1				
	91					- 1
4		1				
	9z	1				_
	93	1 .	1			-
				İ		
	94	<del> </del>				
	9.5					
	96					
		<del> </del>				
	97					
	98	1.				
. :		<u> </u>		į		<del></del> -
	99			ļ		
	708500					
	100 500	1				
		1				
		1				
		1	L			_1



1983 12 20

Our File: 2.6151

Mrs. H.V. St. Jules
Mining Recorder
Ministry of Natural Resources
875 Queen Street East
P.O. Box 669
Sault Ste. Marie, Ontario
P6A 5N2

### Dear Madam:

We have received reports and maps for an Airborne Geophysical (Electromagnetic, Magnetometer and VLF) Survey submitted on mining claims SSM 691758 to 802 inclusive in the Area of Pukaskwa River.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-1380

### A. Barr:mc

, j

cc: Peter Matthews
c/o Brian Hurray
Suite 207
122 St. Patrick Street
Toronto, Ontario
M5T 2X8

cc: Fenton Scott
17 Malabar Place
Don Mills, Ontario
M3B 1A4

1983 12 20

Our File: 2.6151

Mrs. M.V. St. Jules
Mining Recorder
Ministry of Matural Resources
875 Queen Street East
P.O. Box 669
Sault Ste. Marie, Ontario
P6A 5N2

### Dear Hadam:

We have received reports and maps for an Airborne Geophysical (Electromagnetic, Magnetometer and VLF) Survey submitted on Mining Claims SSM 708429 to 39 inclusive; 44 to 55 inclusive; 58 to 500 inclusive in the Area of Pukaskwa River.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-1380

### A. Barr:mc

cc: Mr. Brian Murray Suite 207 122 St. Patrick Street Toronto, Ontario M5T 2X8

cc: Fenton Scott
17 Malabar Place
Don Mills, Ontario

APRIL 14/84

. 1984 03 29

Your File: 167-83 Our File: 2.6151

Mrs. M.V. St. Jules
Mining Recorder
Ministry of Natural Resources
875 Queen Street East
P.O. Box 669
Sault Ste. Marie, Ontario
P6A 5N2

Dear Madam:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-6918.

Yours very truly,

S.E. Yundt

Director

Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1316

D. Kinvig:mc

Encls.

cc: Mr. Brian Murray (In Trust)
Suite 207
122 St. Patrick Street
Toronto, Ontario
M5T 2X8

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

845



Notice of Intent for Technical Reports

1984 03 29 2.6151/167-83

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

1984 05 04

Your File: 167-83 Our File: 2.6151

Mrs. M.V. St. Jules Mining Recorder Ministry of Natural Resources 875 Queen Street East P.O. Box 669 Sault Ste. Marie, Ontario P6A 5N2

Dear Madam:

RE: Notice of Intent dated March 29, 1984.
Airborne Geophysical (Electromagnetic,
Magnetometer & VLF) Survey on Mining
Claims SSM 708429 to 39 inclusive, 44 to
55 inclusive, 58 to 500 inclusive in the
Area of Pukaskwa River.

The assessment work credits as listed with the above mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.B. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416) 965-6918

D. Kinvig:sc

Suite 207
122 St. Paterick Street
Toronto, Ontario
M5T 2X8

co: Resident Geologist Sault Ste. Marie, Ont.

This is the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the seco

co: Mr. G.H. Perguson

Mining & Lands Commissioner,

Toronto, Ontario

4 ...



Geotechnical Report Approval

File			
2	1	15	/

Mining Lands Co				
	-deay-			
	U	for whome some the manufacture of a super-some some super-some some super-some some some some some some some some	a dan mengenakan kendalan kendalan kendan	
		***************************************		
Tas Caarbusias	Mr. R. Barlow			
Comments	Mr. 18. Barlow			
<del></del>	n - 1809 After St. 1869 Februari and a common extraction and the common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common agreement special common	· · · · · · · · · · · · · · · · · · ·	**************************************	
Ĺ				
77	[7] Wish as an arela with according	Date	Signature	,
<b>Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø</b>	Wish to see again with corrections	Date 2/	188 Signature Poll	/
To: Geology · E		Dete Z/	Signature Rule	<u>/</u>
<u> </u>		Dete Z./	Signature Rule	/
To: Geology · E		Dete Z./	Signature Rule	/
To: Geology · E		Dete Z/	Signature Rule	/
To: Geology · E		Dete Z./	Signature Rule	
To: Geology · E		Dete Z/	Signature Rule	/
To: Geology - E.	xpenditures	Date Date	Signature Signature	/
To: Geology - E. Comments	Wish to see again with corrections			
To: Geology - E. Comments  Approved  To: Geochemistr	Wish to see again with corrections			
To: Geology - E. Comments	Wish to see again with corrections			
To: Geology - E. Comments  Approved  To: Geochemistr	Wish to see again with corrections			
To: Geology - E. Comments  Approved  To: Geochemistr	Wish to see again with corrections			
To: Geology - E. Comments  Approved  To: Geochemistr	Wish to see again with corrections			
To: Geology - E: Comments  Approved To: Geochemistr	Wish to see again with corrections			
To: Geology - E: Comments  Approved  To: Geochemistr Comments	Wish to see again with corrections			

# FOR ADDITIONAL INFORMATION SEE MAPS: 4294NE-DOIS # 1-4

