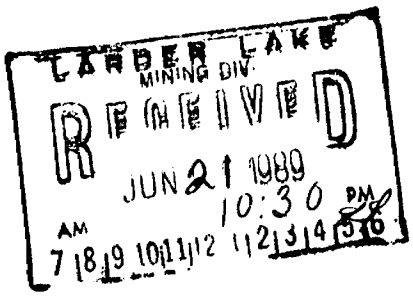
010

2.12581

REPORT ON A HUMUS
GEOCHEMICAL SURVEY
FOR 775741 ONTARIO LTD.
COOK TOWNSHIP



by D. R. BOUCHER AND ASSOCIATES
June 7,1989

TABLE OF CONTENTS

LIST OF FIGURES

1.0 SUMMARY

The geochemical survey has outlined 5 anomalous gold zones in the humus section of the soil profile. Geochem anomalies 1 and 5 have a coincident Max-Min II anomalies. Fill in sampling and reconnaissance diamond drilling is recomended.

2.0 INTRODUCTION

On May 14, 1989 Mr. C. Marshall contacted the author for assistance in the carrying out of a humus geochemical sampling program and the preparation of an assessment work report.

The purpose of the sampling program was to evaluate the economic potential of a number of conductive zones outlined previously by an airborne magnetometer and electromagnetic survey followed by a ground magnetometer and electromagnetic survey. All surveys were conducted by Ferderber Geophysics Ltd. of Val d'Or Quebec. (R.A. Cambell 1987 and, D. M. Thai and R. A. Cambell 1988). The sampling program was also designed to cover two areas of weakly mineralized quartz stockworking.

Unfortunately the samples collected between May 6 to May 15, 89 consisted of both humus and soil. In addition no record of material type sampled was kept except for one consignment where the laboratory reported whether humus or soil assay procedures were being used on each sample.Therefore on May 16, 89 Mr. Marshall and the author visited the property to examine previous sample sites, determine the sampling procedure and the most effective sampling medium to collect. During the property visit sufficient time was available to collect a number of samples along one line.

The humus geochemical sampling program was completed on the Northern group of claims on May 20, 89.

3.0 PROPERTY,LOCATION AND ACCESS

3.1 PROPERTY

The property owned by 775741 ONTARIO LTD. consists of a total of 15 claims. These were recorded in two groups. The first group of 10 claims were recorded on June 2, 1985 while the other 5 were recorded on June 26, 1987. See table I for a listing.

3.2 LOCATION

The claims are located 35 miles North North West of Kirkland Lake in lot 6 & 7, concession 4 & 5, Cook township.
The property is situated 5 miles South-East of Ross Mine which has operated continuously since the 1930s.

3.3 ACCESS

The area is readily accessible from Kirkland Lake via Highway 11, 35 miles to Ramore thence by the Lava Flow Mountain road 4.75 miles to the base of the mountain. From this point a lumber road heads Southeast and East 1.5 miles to cross the property in two areas. One path leads to the Northwest corner of the claim group while another goes through the Southern part of the property.

4.0 GEOLOGY AND ECONOMIC POTENTIAL

4.1 GEOLOGY

The geology of the Ramore area has been mapped at a scale of 1 inch to 1/4 mile by L. S. Jensen. (Jensen L. S. 1985) The exposures within the property were classified into iron and magnesium rich tholeiitic basalts with minor intermediate to felsic tuffs. The units outlined form a conformable sequence of interbedded iron and magnesium rich flows with the development of inter flow sediment and or tuff along at least two horizons. The formations strike E-W to WNW-ESE. All formations face and dip to the South. A major fault has also been outlined which crosses the Southern half of the property in a NW-SE direction.

4.2 ECONOMIC POTENIAL

The ground magnetic survey carried out by Ferderber Geophysics Ltd. has clearly defined the contacts between the iron rich (magnetic) and the magnesium rich (nonmagnetic) tholeiitic basalts. While the horizontal loop electromagnetic survey has outlined conductive zones which can be tentatively correlated with the inter flow sediments and tuff. Hence conductor A and B defined by the Max-Min II survey has the geological and geophysical characteristics of a stratabound massive sulfide deposit and or a conductive graphitic tuff horizon.

The NW-SE fault defined by L. S. Jensen through the Southern half of the property is known as the Ross Fault (The Ross Mine is located on this structure 5 miles to the NW).It is a major splay fault off the Destor Porcupine Fault Zone. The occurence of an economic deposit on this structure confirms the economic significance of this structure. Therefore future exploration efforts on the property should also place priority on evaluating the economic potential of this section of the structure.

5.0 GEOCHEMICAL SAMPLING SURVEY

5.1 PURPOSE

The main purpose of the geochemical sampling program was to outline areas of anomalous concentrations of base and or precious metals in the humus horizon of the soil. The anomalous area(s) would outline specific sections of the extensive conductive zones which are more likely to host minerals of economic interest.

5.2 SAMPLING PROCEDURE

Samples were collected at 100 foot intervals wherever possible and along lines 400 feet apart.
At each sample site a small hole was excavated to reach approximately 6 inches below the humus horizon in order to identify the soil profile properly. Then approximately 300 grams of humus was collected at the base of the humus horizon immediately above the leached soil horizon. On average the samples were collected at a depth of 10 inches, but reached a maximum of 30 t0 36 inches in areas covered by swamp. The material was placed in a plastic bag and properly labelled with line and station number.
It was not possible to collect a sample at every station because of the extensive bedrock exposure in some sections of the property. The poor development of a humus horizon on topographically high areas combined with cultural activity (lumbered out areas) limited the number of samples which could be collected in these areas. This problem was encountered mainly on claim L843117. A basal till sampling program over this claim should be considered since the basal till is well exposed and oxidized.

5.3 SAMPLE PREPARATION AND ANALYSIS

At the laboratory the samples were dried at room temperature and ground in a mortar. A 30 gram subsample was taken for analyses, and every tenth sample a second check subsample was taken wherever possible. All samples were then ashed in a furnace at 400-500 degrees C, and mixed periodically for a time of 8-16 hours. They were subjected to a standard fire assay process in batches of approximately 60 samples with a quality control standard at the end of each batch. The process includes a fusion at 1093 degrees C for 45 minutes and cupellation at 1004 degrees C for 30 minutes. The resulting bead is parted in 33% HNO_3 and the gold sponge is taken up in aqua regia, and bulked up to a final volume of 2 mls. The samples are then aspirated through a Varian Spectrometer AA-10 and results are adjusted against a calibration curve yielding gold concentration im ug gold per ml of solution.

6.0 RESULTS

A total of 354 samples were collected and analysed for gold. A number of these samples (122) from the immediate area over the most conductive zones were also analysed for their base metal (Cu, Pb, Zn) content.

The distribution of gold in the humus horizon of the soil is presented on Figure 3 back pocket. The contoured values are in parts per billion.

The most significant anomaly (1) is located on lines 12 to 24W at approximately 11N. The highest value recorded was 2040 ppb. The analysis was repeated twice on this sample and all analyses were anomalous but significantly lower . The laboratory confirmed the authenticity of their results (See letter appendix I). The consitency of this anomaly accross four lines is encouraging and fill in sampling should be done to define the anomaly. The very weak Max-Min II anomaly detected on line 12 and 16W futher confirms that this zone may be mineralized.

Anomalies 2,3,4 are also significant and further fill in sampling should be done.

Anomaly 5 located over a wide conductor was sampled in detail. Because of the thick overburden this anomaly should be tested by diamond drilling.

The base metal results were not ploted because analysis were done on a very restricted number immediately over the conductor. And unlike gold and uranium base metals do not accumulate in the humus horizon of the soil. Therefore the results are not considered significant at this time.

7.0 CONCLUSIONS AND RECOMENDATIONS

The humus geochemical sampling survey has successfully outlined a number of anomalous gold zones which merit futher work.
A follow up fill in humus geochemical sampling program followed by a preliminary reconnaissance diamond drilling program is recommended (approximately 5,000 feet).

The geochemical survey should also be extended to cover the Southern group of claims where the Ross fault crosses the property.

Donald R. Boucher

D. R. BOUCHER
JUNE 5, 1989

8.0 REFERENCES

Cambell R. A. 1987

Report On Airborne Geophysical Survey on the Property of C. Marshall, Cook Township. By Ferderber Geophysics Ltd.

Jensen L. S. 1985

Precambrian Geology of the Ramore Area, Northeastern Part, District of Cochrane; Ontario Geological Survey, Geological Series-Preliminary Map P.2861, scale 1:15840 or 1inch to 1/4 mile. Geology 1984-1985.

OGS 1984

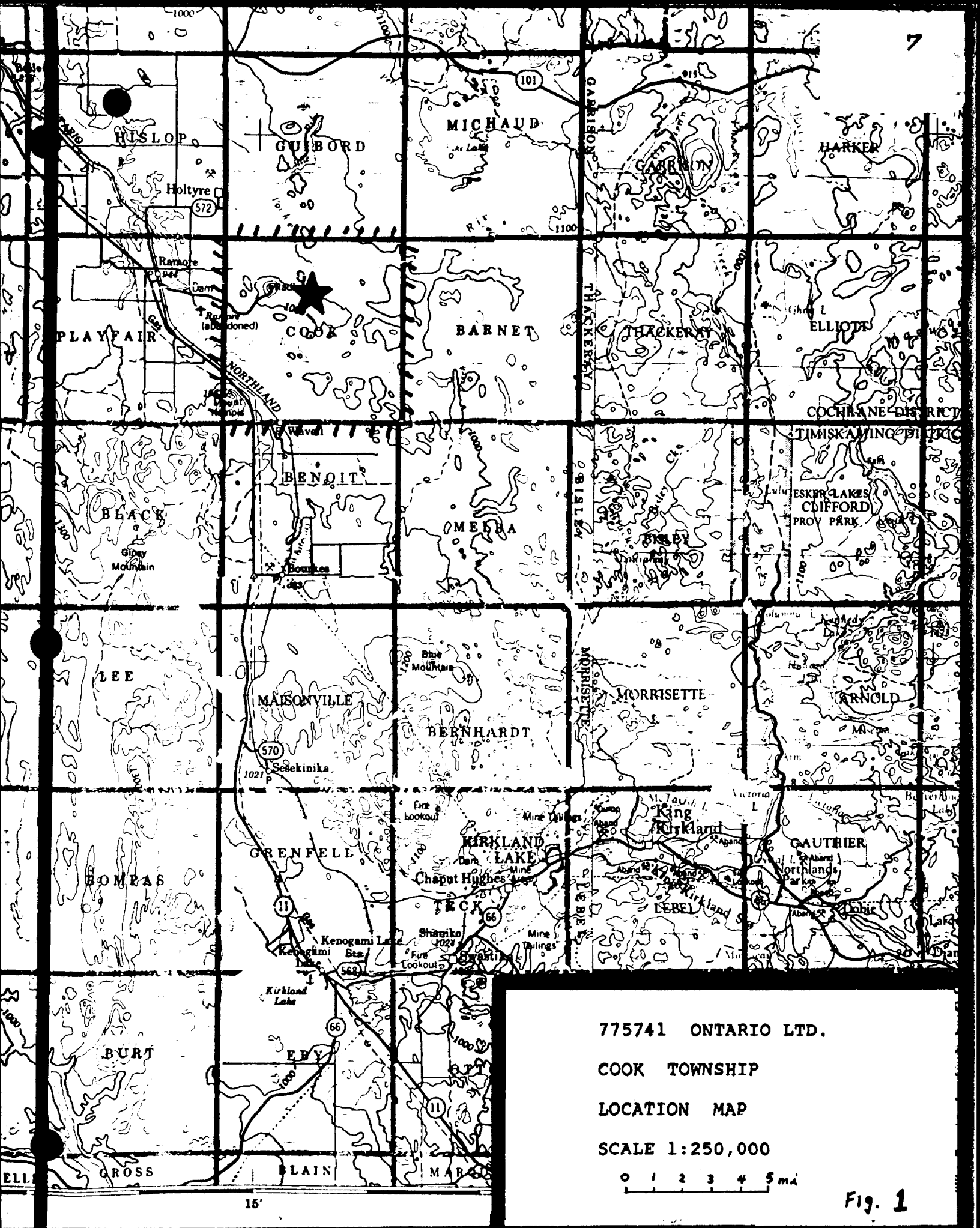
Airborne Electromagnetic and Total Intensity Magnetic Survey, Matheson Black River Area, Cook Township, District of Cochrane; by Questor Surveys Limited for the Ontario Geological Survey, Map 80606 Geophysical/Geochemical Series, Scale 1:20000, Survey and Compilation March to July 1983.

Thai D. M. and Cambell R. A. 1988

Report On Magnetometer and Horizontal Loop Electromagnetic Survey on the Property of 775741 Ontario Ltd. by Ferderber Geophysics Ltd.

TABLE 1

CLAIM NUMB.	DATE RECORDED	TIME EXT. FOR WORK 10/6/86	TIME EXT. FOR WORK 27/1/87	WORK APP. 13/7/87	WORK APP. 31/7/87	WORK APP. 31/7/87		TIME EXT. FOR WORK 29/8/88	WORK APP. 29/8/89	WORK APP. 29/8/89	TIME EXT. FOR WORK 26/9/88	WORK APP. 6/3/89	WORK APP. 6/3/89	TOT. DAYS COMPLETED	TOT. DAYS DUE	WORK DAYS CREDIT
L043114	3/6/85	30/1/87	31/7/87	60 DAYS MECH. LAB.	36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.		40 DAYS GCHEM.	15 DAYS EXPEND.	195	140	+55
L043115	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/88	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89			80	140	-60
L043116	3/6/85	30/1/87	31/7/87	60 DAYS MECH. LAB.	36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.		40 DAYS GCHEM.	15 DAYS EXPEND.	195	140	+55
L043117	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/88	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89			80	140	-60
L043118	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/89	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89			80	140	-60
L043119	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/89	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89			80	140	-60
L043121	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/89	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89	40 DAYS GCHEM.	25 DAYS EXPEND.	145	140	+5
L043122	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/89	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89			80	140	-60
L043123	3/6/85	30/1/87	31/7/87		36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.	CANCELLED	23/9/89	4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.	2/6/89	40 DAYS GCHEM.	28 DAYS EXPEND.	148	140	+8
L043856	3/6/85	30/1/87	31/7/87	60 DAYS MECH. LAB.	36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.		40 DAYS GCHEM.	9 DAYS EXPEND.	189	140	+49
L971279	26/6/87				36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.				80	60	+20
L971280	26/6/87				36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.				80	60	+20
L971281	26/6/87				36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.				80	60	+20
L971282	26/6/87				36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.				80	60	+20
L971283	26/6/87				36 DAYS AIR GEOPH.	36 DAYS AIR GEOPH.			4 DAYS GR. GEOPH.	4 DAYS GR. GEOPH.				80	60	+20



775741 ONTARIO LTD.

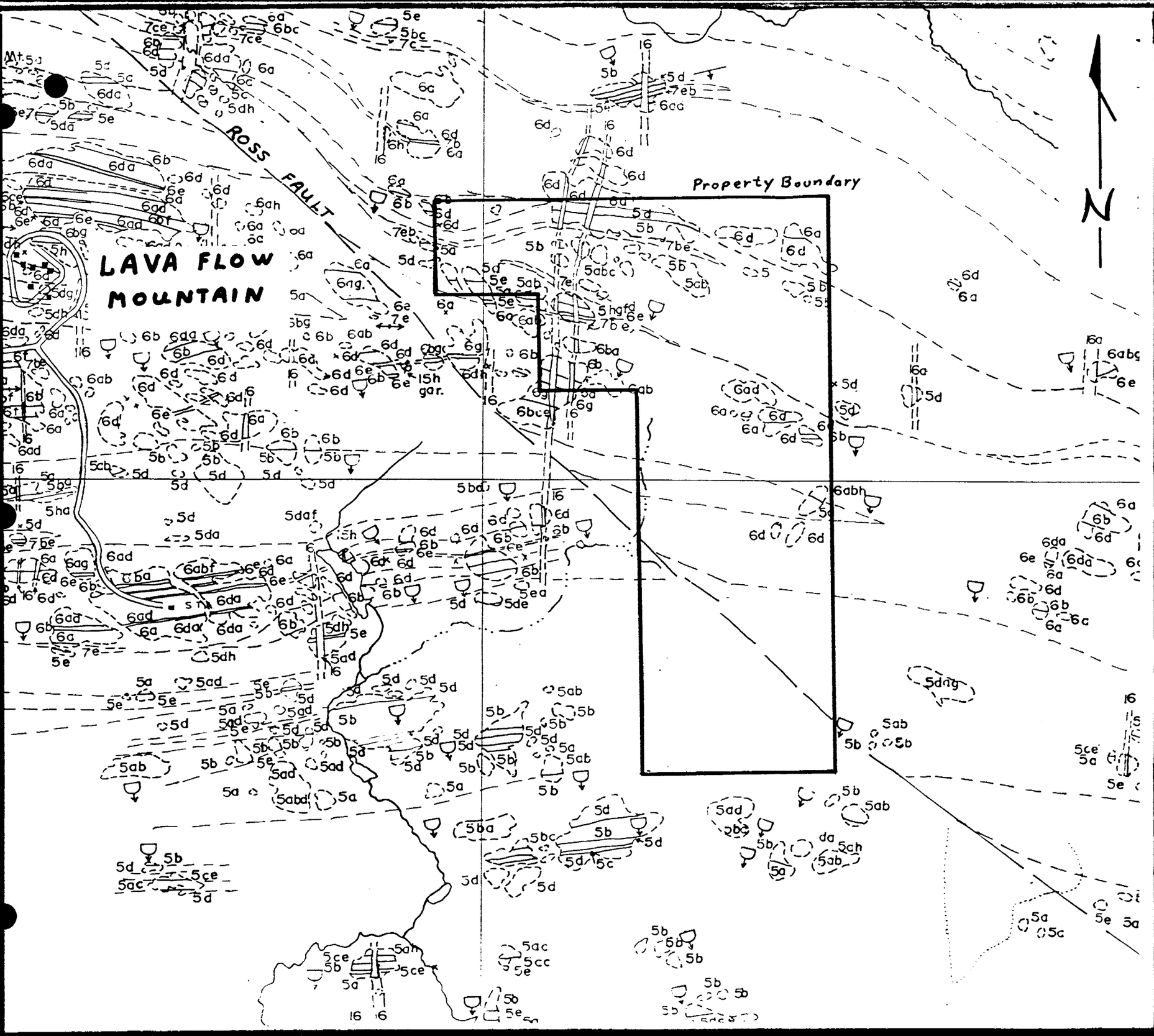
COOK TOWNSHIP

LOCATION MAP

SCALE 1:250,000

0 1 2 3 4 5 mi

Fig. 1



LEGEND[a]

7	7	Unsubdivide andesite, dacite, and rhyolite
	7a	Fine-grained massive andesite, dacite, and rhyolite
	7b	Lapilli ash tuff and crystal tuff
	7c	Spherulitic dacite and rhyolite
	7d	Na-rich alkalic tuff
	7e	Cherty dacite and rhyolite tuff

IRON-RICH THOLEIITIC BASALT[b]

6	6	Unsubdivided
	6a	Fine-grained lava
	6b	Pillowed lava
	6c	Pillowed breccia
	6d	Massive 2 to 4 mm grained lava
	6e	Hyaloclastite and flow top breccia
	6f	Amygdaloidal lava
	6g	Variolitic lava
	6h	Feldspar porphyry lava
	6i	Alkali metasomatized lava
	6j	Carbonatized lava
	*6k	Amphibolitized lava
	6G	Interpreted from geophysical information

MAGNESIUM-RICH THOLEIITIC BASALT[a,b]

5	5	Unsubdivided
	5a	Fine-grained lava
	5b	Pillowed lava
	5c	Pillowed breccia
	5d	Massive 2 to 4 mm grained lava
	5e	Hyaloclastite and flow top breccia
	5f	Amygdaloidal lava
	5g	Variolitic lava
	5h	Feldspar porphyry lava
	5i	Alkali metasomatized lava
	5k	Amphibolitized lava
	5G	Interpreted from geophysical information

EARLY PRECAMBRIAN (ARCHEAN)
MAFIC INTRUSIVE ROCKS
MATACHEWAN DIABASE

16	16	Diabase
	16a	Feldspar-phyric diabase
	16G	Diabase interpreted from geophysical information

Jensen, L.S.
1985: Precambrian Geology of the Ramore Area, Northeastern Part, District of Cochrane; Ontario Geological Survey, Geological Series-Preliminary Map, P.2861, scale 1:15 840 or 1 inch to 1 mile. Geology 1984-1985.

775741 ONTARIO LTD.

COOK TOWNSHIP

GEOLOGY MAP

SCALE 1:15,840

Fig 2

APPENDIX I

Laboratory Analyses

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21639 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
150647	BL00/2W	11	
150648	BL00/L4W/3N	7	
150649	BL00/L4W/100N	10	
150650	BL00/L4W/200N	10	
150651	BL00/6W	9	
150652	BL00/100W	6	
150653	BL00/300W	7	
150654	BL00/400W	10	
150655	L0/2N	8	
150656	L0/2S	8	
150656	L0/2S	Insufficient sample	Check
150657	L0/3N	18	
150658	L0/3S	36	
150659	L0/4N	8	
150660	L0/4S	15	
150661	L0/5N	8	
150662	L0/5S	36	
150663	L0/6N	6	
150664	L0/6S	7	
150665	L0/100N	44	
150665	L0/100N	Insufficient sample	Check
150666	L0/100S	5	
150667	L0	14	
150668	L2W/1S	6	
150669	L2W/2N	13	
150670	L2W/100N	6	
150671	L2W/300N	7	
150672	L2W/300S	8	
150673	L2W/400N	11	
150674	L2W/400S	15	
150674	L2W/400S	Insufficient sample	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21640 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb
150675	L2W/500S	13
150676	L2W/600S	15
150677	L4W/4N	15
150678	L4W/100S	13
[illegible]679	L4W/200S	5
150680	L4W/300S	6
150681	L4W/400S	5
150682	L4W/500N	43
150683	L4W/500S	11
150683	L4W/500S	Insufficient sample Check
150684	L4W/600S	9
150685	L6W/100N	11
150686	L6W/100S	6
150687	L6W/200N	8
150688	L6W/200S	6
150689	L6W/300N	9
150690	L6W/300N	7
150691	L700W	7
150692	L8W	7
150692	L8W	Insufficient sample Check
150693	L8W/1N	12
150694	L8W/2S	17
150695	L8W/3N	11
150696	L8W/3S	18
150697	L8W/4N	7
150698	L8W/4S	7
150699	L8W/5N	11
150700	L8W/5S	9
150701	L8W/100S	8
[illegible]701	L8W/100S	Insufficient sample Check
150702	L8W/200N	6

CORPORATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

G. Duncan

Per: _____

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21641 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
150703	L9W	<5	
150704	L10/00W	16	
150705	L10/00W/1S	8	
150706	L39W/2N	6	
150707	L39W/3N	6	
150708	L39W/4N	5	
150709	39W/2S	5	
150710	39W/2S	11	
150710	39W/2S	Insufficient sample	Check
150711	39W/5N	6	
150712	39W/100S	9	
150713	L41W/1N	17	
150714	L41W/4N	19	
150715	L41W/5N	6	
150716	41W/2N	5	
150717	41W/3N	9	
150718	42W	7	
150719	43W	7	
150719	43W	Insufficient sample	Check
150720	L44W	6	
150721	L44W/1N	6	
150722	L44W/1S	12	
150723	L44W/2N	5	
150724	L44W/3N	5	
150725	L44W/4N	5	
150726	L44W/5N	6	
150727	L45W	<5	
150728	L49W	<5	
150728	L49W	Insufficient sample	Check
150729	L51W/1N	5	
150730	L51W/5N	8	

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21642 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb		
150731	L51W/6N	6		
150732	L51W/7N	6		
150733	L51W/8N	<5		
150734	BL2/40W	<5		
150735	BL2/41W	<5		
150736	BL2W/200S	<5		
150737	BL2W/500N	<5		
150737	BL2W/500N	Insufficient sample		Check
150738	BL06/LS/500W	<5		
150738	BL06/LS/500W	Insufficient sample		Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21643 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Copper ppm	Lead ppm	Zinc ppm
150647	BL00/2W	29	34	99
150648	BL00/L4W/3N	27	31	75
150649	BL00/L4W/100N	28	27	65
150650	BL00/L4W/200N	36	42	109
150651	BL00/6W	22	33	27
150652	BL00/100W	20	84	113
150653	BL00/300W	1	24	27
150654	BL00/400W	27	23	43
150655	L0/2N	1	14	21
150656	L0/2S	<1	16	31
150657	L0/3N	10	20	34
150658	L0/3S	21	27	65
150659	L0/4N	28	24	62
150660	L0/4S	32	27	79
150661	L0/5N	15	22	36
150662	L0/5S	40	54	185
150663	L0/6N	6	13	7
150664	L0/6S	46	14	9
150665	L0/100N	43	31	85
150666	L0/100S	28	27	85
150667	L0	25	33	92
150668	L2W/1S	9	21	62
150669	L2W/2N	23	30	75
150670	L2W/100N	28	32	89
150671	L2W/300N	20	34	75
150672	L2W/300S	27	23	48
150673	L2W/400N	14	20	43
150674	L2W/400S	29	28	75
150675	L2W/500S	29	30	85
150676	L2W/600S	36	32	92
150677	L4W/4N	2	15	26

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5.
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21644 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Copper ppm	Lead ppm	Zinc ppm
150678	L4W/100S	6	22	21
150679	L4W/200S	8	18	17
150680	L4W/300S	18	22	14
[illegible]681	L4W/400S	29	115	17
150682	L4W/500N	12	17	21
150683	L4W/500S	20	19	34
150684	L4W/600S	28	21	44
150685	L6W/100N	15	18	31
150686	L6W/100S	15	20	32
150687	L6W/200N	1	17	21
150688	L6W/200S	10	23	44
150689	L6W/300N	1	18	15
150690	L6W/300N	6	16	36
150691	L700W	4	17	26
150692	L8W	8	23	27
150693	L8W/1N	4	21	24
150694	L8W/2S	8	17	15
150695	L8W/3N	6	18	34
150696	L8W/3S	13	17	24
150697	L8W/4N	8	14	14
150698	L8W/4S	13	18	36
150699	L8W/5N	11	18	26
150700	L8W/5S	15	12	17
150701	L8W/100S	11	25	45
150702	L8W/200N	11	19	27
150703	L9W	15	16	17
150704	L10/00W	28	14	3
150705	L10/00W/1S	2	15	10
[illegible]706	L39W/2N	31	45	144
150707	L39W/3N	10	17	35
150708	L39W/4N	13	13	18

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

21645 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: November 2 1988

Work Order # : 881043
Project :

SAMPLE NUMBERS Accurassay	Customer	Copper ppm	Lead ppm	Zinc ppm
150709	39W/2S	10	19	34
150710	39W/2S	8	15	24
150711	39W/5N	36	13	32
150712	39W/100S	11	14	3
150713	L41W/1N	8	17	10
150714	L41W/4N	5	16	27
150715	L41W/5N	7	12	10
150716	41W/2N	2	13	9
150717	41W/3N	12	14	9
150718	42W	18	20	24
150719	43W	<1	8	21
150720	L44W	3	10	21
150721	L44W/1N	12	11	24
150722	L44W/1S	13	22	31
150723	L44W/2N	15	13	3
150724	L44W/3N	13	15	7
150725	L44W/4N	11	17	17
150726	L44W/5N	4	10	<1
150727	L45W	13	20	10
150728	L49W	7	17	<1
150729	L51W/1N	17	17	12
150730	L51W/5N	13	29	17
150731	L51W/6N	<1	17	12
150732	L51W/7N	2	17	10
150733	L51W/8N	4	14	7
150734	BL2/40W	3	15	<1
150735	BL2/41W	15	15	12
150736	BL2W/200S	4	14	14
150737	BL2W/500N	15	21	31
150738	BL06/LS/500W	12	21	41

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

27767 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 11 1989

Work Order # : 891241
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
190854	Humus L14W	<5	
190855	Humus L14W 100N	<5	
190856	Humus L14W 200N	<5	
190857	Humus L14W 300N	<5	
190858	Humus L14W 100S	18	
190859	Humus L14W 200S	13	
190860	Humus L14W 300S	10	
190861	Humus L15W	8	
190862	Humus L16W	<5	
190863	Humus L16W 100N	<5	
190863	Humus L16W 100N	<5	Check
190864	Humus L16W 200N	<5	
190865	Humus L16W 300N	<5	
190866	Soil L16W 400FT	7	
190867	Soil L16W 500N	<5	
190868	Soil L16W 600N	10	
190869	Soil L16W 700N	<5	
190870	Soil L16W 800N	<5	
190871	Soil L16W 900N	<5	
190872	Humus L16W 100S	<5	
190872	Humus L16W 100S	Insufficient sample	Check
190873	Soil L16W 200S	<5	
190874	Soil L16W 300S	20	
190875	Soil L17W	48	
190876	Soil L18W	<5	
190877	Soil L18W 100N	<5	
190878	Soil L18W 200N	<5	
190879	Soil L18W 300N	<5	
190880	Soil L18W 400N	<5	
190881	Soil L18W 100S	5	
190881	Soil L18W 100S	<5	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

27768 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 11 1989

Work Order # : 891241
Project :

SAMPLE NUMBERS			Gold
Accurassay		Customer	ppb
190882	Soil	L18W 200S	<5
190883	Soil	L18W 300S	<5
190883	Soil	L18W 300S Insufficient sample	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

27877 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 19 1989

Work Order # : 891241
Project :

SAMPLE NUMBERS Accurassay	Customer	Copper ppm	Lead ppm	Zinc ppm
190854	L14W	11	3	10
190855	L14W 100N	9	17	19
190856	L14W 200N	7	11	<1
190857	L14W 300N	13	4	23
190858	L14W 100S	41	57	28
190859	L14W 200S	22	41	71
190860	L14W 300S	21	46	64
190861	L15W	7	3	30
190862	L16W	12	1	4
190863	L16W 100N	11	31	56
190864	L16W 200N	18	5	41
190865	L16W 300N	35	5	4
190866	L16W 400FT	71	41	30
190867	L16W 500NT	38	10	84
190868	L16W 600N	20	5	39
190869	L16W 700N	<1	<1	<1
190870	L16W 800N	8	1	19
190871	L16W 900N	20	8	54
190872	L16W 100S	39	1	210
190873	L16W 200S	3	<1	4
190874	L16W 300S	57	14	23
190875	L17W	21	11	110
190876	L18W	5	10	130
190877	L18W 100N	16	11	<1
190878	L18W 200N	21	5	17
190879	L18W 300N	56	<1	34
190880	L18W 400N	10	3	15
190881	L18W 100S	20	5	<1
190882	L18W 200S	18	4	<1
190883	L18W 300S	30	12	4

LF-30

Per: _____

FILE COPY

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24706 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 29 19 89

Work Order # : 891303A
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194151	L2W/8S	<5	
194152	L2W/10S	<5	
194153	L2W/12S	5	
194154	L2W/6N	<5	
194155	L2W/8N	49	
194156	L2W/10N	<5	
194157	L2W/12N	5	
194158	L2W/14N	15	
194159	L2W/16N	<5	
194160	L2W/17N	<5	
194160	L2W/17N	6	Check
194161	L2W/18N	5	
194162	L2W/19N	26	
194163	L2W/20N	5	
194164	L2W/21N	13	
194165	L2W/22N	<5	
194166	L2W/23N	6	
194167	L2W/24N	6	
194168	L4W/8S	10	
194169	L4W/10S	12	
194169	L4W/10S	13	Check
194170	L4W/12S	6	
194171	L4W/13S	8	
194172	L4W/6N	<5	
194173	L4W/8N	5	
194175	L4W/10N	5	
194176	L4W/13N	10	
194177	L4W/14N	5	
194178	L4W/16N	6	
194178	L4W/16N	8	Check
194179	L4W/17N	<5	

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J6
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24707 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 29 1989

Work Order # : 891363A
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194180	L4W/18N	<5	
194181	L4W/19N	12	
194182	L4W/20N	<5	
194183	L4W/21N	<5	
194184	L4W/22N	<5	
194185	L4W/23N	<5	
194186	L4W/24N	<5	
194187	L8W/6S	<5	
194187	L8W/6S	5	Check
194188	L8W/8S	7	
194189	L8W/10S	6	
194190	L8W/12S	15	
194191	L8W/13S	5	
194192	L8W/6N	<5	
194193	L8W/8N	<5	
194194	L8W/10N	11	
194195	L8W/12N	10	
194196	L8W/14N	6	
194196	L8W/14N	13	Check
194197	L8W/16N	8	
194198	L8W/17N	15	
194199	L8W/18N	20	
194200	L8W/19N	6	
194201	L8W/20N	7	
194202	L8W/21N	9	
194203	L8W/22N	5	
194204	L8W/23N	5	
194205	L8W/24N	5	
194205	L8W/24N	<5	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24736 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 891363B
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194306	L12W/0N	<5	
194307	L12W/1N	7	
194308	L12W/2N	<5	
194309	L12W/3N	<5	
194310	L12W/4N	<5	
194311	L12W/5N	<5	
194312	L12W/6N	<5	
194313	L12W/7N	<5	
194314	L12W/8N	5	
194315	L12W/9N	2040	
194315	L12W/9N	46	Check
194316	L12W/10N	<5	
194317	L12W/11N	<5	
194318	L12W/12N	6	
194319	L12W/13N	<5	
194320	L12W/14N	<5	
194321	L12W/16N	<5	
194322	L12W/17N	9	
194323	L12W/19N	<5	
194324	L12W/20N	<5	
194324	L12W/20N	<5	Check
194325	L12W/21N	5	
194326	L12W/22N	<5	
194327	L12W/23N	<5	
194328	L12W/24N	6	
194329	L12W/15S	<5	
194330	L16W/12N	45	
194331	L16W/14N	<5	
194332	L16W/16N	9	
194333	L16W/18N	<5	
194333	L16W/18N	<5	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LR-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24737 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 891363B
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194334	L16W/19N	18	
194335	L16W/20N	6	
194336	L16W/21N	5	
194337	L16W/22N	<5	
194338	L16W/23N	<5	
194339	L16W/24N	<5	
194340	L16W/8S	6	
194341	L16W/10S	6	
194342	L16W/12S	6	
194342	L16W/12S	16	Check
194343	L12W/25N	<5	
194343	L12W/25N	11	Check

Note: Reassay on sample #L12W/9N is 26 ppb

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24739 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 8913630
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194206	L20W/0W	6	
194207	L20W/1S	11	
194208	L20W/2S	7	
194209	L20W/3S	16	
194210	L20W/4S	10	
194211	L20W/5S	<5	
194212	L20W/6S	<5	
194213	L20W/7S	9	
194214	L20W/8S	5	
194215	L20W/9S	<5	
194215	L20W/9S	17	Check
194216	L20W/10S	5	
194217	L20W/11S	5	
194218	L20W/12S	6	
194219	L20W/2N	17	
194220	L20W/3N	10	
194221	L20W/4N	37	
194222	L20W/5N	<5	
194223	L20W/6N	<5	
194224	L20W/7N	<5	
194224	L20W/7N	6	Check
194225	L20W/8N	<5	
194226	L20W/9N	<5	
194227	L20W/11N	<5	
194228	L20W/12N	8	
194229	L20W/13N	20	
194230	L20W/14N	7	
194231	L20W/15N	<5	
194232	L20W/16N	11	
194233	L20W/17N	9	
194233	L20W/17N	<5	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24740 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 8913630
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194234	L20W/18N	28	
194235	L20W/19N	5	
194236	L20W/20N	5	
194237	L20W/21N	6	
194238	L20W/22N	32	
194239	L20W/24N	5	
194240	L20W/25N	6	
194241	L20W/27N	6	
194242	L20W/28N	<5	
194242	L20W/28N	6	Check
194243	L20W/100N	12	
194244	L20W/1000N	5	
194244	L20W/1000N	6	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J6
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24741 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 891363D
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194245	L24W/1S	11	
194246	L24W/2S	6	
194247	L24W/3S	<5	
194248	L24W/4S	<5	
194249	L24W/5S	<5	
194250	L24W/6S	<5	
194251	L24W/7S	8	
194252	L24W/8S	<5	
194253	L24W/9S	<5	
194254	L24W/10S	<5	
194254	L24W/10S	<5	Check
194255	L24W/11S	6	
194256	L24W/12S	16	
194257	L24W/1N	9	
194258	L24W/2N	7	
194259	L24W/3N	12	
194260	L24W/4N	23	
194261	L24W/5N	5	
194262	L24W/6N	9	
194263	L24W/8N	9	
194263	L24W/8N	7	Check
194264	L24W/10N	<5	
194265	L24W/12N	25	
194266	L24W/14N	8	
194267	L24W/16N	24	
194268	L24W/17N	6	
194269	L24W/18N	6	
194270	L24W/19N	5	
194271	L24W/20N	6	
194272	L24W/21N	6	
194272	L24W/21N	9	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24742 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 891363D
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194273	L24W/21.50N	8	
194274	L24W/25N	<5	
194275	L24W/BLOD	10	
194276	L27W/1N	9	
194277	L27W/3N	15	
194278	L27W/5N	10	
194279	L27W/7N	13	
194280	L27W/9N	5	
194281	L27W/10N	8	
194281	L27W/10N	7	Check
194282	L27W/11N	9	
194283	L27W/12N	7	
194284	L27W/13N	<5	
194285	L27W/15N	11	
194286	L27W/16N	5	
194287	L27W/17N	19	
194288	L27W/18N	<5	
194289	L27W/19N	<5	
194290	L27W/21N	70	
194290	L27W/21N	89	Check
194291	L27W/22N	6	
194292	L27W/23N	<5	
194293	L27W/24N	5	
194294	L27W/X	6	
194295	L30W7N	<5	
194296	L30W8N	<5	
194297	L30W9N	8	
194298	L30W11N	6	
194299	L30W12N	12	
194299	L30W12N	12	Check
194300	L30W13N	6	

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J6
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24743 Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 8913631
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194301	L30W14N	10	
194302	L30W15N	<5	
194303	L30W/18N	5	
194304	L30W/19N	7	
194305	L30W/22N	6	
194305	L30W/22N	8	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24744 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 891380
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194087	L12W/3S	5	
194088	L12W/6S	6	
194089	L12W/9S	<5	
194090	L12W/12S	7	
194091	L12W/15S	<5	
194092	L12W/18S	<5	
194093	L12W/21S	<5	
194094	L30W/1N	<5	
194095	L30W/2N	<5	
194096	L30W/3N	5	
194096	L30W/3N	7	Check
194097	L30W/4N	<5	
194098	L30W/5N	<5	
194099	L30W/6N	<5	
194100	L33W/5N	<5	
194101	L33W/6N	<5	
194102	L33W/7N	5	
194103	L33W/8N	6	
194104	L33W/10N	<5	
194105	L33W/11N	<5	
194105	L33W/11N	<5	Check
194106	L33W/12N	<5	
194107	L33W/13N	19	
194108	L33W/14N	<5	
194109	L33W/15N	<5	
194110	L33W/16N	7	
194111	L33W/19N	<5	
194112	L33W/20N	5	
194113	L33W/21N	15	
194114	L33W/22N	8	
194114	L33W/22N	9	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

P.O. BOX 604
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J6
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

Certificate of Analysis

24745 Mr.Charles Marshall
25 Carlton St.
St.Catharines, Ontario
L2R 1P5

Date: May 31 1989

Work Order # : 891380
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	
194115	L33W/24N	<5	
194116	L36W/3N	<5	
194117	L36W/5N	<5	
194118	L36W/6N	<5	
194119	L36W/11N	<5	
194120	L36W/12N	6	
194121	L36W/13N	<5	
194122	L36W/14N	<5	
194123	L36W/15N	<5	
194123	L36W/15N	Insufficient sample	Check
194124	L36W/19N	9	
194125	L36W/20N	34	
194126	L36W/21N	11	
194126	L36W/21N	Insufficient sample	Check

Note: Accurassay sample #194096, customer sample #L30W/3N was in a bag of samples marked L30W but sample tag reads L34W-3N

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

ACCURASSAY LABORATORIES LTD.

CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS

Box 604, 3 Industrial Dr., Kirkland Lake, Ontario, Canada P2N 3J5 - Tel.: (705) 567-6343
Branches at Thunder Bay, Red Lake & Pickle Lake, Ont.

President: Dr. George Duncan, M.Sc., Ph.D. M.C.I.C., M.R.S.C., C. Chem. (Ont.), C. Chem. (UK), A.R.C.S.T.

May 31, 1989

Mr. Boucher

You will notice that sample L12W/9N yielded a result of 2040 ppb and its check assay yielded a result of 46 ppb. This was noted as an anomaly, for both the comparatively high result of the original and the lack of reproducability of the check. As a result, I ran a reassay on the remaining sample yielding 26 ppb of gold. I have looked into this, and have determined that there is no chance of contamination and that the results are valid.

Our experience with humus and soil analysis indicates that this is not an uncommon occurrance when dealing with these types of samples and can be attributed to a small grain of gold being picked up on the initial assay.

Mitch Wuorinen
Assistant Lab Manager

Fax: (705) 568-8368

APPENDIX II

Expenditures

EXPENDITURES

3/11/88	INVOICE	#88667	ASSAYS	1,380.00
11/5/89	INVOICE	#890679	ASSAYS	352.50
19/5/89	INVOICE	#890712	ASSAYS	180.00
31/5/89	INVOICE	#890749	ASSAYS	2,830.40
			TOTAL	4,742.90

4,742.90/15.00 = 316.2 man days

ACCURASSAY LABORATORIES LTD.
CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS
Box 604, 3 Industrial Dr., Kirkland Lake
Ontario, Canada P2N 3J5

TEL.: (705) 567-6343 - FAX: (705) 568-8368

INVOICE

88667

TO

Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

DATE	November 3, 1988
CUSTOMER ORDER N°	
WORK ORDER N°	881043
DATE SUBMITTED	

TERMS
net 30 days, 1.5% per month on overdue accounts.

QUANTITY	DESCRIPTION	PRICE	AMOUNT
92	Gold Assays	7.00	644 00
92	Sample Prep. cert.# 21639-42	3.50	322 00
92	Copper, Lead & Zinc Assays cert.# 21643-45	4.50	414 00
	Total.....		1380 00

LF-1297

Thank You!

15741 Ontario Ltd. 1006

Nov 12 88

PAY TO THE ORDER OF Accurassay Laboratories $ 1380.00

One thousand, three hundred & eighty ——— 00/100 DOLLARS

Canadian Imperial Bank of Commerce
WALKER'S LINE AND MAINWAY
BURLINGTON, ONT.

Gold Assays, Sample Prep,
FOR Copper, Lead + Zinc Assays

Per Sharon Hollingsworth
PER Christine Mallon

⑆03562⑉010⑆ 71⑉08818⑈ ⑈0000138000⑈

Invoice # 88667

NO '88 22
TORONTO DOMINION BANK
TORONTO DATA CENTRE

274-12-004
THE TORONTO-DOMINION BANK

KIRKLAND [illegible] ONT.

FOR DEPOSIT ONLY
TO THE CREDIT OF
ACCURASSAY LABORATORIES LTD.
ACCOUNT NUMBER 0306096

ACCURASSAY LABORATORIES

3 Industrial Drive, Box 604
KIRKLAND LAKE, ONTARIO P2N 3J5
Phone 567-6343

CUSTOMER'S ORDER NO	PHONE	DATE
		May 8/89

NAME Mr. Charles Marshall

ADDRESS 25 Carlton St.
St. Catharines, Ont. L2R 1P5

SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT

QTY.	DESCRIPTION	PRICE	AMOUNT	
	Received on A/C for Gold Assays		1300	00
		TAX		
RECEIVED BY		TOTAL	1300	00

0094

All claims and returned goods MUST be accompanied by this bill.

Thank You

VEGA SERIES 610

ACCURASSAY LABORATORIES LTD.
CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS
Box 604, 3 Industrial Dr., Kirkland Lake
Ontario, Canada P2N 3J5

TEL.: (705) 567-6343 - FAX: (705) 568-8368

890679

TO

Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

DATE	May 11, 1989
CUSTOMER ORDER Nº	
WORK ORDER Nº	891241
DATE SUBMITTED	

TERMS

net 30 days, 2.0% per month on overdue accounts.

QUANTITY	DESCRIPTION	PRICE	AMOUNT	
30	Gold Assays W.O. # 891241	8.25	247	50
30	Sample Prep. cert.# 27767	3.50	105	00
	Paid by cheque May 8, 1989 Thank You			
	Total.....		352	50

LF-1297

Thank You!

ACCURASSAY LABORATORIES LTD.
CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS
Box 604, 3 Industrial Dr., Kirkland Lake
Ontario, Canada P2N 3J5

TEL.: (705) 567-6343 - FAX: (705) 568-8368

600711

TO

Mr. Charles [illegible]
[illegible]
St. Catharines, [illegible]
[illegible]

DATE	May 13, 1988
CUSTOMER ORDER Nº	
WORK ORDER Nº	[illegible]
DATE SUBMITTED	

TERMS
Net 30 days, 2% per month on overdue accounts

QUANTITY	DESCRIPTION	PRICE	AMOUNT
30	Copper, Lead and Zinc	6.00	180.00
	Paid by cheque May [illegible], 1988		
	THANK YOU		
	Total.		180.00

LF-1297

Thank You!

ACCURASSAY LABORATORIES LTD.
CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS
Box 604, 3 Industrial Dr., Kirkland Lake
Ontario, Canada P2N 3J5

TEL.: (705) 567-6343 - FAX: (705) 568-8368

890749

TO

Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

DATE	May 31, 1989
CUSTOMER ORDER N°	
WORK ORDER N°	Various
DATE SUBMITTED	

TERMS

net 30 days, 2.0% per month on overdue accounts.

QUANTITY	DESCRIPTION	PRICE	AMOUNT	
54	Gold Assays W.O. #891363A	8.25	445	50
54	Sample Prep. cert.# 24706-07	3.95	213	30
38	Gold Assays W.O. #891363B	8.25	313	50
38	Sample Prep. cert.# 24736-37	3.95	150	10
39	Gold Assays W.O. #891363C	8.25	321	75
39	Sample Prep. cert.# 24739-40	3.95	154	05
61	Gold Assays W.O. #891363D	8.25	503	25
61	Sample Prep. cert.# 24741-43	3.95	240	95
40	Gold Assays W.O. #891380	8.25	330	00
40	Sample Prep. cert.# 24744-45	3.95	158	00
	Samples processed as 1 Assay Ton, therefore charged at $8.25 each.			
	Total.....		2830	40

LF-1297

Thank You!

ACCURASSAY LABORATORIES

3 Industrial Drive, Box 604
KIRKLAND LAKE, ONTARIO P2N 3J5
Phone 567-6343

CUSTOMER'S ORDER NO	PHONE	DATE
		June 2/89.

NAME Charles Marshall

ADDRESS

SOLD BY	CASH	C.O.D	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT

QTY.	DESCRIPTION	PRICE	AMOUNT
	cheque # .		188880.
	Thank you M L		
		TAX	
		TOTAL	

RECEIVED BY

3097

All claims and returned goods MUST be accompanied by this bill.

Thank You

NCR SERIES 610

May 5 19 89

PAY TO THE ORDER OF Accurassay Laboratories $ 1300.00

One Thousand Three Hundred —— XX/100 DOLLARS

Canadian Imperial Bank of Commerce
WALKER'S LINE AND MAINWAY
BURLINGTON, ONT.

FOR _____ PER Christine Miels

⑈03562⑈010⑈ 71⑈08818⑈ ⑈0000130000⑈

775741 Ontario Ltd.
c/o C. Marshall

June 1 19 89

PAY TO THE ORDER OF Accurassay Laboratories $ 1888.80

One Thousand, eight hundred & eighty-eight —— 80/100 DOLLARS

Canadian Imperial Bank of Commerce
WALKER'S LINE AND MAINWAY
BURLINGTON, ONT.

Per Christine Miels.

FOR Lab Tests PER Sharon Hollingsworth

⑈03562⑈010⑈ 71⑈08818⑈ ⑈0000188880⑈

CHARLIE MARSHALL
25 Carlton St.
ST. CATHARINES, Ont.

Geochemical Sampling
May 6,7,10 to 20th 1989
12 hrs./day * 13 days = 156 hrs.

DONALD R. BOUCHER
14 Atkins Ave.
KIRKLAND LAKE, Ont.
P2N 3N5

Geochemical Sampling
& Consulting
May 16, 1989
12 hrs. = 12 hrs

Report & Drafting
May 22 to 25, 1989
8hrs./day * 4 days = 32hrs

TOTAL 200 hrs

Technical days 200 hrs/8 $\frac{\text{hrs}}{\text{day}}$ = 25 days

TL - 25 · N

843856

843116

843119

843121

51·W 48·W 44·W 41W

TL - 6 · N

843121

843114

843118

39·W 36W 33W 30·W

CONCESSION V

BL-O

27·W

CONCESSION IV

843115

843123

LOT 7

LOT 6

97127 9

843117

24·W

N

TL - 27 · S

97128 0

97128 1

97128 2

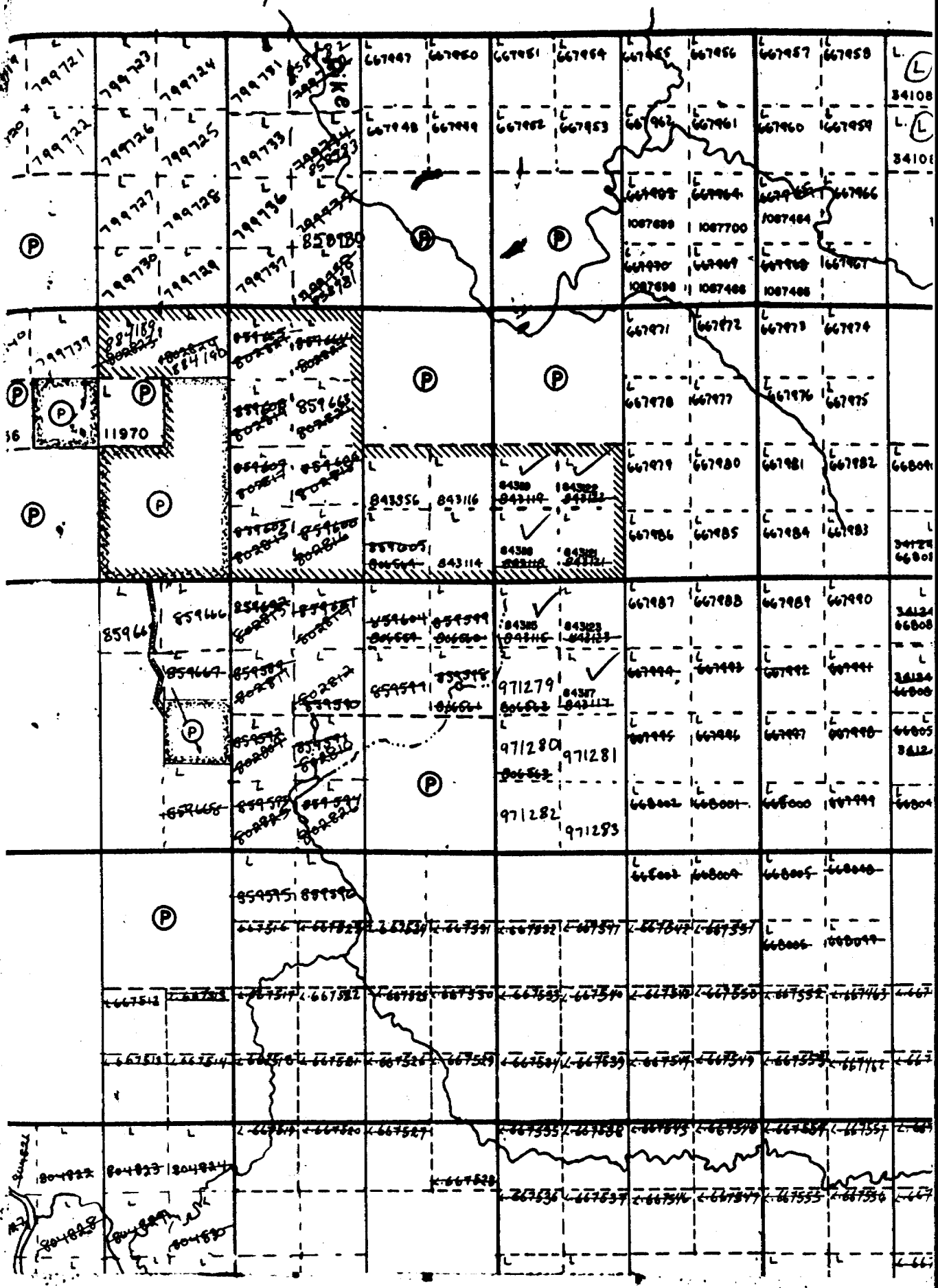
97128 3

TL 55·S

COOK - TP.

775741 ONTARIO LTD.		
GEOCHEMICAL SURVEY		
Scale 1:6000	Drawn by DRB	Figure

Cook Twp. Guibord Twp. M. L.



ACCURASSAY LABORATORIES LTD.
CHARTERED CHEMISTS, ASSAYERS, ANALYTICAL CONSULTANTS
Box 604, 3 Industrial Dr., Kirkland Lake
Ontario, Canada P2N 3J5

TEL.: (705) 567-6343 - FAX: (705) 568-8368

INVOICE

88667

TO

Mr. Charles Marshall
25 Carlton St.
St. Catharines, Ontario
L2R 1P5

DATE	November 3, 1988
CUSTOMER ORDER Nº	
WORK ORDER Nº	881043
DATE SUBMITTED	

TERMS net 30 days, 1.5% per month on overdue accounts.

QUANTITY	DESCRIPTION	PRICE	AMOUNT
92	Gold Assays	7.00	644 00
92	Sample Prep. cert.# 21639-42	3.50	322 00
92	Copper, Lead & Zinc Assays cert.# 21643-45	4.50	414 00
	Total		1380 00

LF-1297

Thank You!

Ministry of Northern Development and Mines
Ontario

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

W8908-090

Mining Lands Sect.

42A08NE0241 2.12581 COOK

900

Type of Survey(s)
Geo-chemical

Cook Township

Claim Holder(s)
Charles Marshall

Prospector's Licence No.
K15629

Address
25 Carlton #3 St. Catharines, Ontario L2R 1P5

Survey Company

Date of Survey (from & to) Day | Mo. | Yr. | Day | Mo. | Yr.

Total Miles of line Cut

Name and Address of Author (of Geo-Technical report)
ACCURASSAY LABORATORIES Box 604, 3 INDUSTRIAL Rd. KIRKLAND LAKE

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	40
Man Days		**Days per Claim**
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		**Days per Claim**
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
MAR 6 1989
11.45 am

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	843121	25
	843123	28
	843856	9
	843116	15
	843114	15

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
MAR 30 1989
MINING LANDS SECTION

Total number of mining claims covered by this report of work. 5

Expenditures (excludes power stripping)

Type of Work Performed
Section 77-19

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ 1380.00 ÷ 15 = Total Days Credits 92 ✓

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	Mining Recorder
292	Mar. 6/89	Acting
	Date Approved as Recorded	Branch Director
	See revised Work Statement	

R.S.

Date: Feb 23/89

Recorded Holder or Agent (Signature): Christine Mills

See revised statement R.S.

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
Charles Marshall 25 Carlton #3 St. Catharines Ontario L2R 1P5

Date Certified: Feb 23/89

Certified by (Signature): C. Marshall

1362 (85/12)

Ministry of Northern Development and Mines
Ontario

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

DOCUMENT No. W8908 • 156

Instructions: – Please type or print. June 30
– 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.

Mining Lands

Type of Survey(s): Geo-Chemical
Township or Area: Cook
Claim Holder(s): Charles Marshall
Prospector's Licence No.: K15629
Address: 25 Carlton #3. St. Catharine. Ont. L2R 1P5.
Survey Company: Accurassay Lab.
Date of Survey (from & to): 3 10 88 (Day Mo. Yr.) | 26 10 88 (Day Mo. Yr.)
Total Miles of line Cut: 16½.
Name and Address of Author (of Geo-Technical report)

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days		**Days per Claim**
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	40
Air[illegible]		**Days per Claim**
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
MAY 11 1989
11 30 am

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L. ✓	843122	17.
	843119	17
	843118	17.6
	843117	18
	843115	17

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
JUN - 1 1989
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 5

Expenditures (excludes power stripping)

Type of Work Performed: Assaying (77-19).
Performed on Claim(s): 843122, 843119, 843118 843117.

Calculation of Expenditure Days Credits

Total Expenditures			=	Total Days Credits
$ 1300	÷	15	=	86.6

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	Mining Recorder
86.6	May 11/89.	M. C. Weeme
	Date Approved Recorded	See revised work statement. K.S.

Date	Recorded Holder or Agent (Signature)
May 10/89	C. Marshall

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: Charles Marshall 25 Carlton Apt. #3. St. Catharines. Ont. L2R 1P5.

Date Certified: May 10 1989
Certified by (Signature): C. Marshall.

1362 (85/12)

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey

Technical Days			Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
39	X	7	273	+		=	273	+	4	=	68.25

Type of Survey

Technical Days			Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7		+		=		+		=	

Type of Survey

Technical Days			Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7		+		=		+		=	

Type of Survey

Technical Days			Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7		+		=		÷		=	

July 20

Ministry of Northern Affairs and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W8908.181

Mining Act

M.L. 2.1258

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)	Township or Area
GEOCHEMICAL	COOK TOWNSHIP

Claim Holder(s)	Prospector's Licence No.
CHARLES MARSHALL	K 15629

Address: 25 Carlton Street ST. CATHARINES, Ontario

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Charles Marshall	Day 5 Mo. 5 Yr. 89 to Day 20 Mo. 5 Yr. 89	5.

Name and Address of Author (of Geo-Technical report): DONALD R. BOUCHER Box 814, 14 Atkins Ave. KIRKLAND LAKE, Ontario

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	40 - maximum already allowed (ws 104-166)

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

LARDER LAKE MINING DIV. RECEIVED MAY 31 1989 12 00 noon PM 7 8 9 10 11 12 1 2 3 4 5 6

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L		
	843115	~~82.5~~ 42.52
	843117	~~82.5~~ 42.52
	843118	~~82.5~~ 42.52
	843119	~~82.5~~ 42.52
	843122	~~82.5~~ 42.52

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED JUN - 8 1989 MINING LANDS SECTION

Total number of mining claims covered by this report of work: 5

Expenditures (excludes power stripping)

Type of Work Performed: GEOCHEMICAL ANALYSIS

Performed on Claim(s): 843115, 843117, 843118, 843119, 843122

Calculation of Expenditure Days Credits

Total Expenditures			=	Total Days Credits
$3188.90	÷	15	=	~~42.5~~ 212.6 SDRD

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.

Date	Recorded Holder or Agent (Signature)
31/5/89	Donald R. Boucher

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
212.48	May 31/89	M.G. Wagner
	Date Approved as Recorded	Provincial Manager
L P	30 Aug 89	

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	Date Certified	Certified by (Signature)
Donald R. Boucher Box 814 14 Atkins Ave KIRKLAND LAKE, Ont. P2N 3N5	31/5/89	Donald R. Boucher

1362 (85/9)

Ontario

Ministry of Natural Resources

File _____

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.

Type of Survey(s) GEOCHEMICAL

Township or Area COOK

Claim Holder(s) C. MARSHALL
775741 Ontario Ltd.

Survey Company _____

Author of Report D. R. Boucher Box 814

Address of Author 14 Atkins Ave, KIRKLAND LAKE, Ont. P2N 3N5

Covering Dates of Survey 13-30/9/88 # 3-16/10/88 # 6-20/5/89
(linecutting to office)

Total Miles of Line Cut 12.0

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
--Electromagnetic _____
--Magnetometer _____
--Radiometric _____
--Other _____
Geological _____
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: 21/6/89 SIGNATURE: Donald R. Boucher
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

843114
843115
843116
843117
843118
843119
843121
843122
843123
843856

TOTAL CLAIMS 10

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

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 _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop 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) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken 843114, 843115, 843116
843117, 843118, 843119, 843121, 843122
843123, 843856

Total Number of Samples 354
Type of Sample HUMUS
(Nature of Material)
Average Sample Weight 300 gm
Method of Collection shovel

Soil Horizon Sampled A
Horizon Development good to poor
Sample Depth 10"
Terrain Swamp + Sand + Till
on high ground
Drainage Development poor
Estimated Range of Overburden Thickness
0 - 60 ft.

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis
drying + ashing

General

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☒

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others Au

Field Analysis (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Field Laboratory Analysis
No. (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Commercial Laboratory (_____ tests)
Name of Laboratory Accur assay
Extraction Method Fire assay - aqua regia
Analytical Method AA
Reagents Used

General

July 4

Ministry of Northern Development and Mines

Ontario

Order of the Minister

Mining Act

Mining Lands Section
3rd Floor, 880 Bay Street
Toronto, Ontario
M5S 1Z8

In the matter of mining claims: L 843114 et al in the Township of Cook as listed on R.O.W. 8908.090

On consideration of an application from the recorded holder, Charles Marshall under Section 77 Subsection 22 of the Mining Act, I hereby order that the time for filing reports and plans in support of Data for Assaying & Geochemical assessment work recorded on March 6 19 89 be extended until and including July 4, 19 89.

May 8, 1989
Date

Provincial Manager, Mining Lands Section

Copies: Charles Marshall
St. Catherines, Ontario

Mining Recorder
Kirkland Lake, Ontario

1333 (85/12)

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-4888

October 23, 1989

Your File: W8908-156,090
Our File: 2.12581

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Re: Notice of Intent dated September 21, 1989 for Geochemical Survey and Assaying submitted on Mining Claims L 843114 et al in Cook Township.

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,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES
OFFICE
OCT 25 1989
RECEIVED

SLS:eb
Enclosure

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

Resident Geologist
Kirkland Lake, Ontario

Charles Marshall
St. Catharines, Ontario

Donald R. Boucher
Kirkland Lake, Ontario

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.12581

Date: Sept 21, 1989

Mining Recorder's Report of Work No.: W8908-090

AMENDED

Recorded Holder: CHARLES MARSHALL

Township or Area: COOK TOWNSHIP.

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	
Magnetometer _____ days	L 843114 843116 843121 843123 843856
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical 31 days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

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

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.12581

Date: Sept 21, 1989

Mining Recorder's Report of Work No.: W8908-090

AMENDED

Recorded Holder: CHARLES MARSHALL

Township or Area: COOK TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	$1380.00 spent on Assaying Samples taken from Mining Claims:
Electromagnetic _____ days	L 843114
Magnetometer _____ days	843116-117
Radiometric _____ days	843122
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☐ Ground ☐	
☐ Credits have been reduced because of partial coverage of claims.	92 days credit allowed which may be grouped in accordance with Section 76(6) of the Mining Act R.S.O. 1980.
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

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

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.12581

Date: Sept. 21, 1989

Mining Recorder's Report of Work No.: W8908-156

AMENDED

Recorded Holder: CHARLES MARSHALL

Township or Area: COOK TOWNSHIP.

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	L 843115 843117 to 119 incl. 843122
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical 40 days	
Man days ☒ Airborne ☐	
Special provision ☐ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

$1300.00 of Expenditures under Section 77(19) as this part of the total expenditures approved on Report of Work W8908-181.

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

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-4888

October 23, 1989

Your File: W8908-156,090
Our File: 2.12581

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Re: Notice of Intent dated September 21, 1989 for Geochemical Survey and Assaying submitted on Mining Claims L 843114 et al in Cook Township.

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,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

/SLS:eb
Enclosure

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

Charles Marshall
St. Catharines, Ontario

Donald R. Boucher
Kirkland Lake, Ontario

Resident Geologist
Kirkland Lake, Ontario

Guibord Twp.

Playfair Twp.

Barnet Twp.

Benoit Twp.

Bolton Lake

Black River

ONTARIO NORTHLAND RAILWAY

VI

V

IV

III

II

I

12 11 10 9 8 7 6 5 4 3 2 1

THE TOWNSHIP OF COOK

DISTRICT OF COCHRANE

LARDER LAKE MINING DIVISION

SCALE: 1-INCH= 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	(S) or C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	

NOTES

Area Withdrawn From Staking Under Mg. Act, 5 April 1951 Clause (d) - Section 39

Gravel Reserve Shown Thus:

400' Surface rights reservation around all lakes & rivers.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE _____ WATABEAG MANAGEMENT UNIT

AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
POK ITO
705-642-3222

PLAN NO.- M.339

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A08NE0241 2.12581 COOK

200

L-36 W
L-33 W
L-30 W
L-27 W
L-24 W
L-20 W
L-16 W
L-12 W
L-8 W
L-4 W
L-2 W
L-0

TL 25+00N
20+00N
TL 14+00N
10+00N
TL 6+00N
BL 0+00
10+00S
20+00S
TL 27+00S
30+00S
40+00S
50+00S
TL 55+00S

Cank bld

AREA LUMBERED OUT
Bare Rock
Till + Sand

L 20W
L 16W
L 12W
L 8W
L 4W
L 2W
L 0

N

LEGEND

- claim post located, approx.
- line & peg (5 10 20)
- swamp
- hill
- 10 PPb contours
- 20 PPb

Donald R. Bowles
21/6/89

REVISED	775741 ONTARIO LTD.
	COOK TWP. ONTARIO
	HUMUS GEOCHEMICAL SURVEY Au
	SCALE 1"=200' | DRAWN BY DRB | DATE 5/6/89 | FIGURE 3

L-51W L-48W L-44W L-41W L-39W L-36W L-33W L-30W L-27W L-24W L-20W L-16W L-12W L-8W L-4W L-2W L-0

TL 14+00N

TL-6+00N

FLOODED SWAMP

AREA LUMBERED OUT
Bare Rock
Till + Sand

Cook Township

LOT 7 | LOT 6

CONC. V

CONC. IV

F-43156	F-43116	84-3113	84-3122
	F-43114	F-43118	F-43121
		F-43115	84-3123
		971279	84-3117
		971280	971281
		971282	971283