

# LABORATORY SERVICE AGREEMENT

THIS AGREEMENT, effective as of this	day of	20
	OLUM TESTING LTI porated in the Province of  -and-	
A company incorporated in the Pr collectively known as the "Parties".	rovince/Territory of	(hereinafter referred to as "Client")
SOLUM AGREES to perform the Service set	t forth in the "Terms and	Conditions of Laboratory Service."
The Laboratory Service Agreement consists of	of this page and the follo	wing documents:
<ol> <li>Terms and Conditions of Laboratory</li> <li>Laboratory Testing Rates for 2004.</li> </ol>	Service.	
The schedule of work will be controlled by act the laboratory service agreement and the laboratory		equests, procedures, terms and conditions of
	Solum Testing Ltd.	
Signature: Print Name: Title: Date:		
	Client	
Signature: Print Name: Title: Date:		



# TERMS AND CONDITIONS OF LABORATORY SERVICE (LABORATORY SERVICE AGREEMENT HOLDERS)

#### 1.0 Description of Services to be Performed by Solum

Solum shall provide geotechnical and material laboratory testing services on samples in accordance with this agreement and executed Laboratory Testing Request Forms. Solum shall perform its work in accordance with accepted laboratory standards and accepted standard operating procedures. Solum reserves the right to modify methods as necessary based upon experience and/or current scientific literature. If the Client requests a manner of analysis that varies from standard operating or recommended procedures, the Client shall not hold Solum responsible for the results. Such variations of analysis will be noted on the reports.

#### 2.0 Reports and Confidentiality

Laboratory reports provided by Solum will be composed of a cover page, summary table of results, and other tables and figures if applicable. Reports will be e-mailed in PDF format to the individual(s) specified on the Laboratory Testing Request Forms. Laboratory reports may also be faxed or mailed to the Client upon request. Except as required by law, Solum shall not disclose testing results or reports to any party other than the Client, unless the Client, in writing, requests information to be provided to a third party. Solum shall abide by any additional confidentiality requirements requested by the Client provided that such requirements are provided to Solum at or before execution of the testing.

#### 3.0 Third Parties

Information provided by Solum is intended for Client use only. Any use by a third party, of reports or documents authored by Solum, or any reliance on or decisions made by a third party based on the findings described in said documents, are the sole responsibility of such third parties, and Solum accepts no responsibility of damages suffered by any third party as a result of decisions made or actions conducted.

#### 4.0 Term and Termination

This agreement shall be for a period of \_\_\_\_\_(1,2, or 3) year(s) from the date of execution of this agreement; provided however that:

- (a) By mutual agreement this agreement may be renewed for successive periods of one year upon the expiration of this agreement.
- (b) The Client may terminate this Agreement for any reason whatsoever at any time by providing Solum with ninety (90) days written notice:
- (c) Either Party may terminate this agreement upon thirty (30) days written notice in the event of failure by the other Party to perform the services in accordance with this agreement, provided that such termination shall not be effective if the Party notified of the failure of its obligations remedies such failure within thirty (30) days of receipt of such notice to the reasonable satisfaction of the other Party.

In the event of termination of this agreement for any cause whatsoever, the Client shall pay to Solum all sums owing for all services performed up to the date of termination of this agreement.

#### 5.0 Laboratory Testing Request Form (Chain of Custody)

The laboratory testing request form must be completed by the Client and be accompanied with the samples. Testing will not commence until the laboratory testing request form has been completed. If requested by the Client, Solum shall provide a copy of the laboratory testing request form with the report.

No persons other than the designated representatives for each Laboratory Testing Request Form are authorized to act regarding changes to the testing request form. Any changes or amendments of the laboratory testing request form must be in writing and be completed by the originator.

#### 6.0 Document Retention

Solum will retain test data and financial data for three years relating to services performed.

#### 7.0 Acceptance, Contamination and Disposal of Samples

Loss or damages to samples remains the responsibility of the Client until Solum acceptance of samples by notation on the laboratory testing request form.

As to any samples that are suspected of containing hazardous substances, the Client will specify the suspected or known substance and level of contamination. This information is to be stated on the laboratory testing request form and be accompanied with the samples before testing can commence. Solum may refuse acceptance of samples if it determines they present a risk to health and safety.

Samples accepted by Solum shall remain the property and liability of the Client while in the custody of Solum. Solum will discard all non-contaminated samples after testing has been completed without a retention period at a fixed disposal charge, or if requested by the Client, samples may be returned to the Client at no cost to Solum. If directed, Solum will store samples provided the Client agrees to pay for the storage charge. Contaminated material may be returned/shipped to the Client at the Client's expense or Solum will discard samples with disposal rates varying for samples containing higher levels of contamination.

### 8.0 Sample Loss

Samples received by Solum staff will be handled with great care. However, in case of a sample loss, the Client will supply a replacement sample. Solum will test the replacement at no cost to the Client.



#### 9.0 Pricing, Payments and Invoicing

Invoices will be based on testing rates prepared for laboratory service agreement holders. The laboratory testing rates will not be changed for the duration of the agreement term, as outlined in this agreement.

Solum invoices shall be paid within thirty (30) days of receipt of the invoice. Amounts not paid when due shall bear interest at the rate of 18% per annum from the date due until the date of payment.

#### 10.0 Disputes

In the event of a dispute, difference, controversy or claim arising out of or relating to the performance of the contract or breach, rectification, termination, frustration or invalidity thereof (hereinafter referred to as a "Dispute"), every endeavour shall be made to resolve the matter on its merits by negotiation. If a Dispute cannot be resolved by negotiation, the Parities agree to refer the dispute to a process of alternative dispute resolution as may be agreed upon by the Parties.

#### 11.0 Limitation of Liability

The total liability of Solum or its staff whether based in contract or tort, will be limited to the lesser of the fees paid or actual damages incurred by the Client. Solum will not be responsible for any consequential or indirect damages even if caused by negligence of Solum. Solum will only be liable for damages resulting form negligence of Solum. All claims by the Client shall be deemed relinquished if not made within one year after the testing date. No warranty is either expressed or implied, or intended by any agreement or by furnishing oral or written reports or findings.

#### 12.0 Indemnification/Hold Harmless

Solum shall protect, indemnify and save harmless Client, and its directors, officers, employees, agents, representatives, invitees and subcontractors, and at Client's request, investigate and defend such entities form and against all claims, demands and causes of action, of every kind and character, without limitation, arising in favour of or made by third parties, on account of bodily injury, death or damage to or loss of their property resulting from any negligent act or wilful misconduct of Solum.

The Client shall protect, indemnify and save harmless Solum, and its directors, officers, employees, agents, representatives, invitees and subcontractors, and at Solum's request, investigate and defend such entities form and against all claims, demands and causes of action, of every kind and character, without limitation, arising in favour of or made by third parties, on account of bodily injury, death or damage to or loss of their property resulting from any negligent act or wilful misconduct of Client.

#### 13.0 Termination of Testing Work Order

The Client may order work suspended or terminated upon seven days advance written notice. If work is suspended, Solum shall receive, upon resumption, an adjustment in the cost of services to compensate for additional costs incurred due to the interruption of services. Upon suspension or termination, Solum shall preserve samples provided that the Client agrees to pay the sample storage charge.

#### 14.0 Miscellaneous Provisions

This agreement constitutes the entire agreement between the parties, and supersedes all other and prior agreements. Any term, condition, prior course of dealing, course of performance, usage of trade, understanding, purchase order conditions, or other agreement purporting to modify, vary, supplement, or explain any provision of this agreement is of no effect until placed in writing and signed by both parties subsequent to the date of this agreement. Solum may subcontract portions of this agreement to other qualified laboratories if agreed upon by the Client.

If any of the provisions of this agreement are held to be invalid or unenforceable in any respect, the remaining terms will remain effective and the agreement will be construed as if the invalid or unenforceable matters were never included in this agreement. Neither party shall be liable for non-performance caused in whole or in part by Acts of God, civil unrest, and war.

Initials	

# 2004 Laboratory Testing Rates for Soils and Aggregates



# **Prepared for Laboratory Service Agreement Holders**

9, 3620-29 Street, NE Calgary, Alberta T1Y 5Z8 Phone: (403) 250-3035 Fax: (403) 250-3021 www.solumtesting.com

TEST	ASTM DESIGNATION	UNIT COST
Atterberg Limits		
iquid Limit, Plastic Limit, and Plasticity Index of Soils: Multipoint Liquid Limit - Method A	D4318	\$90.00
Liquid Limit, Plastic Limit, and Plasticity Index of Soils: One-Point Liquid Limit - Method B	D4318	\$67.50
Capillary-Moisture Curve		
Capillary-Moisture Relationships for Coarse and Medium Textured Soils by Porous-Plate Apparatus	D2325	\$450.00
Consolidation Test		
One-Dimensional Consolidation Properties of Soils (standard increments with rebound)	D2435	\$450.00
Bulk Density (Unit Weight)		
Bulk Density (Unit Weight) of Undisturbed Samples (Shelby tube)	N/A	\$31.50
Classification of Soils Using the Unified Soil Classification System (USCS)		
Classification of Soils for Engineering Purposes (in conjuction with ASTM D4318 & D422 or C136/C117) - Group Symbol Only	D2487	Free
Classification of Soils for Engineering Purposes (in conjuction with ASTM D4318 & D422 or C136/C117) - Group Symbol & Group Name	D2487	\$10.00
Moisture Content		
Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures	D2216	\$4.50
Particle Size Analysis		
Full Gradation (Full Particle-Size Analysis) - Results Given: Percent Clay, Silt, Sand, Gravel and Cobble Size in Sample + PSD Curve	D422	\$126.00
Particle Size Analysis of Soils Passing the 2.00 mm (No. 10) Sieve - Hydrometer Only	D422	\$63.00
Sieve Analysis of Fine and Coarse Soils/Aggregates - Results Given: Percent Fines, Sand, Gravel and Cobble Size in Sample + PSD Curve	C136/C117	\$90.00
Materials Finer than 75-µm (No. 200) Sieve in Soils/Mineral Aggregates by Washing - Results Given: % of fines passing the No. 200 sieve	C117	\$40.50
Permeability of Soils		
Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter (Constant Head Method)  Note: This is the standard test method to determine the permeability (k) of clay liners and soils where precise measurements are required)	D5084	\$337.50
Remolding of Test Specimen	N/A	\$27.00
Measurement of Hydaulic Conductivity of Fine Grained Soils (Falling Head Method) - if in conjunction with standard proctor (ASTM D698)	N/A	\$112.50
рH		
pH of Soils	N/A	\$13.50

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TEST	ASTM DESIGNATION	UNIT COST
Porosity, Total		
Total Porosity of Undisturbed Samples (Shelby tubes)	N/A	\$31.50
Specific Gravity of Soils		
Specific Gravity of Soils for Material Passing the 4.75 mm (No. 4) Sieve	D854	\$76.50
Standard & Modified Proctor (Moisture /Dry Density Relationship)		
Laboratory Compaction Characteristics of Soil Using Standard Effort (600 kN-m/m³)	D698	\$157.50
Laboratory Compaction Characteristics of Soil Using Modified Effort (2,700 kN-m/m³)	D1557	\$175.50
Undrained Shear Strength		
Swedish Fall Cone (Undrained Shear Strength vs. Moisture Content)	N/A	\$142.50
OTHER LABORATORY SERVICES		RATES
Laboratory Technician Rates		
Laboratory Technician for Specialized Testing		\$65.00/hour
Field Equipment Rental		
Field Falling Head Permeameter Assembly		\$50.00/day**
8" Shelby Tubes with Extractor (Shelby tube extractor must be returned to the lab with the samples)		Free**
18" Shelby Tubes		\$20.00 ea.**
Sample Storage Fees		
5-gallon pail		\$6.75/month
Sample Disposal Fees		
5-gallon pail - NON-CONTAMINATED SOIL		\$5.00/pail
5-gallon pail - CONTAMINATED SOIL (disposal charges may vary depending on level of contamination)*		\$25.00/pail
* Samples may also be returned to the Project Manager.		
** Cost of shipping is not included in price		