We are committed to providing <u>accessible customer service</u>. If you need accessible formats or communications supports, please <u>contact us</u>.

Nous tenons à améliorer <u>l'accessibilité des services à la clientèle</u>. Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez <u>nous contacter</u>.



Lake Sediment Sampling Program on Mining Claims L- 4225601, L – 4209237 & L-4209239 located in Lebel Township in the Larder Lake Mining Division.

### Introduction

On March 20, 2017 a lake sediment sampler was sent from Richard Dryer of the MNDM office in Sudbury . The Ministry was has loaned their sediment sampler out in several occassions.

On March 22/17 a grid was placed on the subject claims with lines at 100 meter spacing and stations at every twenty – five meters. The lines were orientated in a north – south direction. No pickets were placed on the ice, a gps unit was used to establish the grid so that this program would not interfere with the residents living on the lake. It was felt that pickets could pose a hazard to people who use the ice for recreation purposes such as fishing, skiing & snowmobiling. Food colouring was used to mark the start and end of each line so it could be found visually. A total of two days was taken to establish the grid and eight days to take the sediment samples.

A total of seventeen samples were taken on mining claim L- 4225601, 126 on L – 4209237 and 75 on L – 4209239. A selected number of samples covered in this report total 26. These samples were picked due to the location to the conductors that were indicated by a VLF survey completed five years ago. The assay costs are expensive and money is limited, so it was thought that if selected samples picked in relation to the conductors could give favourable assays in specific areas. This could save hundreds of dollars in assay costs. The first round of samples were assayed by regular fire assay method for gold, silver & copper.

### Location

The property is located at Crystal Lake which is at the central eastern limit of Lebel Township which is approximately nine kilometres east of Kirkland Lake via highway 66. Highway 672 is then used travelling north for 3 kilometres to Crystal Lake road. At two kilometres west on Crystal Lake Road is the landing to access the lake.

#### Geology

1

Little is known about the geology of Crystal Lake do to the sand and gravel that surrounds the lake. Very little outcrop is exposed on the claims covered in this report but there is some outcropping along the southern shore. These outcrops are just below the waters surface and will be examined in the summer of 2018. The Moffat Hall & Bidgood Mines are located a short distance north of the lake. They had some production after the second world war but never went in to full production for any length of time . The gold mineralization is related to porphyry dikes and quartz veins.

## The Program

On March 22/17 a grid was placed on the Crystal Lake claims, two days were taken to lay out north – south grid with lines every hundred meters and twenty five meter stations. A total of 220 samples were taken in hope of finding precious metals in the lake bottom sediments indicating a deposit under the lake. Twenty six samples were picked for the first round of sampling. These samples are close in proximity to conductors that were indicated by a VLF survey that was carried out several years ago. Regular fire assay method was used on these samples to determine what the best way to assay the sediments. The program ran from March 22/17 to April 4<sup>th</sup> 2017 intermittently.

## Sample Descriptions & Coordinates

Sample #	Descriptions	Line #	Water Depth	utms 17U
21109	black mud, some humus	6W	1 meter	581198 E,5333901 N
21031	black mud, some humus	<b>6</b> W	.75 meters	581199 E,5333895 N
21039	black mud, fine tan sand	4W	2 meters	581447 E,5333907 N
21041	black mud, some humus	4W	2 meters	581449 E,5333819 N
21048	fine tan sand, mostly silica	3W	30 meters	581564 E,5334239 N
21061	black mud, fine tan sand	3W	3 meters	581569 E,5333945 N
21065	fine tan sand, mostly silica	2W	5 meters	581666 E,5334325 N
21075	fine tan sand, mostly silica	2W	20 meters	581676 E,5333981 N
21081	fine tan sand, mostly silica	2W	15 meters	581676 E,5333852 N
21085	fine tan sand, mostly silica	$1 \mathbf{W}$	22 meters	581775 E,5334320 N
21089	fine tan sand, mostly silica	$1 \mathbf{W}$	24 meters	581773 E,5333217 N
21091	fine tan sand, mostly silica	1W	22 meters	581777 E,5334191 N
21104	fine tan sand, mostly silica	1E	25 meters	581975 E,5334325 N
21107	fine tan sand, mostly silica	1E	24 meters	581974 E,5334252 N
21113	fine tan sand, mostly silica	1E	18 meters	581977 E,5334102 N
21123	fine tan sand, mostly silica	1E	16 meters	581978 E,5333850 N
21136	fine tan sand, mostly silica	3E	16 meters	582098 E,5334003 N
21140	fine tan sand, mostly silica	3E	10 meters	582101 E,5333905 N
21142	fine tan sand, mostly silica	<b>4</b> E	20 meters	582203 E,5334145 N
21145	fine tan sand, mostly silica	<b>4</b> E	22 meters	582205 E,5334073 N
21150	fine tan sand, mostly silica	<b>4</b> E	24 meters	582202 E,5333950 N
21154	fine tan sand, mostly silica	<b>4</b> E	21 meters	582203 E,5333850 N
21170	fine tan sand, mostly silica	5E	10 meters	582305 E,5333852 N
21174	fine tan sand, humus, silica	5E	08 meters	582302 E,5333753 N

### **Recommendations & Conclusions**

All samples were tested for gold, silver and copper, although results were trace at best, it is thought a cyanide process will be tried with the next batch of samples at AGAT Labs in Mississauga, Ontario. Gold in the samples covered in report was averaged 0.01 grams per/ton at best. The highest assay obtained 0.06 g/t Au, in sample 2109 which is an area of interest. Silver was in all samples were trace and the best copper samples were 21104 to 21150 which had in the average 50 ppm ( parts per million ). These samples are on a conductor which enters the lake at the southwest corner and leaves the lake at the north east side. The fire assay process is felt not to be sensitive enough to pick up the fine particles of each specific element. MMI testing process may be also be used to assay the next batch of samples.

Thomas O'Connor

Statement of Costs for Phase 1 of the Sediment Sampling on Crystal Lake Project

Date	Description	Cost
Mar 22/17	T. O'Connor, Grid set up, 350.00/day	350.00
	Gerald Roberts, helper, 200.00/day	200.00
	snow machine rental, 200.00	200.00
Mar 23/17	T. O'Connor, Grid set up, 350.00/day	350.00
	Gerald Roberts, helper, 200.00/day	200.00
	Snow Machine rental, 200.00/day	200.00
Mar 24/17	T. O'Connor, Sediment sampling, 25 samples per/day +-	350.00
	G. Roberts, helper,	200.00
Oct 12/17	Assays, 26 samples , Au, Ag, & Cu	1341.88
Oct 14/17	T. O'Connor, report,	350.00
Oct 15/17	T. O'Connor, report & sample location Map	350.00
Total amount	claimed \$	4291.88

Thomas O'Connor





# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 1 of 1

## Assay Certificate

# Certificate Number: 17-2691

Company:	Tom O'Connor
Project:	CRYSTAL LAKE
Attn:	Tom O'Connor

Report Date:

12-Oct-17

We hereby certify the following Assay of 12 sand/gravel samples submitted 06-Oct-17 by Tom O'Connor

	Au	Au Chk	Ag	Cu
Sample	FA-MP	FA-MP	AR-AAS	AR-AAS
Number	g/Mt	g/Mt	ppm	ppm
21029	0.06		< 0.2	36
21031	< 0.01		< 0.2	36
21041	< 0.01		< 0.2	31
21048	< 0.01		< 0.2	30
21061	0.01		< 0.2	27
21075	0.01		< 0.2	31
21065	0.01		< 0.2	34
21081	0.10		< 0.2	37
21089	< 0.01		< 0.2	27
SU-1b			6.7	
21085	0.01	< 0.01	< 0.2	29
Blank Value	< 0.01			
SG84	0.98			
21091	< 0.01		< 0.2	20
21039	< 0.01		< 0.2	22

Certified by

1 6 1

Valid Abu Ammar

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705) 642-3244 Fax (705) 642-3300



# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 1 of 1

# Assay Certificate

# Certificate Number: 17-2692

Company:	Tom O'Connor
Project:	CRYSTAL LAKE
Attn:	Tom O'Connor

Report Date:

12-Oct-17

We hereby certify the following Assay of 13 sand/gravel samples submitted 06-Oct-17 by Tom O'Connor

		Au	Au Chk	Ag	Cu
Sampl	e	FA-MP	FA-MP	AR-AAS	AR-AAS
Numbe	r	g/Mt	g/Mt	ppm	ppm
21104		0.01		0.3	56
21107		0.01		0.4	56
21113		0.01		0.3	51
21123		0.03		0.4	56
21136		0.04		0.4	35
21142		0.01		0.2	47
21145		0.01		0.7	51
21150		0.01		0.7	61
21140		< 0.01		0.2	13
SU-1b				6.6	
21154		< 0.01	< 0.01	0.3	25
Blank	Value	< 0.01			
SG84		0.99			
21173		0.01		< 0.2	7
21174		< 0.01		< 0.2	28
21168		< 0.01		< 0.2	12

Certified by

Valid Abu Ammar

1 Cameron Ave., P.O. Box 10, Swastika, Ontario POK 1T0 Telephone (705) 642-3244 Fax (705) 642-3300

RUSH