

Tritium and Noble Gas Laboratory

www.ams.uottawa.ca

Media Codes and Pricing

Email an copy of this form to: alapp@uottawa.ca kbutera@uottawa.ca

		GENE	ERAL			
Submitter Name:				Affiliation:		
Submitter Email:				Street Address:		
Submitter Phone:				Postal / Zip Code:		
Principal Investigator Name:			City	y, Province / State:		
Principal Investigator Email:				Country:		
Principal Investigator Phone:				Date Submitted:	:	
We are a	LOW-BACKGROUI	ND LABORATO	ORY, FREE O	F ANY ENRICHED N	NATERIAL	
I have read and understand the	Terms of Service. My	y samples do not	contain, nor h	ave been in contact wi	th, enriched 14C materials.	
		5111				
Contact Name		BILL	ING	^ ff:l:ation	Address same as above	
Contact Name:				Affiliation:		
Phone Number:				Street Address:		
Email Address:				City, Province:		
Cost Center or PO:				Postal Code:		
				Country:		
Sector:	Internal / OCGC				lic / Government Private	
Method of payment:	Cheque (preferre		ard W	rire Transfer / Direct Dep		
Can all sample mat		Yes			cify quatitiy:	
Should unused materia	I be returned?	Yes (\$15	5 minimum fee))		
		PROJECT INF				
Project Title:		PROJECT IN	·URIVIA I I U IV			
·						
Country: Site Name:						
Collection Date:						
Student Work:	Will the data be u	red by a studer	nt? If yes nler	ase select: B.Sc.	M.Sc. PhD PDF	
Environmental details (location					IVI.SC.	
Environmental details (location	, Iresii/ Sait Water	, expected tri	lluiii activit	y, etc).		
Sample significance and any other relevant information (eg. potential contamination):						
Sample significance and any ou	lei Televalit illion	mation (eg. p	Oleminal Com	tallillationj.		
	NOTE D	SECARDING S	AAADI E COLL	ECTION.		
	NOTER	REGARDING SA	AMPLE COLL	ECTION:		

FOR INTERNAL USE ONLY						
Date Received (YYY/MM/DD)	AELL Number	UOT/UON Numbers Assigned				

Samples <u>MUST</u> be collected as outlined on the website. Other sample types require consultation with laboratory personnel prior to submission.



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Samples must be clearly labelled with submission IDs. Please sort samples by media code in the list below.

	Lab ID	Submitter's Sample ID ¹	Sample Material ¹	Material Code ¹	Sample Size	Date of Sample Collection	Comments
	UON/T Number	20 characters max.	i.e. water, gas, clay, rock etc.	See tab 3 for material codes	Weight (g) or Volume (L)	(DD/MM/YYYY)	Any relevant sample information, well depth, etc
1	leave blank						
2	leave blank						
3	leave blank						
4	leave blank						
5	leave blank						
6	leave blank						
7	leave blank						
8	leave blank						
9	leave blank						
10	leave blank						
11	leave blank						
12	leave blank						
13	leave blank						



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	UON/T Number	20 characters max.	i.e. water, gas, clay, rock etc.	See tab 3 for material codes	Weight (g) or Volume (L)	(DD/MM/YYYY)	Any relevant sample information, well depth, etc
14	leave blank						
15	leave blank						
16	leave blank						
17	leave blank						
18	leave blank						
19	leave blank						
20	leave blank						
21	leave blank						
22	leave blank						
23	leave blank						
24	leave blank						
25	leave blank						
26	leave blank						



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Media Codes and Pricing

Tritium Laboratory¹

		Sample Size		Price per Sample (CAD)		
Code	Decription	Min	Ideal	Canadian Academic, Government, Non-Profit ²	Commerical, Independent, International	
Liquid So	amples					
LT	Tritium Direct Analysis	10 ml	30 ml	\$40	\$55	
LT-P	With Pre-Treatment (colour,conductivity > 5000 us/cm)	-	-	\$75	\$105	
LE	Tritium-Enriched by Electrolysis	260 ml	600 ml	\$130	\$185	
LE-P	With Pre-Treatment (colour,conductivity > 5000 us/cm)	-	-	\$235	\$330	
Solid Samples						
FWT	Free Water Tritium (FWT) by Vacuum Distillation	Please contact ³		\$160	\$230	
Organically Bound Tritium (OBT)						
		Dry Weight				
OP	Parr Bomb Combustion	10 g	20 g	\$220	\$315	
OI	Analysis by Helium-3 Ingrowth ⁴	Please contact		\$330	\$475	

Noble Gas Laboratory¹

Troble Gas Editoratory							
		Sample	Size	Price per Sample (CAD) ¹			
Code	Decription	Min	Ideal	Canadian Academic, Government, Non-Profit ²	Commerical, Independent, International		
Diffusion Sampler - Dissolved Gases in Water							
НВ	³ He/ ⁴ He, Geogenic ⁴ He, ²⁰ Ne, and ²² Ne	-	-	\$300	\$420		
Water Crimped in Cu							
WB	³ He/ ⁴ He, Geogenic ⁴ He, ²⁰ Ne, and ²² Ne	-	-	\$405	\$580		
ОТ	Other - Please contact us ⁵	-	-	Please contact us			

¹ Please list duplicate analyses as separate sample entries

² University of Ottawa Users and Ottawa-Carleton Geoscience Center (OCGC) members please contact us for internal pricing

³ Required sample size depends on moisture content of the organic material. Please consult before shipping any organic samples for FWT analysis.

⁴ Estimated activities are necessary to calculate approximate ³ He ingrowth times. Please provide sample information such as location, previous nuclear activity and proximity to facilities, age, etc.

⁵ Please consult with us before shipping other gas samples, especially high pressure cylinders. Unknown gas contents may require GC characterization before noble gas analysis.

Lalonde

André E. Lalonde AMS Laboratory

Tritium and Noble Gas Laboratory

Terms of Service

This Agreement is a legally binding contract. By submitting a Submission Form to the André E. Lalonde (AEL) AMS Laboratory at the University of Ottawa ("AEL AMS Laboratory, uOttawa, We, Us, Our or Ours"), the Submitter ("Submitter, They, Their, Theirs") acknowledges and agrees to the following terms and conditions.

1. Low-Background Disclaimer:

The AEL AMS Laboratory is a low-background laboratory, free of any enriched material (including but not limited to 14C). By submitting this form, the Submitter warrants that Their samples are free of any enriched material. If enriched material from the Submitter's samples, or the packaging in which they are shipped, results in contamination of equipment or instrumentation requiring cleanup or replacement, significant charges will be incurred.

2. Sample Submission:

The Submitter will provide a completed Submission Form (the "Submission") and the samples to be analyzed (the "Samples"). We reserve the right to decline a Submission. By making a Submission, the Submitter certifies that They are legally capable of entering into binding contracts on behalf of Themselves, Their supervisor, and/or Their Company.

3. Ownership:

The Samples are not the property of the AEL AMS Laboratory or uOttawa, and we assume no responsibility for any loss or damage to the Samples. The Submitter acknowledges that the analysis process is destructive; therefore, unless otherwise specified in the Submission, any remaining sample material will be held for a period of six (6) months, after which time it will be discarded. If the Submitter specifies the return of the Samples, a minimum fee of \$15 will be applied to Their invoice; larger return shipments are the responsibility of the Submitter.

4. Liability:

We expressly disclaim all warranties in respect of the analyses and the data including all expressed or implied warranties of merchantability and fitness for a particular purpose, including as evidence in any legal proceeding. By analyzing the Samples and providing the data, uOttawa, its employees, students or other uOttawa representatives are not providing an opinion and declines to be a witness in any legal or other adversarial proceeding. Our liability to the Submitter whether arising in contract, tort, negligence, breach of statutory duty or otherwise shall not exceed the price paid for the analysis. The Submitter acknowledges and agrees that: (i) analyses and the data are provided by the AEL AMS Laboratory "as is"; (ii) in no event shall We be liable for any direct, incidental, punitive or consequential damages whatsoever with respect to the analyses and the data; (iii) that any reliance upon the analyses and/or the data shall be at the Submitter's sole risk; (iv) Title and risk of loss with rewa or the Ottawa-Carleton Geoscience Centre (OCGC) (including faculty, adjuncts, post-docs, gradua

5. Indentification:

The Submitter shall indemnify, hold harmless and defend uOttawa, and their respective officers, directors, employees, students and agents (the "indemnified parties") against any and all claims, demands, actions, liability and expenses ("claims") including claims, allegedly resulting in whole or in part from the negligence of the indemnified parties or from acts or omissions for which the indemnified parties otherwise would be liable, related to or arising from the tests, the Samples, the data or Your use of the data. The Submitter shall be responsible for any damage to uOttawa's facilities and/or personnel caused by the Samples

6. Confidentiality:

Lalonde

André E. Lalonde AMS Laboratory

Tritium and Noble Gas Laboratory

Terms of Service

"Confidential Information" means any materials, written information, and data provided to the AEL AMS Laboratory by the Submitter for the purpose of conducting the analyses. Information pertaining to the submission, including the analysis results, will not be released to third parties that are not listed on the Submission without written consent of the original Submitter. We will use reasonable efforts to maintain the Confidential Information as confidential to the extent permitted by law. Our obligations do not apply to information in the public domain or independently known or obtained by uOttawa. The Submitter acknowledges that uOttawa is subject to the Freedom of Information and Protection of Privacy Act (Ontario) and as such records in its custody or control, including the Confidential Information, may be subject to access to information requests.

7. Dating of Antiquities:

The Submitter certifies that any samples of artwork, or cultural artifacts submitted to the AEL AMS Laboratory are the property of the Submitter, or that the Submitter is acting as an agent of the owner. If requested, the Submitter will provide evidence of the ownership of the artwork or artifact. The Submitter declares that the articles are legally imported and exported from any country through which they passed; if requested, the Submitter will provide documentation to this effect. The Submitter undertakes not to use the radiocarbon date in an advertisement, or in a description of the samples for sale, and not to pass the date on to a third part who might do likewise. If authentication is required, or valuable artifacts are involved, we ask that these be sampled by an accredited appraiser or conservator (as they posses the required knowledge to sample with a minimum reduction of value to the artifact). AEL AMS Laboratory staff will not sub-sample artifacts or artwork. The final analysis report will referenwa or the Ottawa-Carleton Geoscience Centre (OCGC) (including faculty, adjuncts,

8. Fee Schedule & Payment Terms:

Invoices are payable upon receipt (net 30). The fee schedule rates for all lab units are assigned based on the billing address listed on the Submission Form, and the pricing listed on our website at the time of submission. A purchase order (PO) is required for submissions over \$5,000 CAD. Duty charges are the responsibility of the Submitter and will be added to Their invoice. Canadian Academic, Non-Profit, and Government Users: Submitters affiliated with Canadian academic institutions, registered non-profit organizations, indigenous groups, and government agencies will be invoiced following the delivery of Their results. Commercial, Independent, and International Users: Submitters affiliated with private Canadian companies, Submitters not affiliated with a company or academic institution, and those from abroad are required to remit payment in full prior to release of Their results. An invoice will be issued upon receipt of the Submission. Internal Users: Submitters affiliated with the University of Ottawa or the Ottawa-Carleton Geoscience Centre (OCGC) (including faculty, adjuncts, postdocs, graduate, and undergraduate students) are entitled to internal rates. In order to qualify for internal rates, the Submitter must remit payment from a university-administered fund.

9. Discounts:

Discounts will be applied to Submissions that meet the following criteria: Radiocarbon Laboratory: A 10% discount will be applied to single Submissions of 10 or more samples, or cumulative Submissions of 10 or more samples, where all 10 samples are processed on the same accelerator run. For fully trained outside users processing samples at the AEL AMS laboratory, a 20% discount will be applied at the discretion of AEL-AMS staff. Radiohalide Laboratory: A 5% discount will be applied to Submissions of 8-15 samples; a 10% discount will be applied to Submissions of 16 or more samples. Submitters eligible for internal rates are not eligible for quantity discounts.

10. Suspension of Work:

We reserve the right to suspend work and/or withhold data delivery if the Submitter fails to make timely payment of Their invoices. We will not be held responsible for any damages incurred by the Submitter caused by Our work suspension or withholding of data precipitated by Their failure to promptly pay invoices.

11. Results:



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Upon successful completion of the requested analyses, the AEL AMS Laboratory will provide the Submitter with results using the email address provided in Their Submission. Results will not be released to third parties not listed on the Submission without written consent of the original Submitter.

12. Failed Analyses:

For Samples which fail due to the nature of the sample itself, and which are outside the control of the laboratory, the AEL AMS Laboratory reserves the right to recover partial or full costs for laboratory treatment up to the point of failure. Please refer to the Sample Failure Charging Policy under the supporting document section for each lab unit for more details.

13. Unforeseen Event / Force Majeure:

We will not be liable or responsible for any failure to perform, or delay in performance of, any of our obligations under a

Contract that is caused by events outside our reasonable control, commonly known as "force majeure".

14. Entire Agreement:

This Agreement constitutes the Entire Agreement between the Submitter and the AEL AMS Laboratory. It supersedes all other written or verbal communications between the Submitter and the AEL AMS Laboratory. It can only be amended in writing by mutual agreement.

15. Jurisdiction:

This Agreement shall be governed by and interpreted in accordance with the laws of the Province of Ontario that are in force. The Submitter expressly accepts jurisdiction of the Ontario Courts.