

Beep Mat BM8 Prospecting

and

Soil Sampling

in

Musgrove Township *2 • 48457*

Claims

P 1244901

P 4200667

P 4210988

P 4215933

P04215934

P 4223235



Report by Hermann Daxl, M.Sc.Minex, Claim Holder

16 May 2011

CLAIMS WORKED ON
H. DAXL 30 APR 2011

ONTARIO
CANADA

MINISTRY OF NORTHERN
DEVELOPMENT AND MINES
PROVINCIAL MINING
RECORDERS OFFICE

Mining Land Tenure
Map

Date / Time of Issue: Wed Apr 14 13:54:52 EDT 2010

TOWNSHIP / AREA
FRIPP

PLAN
M-0281

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division
Land Titles/Registry Division
Ministry of Natural Resources District

Porcupine
TIMISKAMING
TIMMINS

TOPOGRAPHIC

<input type="checkbox"/>	Administrative Boundaries
<input type="checkbox"/>	Township
<input type="checkbox"/>	Concession, Lot
<input type="checkbox"/>	Provincial Park
<input type="checkbox"/>	Indian Reserve
<input checked="" type="checkbox"/>	Clif, Pit & Pts.
<input type="checkbox"/>	Contour
<input type="checkbox"/>	Mine Shafts
<input type="checkbox"/>	Mine Headframe
<input type="checkbox"/>	Railway
<input type="checkbox"/>	Road
<input type="checkbox"/>	Toll
<input type="checkbox"/>	Natural Gas Pipeline
<input type="checkbox"/>	Utilities
<input type="checkbox"/>	Town

Land Tenure

<input type="checkbox"/>	Freehold Patent
<input type="checkbox"/>	Surface And Mining Rights
<input type="checkbox"/>	Surface Rights Only
<input type="checkbox"/>	Mining Rights Only
<input type="checkbox"/>	Leasehold Patent
<input type="checkbox"/>	Surface And Mining Rights
<input type="checkbox"/>	Surface Rights Only
<input type="checkbox"/>	Mining Rights Only
<input type="checkbox"/>	Licence of Occupation
<input type="checkbox"/>	Uses Not Specified
<input type="checkbox"/>	Surface And Mining Rights
<input type="checkbox"/>	Surface Rights Only
<input type="checkbox"/>	Mining Rights Only
<input type="checkbox"/>	Order In Council
<input type="checkbox"/>	Order In Council (Not open for staking)
<input type="checkbox"/>	Water Power Lease Agreement

BRISTOL	OGDEN	DELORO	SHAW
THORNLIE	PRICE	ADAMS	ELDORADO
MCKEOWN	FRIPP	MCGARTHUR	DOUGLAS
DOYLE	MUBROOKE	BARTLETT	GEIME
HAYWARD	BEEMER	ENGLISH	ZAVITZ
GOURN	MOMER	1	SAMPSON

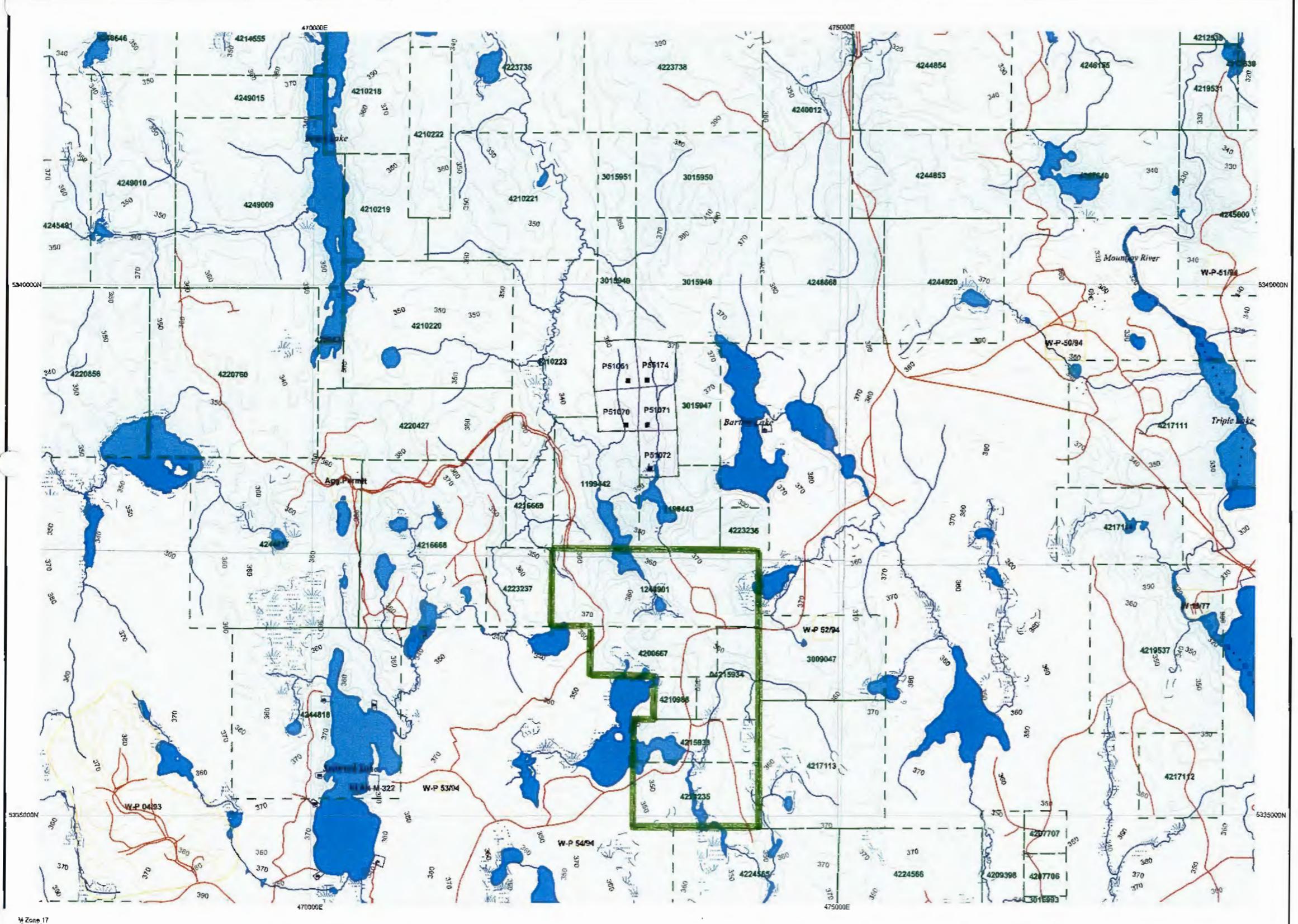
<input type="checkbox"/>	Areas Withdrawn from Disposition
<input type="checkbox"/>	Mining Act Withdrawal Types
<input type="checkbox"/>	Surface And Mining Rights Withdrawn
<input type="checkbox"/>	Surface Rights Only Withdrawn
<input type="checkbox"/>	Mining Rights Only Withdrawn
<input type="checkbox"/>	Order In Council Withdrawal Types
<input type="checkbox"/>	Surface And Mining Rights Withdrawn
<input type="checkbox"/>	Surface Rights Only Withdrawn
<input type="checkbox"/>	Mining Rights Only Withdrawn

IMPORTANT NOTICES

Scale 1:400,000

LAND TENURE WITHDRAWAL DESCRIPTIONS (list may not be complete)

Identifier	Type	Date	Description
3759	Wsm	Jan 1, 2001	400 FT SURFACE RIGHTS RESERVATION AROUND ALL LAKES & RIVERS BY RY 225 (L.U.P. - PENDING APPLICATION UNDER THE PUBLIC LANDS ACT)
3826	Wsm	Jan 1, 2001	AGGREGATE PERMIT OCT. 07/94 SAND & GRAVEL
Agg Permit	Agg permit	Oct 7, 1994	
W 1977	Wa	Jan 1, 1980	MINING RIGHTS ONLY WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O.1990 DATE
W-P 04/83	Wm	Jan 23, 1983	93-JAN-23 ORDER NO. W-P 04/83 NER
			93-JAN-23 ORDER NO. W-P 04/83 NER
W-P 52/94	Wsm	May 2, 1984	M.R.&R. WITHDRAWN FROM PROSPECTING,STAKING OUT,SALE OR LEAS
			UNDER SEC.35 OF THE MINING ACT R.S.O.1990 ORDER NO.W-P 52/94 NER
W-P 53/94	Wsm	May 2, 1994	M.R.&R. WITHDRAWN FROM PROSPECTING,STAKING OUT,SALE OR LEAS
			UNDER SEC.35 OF THE MINING ACT R.S.O.1990 ORDER NO.W-P 53/94 NER
W-P 54/94	Wsm	May 2, 1994	M.R.&R. WITHDRAWN FROM PROSPECTING,STAKING OUT,SALE OR LEAS
			UNDER SEC.35 OF THE MINING ACT R.S.O.1990 ORDER NO.W-P 54/94 NER
W-P 55/94	Wem	May 2, 1994	SURFACE AND MINING RIGHTS WITHDRAWN UNDER SECTION 35 OF THE
			MINING ACT R.S.O.1990 ORDER NO.W-P 55/94 NER DATED 94/MAY/02
W-P 56/94	Wsm	May 2, 1994	SURFACE AND MINING RIGHTS WITHDRAWN UNDER SECTION 35 OF THE
			MINING ACT R.S.O.1990 ORDER NO.W-P 56/94 NER DATED 94/MAY/02
W 1978	Wa	Jan 1, 1980	W 1977 10/4/78 S.R.O.188543
W 23/77	Wa	Jan 1, 2001	W 23/77 11/5/77 S.R.O.188543



Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land site determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

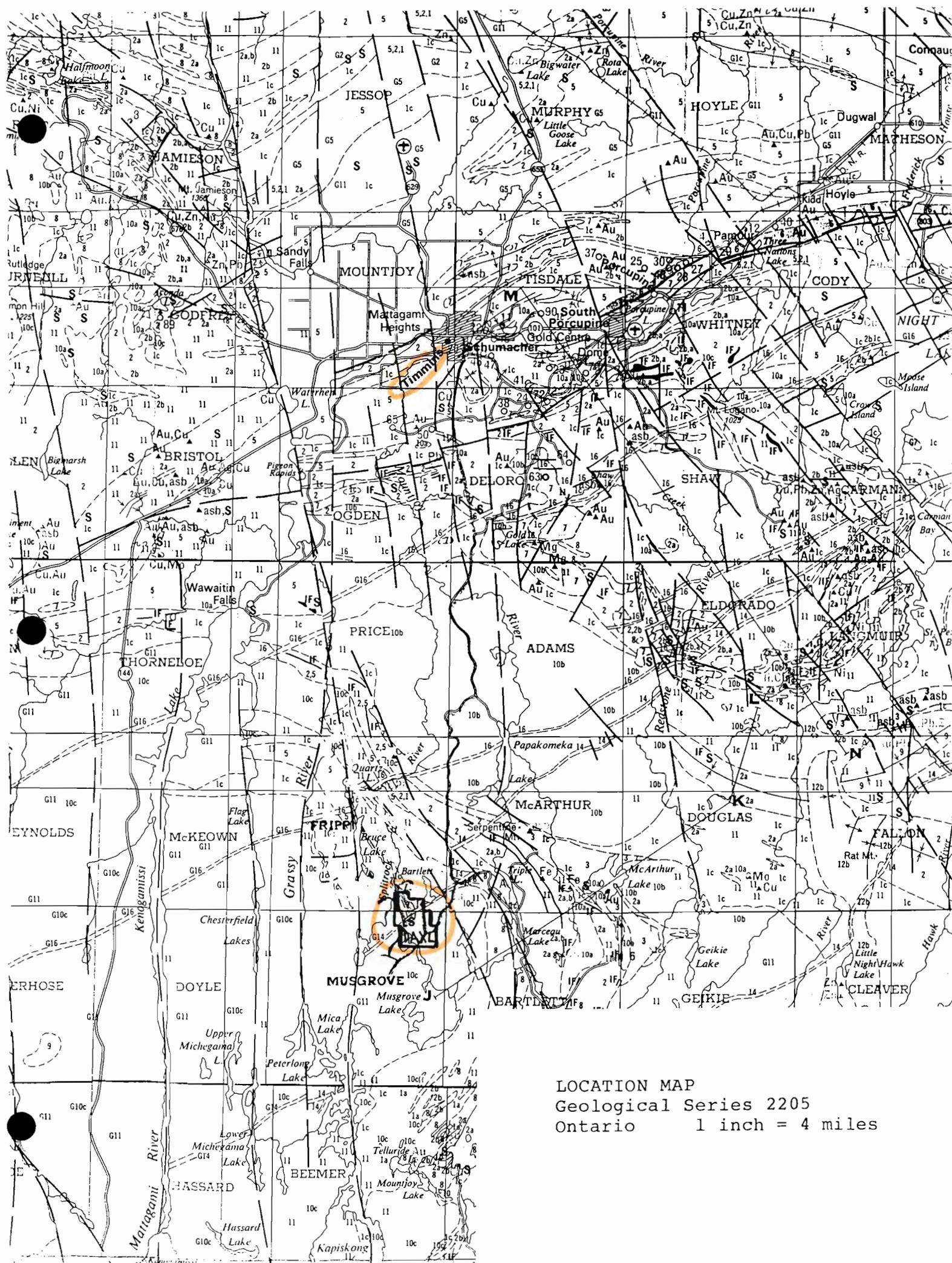
The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

General Information and Limitations

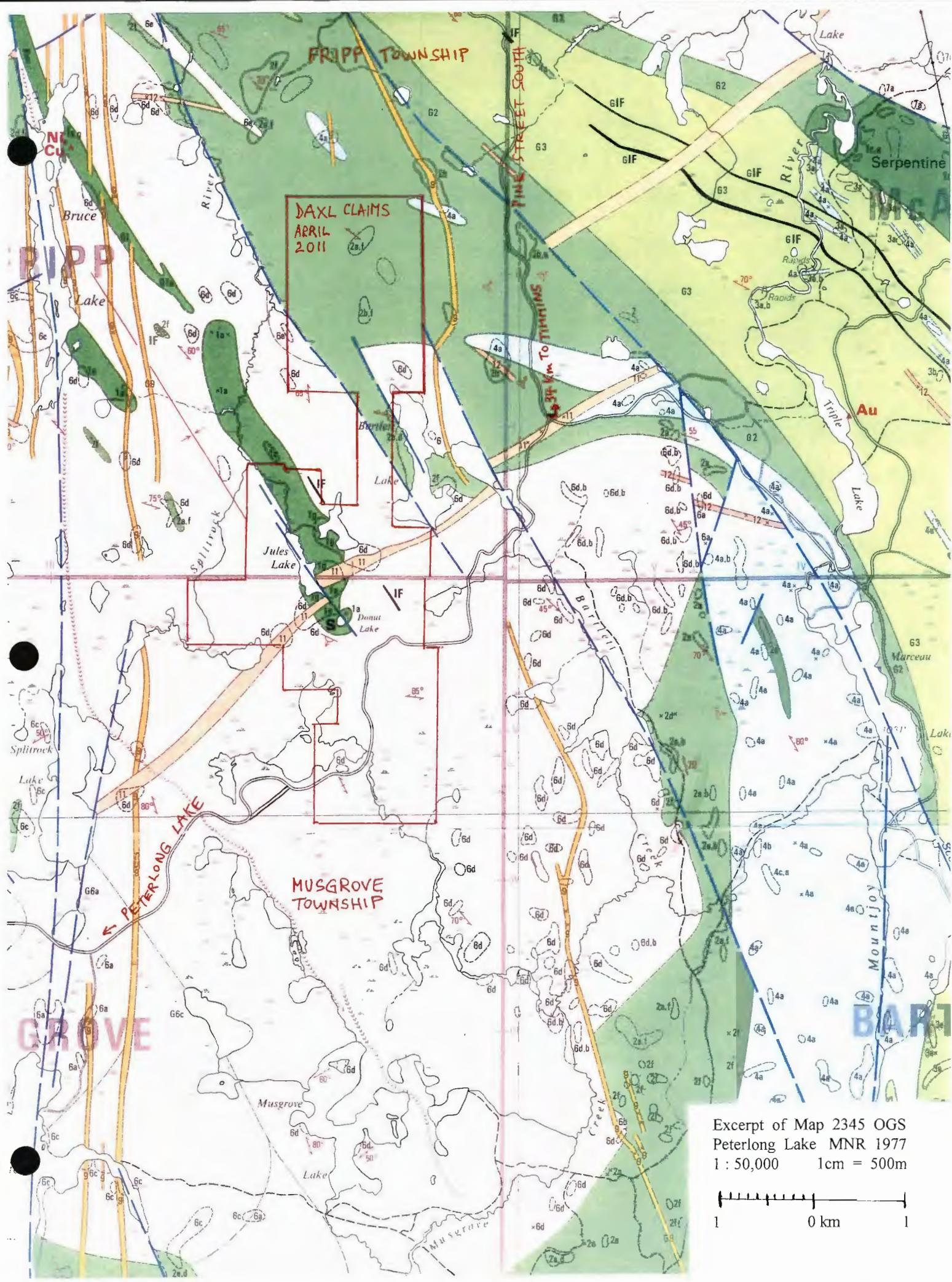
Contact Information:
Provincial Mining Recorders' Office
Willie Green Miller Centre 533 Ramsey Lake Road
 Sudbury ON P3E 6B6
Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/misminpge.htm

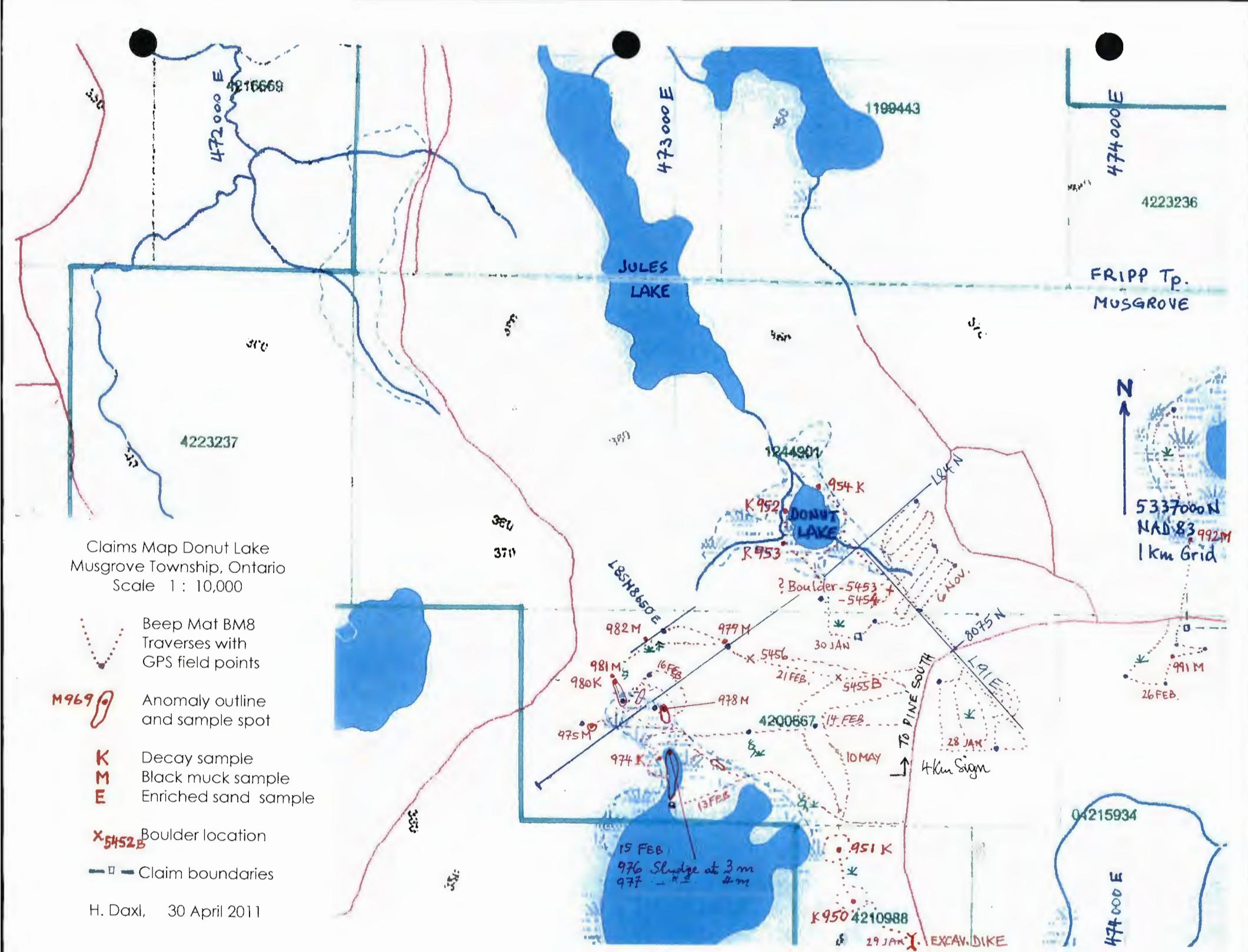
Toll Free: Tel: 1 (888) 415-9845 ext 5749 Projection: NAO 63
Fax: 1 (877) 670-1424 Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

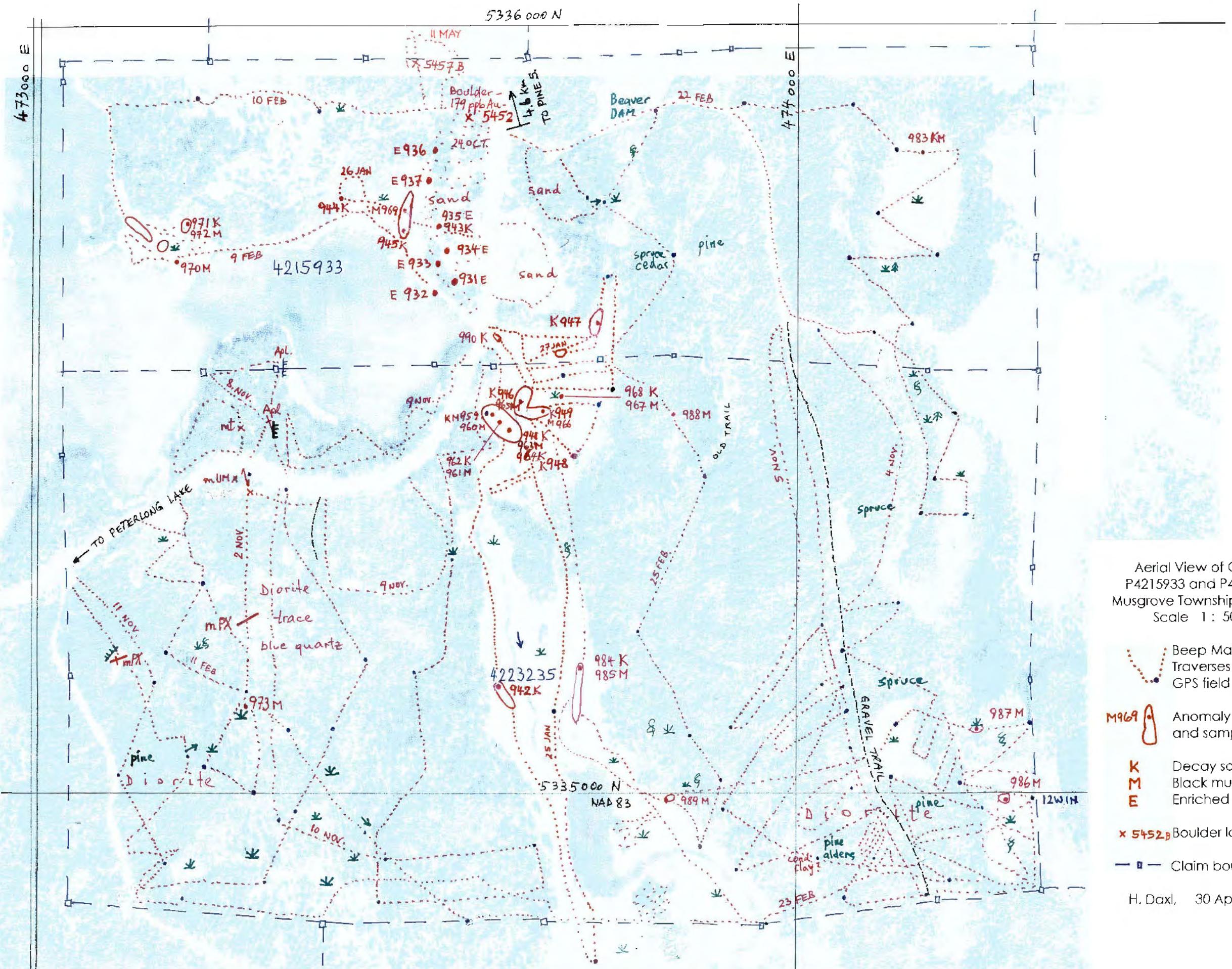
This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licenses, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.



LOCATION MAP
Geological Series 2205
Ontario 1 inch = 4 miles







Aerial View of Claims
P4215933 and P4223235
Musgrove Township, Ontario
Scale 1 : 5000

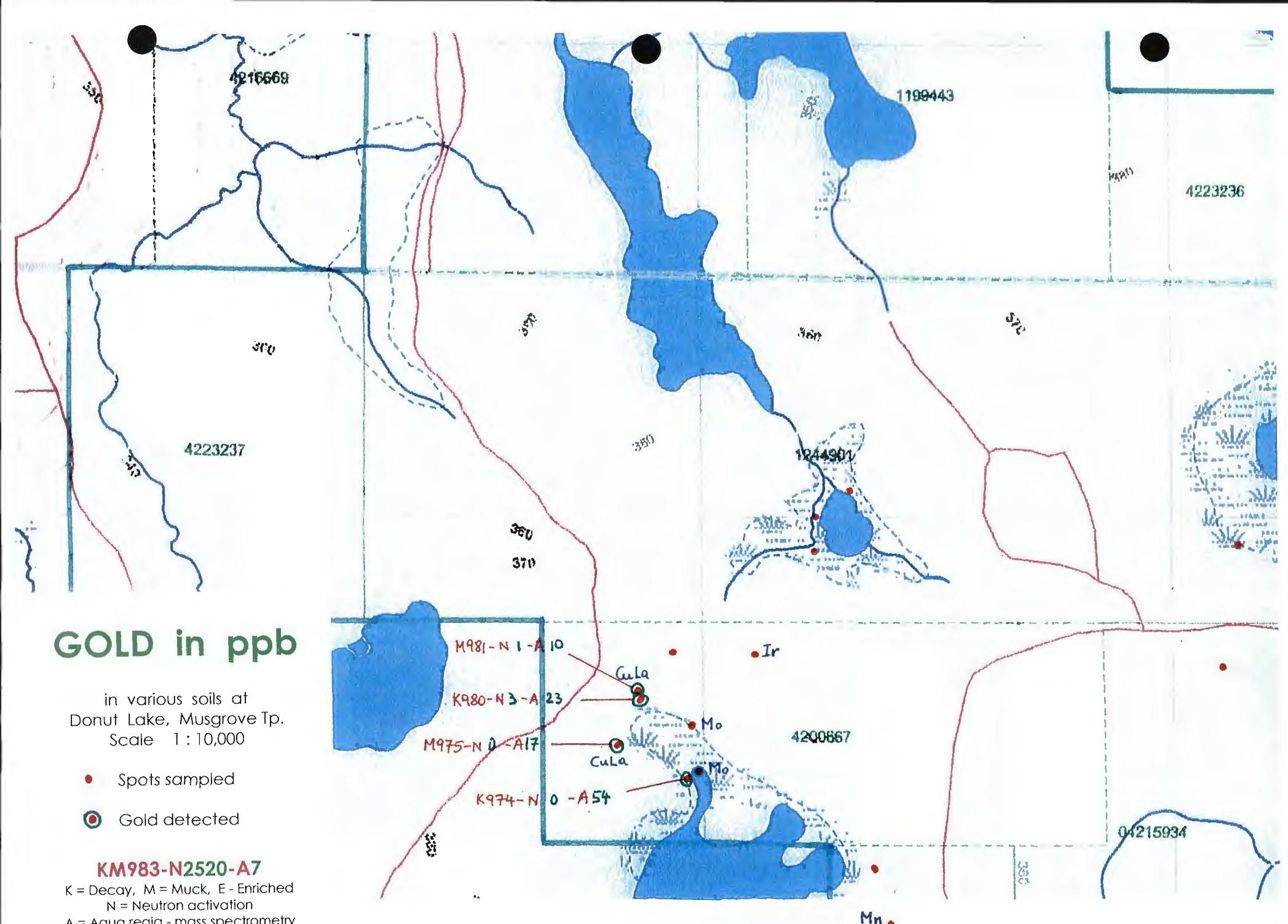
- Beep Mat BM8
Traverses with
GPS field points

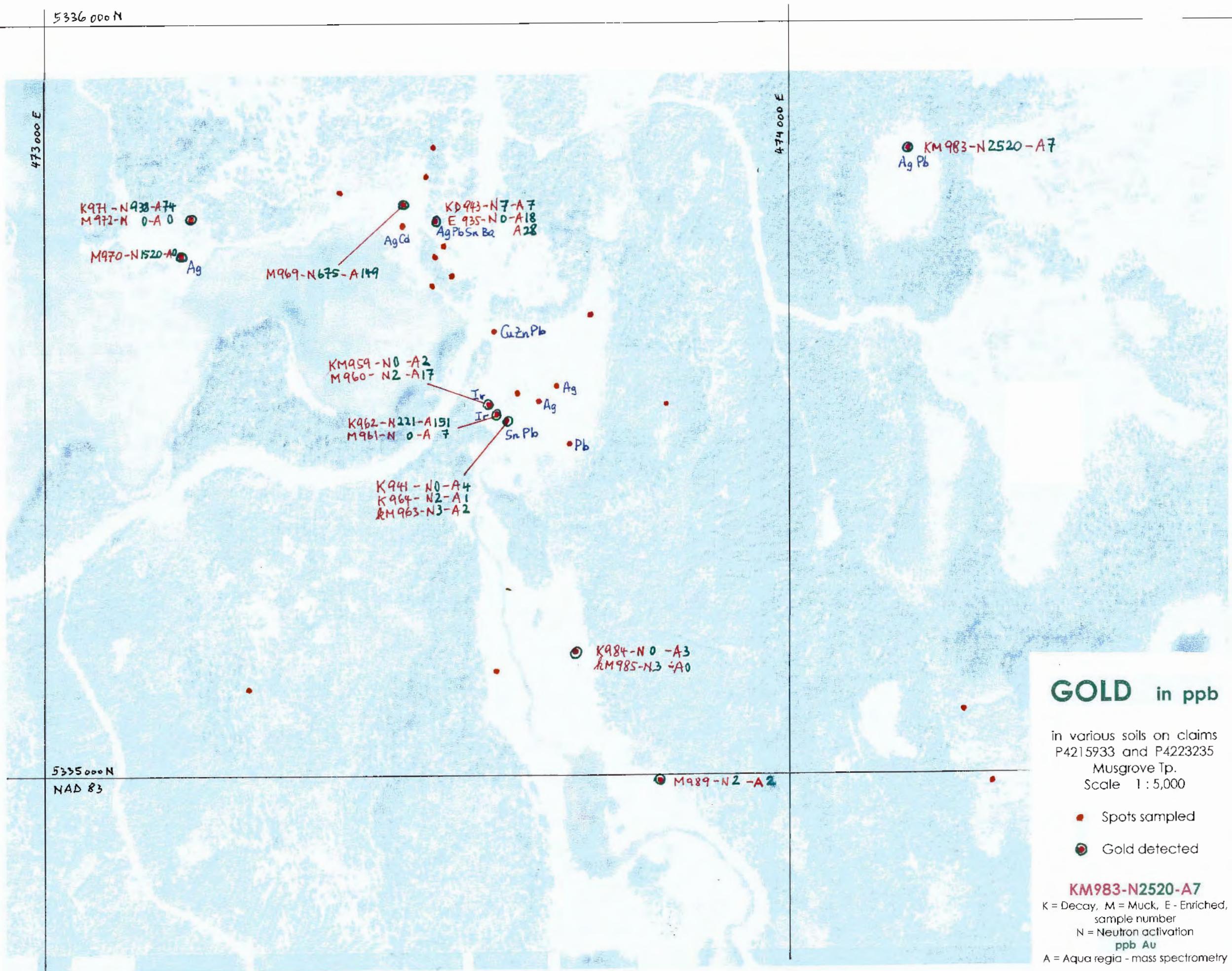
M969 A Anomaly outline
and sample spot

Decay sample
Black muck sample
Enriched sand sample

x E4E2 Boulder location

— ■ — Claim boundaries





GOLD in ppb

in various soils on claims
P4215933 and P4223235

Musgrave Tp.
Scale 1 : 5,000

● Spots sampled

● Gold detected

KM983-N2520-A7

K = Decay, M = Muck, E - Enriched,

sample number

N = Neutron activation

ppb Au

A = Aqua regia - mass spectrometry

Introduction

I hold the staked mining claims P1244901, P4200667, P4210988, P4215933, P04215934, P4223235, in Musgrove Township, and scanned several high areas and many swamps with the Beep Mat BM8 borrowed from the Timmins office of MNDMF, between 24 Oct 2010 to 11 May 2011. I found and dug up four conductive boulders and one bedrock conductor, and collected 55 soil samples mostly from the several discovered swamp conductors. I sieved the soil samples myself, and all analyses were done by Activation Laboratories Ltd. The attached certificates are annotated for easier reference. Decayed vegetation and black muck from swamps returned up to 2.5 g/t gold and need further verification and follow-up.

The interest in the region is sulfide dikes, one of which makes the Hollinger Copper Resource 1700m due north of Donut Lake. It grades 20% copper where not diluted by xenoliths, which are serpentinite and prove that the copper is not an inclusion in the serpentinite as commonly assumed (my drill logs MAC96-3 in T-3806).

The Beep Mat BM8 is useful in locating conductors under less than 1m of overburden, or magnetic rocks under less than 0.5m, for the purpose of digging them up by hand. Anomalies of both are displayed separately and the MAG or water negatives do not cancel a conductor response, which overrides it at both frequencies. Conductive clay can be differentiated by experience or by an auger. The Beep Mat also detects electrolytes such as salt water, and may therefore detect brines from sulfide bodies in swamps.

Access on gravel roads is simple by car to 34km south of Timmins on Pine South Road, then branching off westward on Peterlong Lake Road, where after 4.6km a fork is reached at boulder 5452 with 179 ppb gold.

The attached maps show location, dated traverses, discovered conductors, spots of samples, GPS points taken during traverses, sample kind, and gold results.

Previous Work

I found sulfide dikes on these claims, but without values. One 5m thick, with a 10cm offshoot as confirmation, I had stripped 70m west of the road for easy study at 473500E - 5336035N (T-5579, T-5683). No work, not even airborne, has been done southwest from it. My other work in the vicinity is filed under T-4800, T-5071, T-5209, T-5579, T-5850, T-6079. Historic work around Donut Lake includes geophysics and drilling the showings south of it from the shore where core lies.

Present Results

Several swamp decay as well as black muck samples returned extreme gold values up to 2.5 g/t Au. The analyses were verified and neutron activation (N) re-read. All gold values are plotted on the enclosed separate map although results by mass spectrometry (A) are not reliable.

Comparing samples in the same auger holes, 962-961 and 971-972 show extreme gold in decay (K), which was frosted, but none in wet muck samples (M) adjacent below it. Such muck did not show gold over a gold occurrence in summer elsewhere either where <100 ppb gold was analyzed in decay samples. However, the gold extremes in 969 and 970 are from such muck, and 983 is from deeper in muck at 60cm but still containing some moss.

The difference in the same sievings, decay 974 of no gold by neutron activation but 54 ppb Au by mass spectrometry could be an error in the latter. The other much lower gold values by mass spectrometry may be due to poor dissolution of microbial gold in aqua regia. Sparse gold particle effects are a further possibility, considering the small aliquots of only 0.5 g, despite the concentration by sieving to <250 micron. Future aliquots should be 4 g in 7mL vials, which is still quite feasible.

Neutron activation 2B in 1mL vials, of further aliquots of the same sievings are in process, and the >250 - <5000 micron leftovers of several were also sent for neutron activation 2B in 7mL vials. This should trace any contamination or rare particle effect. Research by others suggests that microbes can concentrate gold in such organic humus, but they would have to be 100x100x10-micron flakes to explain the present sporadic gold results. Detrital gold is ruled out. More work is necessary before discussing a possible gold zone.

The few higher possibly anomalous values of other elements are circled on the attached certificates and the elements plotted on the gold map, but do not appear significant. Calcium is higher in swamp muck than in decay samples, which could help to detect sample mix-ups.

Work Details

Beep Mat Prospecting

Adjacent east of Donut Lake, a Beep Mat BM8 scan of a Ronka HEM anomaly despite the thin overburden and hummocky terrain with occasional diorite outcrops was not successful. Only the conductive-magnetic boulder 5453-54 was located about 100m southwest of it, and is described separately.

On the southern four claims also, the high ground has only thin overburden probably of only sand, with occasional diorite outcrops with local traces of blue quartz. Magnetic spots are rare and I stripped only a few. Of the further four Beep Mat rock conductors found and dug up only 5456 is in bedrock. The other three are boulders of which sample 5452 returned 179 ppb gold. All are described below.

In the swamps between the hills often grow conifers, except along the creek flowing south-southeast across the string of lakes. I scanned many swamps in pursuit of electrolytes and sampled the subtle indications as outlined on the two maps, with up to +15 high frequency readings, instead of the usual negative -15 due polarity of water which also results in -15 MAG. The associated low frequency readings were rarely up to +5. Readings in the previous winter were similar over the swamp "donut" of Donut Lake, and samples of black muck were not anomalous there. Under 50 cm snow, the thin frozen layer at such conductors was easily punched through with the Dutch auger this time, but standing water was frozen solid.

Normally readings on 50cm snow over dry land were near -11 of high frequency and -2 of magnetic response. Both are more negative over liquid water, to about -20. A conductor shows as positives in the high and the low frequency accompanied by beeps. The present swamp anomalies of +10 to +15 high frequency are similar to those over near surface conductive clay, but this is not a clay area and none has been reached with the 1.2 m long auger. The readings hardly changed when lifting the Beep Mat 1.5m, which confirms the wide extent of such conductors.

Bedrock and Boulder Samples

NAD83 UTM 17U

The rock analyses by 30 g neutron activation, 1 D - Au+34, do not include copper nor lead, but no such minerals seemed present. Boulder 5452 returned minor gold. No iridium was found.

5452 B 179 ppb Au, 96 ppm As, 26.2 % Fe 473570 E - 5335880 N

Boulder, 60cm, rounded, covered with humus, sitting on glacial beach of fine sand above two beds of fine gravel with varved clay below to >1m. Transported far by ice float.

Nonmagnetic, conductive, aphanitic gray convoluted meta-sedimentary with beds of <50% very fine pyrite, 30% pockets or beds of sugary quartz. The 179 ppb Au and 96 ppm As indicate a gold system at the origin of the boulder probably far north.

5453-54 B <940 ppm Zn, <5 ppb Au, <26.6 % Fe 473480 E - 5336825 N

Probably a 60cm boulder, 20cm hump topped with humus, near TL91 E - 8275N.

Magnetic, conductive, probably of a fine pyroxenite dike with much pyrrhotite and pyrite, and <1cm layers of magnetite, probably with <3cm assimilation bands of sugary quartz and diorite. The 940 ppm Zn may be somewhat anomalous despite the 20.4 or 26.6% Fe.

5455 B to sample later 473358 E - 5336618 N

50cm rounded, very conductive boulder, exposed 25000 HF, 12000 LF, 50%. Not sampled yet.

5456 to sample later 473165 E - 5336671 N

Bedrock diorite with conductive, very magnetic, 40 x 200 cm sulfide lens, exposed +2700 HF, -14000 MAG.
Not sampled yet.

5457 B to sample later 473496 E - 5335947 N

Very rounded, conductive, 20cm boulder, exposed 1300 HF, 200 LF, 16%.
Not sampled yet.

Stripped Outcrops

473314 E - 5335472 N, 2m cliff, az. 15.

Aplite dike. Stretched xenoliths are aphanitic, hard, dark greenish, 340/90, locally conductive and magnetic.

473327 E - 5335555 N, similar migmatite on 10m cliff near lake.

473270 E - 5335477 N, similar migmatite, az. 345.

473267 E - 5335411 N, flat inside curve.

Black, fine to very fine-grained pyroxenite dike, H=6, moderately to strongly magnetic, with angular xenoliths of fine black norite?

473283 E - 5335227 N, flat summit.

<2m weakly magnetic, to nonmagnetic where thin, dark gray, fine pyroxenite dike, H=7, barren, az. 240. Outcrop is 40 x 60 m NS diorite with trace blue quartz.

473089 E - 5335173 N, top of 10m cliff to NW.

Few weakly magnetic <30cm black basalt dikes 70/90 in norite outcrop which probably is a larger dike itself.

Sand samples

The area of the sand samples, 931 - 937, seems to be thick sand banks of the glacial lake with minor beds of granules. Typical of sand, a 10cm pale leached zone below the 10cm humus, changes abruptly to the 10cm variably brown zone enriched in iron oxides. Of the seven samples of this enriched B-horizon sand 931 - 937 (E on map), only sample 935 returned 27.8 ppb Au, and 18.4 ppb Au newly sieved as 955, by Ultratrace 1, which is a 0.5g aqua regia leach read by mass spectrometry. The first also repeated well and was run before the standard, but the second by neutron activation gave <2 ppb Au. I took sample 943 of decayed vegetation at this spot to verify, but 5.6 ppb Au was detected by only one of three attempts.

The seven samples were orange-brown to red-brown, moderately dark, did not react to 10% HCl, and contained traces of magnetite. The only sand sample with gold, 935, was brown and darkest, but this is not seen as influence on gold, but better enrichment in iron and base metals. The standard 938 agreed, and repeated well. I sieved the sands to <125 micron to reduce any effect of sand grains with sparse particles. When values repeat well, this is quite unlikely. For instance, a gold flake of 10x10x1 micron in 1g of sample would result in 1 ppb Au. A boulder like 5452 with 179 ppb Au at 150m towards azimuth 15 causing this anomaly would be equally unlikely, and no Beep Mat anomaly was found among these sands, nor near sample 935.

A wider area should be sampled, but a better medium for gold would be the decayed horizon of tiny rootlets and decayed vegetation with incrustations, from surface to only 6cm depth. Dried, rubbed, and sieved to <250 micron, about 0.5g can be pressed into a small 1mL vial for neutron activation - vegetation 2B, with a detection limit of <0.1 ppb Au, by Actlabs, but 4 g in a medium-size 7mL vial is now recommended. The vials must be full and a batch must not include samples of mineral matter. I proved this old method again over gold showings recently, and was astounded by anomalies from 20 to 100 ppb Au.

Swamp decay samples

Samples 941 - 954, except 943 which was over sand at sample 935, are decayed vegetation (K on map) from the top of the swamps, excluding any cushions of moss and any black muck. As such it excludes all mineral matter except any encrustations after evaporation of water during summer. Such samples gave the best results over gold or zinc zones elsewhere, although not over copper so far. I squeezed the water from 953 - 954, but then let all samples air-dry on paper towels. After sufficient rubbing I sieved them to <250 micron for "Ultratrace 1" - 0.5g aqua regia leach and mass spectrometry, as well as "1 D enh" neutron activation pressed into 1mL vials. Neutron activation - vegetation 2B would have been more suitable for gold, whereas mass spectrometry is often erroneous.

These samples were collected from 25 to 30 Jan 2011 mainly at the Beep Mat anomalies in case these are due to rising electrolytes. In theory elements from a sulfide deposit may come to surface especially in winter as the warmer water from depth would rise. Despite only <50cm of snow after half a winter, with -20C temperatures over the last week, only standing water was frozen, not the samples nor the black muck below them.

Black muck samples

In further pursuit of rising electrolytes in swamps with the Beep Mat, samples 959 - 992 collected from 8 to 26 Feb 2011 are mostly from the muddy black muck (M on map) near surface sometimes just below a thin frozen layer. The few decay samples in this swamp series (K on map) are from frozen grass humps or from around shrubs.

Samples 976 and 977 are from thick somewhat cohesive sludge from 3 and 4 m depth in the small delta. The water on top was muddy and the sludge started thickening from 2m downward. More like a dark-brown colloid it dried gray, harder and more difficult to crush than clay. I simply lowered a small tree trunk through an auger hole in the ice, and enough sample stuck to it. The ice gave way under my snowshoes near the mouth of the creek. At 4.5m depth there still was no major resistance. Despite the 2m water the sludge responded to the Beep Mat BM8 with readings of +15 of high frequency and +5 low frequency. The still wet hand-size cake was moderately conductive.

The series being basically vegetation, I sieved it to <250 micron. Actlabs analyzed it by "Ultratrace 2" - 0.5g aqua regia - ICP+MS (gold still not reliable), and by neutron activation - vegetation 2B - pressed into 1mL vials. For the necessary 3g sieved to <250 micron, it took the 20 - 30 cm of the 5cm thick auger core collected. Finer sieving may produce higher anomalies but may be

impractical, as actually it seems that much larger aliquots will be necessary if the suspected sparse particle effect is to be overcome. 4g of <250 micron sievings should be pressed into the 7mL vials next time. Vials must be full and a batch must not include samples of mineral matter.

Conclusions and Recommendations

The mafic to ultramafic magnetic dikes discovered confirm extensive magmatic activity after the emplacement of the Kenogamissi Batholith. Past work found several with much sulfides, and one with much chalcopyrite, being the Hollinger Copper Resource 1700m north of Donut Lake.

Only few sparse but extreme gold values were found this time, but this cannot rule out any occurrence of other mineralization, especially not any values under the 50% swamps. These gold values will be further verified and followed up.

For gold the decayed rootlets and leaves from 0 - 6 cm depth are the only medium found successful over other gold showings, but here swamp decay as well as muck samples returned gold values. Being basically organic, both can be analyzed by neutron activation - vegetation 2B as described, but medium-sized 7mL vials rather than the present 1mL should be packed full with <250 micron sievings.

The theory that plumes of brine from sulfide bodies under swamps may respond to the Beep Mat also needs further testing, preferably with <50cm snow as this February, when temperature differences should act strongest, water run-off is the least, and the icy crust can still be punched through. Response over a mine-size sulfide occurrence would be expected to be like that from road salt or especially seawater, which cannot be missed.

Respectfully submitted,



16 May 2011

Hermann Daxl, M.Sc.Minex, Claim Holder.

Quality Analysis ...



Innovative Technologies

Date Submitted: 22-Nov-10

Invoice No.: A10-8851

Invoice Date: 27-Dec-10

Your Reference: MUS 2010

39-630 RIVERPARK ROAD
TIMMINS ON P4P 1B4
Canada

BOULDERS

ATTN: Herman Daxl

CERTIFICATE OF ANALYSIS

4 Rock samples were submitted for analysis. 1-2 Kg CHIPS TO FINE CRUSH, MADE 800g PULP

The following analytical package was requested Code ID INAA(INAAGEO) 30g NEUTRON ACTIVATION
REPORT A10-8851 WATCH FOR IRIDIUM

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

For values exceeding the upper limits we recommend assays.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Eseme". It is written in a cursive, flowing style with some loops and variations in thickness.

Emmanuel Eseme , Ph.D.

Quality Control

ACTIVATION LABORATORIES LTD.

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

Activation Laboratories Ltd.

Report: A10-8851

Quality Control																	
Analyte Symbol	Sn	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Mass	
Unit Symbol	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g	
Detection Limit	0.05	0.1	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.2	0.05		
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	
DMMAS 111 Meas					14.30				15.00	22.00			1.90				
DMMAS 111 Cert					14.00				14.00	19.30			1.90				
3024 Orig	< 0.05	< 0.1	< 1	4.9	< 0.5	< 4	< 50	28.00	54.00	19	6.20	1.1	0.6	5.6	0.80	25.9	
3024 Split	< 0.05	< 0.1	< 1	4.3	< 0.5	< 4	< 50	28.00	55.00	18	6.20	1.1	0.6	5.5	0.81	31.0	

Activation Laboratories Ltd.

Report: A10-8851

Quality Control																			
Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hf	Hg	Ir	Mo	Na	Ni	Rb	Sb	Sc
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	%	ppm	ppm	ppm	
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.05	50	30	0.2	0.1
Analysis Method	INAA																		
DMMAS 111 Meas	1730		1590	1400			36	50		2.93					1.89			6.30	
DMMAS 111 Cert	1670		1450	1140			34	52		2.79					1.87			5.80	
3024 Orig	< 5	< 5	15	400	< 1	< 1	15	40	< 2	3.54	6	< 1	< 5	< 5	3.24	< 50	< 30	0.3	11.80
3024 Split	< 5	< 5	18	400	< 1	< 1	16	40	< 2	3.40	5	< 1	< 5	< 5	3.12	< 50	< 30	0.4	11.80

Activation Laboratories Ltd. **Report: A10-8851**

Analyte Symbol	Sn	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Mass
Unit Symbol	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g
Detection Limit	0.05	0.1	1	0.5	0.5	4	50	1	3	5	0.1	0.2	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	
3024	< 0.05	< 0.1	< 1	4.9	< 0.5	< 4	< 50	28	54	19	6.2	1.1	0.6	5.6	0.80	25.9
5452	< 0.05	< 0.1	< 1	< 0.5	0.9	< 4	< 50	3	< 3	< 5	0.2	0.3	< 0.5	0.4	< 0.05	41.2
5453	< 0.05	< 0.1	< 1	< 0.5	< 0.5	< 4	270	5	9	< 5	0.9	1.1	< 0.5	0.9	0.14	38.2
5454	< 0.05	< 0.1	< 1	< 0.5	< 0.5	< 4	940	7	14	< 5	1.1	1.7	< 0.5	1.0	0.10	36.2

800 g PULPED OF 1-2 Kg

Activation Laboratories Ltd.

Report: A10-8851

~30 g NEUTRON ACTIVATION

Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hf	Hg	Ir	Mo	Na	Ni	Rb	Sb	Sc	Se
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	5	2	100	1	1	5	10	2	0.02	1	1	5	5	0.05	50	30	0.2	0.1	5
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
3024	< 5	< 5	15	400	< 1	< 1	15	40	< 2	3.54	6	< 1	< 5	< 5	3.24	< 50	< 30	0.3	11.8	< 5
5452	179	< 5	96	100	< 1	2	44	10	< 2	26.20	< 1	< 1	< 5	< 5	< 0.05	< 50	< 30	5.4	0.6	< 5
5453	< 5	< 5	11	100	< 1	2	< 5	20	< 2	26.60	< 1	< 1	< 5	< 5	< 0.05	< 50	< 30	0.3	1.2	< 5
5454	< 5	< 5	19	< 100	< 1	4	53	20	< 2	20.40	< 1	< 1	< 5	< 5	0.06	< 50	< 30	0.5	1.1	< 5

Quality Analysis ...



Innovative Technologies

Date Submitted: 29-Nov-10
Invoice No.: A10-8905
Invoice Date: 30-Dec-10
Your Reference: MUSANDS

Hermann Daxl
39-630 Riverpark Road
Timmins Ontario P4P 1B4
Canada

ENRICHED SAND

ATTN: Hermann Daxl

CERTIFICATE OF ANALYSIS

SIEVED < 125 μm
8 Soil samples were submitted for analysis.

The following analytical package was requested Code UT-1-0.5g Aqua Regia ICP/MS mass spectrometry

REPORT A10-8905

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Assays are recommended for values >10,000 for Cu and Au.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Eseme, Ph.D." followed by a stylized signature line.

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.

ENRICHED B-HORIZON SAND
SIEVED < 125 μm - 0.5 g

Activation Laboratories Ltd.

Report: A10-8905

Aqua regia - mass spectrometry

Analyte Symbol	Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	0.5	1	0.01	0.1	0.1	0.01	0.1	0.02	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
931	8.0	0.5	2	0.015	0.26	1.87	0.02	0.06	0.36	1.6	18	46.8	73	1.30	6.4	35.4	7.72	10.8	1.95	< 0.1
932	9.1	0.3	3	0.014	0.19	1.78	0.02	0.08	0.12	1.8	29	44.4	44	1.73	6.2	27.7	7.53	8.3	4.59	< 0.1
933	9.9	< 0.1	2	0.009	0.20	1.85	0.03	0.11	0.14	1.9	34	50.3	56	2.46	4.6	26.4	5.40	10.8	6.22	< 0.1
934	8.8	0.2	2	0.011	0.24	1.71	0.03	0.08	0.13	1.8	27	36.0	59	1.70	4.6	22.3	3.24	12.5	4.19	< 0.1
935	12.5	0.3	3	0.014	0.34	1.95	0.05	0.13	0.18	2.4	34	75.1	74	2.57	7.9	51.5	11.20	25.2	5.08	0.1
936	10.1	< 0.1	3	0.012	0.23	1.69	0.03	0.68	0.13	1.8	23	62.0	52	1.96	5.0	30.3	3.98	10.5	4.03	< 0.1
937	12.8	0.3	3	0.013	0.25	2.23	0.03	0.09	0.17	2.0	25	45.8	65	2.05	7.3	34.1	6.96	16.2	3.97	0.1
938 QREAS 42 P	9.1	1.0	13	0.079 ✓ 14	0.31	1.83 ✓ 15	0.29 ✓ 16	0.41	0.53 ✓ 17	8.8	17	532.0	326	8.68 ✓ 18	55.5	487.0 ✓ 19	415.00 ✓ 20	645.0 ✓ 21	4.31	0.2

Activation Laboratories Ltd.

Report: A10-8905

Analyte Symbol	As	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba	La	Ce	Pr	Nd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.1	0.1	0.1	0.5	0.01	0.1	0.1	0.002	0.01	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.1	0.02	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
931	1.6	0.6	1.9	11.1	5.41	0.7	1.1	0.14	0.021	0.01	< 0.02	0.22	0.02	< 0.02	0.33	14.5	11.5	33.7	3.1	11.70
932	0.2	0.2	2.3	7.3	3.13	3.3	2.0	0.29	0.004	< 0.01	< 0.02	0.38	0.04	< 0.02	0.36	21.0	8.9	19.8	2.3	8.34
933	1.0	0.6	4.0	9.9	2.34	3.2	2.1	0.37	0.061	< 0.01	< 0.02	0.45	0.05	< 0.02	0.56	44.1	7.5	15.5	1.9	6.61
934	0.6	0.3	3.5	9.0	2.96	2.0	1.7	0.23	0.048	< 0.01	< 0.02	0.34	0.02	< 0.02	0.51	22.2	9.0	18.7	2.3	8.00
935	3.0	0.6	4.8	10.3	3.16	3.5	2.2	0.39	0.060	0.02	0.02	0.42	0.06	< 0.02	0.64	49.4	8.7	20.7	2.2	8.02
936	1.4	0.4	3.5	8.3	2.24	2.2	1.8	0.41	0.029	< 0.01	< 0.02	0.32	0.03	< 0.02	0.49	21.5	7.9	16.5	1.9	6.45
937	9.9	0.7	3.9	9.8	3.14	2.9	2.0	0.27	0.050	0.05	< 0.02	0.34	0.03	< 0.02	0.56	25.6	9.2	18.9	2.3	8.40
938 QREAS 42 P	91.8 ✓ 110	0.8	19.4	28.0	9.81	6.8	0.2	7.58 ✓ 111	0.223	0.08	0.03	0.84	8.61	< 0.02	1.60	105.0	29.5	61.6	8.0	30.00

Activation Laboratories Ltd. Report: A10-8905

Analyte Symbol	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U	
Unit Symbol	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm												
Detection Limit	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS												
931	2.2	0.4	1.8	0.2	1.170	0.2	0.5	< 0.1	0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	1.2	0.03	5.20	1.8	0.7	
932	1.5	0.3	1.1	0.1	0.690	0.1	0.3	< 0.1	0.3	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	2.1	0.03	6.01	3.2	0.4	
933	1.2	0.2	0.9	0.1	0.563	< 0.1	0.3	< 0.1	0.2	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	1.6	0.05	7.27	3.6	0.4	
934	1.4	0.2	1.1	0.1	0.666	0.1	0.3	< 0.1	0.3	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	1.3	0.05	5.78	3.6	0.4	
935	1.4	0.3	1.1	0.1	0.776	0.1	0.4	< 0.1	0.3	< 0.1	< 0.1	< 0.05	0.1	< 0.001	27.8	0.06	8.23	4.3	0.5	
936	1.1	0.2	0.9	0.1	0.547	< 0.1	0.2	< 0.1	0.2	< 0.1	< 0.1	< 0.05	0.1	< 0.001	1.9	0.04	6.15	3.7	0.4	
937	1.5	0.2	1.2	0.1	0.720	0.1	0.3	< 0.1	0.3	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	1.1	0.04	6.78	4.1	0.4	
938 DREAS 42 P	5.6	1.0	4.1	0.5	2.260	0.4	1.0	0.2	0.9	0.1	< 0.1	< 0.05	17.0	< 0.001	59.9 ✓ a)	0.29	157.00 ✓	15.2	2.2	

Activation Laboratories Ltd. Report: A10-8905

Quality Control		Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
Analyte Symbol	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm		
Unit Symbol	ppm	ppm	ppm					ppm		ppm	ppm	ppm	ppm		ppm	ppm	ppm	ppm		
Detection Limit	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	0.5	1	0.01	0.1	0.1	0.01	0.1	0.02	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
GXR-1 Meas	3.40	0.40	10.00	0.0340	0.110	0.27	0.02001	530.000	0.710	1.20	60.0	5.6	710	24.40	7.00	39.6	1060.00	761.0	3.89	
GXR-1 Cert	8.20	1.22	15.00	0.0520	0.217	3.52	0.05001	380.000	0.960	1.58	80.0	12.0	852	23.60	8.20	41.0	1110.00	760.0	13.80	
GXR-4 Meas	7.40	1.00	3.00	0.1160	1.280	2.36	1.4500	19.100	0.790	6.30	67.0	49.4	111	2.89	12.60	40.4	6090.00	68.8	9.85	
GXR-4 Cert	11.10	1.90	4.50	0.5640	1.660	7.20	4.0100	19.000	1.010	7.70	87.0	64.0	155	3.09	14.60	42.0	6520.00	73.0	20.00	
GXR-6 Meas	23.30	0.60	5.00	0.0730	0.370	6.90	1.0500	0.170	0.160	23.10	150.0	72.2	838	5.57	12.30	24.7	68.50	120.0	14.10	
GXR-6 Cert	32.00	1.40	9.80	0.1040	0.609	17.70	1.8700	0.290	0.180	27.60	186.0	96.0	1010	5.58	13.80	27.0	66.00	118.0	35.00	
933 Orig	10.10	0.20	2.00	0.0090	0.200	1.82	0.0300	0.100	0.140	2.00	34.0	49.3	55	2.43	4.60	26.5	5.50	10.9	6.22	
933 Dup	9.60	< 0.1	2.00	0.0100	0.200	1.88	0.0300	0.110	0.140	1.90	34.0	51.3	58	2.49	4.70	26.3	5.31	10.7	6.22	
Method Blank	< 0.1	< 0.1	< 1	< 0.001	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	
Method Blank	< 0.1	< 0.1	< 1	< 0.001	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	
Method Blank	< 0.1	< 0.1	< 1	< 0.001	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	
Method Blank	< 0.1	< 0.1	< 1	< 0.001	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	

Activation Laboratories Ltd. Report: A10-8905

Quality Control																			
Analyte Symbol	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
GXR-1 Meas	1.80	0.400	2.90	0.600	3.540		0.3000	1.80	0.200	< 0.1	< 0.05	134.00		3210.0	0.350	745.00		32.00	
GXR-1 Cert	2.70	0.690	4.20	0.830	4.300		0.4300	1.90	0.280	0.960	0.175	164.00		3300.0	0.390	730.00		34.90	
GXR-4 Meas	4.40	1.000	3.40	0.400	2.120		0.1000	0.70	< 0.1	0.200	< 0.05	10.00		563.0	2.530	45.70	19.20	4.70	
GXR-4 Cert	6.60	1.630	5.25	0.360	2.600		0.2100	1.60	0.170	6.300	0.790	30.80		470.0	3.200	52.00	22.50	6.20	
GXR-6 Meas	1.90	0.500	1.70	0.200	1.320		0.1000	0.60	< 0.1	< 0.1	< 0.05	< 0.1		76.7	1.620	100.00	5.20	0.80	
GXR-6 Cert	2.67	0.760	2.97	0.415	2.800		0.0320	2.40	0.330	4.300	0.485	1.90		95.0	2.200	101.00	5.30	1.54	
933 Orig	1.20	0.200	0.90	0.100	0.565	0.1	0.3	< 0.1	0.20	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	1.4	0.050	7.26	3.50	0.40
933 Dup	1.20	0.200	0.90	0.100	0.560	< 0.1	0.2	< 0.1	0.20	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	1.8	0.050	7.28	3.70	0.40
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	< 0.5	< 0.02	< 0.01	< 0.1	< 0.1
Method Blank																			
Method	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	< 0.5	< 0.02	< 0.01	< 0.1	< 0.1

Activation Laboratories Ltd.

Quality Control	As	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba	La	Ce	Pr
Analyte Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Unit Symbol	0.1	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.1
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
GXR-1 Meas	366.0	15.500	1.9	142.0	25.10	17.0	0.500	15.50	24.900	1.980	0.620	20.10	76.90	13.1000	2.32	158.0	3.30	8.00	
GXR-1 Cert	427.0	16.600	14.0	275.0	32.00	38.0	0.800	18.00	31.000	3.300	0.770	54.00	122.00	13.0000	3.00	750.0	7.50	17.00	
GXR-4 Meas	88.1	6.400	85.9	59.8	10.80	8.2	0.200	256.00	2.840	0.030	0.170	4.53	2.86	0.8400	1.99	23.5	37.30	68.60	
GXR-4 Cert	98.0	5.600	160.0	221.0	14.00	186.0	10.000	310.00	4.000	0.860	0.270	5.60	4.80	0.9700	2.80	1640.0	64.50	102.00	
GXR-6 Meas	201.0	0.200	58.0	29.2	6.14	13.9	0.100	1.38	0.234	0.040	0.050	0.82	1.69	< 0.02	2.85	884.0	9.00	25.90	
GXR-6 Cert	330.0	0.940	90.0	35.0	14.00	110.0	7.500	2.40	1.300	1.000	0.260	1.70	3.60	0.0180	4.20	1300.0	13.90	36.00	
933 Orig	0.6	0.600	4.0	9.9	2.34	3.2	2.100	0.38	0.061	< 0.01	< 0.02	0.45	0.05	< 0.02	0.56	44.1	7.60	15.80	
933 Dup	1.3	0.500	4.0	9.9	2.34	3.2	2.100	0.35	0.061	< 0.01	< 0.02	0.44	0.05	< 0.02	0.56	44.1	7.30	15.10	
Method Blank	< 0.1	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	< 0.01	< 0.002	< 0.01	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.01	< 0.1
Method Blank	< 0.1	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	< 0.01	< 0.002	< 0.01	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.01	< 0.1
Method Blank	< 0.1	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	< 0.01	< 0.002	< 0.01	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.01	< 0.1

Quality Analysis ...



Innovative Technologies

Date Submitted: 04-Feb-11

Invoice No.: A11-0731

Invoice Date: 29-Mar-11

Your Reference: MUSDECAY

Hermann Daxl
39-630 Riverpark Road
Timmins Ontario P4P 1B4
Canada

SWAMP DECAY < 250 µm
941 - 954

ATTN: Hermann Daxl

CERTIFICATE OF ANALYSIS

18 Soil samples were submitted for analysis. *see page 2 for detail*

The following analytical packages were request *Code 1D Enh INAA(INAAGEO) 1-g vial*
Code UT-1-0.5g Aqua Regia ICP/MS
REPORT **A11-0731**

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Notes:

Assays are recommended for values >10,000 for Cu and Au.
For values exceeding the upper limits we recommend assays.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Eseme, Ph.D." followed by a stylized signature.

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or
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0.5 g aqua regia - Mass spectrometry

Activation Laboratories Ltd.

Report: A11-0731 rev 1

ULTRATRACE 1

Analyte Symbol	Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	0.5	1	0.01	0.1	0.1	0.01	0.1	0.02	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
941	0.5	< 0.1	3	0.007	0.12	0.17	0.07	0.25	1.06	0.1	5	7.5	40	0.17	2.0	10.3	20.40	76.3	0.66	< 0.1
942	0.3	< 0.1	4	0.011	0.13	0.09	0.08	0.17	1.08	0.1	3	3.6	29	0.13	1.3	7.9	17.40	67.8	0.38	< 0.1
943 at 935	1.5	< 0.1	4	0.004	0.11	0.29	0.06	0.55	0.87	0.4	10	9.8	802	0.41	2.7	17.6	19.20	74.7	1.55	< 0.1
944	0.4	< 0.1	2	0.007	0.13	0.16	0.06	0.48	1.21	0.3	3	3.6	389	0.40	3.7	11.0	18.10	50.7	0.23	< 0.1
945	0.4	< 0.1	4	0.003	0.19	0.10	0.07	0.22	1.57	0.1	2	3.0	50	0.25	1.0	7.5	12.40	32.8	0.28	< 0.1
946	2.1	< 0.1	3 < 0.001	0.20	0.29	0.06	0.16	1.11	0.2	5	15.0	659	0.48	3.3	13.7	18.80	54.7	0.83	< 0.1	
947	0.5	< 0.1	3	0.004	0.15	0.09	0.05	0.10	1.35	0.1	3	3.6	386	0.39	2.0	5.7	10.10	41.0	0.25	< 0.1
948	0.4	< 0.1	3	0.006	0.14	0.10	0.07	0.47	1.20	< 0.1	3	3.4	482	0.18	1.5	6.8	15.50	50.4	0.40	< 0.1
949	1.9	< 0.1	7	0.015	0.20	0.26	0.07	0.11	1.16	0.3	8	14.9	148	0.42	2.3	13.3	22.50	56.5	0.81	< 0.1
950	0.3	< 0.1	7	0.012	0.16	0.08	0.09	0.19	1.66	< 0.1	3	2.9	2800	0.27	8.6	5.2	12.50	89.4	0.26	< 0.1
951	0.5	< 0.1	5	0.007	0.13	0.11	0.09	0.26	1.08	0.1	2	2.7	217	0.16	1.0	7.6	18.70	86.9	0.23	< 0.1
952 Moss, Ring in	< 0.1	< 0.1	1	0.011	0.12	0.06	0.02	0.17	1.09	< 0.1	1	2.4	41	0.12	1.0	8.1	8.68	35.7	0.22	0.2
953 Donut	< 0.1	< 0.1	< 1	0.022	0.11	0.04	0.05	0.09	0.76	< 0.1	2	1.8	46	0.08	0.5	3.5	7.09	43.8	0.17	0.1
954 Lake	< 0.1	< 0.1	2	0.013	0.14	0.06	0.02	0.17	1.22	< 0.1	< 1	2.2	29	0.07	0.6	6.1	7.12	39.0	0.20	0.2
935 = 955 < 125 μm SAND	13.9	0.5	< 1	0.012	0.35	2.11	0.05	0.13	0.24	2.3	39	83.3	106	2.64	8.6	49.8	10.60	16.3	6.21	< 0.1
STAND. 956 OREAS 42P	13.1	1.5	14	0.057	0.33	2.32	0.42	0.40	0.55	9.8	28	649.0	390 ✓	8.28 ✓	60.4	493.0 ✓	406.00 ✓	625.0 ✓	5.51	0.2
689 = 957 < 125 μm Hwy	2.7	0.1	3	0.010	0.17	0.40	0.06	0.12	0.95	1.3	17	9.3	398	0.77	3.8	7.6	22.00	90.9	1.73	< 0.1
689 = 958 125-250 Hwy	2.5	0.1	13	0.011	0.16	0.37	0.07	0.12	0.85	1.1	13	7.2	372	0.69	3.7	7.3	20.40	90.1	1.46	< 0.1

941 - 954 DECAY < 250 μm sieved from dead leaves and rootlets 0-6 cm depth.

955 - 935 < 125 μm sieved from original sand again : Au ppb: 18.4, 27.8(2x), but <2 ppb Au by neutron act. Possibly near boulder?
Dark brown enriched.

957 = 689 < 125 decay, trace silt, Hwy Gold Showing } 2nd sieving from > 250 μm leftovers.
958 = 689 125-250 silt, -" - } Au found again by UT1 and neutron act.

0.5 g aqua regia - Mass spectrometry

Activation Laboratories Ltd.

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ULTRATRACE 1

Analyte Symbol	As	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba	La	Ce	Pr	No
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm										
Detection Limit	0.1	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.1	0.02
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS										
941	1.0	1.4	3.4	13.8	0.98	2.0	0.3	1.26	0.089	0.81	0.03	0.65	0.30	0.08	0.20	20.3	1.7	3.52	0.3	1.29
942	1.7	1.0	3.7	14.1	0.59	1.0	0.2	1.57	0.086	0.56	0.02	0.37	0.17	0.04	0.20	24.9	1.1	2.45	0.2	0.88
943	1.7	0.9	5.9	37.6	1.12	0.9	0.4	0.62	0.228	0.93	0.06	1.91	0.52	0.03	0.70	155.0	4.3	8.63	0.9	3.21
944	< 0.1	0.4	4.4	23.0	1.12	0.6	0.1	0.58	0.097	0.62	0.04	0.52	0.18	< 0.02	0.50	69.0	2.5	5.53	0.5	1.88
945	0.3	0.3	4.1	24.2	0.49	0.7	0.2	0.50	0.456	4.50	0.03	0.56	0.27	< 0.02	0.20	25.9	1.0	2.49	0.2	0.83
946	0.8	1.0	3.4	16.0	1.75	0.2	0.2	0.53	0.064	0.48	0.02	0.37	0.10	< 0.02	0.20	29.5	3.5	6.93	0.8	3.27
947	1.5	< 0.1	2.2	23.2	0.74	0.5	0.1	0.45	0.027	0.40	0.02	0.22	0.09	< 0.02	0.20	36.1	1.4	3.11	0.3	1.33
948	2.4	0.2	3.2	14.6	0.45	0.3	0.1	0.28	0.031	1.21	0.06	1.00	0.25	< 0.02	0.20	29.7	1.0	3.12	0.2	0.88
949	2.8	1.2	4.1	18.9	1.65	1.0	0.2	1.00	0.085	0.33	0.02	0.41	0.16	< 0.02	0.40	35.1	3.2	6.16	0.8	2.89
950	0.9	0.3	3.4	39.9	0.57	0.1	< 0.1	0.88	0.064	0.83	0.02	0.31	0.14	< 0.02	0.20	102.0	1.0	2.95	0.2	0.83
951	< 0.1	0.3	5.0	27.3	0.61	0.5	0.1	0.44	0.050	0.68	0.04	0.71	0.25	< 0.02	0.40	59.9	1.6	3.21	0.3	1.11
952	1.7	0.5	1.5	22.7	0.43	0.2	< 0.1	0.30	0.047	0.78	0.02	0.60	0.39	< 0.02	0.10	31.8	0.6	2.34	0.2	0.62
953	< 0.1	0.5	3.7	19.9	0.23	0.1	< 0.1	0.13	0.029	0.65	< 0.02	0.31	0.22	< 0.02	0.10	27.6	< 0.5	2.01	< 0.1	0.32
954	0.2	0.6	1.6	21.9	0.41	0.3	< 0.1	0.25	0.043	0.61	0.02	0.58	0.40	< 0.02	0.10	25.5	0.6	2.15	0.1	0.53
955	2.6	0.2	5.9	16.5	4.00	3.8	2.7	0.50	0.080	0.07	0.02	0.53	0.07	< 0.02	0.80	60.8	11.1	26.70	2.7	10.10
956	92.6	0.6	28.3	35.4	10.70	16.3	< 0.1	8.62	0.288	0.14	0.04	1.15	10.30	< 0.02	2.60	143.0	38.1	81.80	9.5	36.50
957	1.0	0.3	8.3	25.4	2.90	0.5	0.6	0.25	0.078	0.59	0.03	0.58	0.10	< 0.02	0.50	59.4	6.6	14.50	1.6	6.32
958	< 0.1	0.2	8.9	23.4	2.17	0.4	0.4	0.21	0.091	0.60	0.02	0.47	0.09	< 0.02	0.50	59.6	3.8	8.81	0.9	3.74

0.5 g aqua regia - Mass spectrometry

Activation Laboratories Ltd.

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1 g vial
N.A.

Analyte Symbol	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U	Au	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppb	
Detection Limit	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1	2	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	INAA	
941	0.3	0.1	0.2	< 0.1	0.200	< 0.1	0.1	< 0.1	0.1	< 0.1	0.4	0.06	0.6	0.001	3.5	0.08	25.30	0.7	0.9	< 2	
942	0.2	< 0.1	0.2	< 0.1	0.100	< 0.1	0.1	< 0.1	0.1	< 0.1	0.2	< 0.05	0.6	< 0.001	1.1	0.09	14.20	0.5	0.3	< 2	
943	0.5	0.1	0.4	< 0.1	0.200	< 0.1	0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.05	0.4	< 0.001	5.6 < 0.5 ?	0.15	60.60	0.7	0.2	< 2	
944	0.3	0.1	0.3	< 0.1	0.200	< 0.1	0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.05	0.5	0.001	< 0.5	0.03	32.60	0.7	0.2	< 2	
945	0.2	< 0.1	0.1	< 0.1	0.100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.6	0.001	0.7	0.02	30.90	0.4	0.1	< 2	
946	0.6	0.1	0.5	0.1	0.300	0.1	0.2	< 0.1	0.1	< 0.1	< 0.1	< 0.05	0.3	0.002	< 0.5	0.04	11.20	0.4	0.8	< 2	
947	0.2	< 0.1	0.2	< 0.1	0.100	< 0.1	0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.05	0.5	0.003	< 0.5	0.03	9.31	0.3	0.1	< 2	
948	0.2	< 0.1	0.1	< 0.1	0.100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.6	0.002	< 0.5	0.07	45.50	0.1	< 0.1	< 2	
949	0.5	0.1	0.4	0.1	0.300	0.1	0.2	< 0.1	0.1	< 0.1	< 0.1	< 0.05	0.4	0.003	< 0.5	0.11	6.90	0.4	0.9	< 2	
950	0.2	< 0.1	0.1	< 0.1	0.100	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.4	0.001	< 0.5	0.08	27.10	< 0.1	< 0.1	< 2	
951	0.2	< 0.1	0.2	< 0.1	0.100	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.5	0.001	< 0.5	0.05	28.20	0.2	< 0.1	< 2	
952	0.1	< 0.1	0.1	< 0.1	0.100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.4	0.003	< 0.5	< 0.02	29.70	< 0.1	< 0.1	< 2	
953	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.3	0.004	< 0.5	< 0.02	11.90	< 0.1	< 0.1	< 2	
954	0.1	< 0.1	0.1	< 0.1	0.100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.3	0.003	< 0.5	< 0.02	32.50	0.1	0.2	< 2	
955	1.9	0.3	1.5	0.2	1.000	0.2	0.5	0.1	0.4	< 0.1	< 0.1	< 0.05	0.3	0.001	33.2 ? 18.4 ?	0.05	8.22	2.6	0.5	< 2	
956	6.7	1.1	4.8	0.5	2.700	0.5	1.3	0.2	1.1	0.2	0.2	< 0.05	18.7	< 0.001	82.2	0.34	173.00	17.3	2.2	77.4	
957	1.2	0.2	0.9	0.1	0.600	0.1	0.3	< 0.1	0.2	< 0.1	< 0.1	< 0.05	0.3	< 0.001	40.8	5.4 ?	< 0.02	11.60	1.4	0.2	17
958	0.7	0.2	0.6	0.1	0.500	0.1	0.2	< 0.1	0.2	< 0.1	< 0.1	< 0.05	0.2	< 0.001	12.2	< 0.02	11.80	0.8	0.1	52	

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1 g-vial neutron activation

Activation Laboratories Ltd.

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1 D env - Au + 34

Analyte Symbol	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hf	Hg	Ir	Mo	Na	Ni	Rb	Sb	Sc	Se	Sr
Unit Symbol	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	5	0.5	50	0.5	1	1	5	1	0.01	1	1	5	1	0.01	20	15	0.1	0.1	3	0.02
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
941	<5	6.5	<50	43.6	<1	4	<5	<1	0.20	<1	<1	<5	<1	0.05	<20	<15	<0.1	1.0	<3	<0.02
942	<5	5.7	<50	33.5	<1	4	9	<1	0.15	<1	<1	<5	<1	0.04	<20	<15	0.4	0.9	<3	<0.02
943	<5	5.9	<50	10.1	<1	<1	26	<1	0.52	4	<1	<5	<1	0.47	<20	<15	1.0	2.6	<3	<0.02
944	<5	3.7	<50	24.8	<1	8	<5	<1	0.45	<1	<1	<5	<1	0.04	<20	<15	<0.1	1.1	<3	<0.02
945	<5	4.0	<50	22.0	3	3	<5	<1	0.36	<1	<1	<5	<1	0.05	<20	<15	0.6	0.8	<3	<0.02
946	<5	4.8	<50	51.3	<1	5	38	<1	0.80	<1	<1	<5	<1	0.39	<20	<15	<0.1	2.9	<3	<0.02
947	<5	3.5	<50	29.0	<1	4	<5	<1	0.32	<1	<1	<5	<1	0.04	<20	<15	0.5	0.8	<3	<0.02
948	<5	5.2	<50	15.6	<1	4	<5	<1	0.29	<1	<1	<5	<1	0.06	<20	<15	<0.1	1.0	<3	<0.02
949	<5	6.2	<50	66.4	<1	5	31	<1	0.57	1	<1	<5	<1	0.20	<20	<15	0.5	2.3	<3	<0.02
950	<5	4.2	<50	13.9	3	11	<5	3	0.24	<1	<1	<5	<1	0.04	<20	<15	<0.1	0.6	<3	<0.02
951	<5	4.0	<50	13.9	<1	3	<5	3	<0.01	<1	<1	<5	<1	0.05	<20	<15	0.5	0.9	<3	<0.02
952	<5	19.3	<50	15.6	<1	<1	<5	<1	0.26	<1	<1	<5	<1	0.04	<20	<15	1.1	0.9	<3	<0.02
953	<5	15.0	<50	15.4	<1	5	<5	<1	<0.01	<1	<1	<5	<1	0.05	<20	<15	<0.1	0.6	<3	<0.02
954	<5	17.7	<50	14.1	<1	4	<5	<1	<0.01	<1	<1	<5	<1	0.05	<20	<15	0.6	0.6	<3	<0.02
955	<5	7.0	400	10.3	3	13	134	1	3.54	9	<1	<5	<1	1.67	<20	<15	<0.1	8.1	<3	<0.02
956	<5	134.0 ✓	560	<0.5	<1	63	1240	11	8.63 ✓	9	<1	<5	5	0.13	470 ✓	114	14.4	17.8	<3	<0.02
957	<5	4.0	130	3.1	<1	3	13	<1	0.55	3	<1	<5	<1	0.55	<20	<15	0.3	3.0	<3	<0.02
958	<5	11.4	350	7.4	<1	9	16	<1	1.01	4	<1	<5	<1	0.91	<20	<15	<0.1	5.3	<3	<0.02

1g-vial neutron activation

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I Denk - Au + 34

Analyte Symbol	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Mass
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g
Detection Limit	0.05	0.5	0.2	0.5	1	50	0.5	3	5	0.1	0.2	0.5	0.2	0.05	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
941	< 0.05	9.5	< 0.2	< 0.5	< 1	< 50	2.4	< 3	< 5	0.5	< 0.2	< 0.5	< 0.2	< 0.05	0.515
942	< 0.05	8.1	< 0.2	< 0.5	< 1	90	1.9	< 3	< 5	0.3	< 0.2	< 0.5	< 0.2	< 0.05	0.505
943	< 0.05	9.6	1.9	< 0.5	< 1	< 50	7.0	15	< 5	1.0	< 0.2	< 0.5	< 0.2	< 0.05	0.578
944	< 0.05	11.1	1.0	< 0.5	< 1	120	< 0.5	10	< 5	0.5	< 0.2	< 0.5	< 0.2	< 0.05	0.396
945	< 0.05	8.6	< 0.2	< 0.5	< 1	< 50	< 0.5	< 3	< 5	0.3	< 0.2	< 0.5	0.4	< 0.05	0.504
946	< 0.05	8.6	1.1	< 0.5	< 1	90	5.8	11	< 5	1.0	< 0.2	< 0.5	0.6	< 0.05	0.535
947	< 0.05	7.6	< 0.2	< 0.5	< 1	< 50	< 0.5	< 3	< 5	0.4	< 0.2	< 0.5	< 0.2	0.08	0.466
948	< 0.05	9.0	0.9	< 0.5	< 1	< 50	1.6	10	< 5	0.4	< 0.2	< 0.5	< 0.2	< 0.05	0.429
949	< 0.05	8.6	< 0.2	< 0.5	< 1	< 50	3.9	10	< 5	0.6	0.4	< 0.5	0.5	< 0.05	0.523
950	< 0.05	7.5	< 0.2	< 0.5	< 1	< 50	1.4	< 3	< 5	0.3	< 0.2	< 0.5	0.4	< 0.05	0.503
951	< 0.05	9.3	< 0.2	< 0.5	< 1	60	2.4	< 3	< 5	0.4	< 0.2	< 0.5	< 0.2	< 0.05	0.507
952	< 0.05	18.8	< 0.2	< 0.5	< 1	< 50	< 0.5	< 3	< 5	0.1	< 0.2	< 0.5	< 0.2	0.15	0.283
953	< 0.05	22.4	< 0.2	1.3	< 1	< 50	< 0.5	< 3	< 5	0.3	< 0.2	< 0.5	< 0.2	< 0.05	0.249
954	< 0.05	16.1	< 0.2	< 0.5	< 1	< 50	< 0.5	< 3	< 5	0.4	< 0.2	< 0.5	< 0.2	< 0.05	0.286
955	< 0.05	2.3	4.9	< 0.5	< 1	90	17.8	38	11	2.6	0.9	< 0.5	1.3	0.10	1.750
956	< 0.05	3.9	15.6	4.9	47 ✓	740 ✓	49.5	101	39	7.5	1.9	1.4	4.0	0.56	1.440
957	< 0.05	4.3	0.9	< 0.5	< 1	< 50	4.6	10	< 5	0.9	0.4	< 0.5	0.5	< 0.05	1.430
958	< 0.05	8.0	0.9	< 0.5	< 1	150	6.0	8	< 5	1.5	0.6	< 0.5	0.9	0.15	0.681

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Quality Control

Activation Laboratories Ltd.

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Quality Control																			
Analyte Symbol	Li	Be	B	No	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
Unit Symbol	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	0.5	1	0.01	0.1	0.1	0.01	0.1	0.02
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
GXR-1 Meas	5.00	0.90	10.00	0.0360	0.140	0.36	0.0300	1520.000	0.870	1.80	81.0	6.1	887	25.00	7.90	40.8	1210.00		5.63
GXR-1 Cert	8.20	1.22	15.00	0.0520	0.217	3.52	0.0500	1380.000	0.960	1.58	80.0	12.0	852	23.60	8.20	41.0	1110.00		13.80
GXR-1 Meas																			
GXR-1 Cert																			
GXR-4 Meas	9.30	1.40	1.00	0.1280	1.480	2.75	1.6100	19.100	0.840	6.40	74.0	51.8	143	2.73	12.70	36.6	6020.00		67.3
GXR-4 Cert	11.10	1.90	4.50	0.5640	1.660	7.20	4.0100	19.000	1.010	7.70	87.0	64.0	155	3.09	14.60	42.0	6520.00		73.0
GXR-4 Meas																			
GXR-4 Cert																			
GXR-6 Meas	29.50	1.00	2.00	0.0660	0.390	7.31	1.1500	0.160	0.160	25.00	162.0	74.1	1010	5.28	12.50	22.7	62.30	114.0	12.30
GXR-6 Cert	32.00	1.40	9.80	0.1040	0.609	17.70	1.8700	0.290	0.180	27.60	186.0	96.0	1010	5.58	13.80	27.0	66.00	118.0	35.00
GXR-6 Meas																			
GXR-6 Cert																			
OREAS 13b (4-Acid) Meas														414.0		47.00	2190.0	2320.00	58.1
OREAS 13b (4-Acid) Cert														8650.0		75.00	2247.0	2327.00	133.0
DMMAS 112 Meas																			
DMMAS 112 Cert																			
943 Orig	1.60	< 0.1	4.00	0.0070	0.120	0.30	0.0700	0.550	0.860	0.40	10.0	10.4	799	0.41	2.70	18.2	19.30	75.5	1.78
943 Dup	1.40	< 0.1	4.00	0.0010	0.110	0.27	0.0600	0.540	0.870	0.50	9.0	9.1	804	0.40	2.70	17.1	19.10	73.9	1.31
957 Orig	2.60	0.10	3.00	0.0120	0.170	0.40	0.0600	0.120	0.940	1.40	17.0	9.2	392	0.76	3.70	7.5	21.30	90.2	1.75
957 Dup	2.80	0.10	3.00	0.0090	0.170	0.40	0.0600	0.120	0.960	1.30	17.0	9.4	403	0.78	3.90	7.7	22.70	91.7	1.70
Method Blank	< 0.1	< 0.1	< 1	< 0.001	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	
Method Blank																			
Method Blank																			
Method Blank																			

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Quality Control

Activation Laboratories Ltd.

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Quality Control																			
Analyte Symbol	As	Se	Rb	Sr	Y	Zr	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba	La	Ce	Pr
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.1
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
GXR-1 Meas	407.0	16.700	2.3	218.0	29.50	15.1	0.200	18.10	32.500	2.710	0.800	27.00	94.20	13.8000	2.50	183.0	4.60	11.90	
GXR-1 Cert	427.0	16.600	14.0	275.0	32.00	38.0	0.800	18.00	31.000	3.300	0.770	54.00	122.00	13.0000	3.00	750.0	7.50	17.00	
GXR-1 Meas																			
GXR-1 Cert																			
GXR-4 Meas	87.4	4.400	94.5	75.9	11.30	9.9	0.100	293.00	3.220	0.150	0.190	5.24	3.32	0.7500	2.20	18.3	42.40	84.70	
GXR-4 Cert	98.0	5.600	160.0	221.0	14.00	186.0	10.000	310.00	4.000	0.860	0.270	5.60	4.80	0.9700	2.80	1640.0	64.50	102.00	
GXR-4 Meas																			
GXR-4 Cert																			
GXR-6 Meas	210.0	< 0.1	71.2	35.3	6.79	13.0	< 0.1	1.50	0.278	0.090	0.060	0.96	1.86	0.0300	3.60	1010.0	11.00	31.60	
GXR-6 Cert	330.0	0.940	90.0	35.0	14.00	110.0	7.500	2.40	1.300	1.000	0.260	1.70	3.60	0.0180	4.20	1300.0	13.90	36.00	
GXR-6 Meas																			
GXR-6 Cert																			
OREAS 13b (4-Acid) Meas	47.4									8.05	0.876								
OREAS 13b (4-Acid) Cert	57.0									9.00	0.860								
DMMAS 112 Meas																			
DMMAS 112 Cert																			
943 Orig	2.4	0.500	6.0	37.7	1.17	1.0	0.400	0.62	0.224	0.930	0.070	1.91	0.45	0.0400	0.70	147.0	4.20	8.66	0.9
943 Dup	1.1	1.200	5.8	37.6	1.06	0.7	0.300	0.61	0.232	0.930	0.060	1.91	0.59	0.0200	0.70	163.0	4.40	8.60	0.9
957 Orig	1.4	0.300	8.0	24.9	2.88	0.6	0.600	0.27	0.075	0.590	0.030	0.63	0.10	< 0.02	0.50	57.7	6.10	13.40	1.5
957 Dup	0.7	0.300	8.5	25.8	2.91	0.4	0.600	0.24	0.081	0.580	0.030	0.53	0.10	< 0.02	0.50	61.2	7.20	15.70	1.8
Method Blank	< 0.1	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	< 0.01	< 0.002	< 0.01	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	< 0.5	< 0.5	< 0.01	< 0.1
Method Blank																			
Method Blank																			
Method Blank																			

Quality Control

Activation Laboratories Ltd.

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Quality Control		Activation Laboratories Ltd. Report: A11-0731 rev 1																	
Analyte Symbol	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
GXR-1 Meas	2.20	0.500	3.50	0.600	4.400			0.4000	2.20	0.300	< 0.1	< 0.05	153.00	3310.0	0.350	816.00		30.00	
GXR-1 Cert	2.70	0.690	4.20	0.830	4.300			0.4300	1.90	0.280	0.960	0.175	164.00	3300.0	0.390	730.00		34.90	
GXR-1 Meas															3310.0				
GXR-1 Cert															3300.0				
GXR-4 Meas	5.10	1.100	3.80	0.400	2.300			0.1000	0.80	0.100	0.200	< 0.05	16.50	466.0	2.460	43.80	22.30	4.00	
GXR-4 Cert	6.60	1.630	5.25	0.360	2.600			0.2100	1.60	0.170	6.300	0.790	30.80	470.0	3.200	52.00	22.50	6.20	
GXR-4 Meas															466.0				
GXR-4 Cert															470.0				
GXR-6 Meas	2.20	0.600	1.90	0.300	1.600			0.1000	0.70	0.100	< 0.1	< 0.05	< 0.1	76.0	1.730	98.60	5.60	0.80	
GXR-6 Cert	2.67	0.760	2.97	0.415	2.800			0.0320	2.40	0.330	4.300	0.485	1.90	95.0	2.200	101.00	5.30	1.54	
GXR-6 Meas															76.0				
GXR-6 Cert															95.0				
OREAS 13b (4-Acid) Meas																			
OREAS 13b (4-Acid) Cert																			
DMMAS 112 Meas																			
DMMAS 112 Cert																			
943 Orig	0.60	0.100	0.40	< 0.1	0.200	< 0.1	0.1	< 0.1	0.10	< 0.1	< 0.1	< 0.05	0.50	0.001	< 0.5	0.160	62.00	0.60	0.20
943 Dup	0.50	0.100	0.40	< 0.1	0.200	< 0.1	0.1	< 0.1	0.10	< 0.1	< 0.1	< 0.05	0.40	< 0.001	5.6	0.140	59.20	0.80	0.20
957 Orig	1.20	0.200	0.90	0.100	0.600	0.1	0.3	< 0.1	0.20	< 0.1	< 0.1	< 0.05	0.30	0.001	39.1	< 0.02	11.80	1.90	0.20
957 Dup	1.20	0.200	0.90	0.100	0.600	0.1	0.3	< 0.1	0.20	< 0.1	< 0.1	< 0.05	0.20	< 0.001	40.9	< 0.02	11.50	1.00	0.20
Method	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	< 0.5	< 0.02	< 0.01	< 0.1	< 0.1
Blank																			
Method Blank																			
Method																			
Blank																			
Method Blank																			

Quality Analysis ...



Innovative Technologies

Date Submitted: 09-Mar-11
Invoice No.: A11-1786 (i)
Invoice Date: 27-Apr-11
Your Reference: MUSWAMP 3

Hermann Daxl
39-630 Riverpark Road
Timmins Ontario P4P 1B4
Canada

SWAMP DECAY + MUCK
959 - 992

ATTN: Hermann Daxl

CERTIFICATE OF ANALYSIS

Sieved < 250 micron decay and swamp muck collected 8 - 26 FEB. 2011
41 Vegetation samples were submitted for analysis.

The following analytical packages were request Code 2B-~~1g~~ Vegetation INAA (INAA GEO) pushed into 1-g vials.
REPORT **A11-1786 (i)** Code UT-2-0.5g Aqua Regia ICP-ICP/MS

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Footnote: INAA Au data is more reliable compared to AR Au data.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Eseme". Below the signature is a horizontal line.

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.

SWAMP DECAY OR MUCK, <250 µm

Activation Laboratories Ltd.

Report: A11-1786 (I) rev 1

Neutron activation 2B - Igvials
- vegetation

Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hg	Hf	Ir	K	Mo	Na	Ni	Rb	Sb	Sc	
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm		
Detection Limit	0.1	0.3	0.01	5	0.01	0.01	0.1	0.3	0.05	0.005	0.05	0.05	0.1	0.01	0.05	1	2	1	0.005	0.01	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA		
959	KM	< 0.1	< 0.3	1.68	36	29.90	1.49	2.0	7.8	< 0.05	0.234	< 0.05	< 0.05	2.5	< 0.01	< 0.05	710	< 2	< 1	0.240	0.48
960	M	2.3	< 0.3	2.28	69	12.90	2.03	2.8	5.4	< 0.05	0.391	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	295	< 2	< 1	0.480	0.54
961	M	< 0.1	< 0.3	0.90	< 5	17.90	2.60	1.0	8.1	< 0.05	0.370	0.22	< 0.05	< 0.1	< 0.01	< 0.05	320	< 2	< 1	0.120	1.00
962	Kmoss	221.0	< 0.3	2.13	39	34.30	0.88	2.1	8.3	< 0.05	0.218	< 0.05	< 0.05	2.7	0.33	< 0.05	908	< 2	< 1	0.225	0.52
963 below 941	KM	3.3	< 0.3	3.33	65	32.80	1.29	1.2	8.9	0.41	0.183	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	541	< 2	6	0.615	0.69
964	K	2.0	< 0.3	2.13	117	44.80	1.03	3.3	28.4	< 0.05	0.496	< 0.05	0.30	< 0.1	0.40	0.66	3630	38	15	0.240	1.78
965	KM	< 0.1	< 0.3	2.88	66	29.90	1.95	1.4	13.4	0.52	0.299	< 0.05	< 0.05	< 0.1	0.25	< 0.05	1260	29	< 1	0.240	1.78
966	KM	< 0.1	< 0.3	3.03	68	35.80	1.70	2.0	14.9	0.56	0.408	< 0.05	< 0.05	< 0.1	0.35	0.66	1570	< 2	< 1	0.330	1.32
967 < 125	M	< 0.1	< 0.3	1.07	63	16.40	2.95	0.6	5.7	0.54	0.500	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	577	< 2	< 1	0.135	1.20
968	K	< 0.1	< 0.3	2.58	< 5	43.30	1.20	1.2	5.1	< 0.05	0.267	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	440	< 2	< 1	0.210	0.39
969	M	675.0	< 0.3	1.38	80	23.90	2.61	0.6	5.3	0.34	0.233	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	119	< 2	< 1	0.210	0.92
970	M	1520.0	< 0.3	3.18	36	13.40	1.13	1.5	5.8	< 0.05	0.405	< 0.05	< 0.05	< 0.1	0.27	1.27	826	< 2	< 1	0.510	0.76
971	K	938.0	< 0.3	1.83	63	16.40	1.41	1.8	4.2	0.57	0.182	< 0.05	< 0.05	< 0.1	0.41	< 0.05	526	< 2	12	0.180	0.22
972	M	< 0.1	< 0.3	2.28	68	16.40	2.68	1.4	1.8	0.27	0.259	0.33	< 0.05	< 0.1	< 0.01	0.44	217	< 2	< 1	0.420	0.38
973	M	< 0.1	< 0.3	2.13	81	37.30	3.24	2.1	7.3	0.56	0.684	0.41	< 0.05	< 0.1	< 0.01	0.58	320	< 2	< 1	0.315	0.58
974	Kmoss	< 0.1	< 0.3	3.63	56	10.10	0.50	0.8	1.4	< 0.05	0.096	< 0.05	< 0.05	< 0.1	0.62	< 0.05	629	< 2	8	0.450	0.18
975	M	< 0.1	< 0.3	0.82	72	31.40	3.03	1.0	12.3	< 0.05	0.373	< 0.05	< 0.05	< 0.1	< 0.01	0.69	281	< 2	< 1	0.106	2.68
976 Sludge 3m	< 0.1	< 0.3	4.08	86	23.90	0.88	1.6	13.4	0.58	0.248	< 0.05	< 0.05	< 0.1	0.21	1.25	932	27	< 1	0.048	1.49	
977 Sludge 4m	< 0.1	< 0.3	3.93	80	25.40	1.00	1.6	14.9	< 0.05	0.287	< 0.05	< 0.05	< 0.1	0.20	1.11	1000	< 2	< 1	0.089	1.63	
978	M	< 0.1	< 0.3	1.23	75	25.40	4.53	0.6	3.0	0.47	0.249	< 0.05	< 0.05	< 0.1	< 0.01	3.08	197	< 2	< 1	0.210	0.48
at 50cm	KM	2520.0	0.9	2.13	< 5	32.80	2.10	0.3	< 0.3	< 0.05	0.102	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	125	27	< 1	0.330	0.14
984	K	< 0.1	< 0.3	1.53	47	32.80	0.94	0.6	0.4	0.41	0.180	< 0.05	< 0.05	< 0.1	< 0.01	0.69	127	< 2	< 1	0.255	0.09
985	KM	2.5	< 0.3	1.83	60	22.40	2.00	0.9	1.5	0.48	0.168	< 0.05	< 0.05	< 0.1	< 0.01	1.17	188	< 2	< 1	0.330	0.27
986	KM	< 0.1	< 0.3	0.82	69	11.40	2.44	0.8	2.0	0.27	0.369	< 0.05	< 0.05	< 0.1	< 0.01	0.27	220	< 2	< 1	0.111	0.33
987	KM	< 0.1	< 0.3	1.38	116	14.90	2.84	2.0	13.4	0.60	0.561	< 0.05	< 0.05	< 0.1	< 0.01	1.58	1370	< 2	9	0.165	1.34
988	KM	< 0.1	< 0.3	1.38	30	31.40	3.30	0.4	1.0	0.41	0.108	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	146	< 2	< 1	0.210	0.17

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Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hg	Hf	Ir	K	Mo	Na	Ni	Rb	Sb	Sc		
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm	ppm		
Detection Limit	0.1	0.3	0.01	5	0.01	0.01	0.1	0.3	0.05	0.005	0.05	0.05	0.1	0.01	0.05	1	2	1	0.005	0.01		
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA		
at 30 cm	989	M	2.4	< 0.3	3.03	195	31.40	3.05	5.6	11.9	0.60	1.020	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	386	29	< 1	0.240	1.63
at 50 cm	990	Km	< 0.1	< 0.3	3.78	69	61.30	1.05	3.2	20.9	0.64	0.368	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	2140	< 2	11	0.225	1.49
" 991	M	< 0.1	1.0	0.21	69	14.90	1.18	0.6	2.7	0.39	0.069	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	208	< 2	< 1	0.016	1.07	
" 992	kM	< 0.1	< 0.3	1.38	63	14.90	1.05	0.9	3.3	< 0.05	0.094	0.42	< 0.05	< 0.1	< 0.01	< 0.05	125	< 2	< 1	0.270	0.96	
993 = 967	125-250	< 0.1	< 0.3	1.23	78	16.40	3.11	0.4	5.7	0.45	0.496	< 0.05	< 0.05	< 0.1	< 0.01	0.42	364	< 2	8	0.135	1.02	
sieved.	994 = 953	moss	< 0.1	< 0.3	0.47	21	12.40	0.66	0.3	0.4	< 0.05	0.039	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	172	< 2	< 1	0.195	0.01 - DONUT LAKE
" 995 = 943	at 935	6.6	< 0.3	2.88	270	7.65	1.02	2.7	34.3	1.05	0.489	0.24	1.20	< 0.1	0.42	0.75	3520	< 2	18	0.765	1.63 - K over sand	
" 996 = 1818	< 125	4.2	< 0.3	2.28	360	1.05	1.44	3.9	77.8	1.13	0.988	< 0.05	5.55	< 0.1	1.19	< 0.05	14400	< 2	38	0.119	5.24 - McEnaney	
997	K < 250	12.8	< 0.3	1.83	225	3.30	< 0.01	1.0	61.3	0.60	0.438	0.34	0.75	< 0.1	0.77	< 0.05	8670	< 2	24	0.225	1.93 - Dayton 770	
998	K < 250	15.3	< 0.3	2.73	42	11.60	0.30	1.0	25.4	0.51	0.223	< 0.05	< 0.05	< 0.1	0.27	< 0.05	1140	< 2	8	0.285	0.74 - Dayton 769	
✓ 999 OREAS 138	211.0	< 0.3	55.30	639	< 0.01	4.51	64.4	718.0	5.56	7.150	< 0.05	1.62	28.8	0.30	5.00	14100	1860	104	2.090	23.20 - STANDARD		
		0.8	0.8			5.57		1.08		8.41			1.19	2.37	9		1247					

K Decay, decayed leaves, rootlets, encrustations 0-6 cm depth - after scraping away live plants or debris.

k minor content of K

M Muck, black smeary muck from swamps, from just below the frost - 15 to 30 cm depth or as marked.

m minor content of M

sieved < 250 micron or as marked.

Collected 20 cm of 5cm diam. auger core, air dried on paper towels, rolled with glass bottle to release encrustations.

None radioactive.

Mostly from Beep Mat BM8 anomalies (see map).

Activation Laboratories Ltd.

Report: A11-1786 (i) rev 1

Aqua regia - ICP+MS

0.5 g - ULTRATRACE 2

Analyte Symbol	Se	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Lu	Yb	Mass	Li	Be	B	Na	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g	ppm	ppm	ppm	%	
Detection Limit	0.1	100	0.05	0.1	0.01	0.05	2	0.01	0.1	0.3	0.001	0.05	0.1	0.001	0.005		0.1	0.1	1	0.001	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	AR-MS	AR-MS	AR-MS	AR-MS		
959	KM	< 0.1	< 100	0.60	0.3	0.15	< 0.05	26	< 0.01	2.8	< 0.3	0.045	< 0.05	< 0.1	< 0.001	< 0.005	0.526	0.6	< 0.1	4	0.010
960	M	< 0.1	100	0.57	0.3	0.12	< 0.05	54	1.80	6.2	3.3	0.255	0.18	< 0.1	0.003	0.058	0.520	0.2	0.1	3	0.008
961	M	1.5	< 100	0.36	0.6	0.72	< 0.05	< 2	2.25	6.9	5.4	0.300	0.21	< 0.1	0.015	0.091	0.527	0.3	0.2	5	0.011
962	Kmoss	0.9	< 100	0.31	0.2	0.15	< 0.05	41	< 0.01	3.0	5.1	0.015	0.15	< 0.1	< 0.001	0.009	0.539	0.7	< 0.1	9	0.013
963 below 951	km	1.8	< 100	0.41	0.4	0.82	< 0.05	53	1.65	5.1	3.5	0.210	< 0.05	< 0.1	0.007	0.091	0.516	0.6	0.1	5	0.010
964	K	2.1	< 100	0.50	0.8	0.82	< 0.05	60	3.75	10.1	5.6	0.555	0.28	< 0.1	0.030	0.195	0.523	2.2	< 0.1	5	0.017
965	km	2.0	< 100	0.22	0.9	2.03	< 0.05	17	6.45	10.4	7.2	0.750	0.34	< 0.1	0.045	0.299	0.666	0.5	0.2	4	0.001
966	KM	1.8	< 100	0.36	0.9	0.88	< 0.05	17	4.65	8.6	4.3	0.525	0.27	< 0.1	0.033	0.248	0.591	1.1	0.1	5	0.011
967 1125	M	1.6	< 100	0.39	0.6	0.68	< 0.05	11	7.65	10.6	7.7	0.870	0.33	< 0.1	0.060	0.294	0.589	0.6	0.1	5	0.011
968	K	0.9	< 100	0.45	< 0.1	< 0.01	< 0.05	32	< 0.01	2.3	< 0.3	0.015	< 0.05	< 0.1	< 0.001	< 0.005	0.523	0.3	< 0.1	8	0.008
969	M	< 0.1	100	0.52	0.4	0.52	< 0.05	9	4.35	7.3	4.7	0.450	0.22	< 0.1	0.015	0.108	0.532	0.2	0.2	6	0.010
970	M	< 0.1	< 100	0.34	0.3	0.08	< 0.05	5	1.05	4.7	3.6	0.180	0.18	< 0.1	< 0.001	0.010	0.580	0.3	0.1	2	0.012
971	K	< 0.1	< 100	1.49	< 0.1	< 0.01	< 0.05	48	< 0.01	< 0.1	< 0.3	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	0.256	0.2	< 0.1	9	0.006
972	M	0.8	< 100	0.28	0.2	0.03	< 0.05	8	0.30	3.3	2.7	0.075	0.15	< 0.1	< 0.001	< 0.005	0.563	0.3	< 0.1	5	0.011
973	M	0.6	< 100	0.28	0.4	0.03	< 0.05	23	1.05	3.9	4.5	0.180	0.18	< 0.1	0.015	0.066	0.616	0.5	0.1	8	0.011
974	Kmoss	< 0.1	< 100	0.76	< 0.1	< 0.01	< 0.05	27	< 0.01	< 0.1	< 0.3	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	0.319	< 0.1	< 0.1	1	0.002
975	M	2.0	< 100	0.24	1.4	0.86	< 0.05	11	20.30	9.9	18.5	2.030	0.64	0.4	0.184	1.040	0.652	0.4	0.2	6	0.010
976 Sludge 3 m	< 0.1	< 100	0.22	0.9	1.42	< 0.05	39	5.25	8.1	6.4	0.750	0.33	< 0.1	0.047	0.255	0.755	0.7	< 0.1	4	0.002	
977 Sludge 4 m	0.8	< 100	0.28	0.9	1.42	< 0.05	32	5.70	8.3	8.4	0.810	0.34	< 0.1	0.052	0.370	0.719	1.2	< 0.1	5	0.011	
978	M	< 0.1	< 100	0.21	0.3	0.50	0.36	6	0.45	4.3	2.7	0.120	< 0.05	< 0.1	< 0.001	0.006	0.586	0.3	0.1	14	0.013
979	M	< 0.1	< 100	0.30	0.3	< 0.01	< 0.05	< 2	1.05	3.2	3.0	0.240	0.19	< 0.1	0.023	0.052	0.523	0.1	< 0.1	5	0.010
980	K	0.3	< 100	0.45	< 0.1	< 0.01	< 0.05	41	0.90	2.7	< 0.3	0.105	< 0.05	< 0.1	< 0.001	< 0.005	0.452	0.3	< 0.1	7	0.011
981	M	2.5	< 100	0.36	1.6	1.58	< 0.05	< 2	29.30	21.0	27.5	3.220	0.99	0.6	0.229	1.370	0.551	0.4	0.2	4	0.012
982	M	< 0.1	< 100	0.33	0.2	0.06	< 0.05	3	< 0.01	2.7	< 0.3	0.030	< 0.05	< 0.1	< 0.001	< 0.005	0.522	< 0.1	< 0.1	4	0.013
983	KM	< 0.1	< 100	0.36	0.2	< 0.01	< 0.05	15	< 0.01	2.4	3.3	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	0.516	0.3	< 0.1	7	0.009
984	K	0.6	< 100	0.36	< 0.1	< 0.01	< 0.05	36	< 0.01	1.6	3.2	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	0.550	0.2	< 0.1	5	0.008
985	km	< 0.1	< 100	0.34	0.2	< 0.01	< 0.05	15	< 0.01	2.7	< 0.3	0.030	< 0.05	< 0.1	0.003	0.010	0.524	0.3	< 0.1	5	0.012
986	km	0.3	< 100	0.42	0.2	0.03	< 0.05	12	0.15	3.6	< 0.3	0.060	0.17	< 0.1	< 0.001	< 0.005	0.556	0.3	< 0.1	5	0.009
987	km	1.4	< 100	0.19	0.8	< 0.01	< 0.05	15	3.60	9.0	4.3	0.555	0.25	< 0.1	0.043	0.172	0.548	1.0	0.1	6	0.035
988	km	< 0.1	< 100	0.21	< 0.1	< 0.01	< 0.05	21	< 0.01	2.5	< 0.3	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	0.519	0.2	< 0.1	9	0.011

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Activation Laboratories Ltd. Report: A11-1786 (I) rev 1

Analyte Symbol	Se	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Lu	Yb	Mass	Li	Be	B	No
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g	ppm	ppm	ppm	%
Detection Limit	0.1	100	0.05	0.1	0.01	0.05	2	0.01	0.1	0.3	0.001	0.05	0.1	0.001	0.005		0.1	0.1	1	0.001
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	AR-MS	AR-MS	AR-MS	AR-MS	
at 30 ^m 989	1.8	< 100	0.24	1.0	0.96	< 0.05	32	11.60	12.8	11.3	1.270	0.48	0.3	0.104	0.588	0.654	0.6	0.2	7	0.016
at 50 ^m 990	2.7	< 100	0.27	0.8	1.73	< 0.05	84	3.45	8.7	6.9	0.450	0.22	< 0.1	0.023	0.157	0.592	2.7	0.1	7	0.037
" 991	< 0.1	< 100	0.50	0.4	0.08	< 0.05	8	1.65	5.6	3.2	0.240	0.18	< 0.1	0.016	0.056	0.527	0.5	0.1	2	0.011
" 992	0.3	< 100	0.45	0.2	< 0.01	< 0.05	< 2	3.15	7.1	4.5	0.435	0.24	< 0.1	0.016	0.052	0.521	0.2	0.1	3	0.015
993 = 967 125-250 < 0.1	< 100	0.36	0.6	0.42	< 0.05	12	6.00	9.0	7.9	0.720	0.30	< 0.1	0.048	0.273	0.532	0.8	0.2	8	0.020	
2 nd Siev. 994 = 953 mass < 0.1	< 100	0.82	< 0.1	< 0.01	< 0.05	24	< 0.01	< 0.1	< 0.3	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	0.350	0.1	< 0.1	5	0.030	
- - - 995 = 943 at 935 1.0	< 100	0.34	1.0	0.38	< 0.05	59	4.80	9.6	4.9	0.480	0.27	< 0.1	0.058	0.312	0.597	2.2	0.2	12	0.030	
996	< 0.1	300	< 0.05	2.3	0.72	< 0.05	53	10.80	18.0	9.0	1.420	0.57	0.3	0.144	0.840	1.380	6.4	0.1	5	0.026
997	0.9	< 100	0.18	0.9	0.15	< 0.05	26	3.15	7.8	4.1	0.450	0.31	< 0.1	0.042	0.252	0.725	1.1	< 0.1	3	0.029
998	0.3	< 100	0.78	0.2	< 0.01	< 0.05	47	< 0.01	2.7	< 0.3	0.015	< 0.05	< 0.1	< 0.001	< 0.005	0.443	0.3	< 0.1	10	0.052
✓ 999 DREAS 13b < 0.1	< 100	0.36	8.2	2.74	< 0.05	95	24.30	54.4	17.5	4.860	1.46	< 0.1	0.322	1.800	1.400	11.6	0.9	16	0.737	

SWAMP DECAY OR MUCK <250 cm Activation Laboratories Ltd. Report: A11-1786 (I) rev 1 Aqua regia - ICP+MS 0.5g

Analyte Symbol	Mg	Al	P	S	K	Ca	V	Cr	Ti	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Rb
Unit Symbol	%	%	%	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.01	0.001	0.001	0.01	0.01	1	0.5	0.01	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1	0.1	0.1	
Analysis Method	AR-MS	AR-MS	AR-ICP	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS							
959	KM	0.19	0.09	0.072	0.507	0.04	1.20	1	5.2 < 0.01	38	0.20	2.1	8.2	11.00	28.9	0.32	0.1	1.4	1.5	1.6
960	M	0.27	0.20	0.052	0.430	0.02	1.95	< 1	4.9 < 0.01	80	0.38	3.0	11.7	11.50	65.1	0.41	0.2	2.0	0.9	0.8
961	M	0.21	0.32	0.081	0.380	0.02	2.37	1	9.5 < 0.01	13	0.38	1.5	11.8	14.70	12.4	0.68	0.1	0.7	1.1	0.9
962	K moss	0.17	0.12	0.083	0.511	0.09	0.90	2	8.6 < 0.01	46	0.22	2.5	9.9	18.20	56.2	0.51	0.1	2.7	1.6	3.7
963 below 941	k M	0.15	0.21	0.070	0.538	0.03	1.39	4	6.2 < 0.01	19	0.16	1.5	11.0	18.70	65.6	0.96	0.3	2.4	1.4	1.5
964	K	0.19	0.29	0.083	0.380	0.05	0.77	2	14.9 < 0.01	215	0.32	3.1	14.1	19.00	68.9	0.73	< 0.1	0.9	1.0	3.7
965	k M	0.14	0.37	0.082	0.428	0.02	1.68	1	11.3 < 0.01	33	0.22	1.2	12.7	22.80	33.1	0.79	< 0.1	2.4	1.0	0.9
966	KM	0.14	0.32	0.075	0.494	0.02	1.66	8	11.0 < 0.01	54	0.35	1.8	11.1	19.80	30.5	1.09	0.2	3.4	1.6	1.4
967	M	0.16	0.34	0.062	0.278	0.02	3.06	4	5.9 < 0.01	24	0.47	0.8	9.1	16.50	13.9	0.66	0.1	1.0	1.1	1.5
968	K	0.10	0.07	0.090	0.432	0.06	0.80	< 1	2.8 < 0.01	106	0.24	1.3	7.5	14.70	39.5	0.07	< 0.1	1.3	0.8	1.8
969	M	0.31	0.31	0.071	0.414	0.01	2.83	< 1	6.3 < 0.01	20	0.25	0.9	18.3	19.90	8.9	0.29	0.1	1.3	1.0	0.6
970	M	0.14	0.19	0.050	0.250	0.02	1.15	2	6.2 < 0.01	17	0.37	2.0	8.1	9.67	16.8	0.70	0.1	2.7	0.5	1.6
971	K	0.16	0.04	0.090	0.222	0.05	1.30	< 1	1.9 < 0.01	961	0.13	1.7	3.4	11.70	67.2	< 0.02	< 0.1	< 0.1	0.5	3.5
972	M	0.27	0.13	0.058	0.203	0.02	2.76	< 1	3.2 < 0.01	197	0.28	1.9	10.2	10.50	15.9	0.19	< 0.1	1.2	0.5	0.8
973	M	0.25	0.22	0.097	0.437	0.02	2.95	< 1	6.8 < 0.01	771	0.62	2.4	8.2	10.40	27.8	0.40	0.1	2.3	1.1	1.1
974	K moss	0.05	0.04	0.023	0.095	0.01	0.29	< 1	1.0 < 0.01	11	0.04	0.2	1.3	2.87	22.7	0.16	< 0.1	2.2	0.3	0.5
975	M	0.29	0.53	0.116	0.506	0.02	3.16	3	11.9 < 0.01	160	0.36	1.4	30.1	36.90	15.5	0.23	0.1	< 0.1	1.4	1.1
976	Sludge 3m	0.08	0.21	0.034	0.639	0.01	0.84	1	9.7 < 0.01	38	0.19	1.3	22.9	19.80	44.2	0.14	< 0.1	0.1	0.6	1.1
977	Sludge 4m	0.10	0.29	0.038	0.840	0.02	0.94	4	14.6 < 0.01	48	0.26	1.9	26.0	24.30	49.9	0.41	< 0.1	0.9	0.8	1.9
978	M	0.26	0.21	0.047	0.553	0.01	3.87	2	4.8 < 0.01	6	0.26	0.8	11.2	9.14	18.6	0.28	< 0.1	1.1	0.8	0.7
979	M	0.19	0.14	0.048	0.214	0.01	2.57	3	3.6 < 0.01	106	0.17	1.1	8.3	16.30	3.3	0.08	< 0.1	0.3	0.5	0.4
980	K	0.12	0.08	0.118	0.277	0.06	1.07	< 1	1.9 < 0.01	271	0.21	2.7	7.7	14.70	57.5	0.04	< 0.1	< 0.1	0.4	3.0
981	M	0.20	0.49	0.086	0.363	0.02	2.17	2	12.8 < 0.01	61	0.26	2.3	18.7	49.30	6.3	0.58	0.2	< 0.1	1.0	0.9
982	M	0.13	0.11	0.032	0.174	0.01	1.42	< 1	3.0 < 0.01	27	0.09	0.6	3.9	7.25	10.4	0.19	< 0.1	0.5	0.3	0.3
ok 50cm	KM	0.22	0.06	0.054	0.482	0.02	1.87	< 1	1.5 < 0.01	43	0.11	0.3	4.3	7.01	22.8	0.21	0.2	2.1	1.2	1.0
984	K	0.10	0.05	0.090	0.424	0.05	0.93	< 1	1.4 < 0.01	22	0.18	0.8	4.0	12.60	48.2	0.07	< 0.1	0.5	0.8	2.5
985	k M	0.13	0.13	0.070	0.419	0.02	1.96	7	3.3 < 0.01	10	0.19	1.1	7.7	13.60	28.2	0.36	0.2	1.5	0.9	1.1
986	k M	0.17	0.13	0.051	0.223	0.01	2.54	1	2.0 < 0.01	8459	0.36	1.2	4.2	5.26	18.2	0.19	< 0.1	0.9	0.8	0.6
987	k M	0.17	0.31	0.097	0.246	0.02	2.25	2	10.0 < 0.01	360	0.50	2.2	7.9	8.90	17.9	0.51	< 0.1	< 0.1	0.8	0.9
988	k M	0.28	0.08	0.065	0.229	0.02	3.31	< 1	0.9 < 0.01	24	0.13	0.4	3.1	3.67	26.4	0.18	< 0.1	1.5	0.7	0.7

Activation Laboratories Ltd.

Report: A11-1786 (I) rev 1

Analyte Symbol	Mg	Al	P	S	K	Ca	V	Cr	Ti	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Rb	
Unit Symbol	%	%	%	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.01	0.001	0.001	0.01	0.01	1	0.5	0.01	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1	0.1	0.1	0.1	
Analysis Method	AR-MS	AR-MS	AR-ICP	AR-ICP	AR-MS	AR-MS	AR-MS	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS		
at 30cm	989	M	0.25	0.40	0.097	0.496	0.03	2.73	8	11.7	< 0.01	1100	0.97	6.8	17.8	26.60	47.3	0.20	0.1	1.7	1.7
at 50cm	990	Km	0.25	0.45	0.131	0.665	0.08	1.19	10	23.6	0.01	75	0.38	3.9	20.3	35.50	157.0	1.41	0.1	3.2	2.9
"	991	M	0.09	0.20	0.051	0.217	0.01	1.05	< 1	3.0	< 0.01	34	0.11	0.8	4.7	10.00	14.9	0.17	< 0.1	< 0.1	0.6
"	992	k M	0.14	0.24	0.086	0.541	0.02	1.24	< 1	2.8	< 0.01	28	0.15	1.5	6.8	14.50	13.4	0.25	0.1	0.5	0.7
993 = 967 125-250	0.23	0.48	0.089	0.399	0.03	4.10	3	8.1	< 0.01	39	0.65	1.1	12.1	22.10	21.7	0.83	0.1	0.8	1.1	2.0	
2nd siev.	994 = 953 moss	0.14	0.04	0.081	0.274	0.07	0.86	< 1	2.2	< 0.01	57	0.09	0.5	3.6	7.32	42.8	0.09	0.1	< 0.1	0.7	4.1
"	995 = 943 at 935	0.20	0.42	0.149	0.198	0.12	1.42	6	13.0	0.02	1290	0.56	5.7	29.7	33.50	126.0	1.47	0.2	4.0	1.8	9.9
	996		0.28	0.63	0.055	0.053	0.05	0.84	7	16.5	0.04	315	0.57	3.9	10.4	17.10	91.5	3.64	< 0.1	1.1	0.3
	997		0.06	0.23	0.043	0.087	0.05	0.11	1	6.7	0.01	48	0.26	1.1	17.3	28.80	28.0	0.79	< 0.1	1.6	0.4
	998		0.13	0.13	0.070	0.154	0.07	0.19	< 1	8.0	< 0.01	60	0.23	0.9	7.1	30.40	57.7	0.48	< 0.1	0.9	1.0
999 OREAS 138	0.92	3.43	0.219	1.341	0.57	2.63	187	313.0	0.16	331	4.28	62.6	2780.0	2780.00	64.8	8.98	0.3	64.3	3.5	68.0	

Analyte Symbol	Sr	Y	Zr	Sc	Pr	Gd	Dy	Ho	Er	Tm	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba		
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
Detection Limit	0.5	0.01	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.05			
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS			
959	KM	22.3	0.61	0.9	< 0.1	0.2	0.1	0.104	< 0.1	< 0.1	< 0.1	0.2	0.51	0.057	0.28	0.02	0.54	0.18	< 0.02	0.11	24.5	
960	M	41.5	1.46	0.9	< 0.1	0.6	0.4	0.252	< 0.1	0.1	< 0.1	0.2	0.77	0.080	0.96	< 0.02	0.49	0.32	0.04	0.12	63.1	
961	M	32.6	2.01	1.2	< 0.1	0.7	0.5	0.311	< 0.1	0.2	< 0.1	0.3	0.59	0.087	0.55	< 0.02	0.26	0.10	< 0.02	0.11	40.3	
962	Kmoss	19.8	0.71	0.4	< 0.1	0.3	0.2	0.108	< 0.1	< 0.1	< 0.1	0.2	0.93	0.143	0.38	0.06	0.33	0.17	< 0.02	0.17	28.1	
963	below KM	20.6	1.30	0.5	< 0.1	0.4	0.3	0.217	< 0.1	0.1	< 0.1	0.2	1.20	0.109	1.66	0.03	1.21	0.31	0.05	0.19	27.1	
964	K	12.7	1.57	0.4	< 0.1	0.7	0.4	0.295	< 0.1	0.1	< 0.1	0.2	0.45	0.068	0.49	0.02	0.41	0.11	< 0.02	0.20	24.3	
965	km	19.6	3.42	0.5	< 0.1	1.2	0.8	0.530	0.1	0.3	< 0.1	0.1	0.46	0.110	0.90	< 0.02	0.55	0.10	< 0.02	0.08	17.9	
966	KM	25.2	2.39	0.8	< 0.1	0.8	0.5	0.354	< 0.1	0.2	< 0.1	0.2	0.76	0.648	1.25	0.34	0.83	0.18	< 0.02	0.22	26.6	
967	M	37.8	4.07	1.4	0.2	1.5	0.9	0.590	0.1	0.3	< 0.1	0.2	0.29	0.058	0.57	< 0.02	0.17	0.11	< 0.02	0.23	53.7	
968	K	15.9	0.56	< 0.1	< 0.1	0.2	0.1	0.093	< 0.1	< 0.1	< 0.1	0.39	0.744	0.34	0.02	0.29	0.10	< 0.02	0.12	28.4		
969	M	44.5	2.60	1.1	< 0.1	1.0	0.6	0.413	< 0.1	0.2	< 0.1	0.2	0.66	0.129	0.55	0.05	0.41	0.14	< 0.02	0.10	57.2	
970	M	21.8	1.23	0.5	< 0.1	0.4	0.3	0.213	< 0.1	0.1	< 0.1	0.1	0.79	0.482	1.12	0.02	0.62	0.32	< 0.02	0.11	27.8	
971	K	23.0	0.31	< 0.1	< 0.1	< 0.1	< 0.1	0.051	< 0.1	< 0.1	< 0.1	< 0.1	0.51	0.060	0.39	< 0.02	0.27	0.13	< 0.02	0.24	66.1	
972	M	40.1	1.06	0.6	< 0.1	0.3	0.2	0.174	< 0.1	< 0.1	< 0.1	0.1	0.70	0.063	0.52	< 0.02	0.48	0.30	< 0.02	0.09	71.0	
973	M	48.5	1.57	0.9	< 0.1	0.4	0.3	0.238	< 0.1	0.1	< 0.1	0.1	1.12	0.085	0.66	< 0.02	0.50	0.21	< 0.02	0.25	84.4	
974	Kmoss	10.1	0.19	< 0.1	< 0.1	< 0.1	< 0.1	0.033	< 0.1	< 0.1	< 0.1	< 0.1	< 0.01	0.056	0.51	0.02	0.28	0.20	< 0.02	0.03	21.0	
975	M	56.3	11.80	1.6	0.4	3.8	2.1	1.520	0.3	0.9	0.1	0.2	0.39	0.099	0.51	< 0.02	0.09	0.06	< 0.02	0.29	76.3	
976	Sludge 3m	13.3	2.99	0.3	< 0.1	1.1	0.8	0.535	0.1	0.3	< 0.1	< 0.1	1.48	0.033	0.28	< 0.02	< 0.05	0.03	< 0.02	0.26	52.2	
977	Sludge 4m	14.0	3.70	1.7	0.3	1.4	0.9	0.592	0.1	0.3	< 0.1	0.2	2.50	0.042	0.31	< 0.02	< 0.05	0.05	< 0.02	0.34	53.2	
978	M	55.1	1.19	1.0	0.1	0.4	0.2	0.185	< 0.1	0.1	< 0.1	< 0.1	4.34	0.055	0.44	< 0.02	0.29	0.14	< 0.02	0.26	68.5	
979	M	79.2	2.17	0.6	< 0.1	0.6	0.4	0.294	< 0.1	0.2	< 0.1	< 0.1	0.94	0.091	0.30	< 0.02	0.08	0.09	< 0.02	0.08	49.7	
980	K	27.4	1.05	< 0.1	< 0.1	0.4	0.2	0.163	< 0.1	< 0.1	< 0.1	< 0.1	0.51	0.085	1.27	0.03	0.29	0.15	< 0.02	0.23	51.2	
981	M	44.9	14.30	1.8	0.6	6.0	3.3	2.290	0.5	1.2	0.2	0.2	0.96	0.155	0.61	< 0.02	0.13	0.11	< 0.02	0.31	69.6	
982	M	32.7	0.75	0.4	< 0.1	0.2	0.2	0.129	< 0.1	< 0.1	< 0.1	< 0.1	0.49	0.032	0.25	< 0.02	0.10	0.07	< 0.02	0.07	35.0	
at 50cm	983	KM	26.0	0.38	0.1	< 0.1	0.1	< 0.1	0.065	< 0.1	< 0.1	< 0.1	0.21	0.069	0.80	0.03	0.76	0.26	< 0.02	0.10	34.7	
"	984	K	14.1	0.38	< 0.1	< 0.1	0.1	< 0.1	0.067	< 0.1	< 0.1	< 0.1	0.40	0.062	0.48	0.03	0.38	0.19	< 0.02	0.20	20.5	
"	985	km	36.4	1.03	0.4	< 0.1	0.3	0.2	0.150	< 0.1	< 0.1	< 0.1	1.24	0.109	0.75	0.02	0.72	0.25	< 0.02	0.23	50.9	
"	986	km	41.8	0.86	0.6	< 0.1	0.3	0.2	0.144	< 0.1	< 0.1	< 0.1	0.20	0.040	0.32	< 0.02	0.13	0.09	< 0.02	0.09	58.6	
"	987	km	38.3	2.31	1.1	0.1	0.9	0.6	0.438	< 0.1	0.2	< 0.1	0.2	0.31	0.121	0.53	< 0.02	0.18	0.08	< 0.02	0.27	76.5
"	988	km	39.6	0.50	0.3	< 0.1	0.2	0.1	0.093	< 0.1	< 0.1	< 0.1	0.49	0.026	0.33	< 0.02	0.27	0.23	< 0.02	0.14	37.0	

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Analyte Symbol	Sr	Y	Zr	Sc	Pr	Gd	Dy	Ho	Er	Tm	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs	Ba		
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			
Detection Limit	0.5	0.01	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.02			
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS			
at 30 cm ⁻¹	989	M	44.4	7.76	1.8	0.3	2.6	1.6	1.130	0.2	0.6	< 0.1	0.2	0.55	0.136	0.82	0.03	0.60	0.15	< 0.02	0.33	180.0
at 50 cm ⁻¹	990	K _m	19.1	2.48	1.1	< 0.1	1.0	0.6	0.418	< 0.1	0.2	< 0.1	0.3	1.18	0.145	1.26	0.04	1.12	0.26	< 0.02	0.24	27.1
"	991	M	31.6	1.62	0.2	< 0.1	0.6	0.4	0.288	< 0.1	0.2	< 0.1	< 0.1	0.15	0.070	0.21	< 0.02	0.10	0.03	< 0.02	0.06	66.1
"	992	k M	41.4	2.71	0.2	< 0.1	1.2	0.7	0.484	< 0.1	0.3	< 0.1	0.1	0.66	0.081	0.65	< 0.02	0.40	0.28	< 0.02	0.09	65.5
"	993 = 967	125-250	50.3	5.28	2.1	0.3	1.9	1.2	0.796	0.2	0.4	< 0.1	0.2	0.47	0.092	0.73	< 0.02	0.32	0.16	< 0.02	0.28	72.6
2nd Siev	994 = 953 moss		23.0	0.25	< 0.1	< 0.1	< 0.1	0.044	< 0.1	< 0.1	< 0.1	< 0.1	0.08	0.043	0.56	< 0.02	0.33	0.23	< 0.02	0.16	27.9	
"	995 = 943 at 935		66.1	1.51	1.1	0.3	0.9	0.4	0.307	< 0.1	0.1	< 0.1	0.4	0.93	0.410	1.62	0.11	3.62	0.87	< 0.02	1.17	276.0
	996		21.5	1.90	0.4	0.7	1.4	0.7	0.407	< 0.1	0.2	< 0.1	0.6	0.09	0.050	0.47	0.03	0.64	0.11	< 0.02	0.81	66.6
	997		13.7	0.78	0.4	0.2	0.6	0.3	0.172	< 0.1	< 0.1	< 0.1	0.2	0.21	0.070	0.60	0.06	0.98	0.23	< 0.02	0.25	43.6
	998		10.1	0.41	0.2	< 0.1	0.3	0.2	0.095	< 0.1	< 0.1	< 0.1	0.1	0.23	0.037	0.50	0.07	0.51	0.22	< 0.02	0.14	31.2
	999	OREAS 13b	218.0	12.80	0.2	5.7	6.1	3.9	2.520	0.5	1.2	0.2	< 0.1	10.60	1.100	0.12	0.26	5.22	1.46	0.34	5.46	145.0
			45.37												0.86							

Analyte Symbol	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Bi	Th	U	
Unit Symbol	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm										
Detection Limit	0.5	0.01	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.02	0.1	0.1	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS										
959	KM	1.1	2.76	0.88	0.2	< 0.1	< 0.1	< 0.1	0.1	< 0.05	0.2	0.003	1.7	0.04	16.00	0.14	0.4	0.2	
960	M	2.5	5.91	2.22	0.4	< 0.1	< 0.1	0.1	< 0.1	< 0.05	0.1	0.003	16.5	0.04	24.60	0.19	0.4	0.2	
961	M	2.7	6.11	2.59	0.5	0.1	< 0.1	0.2	< 0.1	< 0.05	0.1	0.003	6.6	0.02	10.30	0.10	0.3	0.6	
962	KMoss	1.2	2.90	0.99	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.2	0.002	151.0	0.13	8.35	0.13	< 0.1	0.3	
963 below 961 qnt	KM	1.9	4.14	1.61	0.3	< 0.1	< 0.1	0.1	< 0.1	< 0.05	0.1	0.002	2.1	0.08	49.90	0.45	< 0.1	0.8	
964	K	2.8	6.41	2.54	0.5	0.1	< 0.1	0.1	< 0.1	< 0.05	< 0.1	0.002	1.0	0.08	12.80	0.22	< 0.1	0.7	
965	KM	5.4	8.02	4.68	0.8	0.2	< 0.1	0.3	< 0.1	< 0.05	0.2	0.003	1.7	0.06	23.30	0.24	< 0.1	1.5	
966	KM	3.6	6.11	3.20	0.6	0.1	< 0.1	0.2	< 0.1	< 0.05	< 0.1	0.003	1.7	0.05	26.90	0.27	< 0.1	0.8	
967 < 125	M	6.2	8.79	5.57	1.0	0.2	0.1	0.3	< 0.1	< 0.05	< 0.1	0.003	2.0	0.02	5.54	0.07	0.2	0.6	
968	K	1.1	2.22	0.85	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.001	0.5	0.07	8.48	0.13	< 0.1	0.1	
969	M	4.6	7.12	3.65	0.6	0.2	< 0.1	0.2	< 0.1	< 0.05	< 0.1	0.004	149.0	0.03	7.59	0.08	0.1	0.6	
970	M	1.7	4.17	1.61	0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.2	0.002	< 0.5	< 0.02	26.40	0.25	< 0.1	0.2	
971	K	< 0.5	1.50	0.38	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.002	73.8	0.04	11.40	0.13	< 0.1	< 0.1	
972	M	1.3	2.68	1.20	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.1	0.004	1.3	0.04	17.90	0.20	< 0.1	0.1	
973	M	1.6	3.23	1.64	0.3	< 0.1	< 0.1	0.1	< 0.1	< 0.05	< 0.1	0.007	2.6	0.03	19.80	0.19	< 0.1	0.1	
974	KMoss	< 0.5	1.10	0.28	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	53.8	< 0.02	11.40	0.14	< 0.1	< 0.1	
975	M	16.9	9.10	14.10	2.4	0.5	0.3	0.8	0.1	< 0.1	< 0.05	< 0.1	0.004	16.7	0.05	4.42	0.05	0.2	0.9
976 Sludge 3 m	M	4.4	6.78	4.55	0.8	0.2	< 0.1	0.2	< 0.1	< 0.05	0.1	0.002	1.1	0.04	1.59	0.03	< 0.1	1.3	
977 Sludge 4 m	M	5.1	7.95	5.39	1.0	0.2	0.1	0.3	< 0.1	< 0.05	< 0.1	0.002	0.8	0.06	1.58	0.03	0.1	1.6	
978	M	1.4	3.31	1.37	0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.006	2.6	< 0.02	6.60	0.10	0.1	0.4	
at 50 cm	KM	0.5	1.78	0.48	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.005	6.5	0.03	37.40	0.28	< 0.1	< 0.1	
984	K	0.6	1.70	0.53	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.002	2.7	0.04	13.30	0.17	< 0.1	0.1	
985	KM	1.1	2.41	1.04	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.004	< 0.5	0.03	28.60	0.27	< 0.1	0.1	
986	KM	1.2	2.91	1.10	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.001	0.7	< 0.02	4.92	0.05	< 0.1	< 0.1	
987	KM	3.5	8.00	3.39	0.7	0.2	< 0.1	0.2	< 0.1	< 0.05	< 0.1	0.004	< 0.5	< 0.02	5.94	0.06	< 0.1	0.2	
988	KM	0.6	2.12	0.66	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.001	< 0.5	0.02	10.00	0.12	< 0.1	< 0.1	

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Analyte Symbol	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Bi	Th	U	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm		
Detection Limit	0.5	0.01	0.02	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.02	0.1	0.1		
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS		
at 30cm 989	M	10.7	14.50	10.20	1.8	0.4	0.2	0.6	< 0.1	< 0.1	< 0.05	< 0.1	0.003	2.0	0.06	26.60	0.25	0.2	0.8
at 50cm 990	Km	4.1	8.93	3.66	0.7	0.2	< 0.1	0.2	< 0.1	< 0.1	< 0.05	< 0.1	0.002	1.5	0.16	32.00	0.40	< 0.1	1.7
" 991	M	2.4	5.08	2.35	0.4	0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.001	26.1	< 0.02	2.47	0.04	< 0.1	0.2
" 992	M	4.9	9.22	4.66	0.8	0.2	< 0.1	0.2	< 0.1	< 0.1	< 0.05	< 0.1	0.004	< 0.5	0.02	13.70	0.17	< 0.1	0.2
993 = 967 125-250	8.1	11.60	7.57	1.4	0.3	0.1	0.4	< 0.1	< 0.1	< 0.05	< 0.1	0.003	1.0	0.03	9.44	0.12	0.2	0.9	
2nd siev.	994 = 953 mass	< 0.5	1.86	0.33	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.003	< 0.5	< 0.02	12.80	0.12	< 0.1	< 0.1
" 995 = 943 at 935	4.5	8.77	3.42	0.6	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	1.2	0.002	4.0	0.21	102.00	1.16	0.2	0.3
996	5.9	12.50	5.15	0.9	0.2	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.1	0.001	24.7	0.06	19.50	0.19	0.2	0.2
997	2.7	6.11	2.24	0.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	0.001	13.9	0.03	31.20	0.33	0.2	0.1
998	1.2	4.61	1.02	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	0.4	0.001	< 0.5	0.06	15.50	0.23	0.3	< 0.1
999 OREAS 138	22.8	49.50	24.40	4.6	0.8	0.5	0.9	0.1	< 0.1	< 0.05	0.6	0.005	251.0	1.09	20.40	2.53	11.9	2.5	

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Quality Control

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Quality Control																			
Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hg	Hf	Ir	K	Mo	Na	Ni	Rb	Sb
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppb	%	ppm	ppm	ppm	ppm	
Detection Limit	0.1	0.3	0.01	5	0.01	0.01	0.1	0.3	0.05	0.005	0.05	0.05	0.1	0.01	0.05	1	2	1	0.005
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	
GXR-1 Meas																			
GXR-1 Cert																			
GXR-1 Meas																			
GXR-1 Cert																			
GXR-4 Meas																			
GXR-4 Cert																			
GXR-4 Meas																			
GXR-4 Cert																			
GXR-6 Meas																			
GXR-6 Cert																			
GXR-6 Meas																			
GXR-6 Cert																			
Au 100 ppb Meas	101.0																		
Au 100 ppb Cert	100.0																		
Au 100 ppb Meas	103.0																		
Au 100 ppb Cert	100.0																		
Au 100 ppb Meas	98.4																		
Au 100 ppb Cert	100.0																		
OREAS 13b (4-Acid) Meas																			
OREAS 13b (4-Acid) Cert																			
OREAS 13b (4-Acid) Meas																			
OREAS 13b (4-Acid) Cert																			
Au 50ppb Meas	53.0																		
Au 50ppb Cert	50.0																		

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Quality Control

Analyte Symbol	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hg	Hf	Ir	K	Mo	Na	Ni	Rb	Sb
Unit Symbol	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppb	%	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.1	0.3	0.01	5	0.01	0.01	0.1	0.3	0.05	0.005	0.05	0.05	0.1	0.01	0.05	1	2	1	0.005
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA										

Au 50ppb 53.0

Meas

Au 50ppb 50.0

Cert

Au 50ppb 49.0

Meas

Au 50ppb 50.0

Cert

971 Orig

971 Dup

985 Orig

985 Dup

998 Orig

998 Dup

Method

Blank

Method Blank

Method	< 0.1	< 0.3	< 0.01	< 5	< 0.01	< 0.01	< 0.1	< 0.3	< 0.05	< 0.005	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 1	< 2	< 1 < 0.005
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Blank

Method Blank

Method

Blank

Method Blank

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Quality Control																			
Analyte Symbol	Se	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Lu	Yb	Mass	Li	Be	B
Unit Symbol	ppm	ppm	ppm	ppm	ppm	g	ppm	ppm	ppm										
Detection Limit	0.1	100	0.05	0.1	0.01	0.05	2	0.01	0.1	0.3	0.001	0.05	0.1	0.001	0.005	0.1	0.1	1	
Analysis Method	INAA	INAA	INAA	INAA	INAA	AR-MS	AR-MS	AR-MS											
GXR-1 Meas																5.10	0.90	9.00	
GXR-1 Cert																8.20	1.22	15.00	
GXR-1 Meas																4.70	0.80	11.00	
GXR-1 Cert																8.20	1.22	15.00	
GXR-4 Meas																10.90	1.70	2.00	
GXR-4 Cert																11.10	1.90	4.50	
GXR-4 Meas																11.40	1.70	5.00	
GXR-4 Cert																11.10	1.90	4.50	
GXR-6 Meas																42.60	1.10	5.00	
GXR-6 Cert																32.00	1.40	9.80	
GXR-6 Meas																27.10	0.90	5.00	
GXR-6 Cert																32.00	1.40	9.80	
Au 100 ppb Meas																			
Au 100 ppb Cert																			
Au 100 ppb Meas																			
Au 100 ppb Cert																			
Au 100 ppb Meas																			
Au 100 ppb Cert																			
Au 100 ppb Meas																			
Au 100 ppb Cert																			
OREAS 13b (4-Acid) Meas																			
OREAS 13b (4-Acid) Cert																			
OREAS 13b (4-Acid) Meas																			
OREAS 13b (4-Acid) Cert																			
Au 50ppb Meas																			
Au 50ppb Cert																			

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Quality Control																			
Analyte Symbol	Se	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Lu	Yb	Mass	Li	Be	B
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g	ppm	ppm	ppm
Detection Limit	0.1	100	0.05	0.1	0.01	0.05	2	0.01	0.1	0.3	0.001	0.05	0.1	0.001	0.005	0.1	0.1	1	
Analysis Method	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	AR-MS	AR-MS	AR-MS	
Au 50ppb																			
Meas																			
Au 50ppb																			
Cert																			
Au 50ppb																			
Meas																			
Au 50ppb																			
Cert																			
971 Orig																0.20	< 0.1	9.00	
971 Dup																0.20	< 0.1	9.00	
985 Orig																0.30	< 0.1	5.00	
985 Dup																0.30	< 0.1	6.00	
998 Orig																			
998 Dup																			
Method																< 0.1	< 0.1	< 1	
Blank																			
Method Blank																			
Method	< 0.1	< 100	< 0.05	< 0.1	< 0.01	< 0.05	< 2	< 0.01	< 0.1	< 0.3	< 0.001	< 0.05	< 0.1	< 0.001	< 0.005	1.00			
Blank																			
Method Blank																			
Method																< 0.1	< 0.1	< 1	
Blank																			
Method Blank																			

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Quality Control		Mg	Al	P	S	K	Ca	V	Cr	Ti	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se
Analyte Symbol	Unit Symbol	%	%	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.01	0.01	0.001	0.001	0.01	0.01	1	0.5	0.01	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1	0.1	0.1	
Analysis Method	AR-MS	AR-MS	AR-ICP	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
GXR-1 Meas	0.150	0.32	0.0380	0.1680	0.0300	0.840	84.0	6.2		880	24.50	8.10	41.1	1060.00	764.0	4.45	438.0	16.000		
GXR-1 Cert	0.217	3.52	0.0650	0.2570	0.0500	0.960	80.0	12.0		852	23.60	8.20	41.0	1110.00	760.0	13.80	427.0	16.600		
GXR-1 Meas	0.130	0.31			0.0300	0.770	44.0	6.4		844	20.60	7.50	37.8	1040.00	728.0	2.79	372.0	9.800		
GXR-1 Cert	0.217	3.52			0.0500	0.960	80.0	12.0		852	23.60	8.20	41.0	1110.00	760.0	13.80	427.0	16.600		
GXR-4 Meas	1.920	3.29	0.1230	1.6510	1.9600	0.960	86.0	58.8		162	3.31	15.50	44.0	6240.00	71.0	12.00	110.0	5.600		
GXR-4 Cert	1.660	7.20	0.1200	1.7700	4.0100	1.010	87.0	64.0		155	3.09	14.60	42.0	6520.00	73.0	20.00	98.0	5.600		
GXR-4 Meas	1.660	2.90			1.7800	0.900	49.0	55.2		162	2.86	14.90	41.6	6380.00	68.8	11.30	103.0	5.300		
GXR-4 Cert	1.660	7.20			4.0100	1.010	87.0	64.0		155	3.09	14.60	42.0	6520.00	73.0	20.00	98.0	5.600		
GXR-6 Meas	0.500	9.53	0.0320	0.0220	1.3600	0.300	168.0	81.2		1110	5.91	14.20	26.0	70.20	122.0	19.70	211.0	< 0.1		
GXR-6 Cert	0.609	17.70	0.0350	0.0160	1.8700	0.180	186.0	96.0		1010	5.58	13.80	27.0	66.00	118.0	35.00	330.0	0.940		
Au 100 ppb Meas																				
Au 100 ppb Cert																				
Au 100 ppb Meas																				
Au 100 ppb Cert																				
Au 100 ppb Meas																				
Au 100 ppb Cert																				
OREAS 13b (4-Acid) Meas			1.1430				297.0				52.20	2200.0	2270.00	57.8			52.7			
OREAS 13b (4-Acid) Cert			1.2000				8650.0				75.00	2247.0	2327.00	133.0			57.0			
OREAS 13b (4-Acid) Meas							259.0				48.10	2160.0	2240.00	70.0			50.7			
OREAS 13b (4-Acid) Cert							8650.0				75.00	2247.0	2327.00	133.0			57.0			
Au 50ppb Meas																				
Au 50ppb Cert																				

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Quality Control																			
Analyte Symbol	Mg	Al	P	S	K	Ca	V	Cr	Ti	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se
Unit Symbol	%	%	%	%	%	%	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.01	0.01	0.001	0.001	0.01	0.01	1	0.5	0.01	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1	0.1	0.1
Analysis Method	AR-MS	AR-MS	AR-ICP	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS	AR-ICP	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
Au 50ppb Meas																			
Au 50ppb Cert																			
Au 50ppb Meas																			
Au 50ppb Cert																			
971 Orig	0.150	0.04	0.0910	0.2260	0.0500	1.240	< 1	1.9	< 0.01	933	0.13	1.70	3.3	11.80	67.3	0.09	< 0.1	< 0.1	0.500
971 Dup	0.170	0.04	0.0900	0.2190	0.0500	1.350	< 1	1.9	< 0.01	990	0.13	1.80	3.4	11.60	67.1	< 0.02	< 0.1	< 0.1	0.600
985 Orig	0.120	0.13	0.0690	0.4200	0.0200	1.900	6.0	2.6	< 0.01	9	0.19	1.10	7.3	12.90	25.8	0.26	0.2	1.3	0.800
985 Dup	0.140	0.14	0.0700	0.4190	0.0200	2.020	8.0	4.0	< 0.01	10	0.20	1.20	8.1	14.30	30.5	0.47	0.2	1.7	1.100
998 Orig			0.0760	0.1640					< 0.01										
998 Dup			0.0640	0.1430					< 0.01										
Method Blank	< 0.01	< 0.01	< 0.001	< 0.001	< 0.01	< 0.01	< 1	< 0.5	< 0.01	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	< 0.1	< 0.1	< 0.1
Method Blank																			
Method Blank																			
Method Blank																			
Method Blank	< 0.01	< 0.01					< 0.01	< 0.01	< 1	< 0.5		< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	< 0.1
Method Blank																			
Method Blank																			

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Quality Control		Sr	Y	Zr	Sc	Pr	Gd	Dy	Ho	Er	Tm	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs
Analyte Symbol	Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm								
Detection Limit	0.5	0.01	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.02		
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS		
GXR-1 Meas	171.0	28.50	17.6	1.50		3.50	4.290		0.4000	0.300	18.50	32.300	2.600	0.760	25.80	101.00	13.6000	2.76		
GXR-1 Cert	275.0	32.00	38.0	1.58		4.20	4.300		0.4300	0.800	18.00	31.000	3.300	0.770	54.00	122.00	13.0000	3.00		
GXR-1 Meas	183.0	27.10	15.6	1.50		3.50	4.360		0.3000	0.300	15.80	30.900	2.540	0.670	23.20	81.50	13.3000	2.65		
GXR-1 Cert	275.0	32.00	38.0	1.58		4.20	4.300		0.4300	0.800	18.00	31.000	3.300	0.770	54.00	122.00	13.0000	3.00		
GXR-4 Meas	72.1	12.40	9.9	7.30		4.40	2.480		0.1000	0.200	332.00	3.670	0.120	0.200	5.88	4.06	0.8100	2.43		
GXR-4 Cert	221.0	14.00	186.0	7.70		5.25	2.600		0.2100	10.000	310.00	4.000	0.860	0.270	5.60	4.80	0.9700	2.80		
GXR-4 Meas	90.7	12.30	9.2	7.20		4.20	2.380		0.1000	< 0.1	305.00	3.590	0.080	0.200	5.73	2.82	0.7700	2.48		
GXR-4 Cert	221.0	14.00	186.0	7.70		5.25	2.600		0.2100	10.000	310.00	4.000	0.860	0.270	5.60	4.80	0.9700	2.80		
GXR-6 Meas	51.2	7.30	16.2	25.00		2.00	1.510		0.1000	< 0.1	1.65	0.289	0.100	0.060	1.09	2.07	< 0.02	3.43		
GXR-6 Cert	35.0	14.00	110.0	27.60		2.97	2.800		0.0320	7.500	2.40	1.300	1.000	0.260	1.70	3.60	0.0180	4.20		
GXR-6 Meas	35.5	6.65	11.8	22.90		1.90	1.460		0.1000	< 0.1	0.77	0.301	0.090	0.060	0.99	0.92	< 0.02	3.16		
GXR-6 Cert	35.0	14.00	110.0	27.60		2.97	2.800		0.0320	7.500	2.40	1.300	1.000	0.260	1.70	3.60	0.0180	4.20		
Au 100 ppb Meas																				
Au 100 ppb Cert																				
Au 100 ppb Meas																				
Au 100 ppb Cert																				
Au 100 ppb Meas																				
Au 100 ppb Cert																				
OREAS 13b (4-Acid) Meas													9.57	0.963						
OREAS 13b (4-Acid) Cert													9.00	0.860						
OREAS 13b (4-Acid) Meas													8.21	0.858						
OREAS 13b (4-Acid) Cert													9.00	0.860						
Au 50ppb Meas																				
Au 50ppb Cert																				

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Quality Control																			
Analyte Symbol	Sr	Y	Zr	Sc	Pr	Gd	Dy	Ho	Er	Tm	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	Cs
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Detection Limit	0.5	0.01	0.1	0.1	0.1	0.1	0.001	0.1	0.1	0.1	0.1	0.01	0.002	0.01	0.02	0.05	0.02	0.02	0.02
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	
Au 50ppb																			
Meas																			
Au 50ppb																			
Cert																			
Au 50ppb																			
Meas																			
Au 50ppb																			
Cert																			
971 Orig	22.7	0.31	< 0.1	< 0.1	0.1	< 0.1	0.050	< 0.1	< 0.1	< 0.1	< 0.1	0.54	0.076	0.390	0.040	0.28	0.15	< 0.02	0.25
971 Dup	23.2	0.31	< 0.1	< 0.1	< 0.1	< 0.1	0.052	< 0.1	< 0.1	< 0.1	< 0.1	0.49	0.044	0.380	< 0.02	0.26	0.12	< 0.02	0.24
985 Orig	34.2	0.96	0.3	< 0.1	0.2	0.20	0.142	< 0.1	< 0.1	< 0.1	< 0.1	1.15	0.110	0.720	0.020	0.68	0.23	< 0.02	0.21
985 Dup	38.6	1.10	0.5	< 0.1	0.3	0.20	0.157	< 0.1	< 0.1	< 0.1	0.100	1.33	0.107	0.780	0.020	0.76	0.27	< 0.02	0.25
998 Orig																			
998 Dup																			
Method Blank	< 0.5	< 0.01	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.01	< 0.002	< 0.01	< 0.02	< 0.05	< 0.02	< 0.02
Method Blank																			
Method Blank																			
Method Blank																			
Method Blank	< 0.5	< 0.01	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.1	< 0.1	< 0.1	< 0.1	< 0.01	< 0.002	< 0.01	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02
Method Blank																			
Method Blank																			

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Quality Control																		
Analyte Symbol	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Bi	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.5	0.01	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.02	0.1	0.1
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
GXR-1 Meas	4.00	10.60	6.15	2.30	0.500	0.700	2.10	0.300	< 0.1	< 0.05	163.00	3310.0	0.370	726.001460.000	7.50	33.00		
GXR-1 Cert	7.50	17.00	18.00	2.70	0.690	0.830	1.90	0.280	0.960	0.175	164.00	3300.0	0.390	730.001380.000	2.44	34.90		
GXR-1 Meas	4.40	11.00	6.26	2.30	0.500	0.700	2.10	0.300	< 0.1	< 0.05	130.00	3270.0	0.330	702.001680.000		30.50		
GXR-1 Cert	7.50	17.00	18.00	2.70	0.690	0.830	1.90	0.280	0.960	0.175	164.00	3300.0	0.390	730.001380.000		34.90		
GXR-4 Meas	46.40	87.90	35.70	5.80	1.200	0.500	0.80	0.100	0.200	< 0.05	12.70	416.0	2.840	48.60	19.800	20.20	4.60	
GXR-4 Cert	64.50	102.00	45.00	6.60	1.630	0.360	1.60	0.170	6.300	0.790	30.80	470.0	3.200	52.00	19.000	22.50	6.20	
GXR-4 Meas	46.30	86.80	34.10	5.40	1.200	0.500	0.80	0.100	0.200	< 0.05	13.60	749.0	2.680	44.00	23.600	21.70	4.50	
GXR-4 Cert	64.50	102.00	45.00	6.60	1.630	0.360	1.60	0.170	6.300	0.790	30.80	470.0	3.200	52.00	19.000	22.50	6.20	
GXR-6 Meas	10.90	31.70	11.30	2.30	0.600	0.300	0.70	< 0.1	< 0.1	< 0.05	< 0.1	62.7	1.670	98.10	0.170	4.10	0.90	
GXR-6 Cert	13.90	36.00	13.00	2.67	0.760	0.415	2.40	0.330	4.300	0.485	1.90	95.0	2.200	101.00	0.290	5.30	1.54	
GXR-6 Meas	10.70	31.10	11.00	2.30	0.500	0.300	0.70	< 0.1	< 0.1	< 0.05	< 0.1	43.1	1.720	97.30	0.190	5.10	0.70	
GXR-6 Cert	13.90	36.00	13.00	2.67	0.760	0.415	2.40	0.330	4.300	0.485	1.90	95.0	2.200	101.00	0.290	5.30	1.54	
Au 100 ppb Meas																		
Au 100 ppb Cert																		
Au 100 ppb Meas																		
Au 100 ppb Cert																		
Au 100 ppb Meas																		
Au 100 ppb Cert																		
OREAS 13b (4-Acid) Meas																		
OREAS 13b (4-Acid) Cert																		
OREAS 13b (4-Acid) Meas																		
OREAS 13b (4-Acid) Cert																		
Au 50ppb Meas																		
Au 50ppb Cert																		

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Quality Control																		
Analyte Symbol	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Bi	Th	U
Unit Symbol	ppm	ppb	ppm	ppm	ppm	ppm												
Detection Limit	0.5	0.01	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.02	0.1	
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS												
Au 50ppb																		
Meas																		
Au 50ppb																		
Cert																		
Au 50ppb																		
Meas																		
Au 50ppb																		
Cert																		
971 Orig	<0.5	1.56	0.40	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	0.001	77.5	0.040	11.50	0.130	<0.1	
971 Dup	<0.5	1.43	0.37	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	0.002	70.1	0.040	11.20	0.140	<0.1	
985 Orig	1.00	2.34	0.99	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	0.005	<0.5	0.030	28.50	0.280	<0.1	
985 Dup	1.10	2.48	1.09	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	0.090	<0.1	0.004	1.6	0.030	28.60	0.260	<0.1	
998 Orig																		
998 Dup																		
Method Blank	<0.5	<0.01	<0.02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.001	<0.5	<0.02	<0.01	<0.02	<0.1	
Method Blank																		
Method Blank																		
Method Blank	<0.5	<0.01	<0.02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.001	<0.5	<0.02	<0.01	<0.02	<0.1	
Method Blank																		
Method Blank																		

LOG of work done by H. DAXL, Musgrave Tp.

- 24 OCT. 2010 Beepmat area of samples 931 - 937 + 5452
 31 OCT. 2010 Soil sampling + panning, 931 - 935
 1 NOV. 2010 Dig up Beep Mat anomaly 5452, soils 936 - 937.
 2 NOV. 2010 Beep Mat + Prospect, see dates on traverses.
 4 " -"
 5 " -"
 6 " - + dig-up Beep Mat anomaly 5453-54.
 8 " -"
 9 " -"
 10 " -"
 11 " -
 22 " Wash 3 rocksamples, describe, ship, lab order, dry soils.
 29 NOV. 2010 Sieve 7 soils, pack, lab order, ship
 18 JAN 2011 Plot traverses.
 21 " Write report
 22 " -"
 23 " -"
 25 " BeepMat swamp, soil 941 - 942
 26 " - " - 943 - 945
 27 " - " - 946 - 949
 28 " - " L91E south of road, no samples.
 29 " - " at 2 airborne* soil 950 - 951
 30 " - " swamp S of Donut R., samples 952 - 954
 MON. 31 " Return Beep Mat BM8, write report.
 1 FEB. 2011 Sieve soils + lab orders + pack 944 - 958
 8 " Sampled 959 - 968 just below ice
 9 " BeepMat, but at -17C it did not last. Sampled 969 - 970.
 10 " - " Sampled 971 - 972.
 11 " - " Sample 973.

- 13 FEB. 2011 Beep Mat, Sample 974
- 14 " -" - -" - 975
- 15 " Drilled ice to sample sludge at 3 and 4 m depth.⁹⁷⁶⁻⁷⁷
- 16 " Beep Mat, Sampled 978
- 21 " -" - -" - 979 - 982
- 22 " -" - -" - 983
- 23 " -" - -" - 984 - 987
- 25 " -" - -" - 988 - 990
- 26 " -" - -" - 991 - 992
- 2 MARCH DRY + SIEVE samples.
- 5 " SIEVE samples, Ship them.
- 4 MAY Evaluate results of K+M samples
- 6 " Burned leftovers of decay + muck < 250 mesh
- 9 " Plot gold results of K+M samples, various copying.
- 10 " Dig up Beep anomaly 5455-56. Not sampled yet.
- 11 " Beep Mat, dug up 1 boulder, Not sampled yet. 5457
- 12 " Write Report, finalize maps.
- 13 " -" -
- 14 " -" -
- 16 " Finalize Report.

Claims Map Donut Lake
Musgrove Township, Ontario
Scale 1 : 10,000

The logo for Beep Mat BM8 consists of a stylized red 'B' shape formed by a series of small dots, followed by the text "Beep Mat BM8 Traverses with GPS field points".

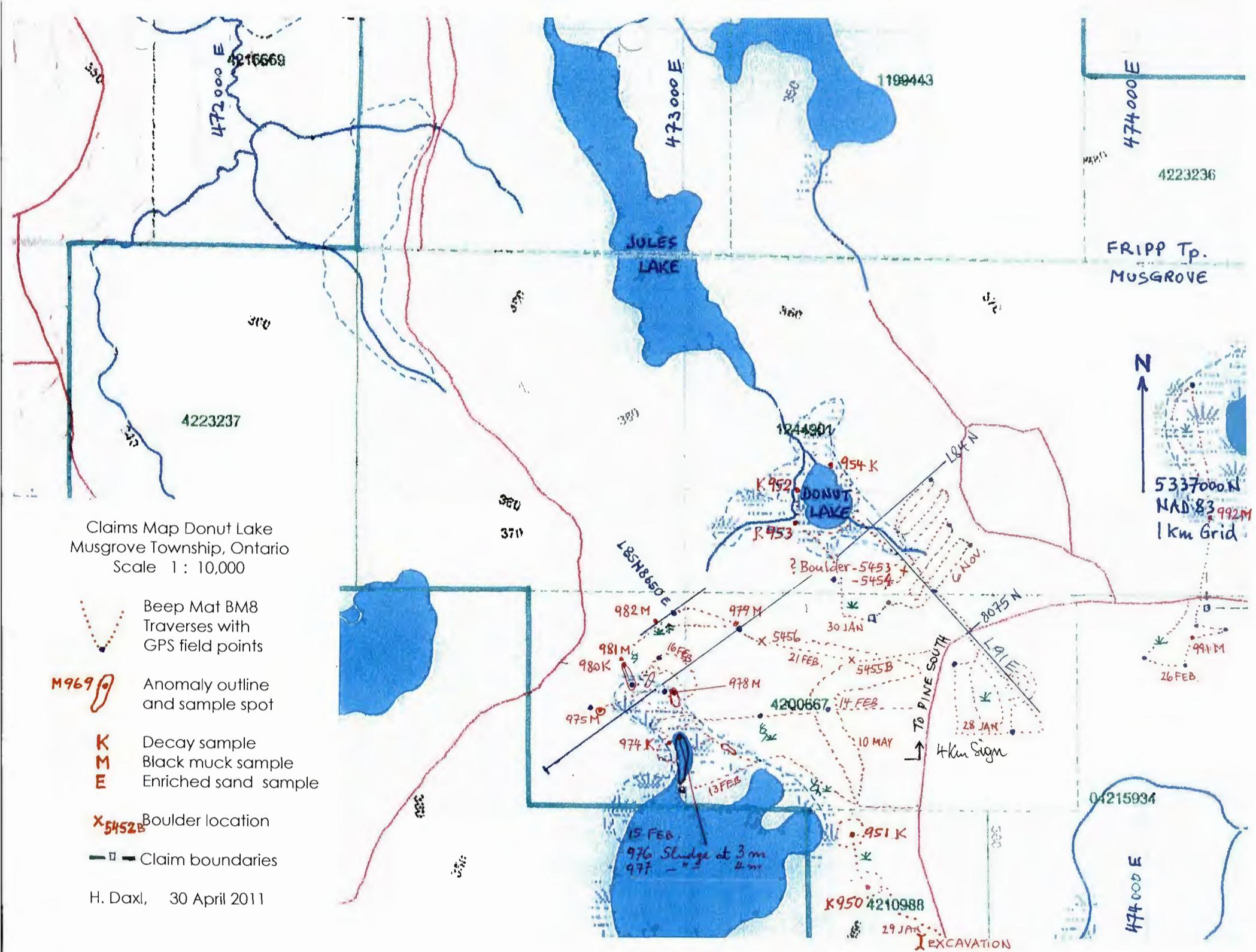
M9699 Anomaly outline
and sample spot

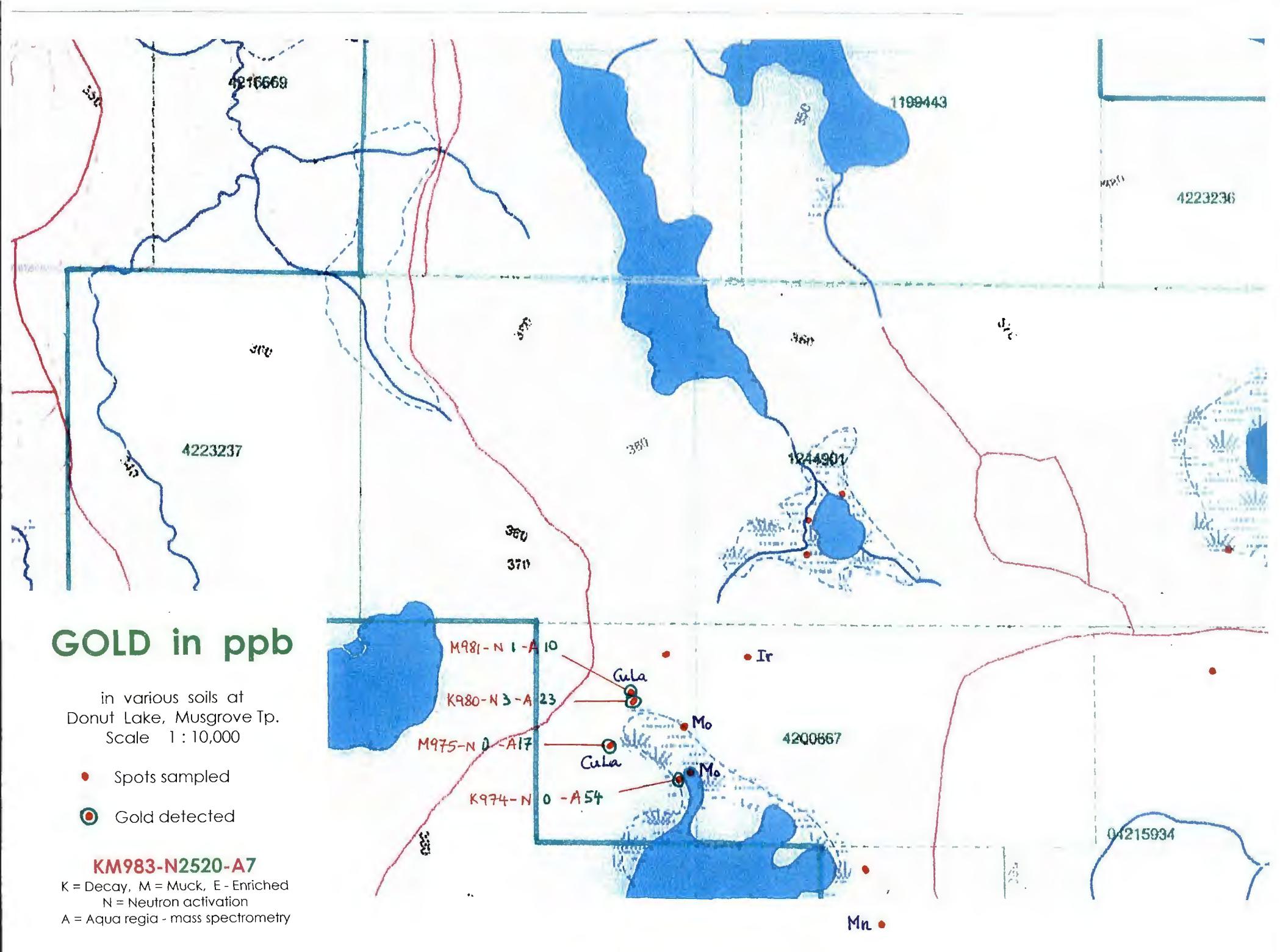
K Decay sample
M Black muck sample
E Enriched sand sample

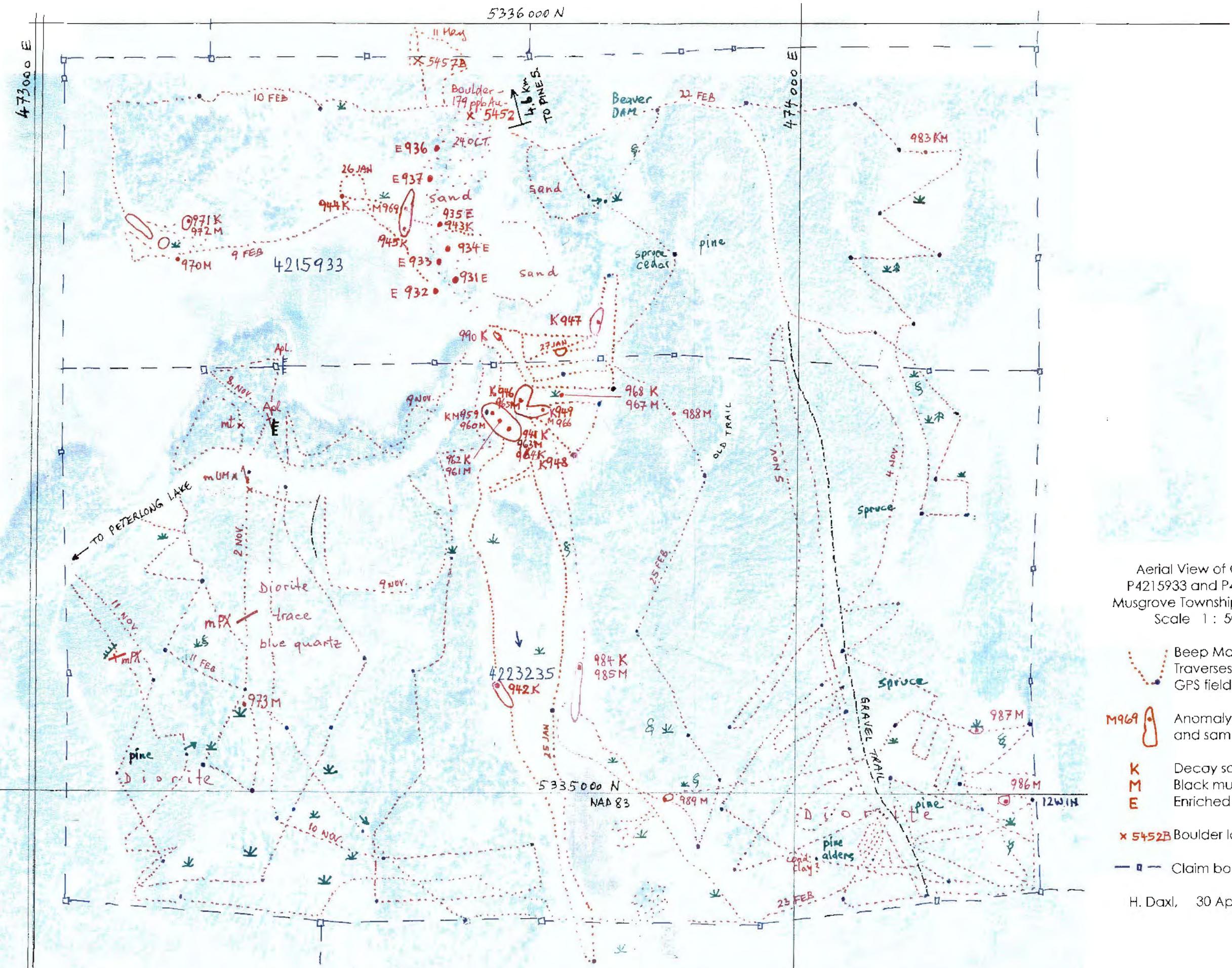
x 5452B Boulder location

— □ — Claim boundaries

H. Daxl, 30 April 2011







5336 000 N

473 000 E

K97-N⁹³⁸-A⁷⁴
M972-N⁰-A⁰

M970-N¹⁵²⁰-A⁰

A₃

M969-N⁶⁷⁵-A¹⁴⁹

Ag Cd

KD943-N⁷-A⁷
E 935-N⁰-A¹⁸
Ag Pb Sn Ba A²⁸

KM959-N⁰-A²
M960-N²-A¹⁷

K962-N²²¹-A¹⁹¹
M961-N⁰-A⁷

K941-N⁰-A⁴
K964-N²-A¹
KM963-N³-A²

Gu Zn Pb

Ir

Ir

Sn Pb

Pb

K984-N⁰-A³
KM985-N³-A⁰

474 000 E

KM983-N²⁵²⁰-A⁷
Ag Pb

5335 000 N

NAD 83

M989-N²-A²

GOLD in ppb

in various soils on claims
P4215933 and P4223235

Musgrove Tp.

Scale 1:5,000

● Spots sampled

● Gold detected

KM983-N2520-A7

K = Decay, M = Muck, E - Enriched,

sample number

N = Neutron activation

ppb Au

A = Aqua regia - mass spectrometry