

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

Contract Documents and Specifications

Contract No. CO-21-03 PWD





THE CORPORATION OF THE TOWN OF COBOURG

TENDER BID RECEIPT LABEL

THIS LABEL MUST BE SECURELY ATTACHED TO THE FRONT OF THE SEALED ENVELOPE CONTAINING THE TENDER BID.

ALL TENDER BIDS MUST BE RECEIVED AT: LEGISLATIVE SERVICES, 55 King Street West, Cobourg ON K9A 2M2 905-372-4301

COMPLETED BY I	DEPARTMENT ISSUING TENDE	R BID		
TENDER BID NUMBER:	CO - 21 - 03 - PWD			
TENDER BID NAME:	Terry Fox SWM P	ond Clear	out	
	•			
CLOSING DATE:	Tuesday, December	15, 2020		
CLOSING TIME:	2:00 P.M.			
	COMPANY SUBMITTING TENDE	ER BID		
SUBMITTED BY:				
COMPANY CONTACT:				
COMPANY NAME:				
COMPANY ADDRESS:	COMPANY ADDRESS:			
COMPANY PHONE:				
	ATIVE SERVICES USE ONLY			
TENDER BID RECEIPT:				
DATE:	TIME:	INITIALS:		
LEGISLATIVE SERVICES USE ONLY				
TENDER BID OPENING:				
DATE:	TIME:	INITIALS:	INITIALS:	

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

Contract No. CO-21-03 PWD

Table of Contents

<u>ltem</u>	No. of Pages
Contract Agreement	4
Tenderer's Check List	1
Information for Tenderers (Part IT)	12
Form of Tender (Part FT) To be submitted by the Tenderer	12
Special Provisions General	20
Special Provisions Items	9
General Conditions	1
Contract Administration Forms	
Letter of Consent	1
General Release in Respect to Landfilling	1
Property Owners Release	1
Substantial Performance Release of Claims Letter	1
Completion Release of Claims Letter	1
Standard Drawings	4
Geotechnical Investigation	37
Contract Drawings – Title, Index, 1 – 2, GP8 & PP11	

Contract Agreement

OF THE SECOND PART

		Contract No.	CO-21-03 PWD	
		Contract Title	Terry Fox SWM	Pond Cleanout
THIS AGREEMENT m	nade at	this	day of	, 202
BETWEEN:	Corporation	of the Town of Co		lled the "Owner")
			OF T	HE FIRST PART
		- and -		
		((hereinafter called	the "Contractor")

WITNESSETH

That the Owner and the Contractor in consideration of the fulfilment of their respective promises and obligations herein set forth covenant and agree with each other as follows:

ARTICLE 1

- (a) A general description of the work is:
 - Supply of materials, labour and equipment to remove sediment from the Terry Fox SWM Pond and forebay.
 - Replace water quality CSP riser outlet and surrounding clearstone jacket.
 - Access route improvements from Fraser Court to SWM Pond.
 - Maintenance of inlet and outlet structures.
- (b) The Contractor shall, for the prices set out in the Form of Tender and except as otherwise specifically provided, provide at no additional cost to the Owner all and every kind of labour, machinery, plant, structures, roads, ways, materials, appliances, articles and things necessary for the due execution and completion of all the work set out in this Contract and shall forthwith according to the instructions of the Contract Administrator, commence the works and diligently execute the respective portions thereof, and deliver the works complete in every particular to the Owner within the time specified in the Contract.

ARTICLE 2

In the event that the Form of Tender provides for and contains a Contingency Allowance, it is understood and agreed that such Contingency Allowance is merely for the convenience of accounting by the Owner, and the Contractor is not entitled to payment thereof except for extra or additional work carried out by him/her as directed by the Contract Administrator and in accordance with the Contract and only to the extent of such extra or additional work.

ARTICLE 3

In case of any inconsistency or conflict between the provisions of this Agreement and the Plans or Specifications or General Conditions or Form of Tender or any other document or writing, the provisions of such documents shall take precedence and govern in the following order, namely:

- (1) This Agreement (7) Supplementary Specifications, if any
- (2) Addenda, if any (8) Specifications, if any
- (3) Special Provisions, if any (9) Standard Specifications, if any
- (4) Information for Tenderers (10) Contract Drawings
- (5) Supplemental General Conditions, if any (11) Standard Drawings
- (6) General Conditions (12) Form of Tender

ARTICLE 4

The Contractor shall not without the consent in writing of the Contract Administrator and without restricting in any way the provisions of the General Conditions, make any assignment of any part of the whole of any monies due or to become due under the provisions of this Contract.

ARTICLE 5

The Owner covenants with the Contractor that the Contractor having in all respects complied with the provisions of this Contract, will be paid for and in respect of the works the sum of exclusive of H.S.T. subject to Article 2 hereof and subject to such additions and deductions as may properly be made under the terms hereof, subject to the provision that the Owner may make payments on account monthly or otherwise as may be provided in the General Conditions attached hereto.

ARTICLE 6

Where any notice, direction or other communication is required to be or may be given or made by one of the parties hereto to the other or to the Contract Administrator or to his/her agent, it shall be deemed sufficiently given or made if mailed or delivered in writing to such party or to the Contract Administrator at the following addresses:

The Owner: Corporation of the Town of Cobourg

55 King Street West

Cobourg, Ontario K9A 2M2

The Contractor:

The Contract Administrator: CIMA Canada Inc.

415 Baseline Road West, 2nd Floor Bowmanville, Ontario L1C 5M2

Where any such notice, direction or other communication is given or made to the Contract Administrator, a copy thereof shall likewise be delivered to any agent of the Contract Administrator appointed in accordance with the General Conditions of this Contract and where any such notice, direction or other communication is given or made to such agent a copy thereof shall likewise be delivered to the Contract Administrator.

ARTICLE 7

A copy of each of the General Conditions, Supplemental General Conditions (if any), Special Provisions, Form of Tender, Information for Tenderers and Addenda is/are hereto annexed and together with the Standard Specifications, Standard Drawings and Contract Drawings relating thereto are made part of this Contract as fully to all intents and purposes as though recited in full herein.

ARTICLE 8

No implied Contract of any kind whatsoever by or on behalf of the Owner shall arise or be implied by or inferred from anything in this Contract contained, nor from any position or situation of the parties at any time, it being clearly understood that the express covenants and agreements herein contained made by the Owner shall be the only covenants and agreements upon which any rights against the Owner may be founded.

ARTICLE 9

Time shall be deemed the essence of this Contract.

ARTICLE 10

The Contractor declares that in tendering for the works and in entering into this Contract he/she has either investigated for himself/herself the character of the work and all local conditions that might affect his/her tender or his/her acceptance or performance of the work, or that not having so investigated, he/she acknowledges that his/her responsibility under the Contract is in no way reduced or limited thereby and, in either case, he/she is willing to assume and does hereby assume all risk of conditions arising, developing, or being revealed in the course of the work which might or could make the work, or any items thereof, more expensive in character, or more onerous to fulfil, than was contemplated or known when the tender was made or the Contract signed. The Contractor also declares that he/she did not and does not rely upon information furnished by any methods whatsoever by the Owner or its officers, employees or agents, being aware that any information from such sources was and is approximate and speculative only, and was not in any manner warranted or guaranteed by the Owner.

ARTICLE 11

The Contract shall apply to and be binding on the parties hereto and their successors, administrators, executors and assigns and each of them.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals the day and year first above written or caused their corporate seals to be affixed, attested by the signature of their proper officers, as the case may be.

	Owner: Corporation of the Town of Cobourg	
	Per:	
	Per:	 (Seal)
	Contractor:	
*Witness as to Signature of Contractor		
Address	Per:	_
Occupation	Per:	(Seal)

*Not necessary if corporate seal is affixed

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Tenderer's Check List

Before submitting your tender, check the following points:

1.	Has your tender been signed and your seal affixed?	
2.	Have you enclosed the required Tender Deposit or Bid Bond?	
3.	Have you enclosed the Agreement to Bond, signed and sealed by your proposed surety?	
4.	Have you entered all required prices in the Form of Tender?	
5.	Have you completed all schedules in the Form of Tender?	
6.	Have you completed, signed and included all Addenda where required to do so, and indicated the number of Addenda in your Form of Tender?	
7.	Have you listed your experience in successfully completed similar work?	
8.	Have you listed your senior staff and stated their qualifications and experience?	
9.	Have you listed your subcontractors?	
10.	Have you provided your Workplace Safety and Insurance Board experience rating?	
11.	Are the documents complete?	
<u>Note</u>	<u>e:</u> 1. Your Tender will be informal and may be disqualified if any of the fore points (if applicable) have not been complied with.	going

2. Your Tender may be disqualified if you tender unbalanced prices for **any** item in the Form of Tender.

Make sure that your tender is sealed in an envelope that is clearly marked "confidential" and properly identified with the Contract title, Contract number and your company or firm's name and postal address.

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Information For Tenderers

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

Contract No. CO-21-03 PWD

Index to Information for Tenderers

Cla	ause	IT Page No.
1.	GENERAL	1
2.	DELIVERY AND OPENING OF TENDERS	1
3.	DESCRIPTION OF WORKS	1
4.	INQUIRIES DURING TENDERING	2
5.	DISQUALIFICATION OF TENDERS	2
6.	WITHDRAWAL OR QUALIFYING OF TENDERS	2
7.	INFORMAL OR UNBALANCED TENDERS	2
8.	EXAMINATION OF SITE	3
9.	PROVISIONAL ITEMS	4
10.	TENDER	4
11.	OMISSIONS, DISCREPANCIES AND INTERPRETATIONS	4
12.	QUANTITIES ARE ESTIMATED	
13.	ACCEPTANCE OR REJECTION OF TENDERS	5
14.	AWARD OF THE CONTRACT	5
15.	PERIOD OF VALIDITY OF TENDER	5
16.	TENDER DEPOSIT	6
17.	AGREEMENT	7
18.	PERFORMANCE AND PAYMENT BONDS	
19.	PROOF OF ABILITY	8
20.	SUBCONTRACTORS	8
21.	WORKPLACE SAFETY AND INSURANCE BOARD	8
22.	OCCUPATIONAL HEALTH AND SAFETY	8
23.	REVIEW OF SHOP DRAWINGS	_
24.	MACHINERY AND EQUIPMENT SUPPLIED BY THE CONTRACTOR	9
25.	HARMONIZED SALES TAX	
26.	LUMP SUM FOR OTHER REQUIREMENTS	10
27.	SOILS INVESTIGATIONS	
28.	TIME OF THE ESSENCE OF THE CONTRACT	10
29.	CAVEATS	
30.	WORKPLACE SAFETY & INSURANCE BOARD – EXPERIENCE RATING	11
31.	CHANGES IN ALIGNMENTS	11
32.	CONFORMITY TO LEGISLATION	
33.	AVAILABILITY OF TENDER CONTRACT DRAWINGS	11
34.	TOWN OF COBOURG PURCHASING BY-LAW	11

1. General

Sealed Tenders clearly marked "Terry Fox SWM Pond Cleanout, Contract No. CO-21-03 PWD" with the Tender Bid Receipt Label will be received until:

2:00:00 P.M., Local Time, Tuesday, December 15, 2020

and shall be addressed to: Ms. Brent Larmer

Manager of Legislative Services Corporation of the Town of Cobourg Victoria Hall, 55 King Street West Cobourg, Ontario K9A 2M2

2. Delivery and Opening of Tenders

One (1) copy of the tender, on the forms provided, shall be submitted. All information requested shall be shown in the tender, in the space provided.

The use of mail or courier for delivery of a tender will be at the sole risk of the Tenderer and no consideration will be given to tenders deposited after the advertised deadline.

Staff will be present to receive tenders at rear delivery entrance to Victoria Hall. Tender openings will be completed by Town staff and unofficial results will be posted on the website shortly after tender openings. Due to COVID-19 restrictions, public will not be able to attend tender openings.

Tenders will then be passed to the Owner's Contract Administrator who will check and analyze the tenders and submit a report and recommendation to the Owner.

3. Description of Works

The following is a general but not necessarily complete, description of the works for tender for the Corporation of the Town of Cobourg (Owner):

Terry Fox SWM Pond Cleanout

Supply of materials, labour and equipment to remove sediment from the Terry Fox SWM Pond and forebay.

Replace water quality CSP riser outlet and surrounding clearstone jacket.

Access route improvements from Fraser Court to SWM Pond.

Maintenance of inlet and outlet structures.

Generally, work as outlined in the Form of Tender is to be constructed to the Ontario Provincial Standard Specifications (OPSS) and various other Specifications they refer to unless otherwise stated in the Special Provisions forming part of these Contract Documents.

It is the Owner's intent to award the works to one prospective Tenderer.

The various OPSS referred to in the Form of Tender are not included in these Contract Documents. It is the Tenderer's and Contractor's responsibility to obtain the current issue of these Specifications.

4. Inquiries During Tendering

Tenderers are advised that inquiries regarding the interpretation of the plans or specifications shall be directed to the Contract Administrator, CIMA+, Telephone: 905-697-4464, extension 6927, Attn: Ryan Cressman, P.Eng, Email: Ryan.Cressman@cima.ca. Inquiries will be accepted up to 48 hours prior to Tender closing.

5. Disqualification of Tenders

Under no circumstances will tenders be considered which:

- a) are received after the time stated in the Tender Advertisement, as recorded by the Owner on the date and at the place of tender, on the advertised closing date for tenders; and,
- b) are not accompanied by a certified cheque or bid bond in an amount not less than that specified.

6. Withdrawal or Qualifying Of Tenders

A Tenderer who has already submitted a tender may submit a further tender at any time up to the official closing time. The last tender received shall supersede and invalidate all tenders previously submitted by that Tenderer for the Contract.

A Tenderer may withdraw or qualify his/her tender at any time up to the official closing time by submitting a letter bearing his/her signature and seal as in his/her tender to be delivered to the Owner. Such a submission at the location stated in the tender advertisement for the receipt of tenders must be received in sufficient time to be marked with the time and date of receipt before advertised time, as recorded by the Owner on the date and at the place of tender, on the date for closing of tenders. The Tenderer shall show his/her name, the name of the project and the Contract number on the envelope containing such letter. No email, fax transmissions or telephone calls will be considered.

7. Informal or Unbalanced Tenders

All entries in the Form of Tender shall be made in ink or by typewriter. Entries or changes made in pencil shall, unless otherwise decided by the Owner, be invalid or informal.

Tenders which are incomplete, conditional, illegible or obscure, or that contain additions not called for, reservations, erasures, and alterations (unless properly and clearly made and initialled by the Tenderer's signing officer) or irregularities of any kind, may be rejected as informal.

Each Item in the tender form shall include a reasonable price for such Item. Under no circumstances will an unbalanced tender be considered. The Owner and the Contract Administrator will be the sole judge of such matters and should any tender be considered to be unbalanced, then it will be rejected by the Owner. Wherever in a tender the amount tendered for an Item does not agree with the extension of the estimated quantity and the tendered unit price, the unit price shall govern and the amount and the Total Tender Price shall be corrected accordingly, unless otherwise decided by the Owner.

A discrepancy in addition or subtraction in a tender shall be corrected by the Owner by adding or subtracting the Items correctly and correcting the Total Tender Price accordingly, unless otherwise decided by the Owner. Where an error has been made in transferring an amount from one part of the Form of Tender to another, the amount shown before transfer shall, subject to any corrections as provided for above, be taken to be correct and the amount shown after transfer and the Total Tender Price shall be corrected accordingly.

If a Tenderer has omitted to enter a price for an Item of work set out in the Form of Tender, he/she shall, unless he/she has specifically stated otherwise in his/her tender, be deemed to have allowed elsewhere in the Form of Tender for the cost of carrying out the said Item of work and, unless otherwise agreed to by the Owner, no increase shall be made in the total Tender Price on account of such omission.

Tenders that are based upon an unreasonable period of time for the completion of the works may be rejected.

The Owner reserves the right to waive formalities at its discretion.

Tenderers who have submitted tenders that have been rejected by the Owner because of informalities will normally be notified of the reasons for the rejection within ten (10) days after the closing date for tenders.

8. Examination of Site

Each Tenderer must examine the location of the work and fully inform themselves of existing conditions by personal examination as to the local conditions to be met with during the construction and conduct of the work. All Contract Documents are to be carefully examined. No plea of ignorance of conditions or difficulties which may be encountered in the execution of the work hereunder by failure to make such inspections or investigations will be accepted as sufficient reason for failure on part of successful Tenderer to fulfill all requirements of the Contract.

The Owner has made no arrangements with private owners for site investigations to be carried out by prospective Tenderers. If any person proposes to carry out any investigation on any property relative to the proposed works, he/she shall, before entering the said property, and any other property for the purpose of obtaining access to the said property, and before commencing the said investigation, contact each owner and occupant of the said properties and advise them of the nature and extent of the proposed investigation and obtain an agreement in writing thereto of all such owners and occupants. The person (or firm) who was responsible for carrying out such an investigation or for making use of any access as aforesaid shall reinstate promptly all property which has been disturbed by such investigation or by use of such access and shall be responsible for all damage and claims resulting therefrom in accordance with the said agreement of such owners and occupants.

With respect to any matter referred to in the foregoing paragraph, no person referred to therein is authorized to act as agent of or to make any representation on behalf of the Owner and the Owner shall not be responsible for any disturbance to or reinstatement of any property or for any damage or claims referred to therein.

9. Provisional Items

After the tender closing, the Items in the Form of Tender noted as being "Provisional" may have quantities modified or may be deleted from the Contract at the sole discretion of the Owner without negotiating with the bidders regardless of the percentage of the Tender the individual or combined "Provisional Items" represent. No consideration for loss of overhead costs or loss of profit on work not performed will be considered should these Items be deleted from the Contract.

10. Tender

Each tender shall include a completed Form of Tender, on the forms provided, Statements A to C inclusive, and an Agreement to Bond, all as bound herein and a tender deposit as required herein, together with any further forms or sheets which the Tenderer is instructed elsewhere herein, or in any addendum hereto, to submit with his/her tender. The Tenderer may retain the rest of the tender documents issued to him/her.

The Tenderer shall give the total tender price both in words and in figures and, except as is otherwise specifically permitted in the Form of Tender, shall fill in all blank spaces for unit prices, Item prices, lump sums and other information in the Form of Tender. All prices tendered and all amounts to be paid will be in Canadian dollars.

11. Omissions, Discrepancies and Interpretations

Should a Tenderer find omissions from or discrepancies in any of the tender documents or should he/she be in doubt as to the meaning of any part of such documents, he/she should notify the Contract Administrator, preferably in writing and not later than four (4) days before the closing date for tenders. If the Contract Administrator considers that a correction, explanation or interpretation is necessary or desirable, he/she will issue an addendum to all who have taken out tender documents.

No oral explanation or interpretation shall modify any of the requirements or provisions of the tender documents.

12. Quantities are Estimated

The quantities shown for unit price Items in the Form of Tender are estimated only and are for the sole purpose of establishing a dollar amount based on the unit price. For any work done or materials supplied on a unit price basis, the Contractor will be paid for the actual measured quantities at the respective unit prices tendered.

The Contract Administrator has the right to increase or reduce the quantities required or to suspend or omit any Item or portion of the work at any time as he/she may deem advisable.

13. Acceptance or Rejection of Tenders

Subject to the General Conditions, except as provided hereunder, neither the Contract Administrator nor any officer or employee of the Owner has authority to make or accept an offer or to enter into a Contract on behalf of the Owner or to create any rights against or to impose any obligations on the Owner. The recommendation of a tender to the Owner for acceptance does not constitute acceptance of the tender by the Owner.

A tender is accepted by the Owner when an agreement in the form bound herein is executed by the Owner and by the Tenderer or when the Contract Administrator, with the written authorization of the Owner and within the period referred to in Clause 17 hereof, has issued a written order to commence work to the Tenderer and the Owner or anyone acting on its behalf has requested the Tenderer to execute the Agreement and to return it to the Owner and the acceptance of the tender and the execution of the Agreement by the Owner are subject to the express condition that the owner receive a Performance Bond and a Payment Bond in the forms bound herein and in accordance with the requirements hereof, within seven (7) days after notification of the execution of the Agreement by the Owner has been mailed to the Tenderer whose tender has been accepted as aforesaid.

The Owner shall not be responsible for any liabilities, costs, expenses, loss or damage incurred, sustained or suffered by any Tenderer prior or subsequent to or by reason of the acceptance or the non-acceptance by the Owner of any tender or by reason of any delay in the acceptance of a tender save as provided in the Contract. Tenders are subject to a formal Contract being prepared and executed.

The Tenderer agrees that the Owner has the right, at his or her own discretion, to accept or reject any non-compliant tenders without stating the reasons therefore and that the lowest or any tender will not necessarily be accepted.

The Tenderer understands that fundamental to this competition is the selection of a tender that, in the Owner's opinion, is in the best interest of the Owner. To this end, the Tenderer agrees that the Owner reserves the right to select a winning tender that may be non-compliant.

Each Item in the tender form shall include a reasonable price for such Item. Under no circumstances will an unbalanced tender be considered. The Owner and the Contract Administrator will be the sole judge of such matters and should any tender be considered to be unbalanced, then it will be rejected by the Owner.

14. Award of the Contract

The award of this Contract in whole or in part is subject to the approval of the Corporation of the Town of Cobourg. The award date is anticipated to be the week of March 1, 2021.

15. Period of Validity of Tender

The prices entered by the Tenderer in the Form of Tender shall be based on the assumption that the Contract Administrator's written order to commence work will be issued to the Tenderer within a 90-day period after the opening date for tenders.

16. Tender Deposit

Each tender shall include a tender deposit in the form of a certified cheque or bid bond in the minimum amount of 10% of the total bid submitted (including all charges, taxes, contingencies and allowances), made payable to the Owner, as a guarantee for the execution of the Contract.

The tender deposits of all but the two (2) lowest Tenderers will be returned within ten (10) days after the date of opening tenders. The tender deposits of the two (2) lowest Tenderers will be retained until a tender has been accepted and the Performance Bond, the Labour and Material Bond and the other documents required herein have been furnished to the satisfaction of the Solicitor and the Contract Administrator for the Owner, save that if a Tenderer has not been requested by the Owner to execute the Agreement within 90 days after the date of opening tenders or if the Contract Administrator has not issued to the Tenderer a written order to commence work within the said 90 days, his/her tender deposit will be returned, except as otherwise provided herein. After the execution of the Contract and the receipt by the Owner of the Performance Bond and the Labour and Material Payment Bond the tender deposit of the successful Tenderer will be returned.

If either of the above-mentioned two (2) Tenderers has not been notified within 90 days after the date of opening tenders that his/her tender has been recommended to the Owner for acceptance, he/she may apply to the Owner for the return of his/her tender deposit. Unless otherwise determined by the Owner, the tender deposit of one of the said two (2) tenders (normally the one who submitted the second lowest tender) will be returned when so applied for. The tender deposit of the other Tenderer will be retained or returned by the Owner as provided for elsewhere in this Clause.

The Owner may, in its discretion:

- a) cash a tender deposit cheque or qualify a bid bond and deposit the proceeds to its account, without prejudice to the ultimate disposition of such tender deposit as provided for herein; or
- b) return a tender deposit to a Tenderer at an earlier time than provided for herein; or
- c) return a tender deposit to a Tenderer on receipt from the said Tenderer of an alternative security acceptable to the Owner in lieu of the said tender deposit; and no such action shall prejudice the validity of the tender to which such tender deposit relate.

Except as otherwise herein provided the Tenderer guarantees that if his/her tender is withdrawn before the Owner shall have considered the tenders or before or after he/she has been notified that his/her tender has been recommended to the Owner for acceptance or that if the Owner does not for any reason receive within the period of seven (7) days as stipulated and as required herein, the Agreement executed by the Tenderer, the Performance Bond and the Labour and Material Payment Bond executed by the Tenderer and the surety company and other documents required herein, the Owner may retain the tender deposit for the use

of the Owner and may accept any tender, advertise for new tenders, negotiate a Contract or not accept any tender as the Owner may deem advisable.

17. Agreement

The Tenderer agrees that, if requested so to do by the Owner or anyone acting on its behalf within 90 days after the date of opening tenders, he/she will execute in triplicate and return to the Owner the Agreement in the form bound herein within seven (7) days after being so requested. If the Tenderer has not been so requested within the said 90 days or if the Contract Administrator's written order to commence work has not been mailed or delivered to the Tenderer or his/her office or his/her postal address within the said 90 days, the Tenderer may, unless he/she has otherwise agreed or offered and except as otherwise provided herein, withdraw his/her tender.

18. Performance and Payment Bonds

The Contractor, together with a surety company approved by the Owner and authorized by law to carry on business in the Province of Ontario, shall, unless otherwise directed, furnish to the Owner a Performance Bond and a separate Labour and Material Payment Bond in the forms attached hereto each in the amount of one hundred percent (100%) of the total tender amount and such additional amount, if any, as may be required by the Owner. The Tenderer shall tender for the cost of the bonds in the Item provided for that purpose in the Form of Tender on the assumption that each bond will be in the amount of 100% of the total tender amount. In the event that either of the bonds is required to be in an amount in excess of 100% of the total tender amount the Owner will reimburse the Contractor in the amount of the premium for such excess amount after submission by the Contractor to the Owner of the surety company's relevant receipted invoice.

The Tenderer shall include with his/her tender the Agreement to Bond in the form enclosed herewith executed under its corporation seal by the surety company from which he/she proposes to obtain the required bonds.

The Owner may in its discretion decide to obtain the bonds from a surety company of its choice and may pay the premium for such bonds directly to the surety company so chosen. In that event, the Owner will notify the selected Tenderer accordingly before the tender has been accepted and the Tenderer shall execute and furnish to the Owner the required bonds as provided for herein but the Item relating to the cost of the bonds in the Form of Tender shall be deleted from the Contract and no payment shall be made to the Contractor therefore.

The Tenderer will be required to furnish the Performance Bond and the Labour and Material Payment Bond in triplicate as required herein and in the forms bound herein within seven (7) days after notification of the execution of the Agreement by the Owner has been mailed to him. One copy of the said bonds shall be bound into each of the three (3) executed sets of the Contract.

19. Proof of Ability

In order to aid the Owner in determining the responsibility of each Tenderer, the Tenderer shall complete the following statement sheets which are bound herein:

Statement 'A': Stating the Tenderer's experience in similar work which

he/she has successfully completed.

Statement 'B': Giving a list of the Tenderer's senior supervisory staff to be

employed on the Contract with a summary of the experience

of each.

If the Tenderer prefers, he/she may, in lieu of completing and submitting the abovementioned statement sheets, submit the information required by the said sheets on similar forms prepared in his/her own office, provided that the said forms bear the Tenderer's name and the date of preparation and contain up-to-date information.

The Owner reserves the right to reject any tender where satisfactory evidence of sufficient capital, plant and experience to successfully prosecute and complete the work in the specified time, is not furnished by the Tenderer.

20. Subcontractors

The Tenderer shall give in Statement "C" sheet of the tender documents the name and address of each proposed Subcontractor used in making up his/her tender. Only one Subcontractor shall be named for each part of the work to be sublet.

If the successful Tenderer wishes to substitute a Subcontractor other than the one named in Schedule "C" of the Form of Tender for a specific Item of work, he/she shall submit documentation to the Contract Administrator pertaining to the proposed Subcontractor's experience and competence to carry out the work. Employment of the proposed Subcontractor on the works is subject to the written approval of the Contract Administrator.

21. Workplace Safety and Insurance Board

The Contractor shall at the time of entering into any Contract with the Owner, make a statutory declaration or furnish a satisfactory clearance letter from the Workplace Safety and Insurance Board stating that all assessments or compensation payable to the Workplace Safety and Insurance Board have been paid.

The selected Tenderer shall submit such statutory declaration or clearance letter to the Owner in triplicate together with the Agreement executed by the said Tenderer. One copy of the statutory declaration or clearance letter shall be bound into each of the three (3) executed sets of the Contract.

22. Occupational Health and Safety

In order to avoid any misunderstanding as to the nature of the work to be performed herein, the Contractor by executing this Contract unequivocally acknowledges that it is the constructor within the meaning of the Occupational Health and Safety Act, and the Contractor undertakes to carry out the duties and responsibilities of a constructor with respect to the work.

It is specifically drawn to the attention of the Tenderer that the Occupational Health and Safety Act provides in addition to other matters that,

"A constructor shall ensure, on a project undertaken by the constructor that,

- a) the measures and procedures prescribed by this Act and the regulations are carried out on the project;
- b) every employer and every worker performing work on the project complies with this Act and the regulations; and,
- c) the health and safety of workers on the project is protected."

23. Review of Shop Drawings

The Contractor (or Subcontractor or equipment supplier acting on behalf of the Contractor) shall submit to the Contract Administrator in accordance with a procedure to be stipulated by the Contract Administrator all shop, working or setting drawings required in order to make clear the work proposed. The Contractor shall make any changes in such drawings that the Contract Administrator may require.

When submitting such drawings, the Contractor shall notify the Contract Administrator in writing of all respects in which such drawings differ from the requirements of the Contract or from previously notified requirements of the Contract Administrator. The Contract Administrator's review of such drawings shall not be construed as approval of such differences unless the Contractor has complied with the preceding sentence hereof and unless the Contract Administrator has specifically approved such differences in writing. The Contract Administrator's review of such drawings shall not relieve the Contractor from responsibility for the correctness of the drawings or the adequacy of the details shown on the drawings.

Work shall not be carried out before the Contract Administrator's review of the shop, working or setting drawings relating to such work has been carried out.

24. Machinery and Equipment Supplied by the Contractor

The Contractor is responsible for ensuring that all machinery and equipment supplied by him, or by any Subcontractor, under the Contract complies with the requirements of the Contract and in particular with the requirements of the Specifications for machinery and equipment, and that all suppliers of such machinery and equipment comply with such requirements. Failure on the part of a supplier to comply with such requirements shall not relieve the Contractor of responsibility for ensuring that the requirements of the Contract are fulfilled.

25. Harmonized Sales Tax

.1 Requirements of Tender

The Tenderer is instructed to exclude the Harmonized Sales Tax from his/her tendered amount.

.2 Payment of the Harmonized Sales Tax

Payment of the Harmonized Sales Tax will be made to the Contractor in conjunction with amounts certified as due on Monthly Payment Certificates as approved by the Contract Administrator. The amount of tax due will be shown as a separate Item.

26. Lump Sum for Other Requirements

In this Item of the Schedule of Items and Prices, or in the case of a lump sum type Contract, in the Breakdown Schedule, the Tenderer shall enter his/her tender amount for providing Items such as watchmen, permits and approvals (other than those to be paid by the Owner), Items required by the Drawings or Specifications but which have been omitted from the Schedule and other Items required by the Contract but not specifically covered by or related to the other Items in the Schedule.

Each Progress Payment Certificate will include a percentage of the tender amount for this Item in proportion to the percentage of the permanent works completed. The submission by a Tenderer of an unbalanced price for this Item renders the tender liable to disqualification.

27. Soils Investigations

Investigations have been carried out in the Contract Area by CIMA+ and has produced the following report:

1) Sediment Sampling Report, Terry Fox Stormwater Pond Cleanout, Prepared by CIMA+ dated July 17, 2019

The chemical analysis from the above report are appended to the Tender Documents. It is to be clearly understood that the information was accumulated for design purposes only and any interpretation placed on it by the Tenderer is solely the responsibility of the Tenderer.

28. Time of the Essence of the Contract

Time shall be deemed to be the essence of the Contract.

The Tenderer, having carefully examined the site of the proposed works and having read, understood and accepted the provisions, plans, specifications and conditions attached hereto, each and all of which forms part of this tender, agrees to have accomplished completion of all Contract work as defined in the *Construction Act* and Special Provisions – General on or before **September 30**, **2021**.

Failure by the Contractor to complete the works to the satisfaction of the Contract Administrator by the respective specified completion dates shall render the Contractor liable for Liquidated Damages.

29. Caveats

This project is contingent upon approval of works by the governing authorities including but not limited to the Ministry of Environment. The Contract will not be awarded until or unless the work is approved.

It is also to be understood that no work can be commenced until the Owner has received the necessary approvals from authorities that may have jurisdiction over parts of the work in this document.

30. Workplace Safety & Insurance Board – Experience Rating

Tenderers must submit with their bid, their experience rating under the NEER, the CAD-7, or the MAP program for the last completed year. This experience rating may be used as a factor in the selection of the successful Tenderer.

31. Changes In Alignments

The Owner reserves the right to change the horizontal and vertical alignment of the proposed works. The Contractor shall install the works as directed at the prices covered in the tender.

32. Conformity to Legislation

The Contractor must conform to all applicable legislation and regulations. Without limiting the generality of the foregoing this shall include the Occupational Health and Safety Act and Regulations, the Labour Standards Act, the Highway Traffic Act, the Workplace Safety Insurance Board Act and the Environmental Protection Act.

33. Availability of Tender Contract Drawings

A secured PDF of tender Contract Drawings is available on Biddingo for the Contractor. The Contractor assumes full responsibility for ensuring any changes, or modifications to the drawing set, whether by addenda or otherwise, are fully understood and followed as the drawing sets may not be reissued during the tender period by the Contract Administrator.

34. Town of Cobourg Purchasing By-Law

Acceptance of a bid submission or subsequent award shall be in compliance with the Town of Cobourg purchasing By-Law No.016-2012.

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Form Of Tender

(To Be Submitted By The Tenderer)

Form of Tender				
Owner:		Corporation of the Town of Cobourg		
Project:		Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD		
Contract Administrator:		CIMA+ 415 Baseline Road West, Bowmanville, Ontario L1C 5M2 Tel: 905-697-4464 Fax: 905-697-0443		
TENDERER:	Name			
	Addres	es		Postal Code
	<u>Tel:</u>	Fax:	E-mail:	
	Name o	of Person Signing		
	Positio	n of Person Signing		

Note: The Tenderer's name and address must be inserted above, and in the case of an unincorporated firm, the name and residence of each and every member of the first must be inserted.

To: Corporation of the Town of Cobourg 55 King Street West Cobourg, Ontario K9A 2M2

I (We)
having carefully examined the locality and site of the proposed works, and all Contract
documents relating thereto, including the: form of Agreement, Addendum/Addenda
Noto No * inclusive, Special Provisions, if any, Information for
Tenderers, Supplementary General Conditions, if any, General Conditions,
Supplementary Specifications, if any, Specifications, if any, Standard Specifications, if
any, Contract Drawings, Standard Drawings, Form of Tender, forms of Performance
Bond and Labour and Material Payment Bond, hereby tender and offer in accordance
therewith to enter into a Contract within the prescribed time to construct the said works
in strict accordance with the Contract Documents and such further detail drawings as
may be supplied from time-to-time and to furnish all materials, labour, tools, plant,
matters and things necessary therefore complete and ready for use within the time
specified for the Total Tender Price (excluding HST) of:
sum as may be ascertained in accordance with the Contract.

The Aforesaid Sum is Made up as Follows:

Schedule of Items and Prices

The Unit Prices tendered shall include all costs for labour, plant, the supply and installation of all materials, sheeting, dewatering, clearing, excavation, excavation stabilization, trenching, bedding surround, supporting, attaching, protecting, backfilling, testing, traffic control, barricades, signs, erosion control, silt control, dust control, disposal of surplus material off-site and complete restoration, all as detailed on the drawings and in the specifications.

Note that all costs for survey control, layout, clearing and grubbing, temporary protective fence, are to be included in the applicable Unit Prices for the Works.

Provisional Items may or may not be taken into account by the Owner in comparing tenders and awarding a Contract. Consideration of Provisional Items will be at the discretion of the Owner.

Index

Spec No. (ie. 401)	Refers to Ontario Provincial Standard Specifications (OPSS) as listed in Special Provision General Clause 2 (copies are not included in the Contract Documents and each Contractor must obtain the current issue of these specifications)
SP	Refers to the Special Provisions.
(P)	Plan Quantity Payment Item

In accordance with the first paragraph of this Tender, the Contractor hereby offers to complete the work specified for Contract No. CO-21-03 PWD for the following unit prices.

Spec. # - The numbers in this column refer to the applicable issue of the OPSS

SP - Refers to Special Provisions
(P) - Plan Quantity Payment Item

ITEM NO.	DESC.	SPEC NO.	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
PART '	A': ROADV	VORKS AND STORM SEWE	RS			
Section	า '1': Terry I	Fox SWM Pond				
1.1	SP	Site Preparation	LS	100%		
1.2		Access Route Improvements:				
	201 SP	a) Trim Branches, Clear Trees	LS	100%		
	MUNI 206 SP	b) Excavation 300mm Depth, Dispose Off Site (P)	m ³	80		
	MUNI 1860 SP	c) Non-Woven Geotextile	m ²	260		
	MUNI 314 SP	d) 250mm Depth 50mm Crusher Run Limestone	t	160		
	MUNI 314 SP	e) 50mm Depth 19mm Crusher Run Limestone Screenings	t	35		
	802 MUNI 804 SP	f) Topsoil & Seed	LS	100%		
1.3		Dewatering & Flow Maintenance	LS	100%		
1.4	411 SP	Water Quality Riser, Inlet and Outlet Maintenance	LS	100%		
1.5	MUNI 180 SP	Sediment Removal & Disposal MAIN POND	t	1,169		
1.6	MUNI 180 SP	Sediment Removal & Disposal at Landfill FOREBAY	t	486		
1.7	SP	Coffer Dam	LS	100%		

ITEM NO.	DESC.	SPEC NO.	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
1.8	MUNI 1004 SP	450mm Depth 200-300mm Rip Rap	m ²	10		
1.9	MUNI 1430 SP	400mm Depth 200-300mm Mud Mat	m ²	18		
1.10	SP	Bonds, Insurance and Maintenance Security	LS	100%		
		\$				
SUMMARY						
	Section '1': Terry Fox SWM Pond					\$
	Sub-Total (Excluding HST)					\$
	HST (13% of Sub-Total)				\$	
	Total Tender Amount (Including HST)					\$

The Tenderer agrees that, if this tender is accepted by the Owner:

- 1) He/she will carry out any additional or extra work (including the supplying of any additional materials or equipment pertaining thereto) or will delete any work as may be required by the Contract Administrator in accordance with the Contract:
- The carrying out of any work referred to in paragraph 1) above or the issuance by the Contract Administrator of a Contract Change Order relating to such work or the acceptance by the Tenderer of such Contract Change Order shall not, except as expressly stated in such Contract Change Order, waive or impair any of the terms of the Contract or of any Contract Change Order previously issued by the Contract Administrator or any of the rights of the Owner or of the Contract Administrator under the Contract:
- 3) He/she will pay to the Owner the sum specified in the Contract as liquidated damages for each calendar day that the work under the Contract as expressly modified by all Contract Change Orders issued by the Contract Administrator remains uncompleted after the expiry of the Time for Completion specified in the Contract or the extended time for completion allowed in writing by the Contract Administrator or the interim completion date as specified in the Contract.

The prices applicable to work referred to in paragraph 1) above shall be determined as follows:

- (a) The Schedule of Items and Prices shall apply where applicable;
- (b) If the above Schedule is inapplicable the prices shall be determined in accordance with Section 3.11 of the General Conditions.

The Tenderer agrees that he/she is not entitled to payment of Provisional Items, except for additional work carried out by him in accordance with the Contract and only to the extent of such additional work, as authorized by the Contract Administrator in writing.

The Tenderer agrees that, if so requested in writing by the Owner, he/she will enter into a Contract with the Owner based upon his tender but jointly in the names of the Tenderer and the Tenderer's parent company, if any. The Tenderer further agrees that any request by the Owner as indicated above is not and shall not be deemed to be a counteroffer by the Owner.

The Tenderer agrees that this tender is subject to a formal Contract being prepared and executed.

The Tenderer declares that no person, firm or corporation other than the Tenderer has any interest in this tender or in the proposed Contract for which this tender is made.

The Tenderer further declares that this tender is made without any connection, comparison of figures or arrangements with, or knowledge of, any other corporation, firm or person making a tender for the same work and is in all respects fair and without collusion or fraud.

The Tenderer further declares that no member of the Board and no officer or employee of the Contract Administrator is or will become interested directly or indirectly as a contracting party, partner, surety or otherwise in or in the performance of the Contract or in the supplies, work or business to which it relates, or in any portion of the profits thereof, or in any of the monies to be derived therefrom.

The Tenderer having carefully examined the site of the proposed work, and having read, understood and accepted the provisions, plans, specifications, and conditions attached hereto, each and all of which forms part of this Tender, agrees to accomplish completion of all Contract work as defined in the construction act and as described in Clause 3 of the Information to Tenderers and Clause 5 of the Special Provisions General sections.

If the Contract time above specified is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight shifts will be required throughout the life of the Contract to the extend deemed necessary by the Contractor to ensure that the work will be completed within the Contract time specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various Items of work and no additional compensation will be allowed therefore.

The Tenderer agrees that he/she will furnish the Owner a copy of his latest financial statement within 4 days after being requested to do so by the Owner.

The Tenderer agrees that the Owner reserves the right to reject any or all tenders and that the lowest or any tender will not necessarily be accepted.

The Tenderer solemnly declares that the several matters stated in the foregoing tender are in all respects true.

A certified cheque or bid bond in the amount specified in Clause 16 of the Information for Tenderers, made payable to the Owner is attached hereto as the required tender deposit. This cheque or bid bond shall constitute a deposit which shall be forfeited to the Owner if the successful Contractor fails to file with the Owner a 100% Performance Bond and a 100% Labour and Material Payment Bond, satisfactory to the Owner within ten (10) calendar days from the date of receipt of Notice of Acceptance of the Tender.

Dated at	this	day of	, 202
Signature of Witness			Signature of Tenderer

Note: If the tender is submitted by or on behalf of a corporation, it must be signed in the name of such corporation by the duly authorized officers and the seal of the corporation or water seal, must be affixed. If the tender is submitted by or on behalf of an individual or a partnership a seal must be affixed opposite the signature of the individual or of each partner and each signature shall be witnessed.

Statement "A"

Summary of Tenderer's Experience In Successfully Completed Similar Work. (Minimum Of Four (4) Contracts Required)

Year	Description of Contract	Contractor Role (General, Sub., etc.)	For Whom Works Performed	Name of Supervisor	Value	Consulting Engineer Responsible for the Works and Contact Information

Statement "B"

Qualifications of Tenderer's Senior Supervisory staff to be employed by this Contract.

Name	Appointment	Qualifications and Years of Experience

Statement "C"

List of Proposed Subcontractors

Clause 20 of the Information for Tenderers requires the Tenderer to list on this Statement Sheet the name of each proposed Subcontractor/Supplier. For the Tenderer's convenience and to ensure that a complete list is submitted with the tender, a list of possible sub-trades has been provided below. The Tenderer shall make an entry against each possible sub-trade listed either by naming the proposed Subcontractor or by entering "By Own Forces", whichever applies. No blank spaces are to be left

If, in addition, the Tenderer proposes to sublet a part of the work which is not listed below, he/she shall add the sub-trade and the proposed Subcontractor's name to the list.

Failure by a Tenderer to Comply with the Foregoing Requirements May Result in His/Her Tender Being Disqualified by the Owner.

Sub-Trade	Proposed Subcontractor / Supplier
Landscape – Topsoil & Seed	
Sewer Flushing	
Dewatering	
Sediment Removal	
Sediment Disposal Site	

**	
**	
**	

Agreement to Bond

Date:

Bond No._____

The Corporation of the Town of Cobourg 55 King Street West Cobourg, Ontario K9A 2M2

RE: Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

In consideration of the Corporation of the Town of Cobourg, (hereinafter referred to as "the Owner") accepting the tender of and executing an Agreement with:

(hereinafter referred to as "the Tenderer") for the construction of the **Terry Fox SWM Pond Cleanout, Contract No. CO-21-03 PWD**, subject to the express conditions that the Owner receive the Performance Bond and Labour and Material Payment Bond in accordance with the said tender, we the undersigned hereby agree with the Owner to become bound to the Owner as surety for the Tenderer in a Performance Bond and a Labour and Material Payment Bond each in an amount equal to 100% of the Contract price or other such greater amount as may be determined by the Owner, in the Owner's forms of Performance Bond and Labour and Material Payment Bond and in accordance with the said tender, and we agree to furnish the Owner with said Bonds within seven (7) days after notification of the acceptance of the said tender and execution of the said Agreement by the Owner has been mailed to us.

Yours very truly,

(Seal)

Note: This Agreement To Bond must be executed on behalf of the Surety Company by its authorized officers under the company's corporate seal shall become a part of the tender.

* * Enter name, address and telephone no. of the Surety Company at the top of the page.

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Special Provisions General

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

Contract No. CO-21-03 PWD

Index to Special Provisions General

Cla	Clause	
1.	Contract Drawings	1
2.	Ontario Provincial Standard Specifications (OPSS)	1
3.	Plan Quantity Items	2
4.	Guaranteed Maintenance	2
5.	Contractors Schedule of Work	2
6.	Contract Time And Liquidated Damages	3
7.	Liquidated Damages	3
8.	Laws and Regulations	4
9.	Non-Resident Contractors	4
10.	Contractor's Authorized Representative	4
11.	Ops General Condition	4
12.	Layout By Contractor	4
13.	Restrictions on Open Burning	5
14.	Species at Risk Act	5
15.	Payments	5
16.	Utilities	7
17.	Dust Control	8
18.	Traffic Control, Flagging	8
19.	Construction Signs	8
20.	Maintenance of Traffic	8
21.	Emergency and Maintenance Measures	9
22.	Management and Disposal of Excess Material	9
23.	Resampling of Sediment	10
24.	Occupational Health And Safety Act 2013 – Designated Substances	11
25.	Health and Safety Policy	11
26.	Workplace Hazardous Material Information System (WHMIS)	11

27.	Spills Reporting	. 12
28.	Environmental Protection Plan and Protection of Water Quality	. 12
29.	Traffic and Street Signs	. 13
30.	Garbage Collection and Mail Delivery	. 13
31.	Asphalt Mix Designs	. 13
32.	Preparation and Posting of Requirements for Work in Confined Spaces	. 14
33.	Confined Space Entry	. 14
34.	Entry Onto Private Property	. 15
35.	Storage Areas	. 15
36.	Workplace Safety and Insurance Board	. 15
37.	General Liability Insurance	. 15
38.	Construction Act	. 15
39.	Construction Noise	. 16
40.	Variations in Tender Quantities	. 16
41.	Provisional Items	. 16
42.	Deletions from contract	. 16
43.	Property Claims During Construction	. 17
44.	Construction Staging	. 17
45.	Access to Private Property During Construction	. 17
46	COVID-19 Pandemic	18

1. Contract Drawings

The Contract Drawings listed below form part of the Contract Documents:

Drawing Index		
Drawing No. Dwg. Title		
1	Notes and Details	
2	Site Plan	
Reference Drawings		
GP8	Stormwater Detention Pond	
PP11 Outlet – Detention Pond Easeme		

Additional drawings showing details in accordance with which work is to be constructed will be furnished from time to time by the Contract Administrator and will become part of the Contract Drawings.

Detail drawings take precedence over general drawings.

The location of utilities shown on Contract Drawings is in accordance with best information available and is not guaranteed. It is the Contractors responsibility to obtain locates for all utilities and provide protection of utilities during construction.

The Contractor is to obtain required dimensions not shown on Contract Drawings from the Contract Administrator before proceeding with construction of work.

2. Ontario Provincial Standard Specifications (OPSS)

The OPSS listed following and those referenced therein form part of the Contract Documents.

It shall be the Contractor's responsibility to obtain copies of those editions of the Ontario Provincial Standard Specifications (OPSS) current at the time of tendering for the Contract items listed in Section A, including the current editions of OPSS 127 and 128. The MUNI version shall apply where applicable.

OPSS Spec. No.	Date	Title	
MUNI 100	Nov 2019	OPSS MUNI General Conditions of Contract	
MUNI 180	Nov 2016	General Specification for the Management of Excess Materials	
MUNI 182	Nov 2012	General Specification for Environmental Protection for Construction in Waterbodies and on Waterbody Banks	
MUNI 201	Apr 2019	Construction Specification for Clearing, Close Cut Clearing, Grubbing and Removal of Surface and Piled Boulders	
MUNI 206	Apr 2019	Construction Specification for Grading	

OPSS Spec. No.	Date	Title	
MUNI 314	Nov 2016	Construction Specification for Untreated Subbase, Base, Surface, Shoulder, Selected Subgrade and Stockpiling	
411	Nov 2015	Construction Specification for the Cleaning and Flushing of Pipe Sewers, Catchbasins, Maintenance Holes, Ditch Inlets and Oil-Grit Separators	
MUNI 517	Nov 2018	Construction Specification for Dewatering for Excavation	
MUNI 518	Apr 2017	Construction Specification for Control of Water from Dewatering Operations	
802	Nov 2010	Construction Specifications for Topsoil	
MUNI 804	Nov 2014	Construction Specification for Seed and Cover	
MUNI 805	Nov 2018	Construction Specification for Temporary Erosion and Sediment Control Measures	
MUNI 1004	Nov 2013	Material Specification for Aggregates - Miscellaneous	
MUNI 1430	Nov 2017	Material Specification for Gabion Baskets and Mats	
MUNI 1860	Nov 2018	Material Specification for Geotextiles	

3. Plan Quantity Items

Measurement for payment of the Items designated (P) in the Form of Tender is by plan quantity, as may be revised by adjusted plan quantity at the discretion of the Contract Administrator.

4. Guaranteed Maintenance

The Contractor shall make good in a permanent manner, satisfactory to the Owner, any and all defects or deficiencies in the work, both during the construction and during the twenty-four (24) month period of maintenance as per GC 7.16. The Contractor shall commence repairs on any work identified as defective under this Clause within 48 hours of receipt of notice from the Owner or the Contract Administrator.

The decision of the Owner and the Contract Administrator shall be final as to the necessity for repairs or for any work to be done under this Clause.

5. Contractors Schedule of Work

Upon award of this Contract, the Contractor shall prepare a "Contractor's Schedule of Work". The Contractor must complete and remit the schedule to the Contract

Administrator within fourteen (14) calendar days of Contract award. The schedule shall be updated as required by the Contract Administrator during the course of construction.

6. Contract Time And Liquidated Damages

(1) Time

Time shall be of the essence for this Contract.

For purposes of this Contract, GC 1.04 of the General Conditions is revised, in that Contract Time means the time stipulated herein for completion of the Work as defined in the *Construction Act*.

(2) Progress of the Work and Contract Time

It is expected that the Contract Administrator will issue a written order to commence the work as per GC 7.01.02 the week of **March 1, 2021**.

The Contractor shall accomplish completion of all Contract work as defined in GC 1.06 of the General Conditions on or before September 30, 2021.

If the Contract time above specified is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to ensure that the work will be completed within the Contract time specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various Items of work and no additional compensation will be allowed therefore.

7. Liquidated Damages

It is agreed by the parties to the Contract that in case all the work called for under the Contract is not completed by the dates specified, or as extended in accordance with Section GC 3.06 of the General Conditions, a loss or damage will be sustained by the Owner. Since it is and will be impracticable and extremely difficult to ascertain and determine the actual loss or damage which the Owner will suffer in the event of and by reason of such delay, the parties hereto agree that the Contractor will pay to the Owner the sum of **One Thousand, Two Hundred Dollars (\$1,200.00)** as liquidated damages for each and every days delay in achieving completion of the work beyond the dates prescribed. It is agreed that this amount is an estimate of the actual loss of damage to the Owner which will accrue during the period in excess of the prescribed date for completion.

The Owner may deduct any amount under this paragraph from any moneys that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this paragraph are in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Owner.

8. Laws and Regulations

The Contractor shall comply with all relevant Federal, Provincial and Municipal statues, regulation and by-laws pertaining to the Work and its completion. The Contractor shall be responsible for ensuring similar compliance by its suppliers and Subcontractors.

The Contract shall be governed by and interpreted in accordance with the laws of the Province of Ontario.

9. Non-Resident Contractors

If the Contactor is non-resident in Ontario, the Contractor shall immediately after being notified that the Contract has been executed by the Town, obtain a certificate showing that the Contractor has registered with the Retail Sales Tax Branch and shall submit such certification to the Town at the time of furnishing the required Bonds.

10. Contractor's Authorized Representative

Authorized representative as referenced in GC 7.01.05 is defined as an employee of the Contractor.

11. Ops General Condition

Wherever in this Contract reference is made to the General Conditions, it shall be interpreted as meaning the OPS General Conditions of Contract (OPSS.MUNI 100, November 2019).

12. Layout By Contractor

Prior to the commencement of any construction layout, the Contractor shall verify the vertical accuracy of all temporary and permanent benchmarks and primary horizontal alignment control shown on the Contract Drawings. The Contractor shall also perform random checks on all survey control points and existing centreline road profiles. The Contractor shall provide a Summary Report of all aforementioned checks made to the Contract Administrator prior to the commencement of construction layout. Any discrepancies between the Contract Drawings and field checks shall be reported immediately to the Contract Administrator.

With the exception of the benchmark(s) specifically provided, no elevation within the Contract Drawings are to be used as a reference for any purpose.

The Contract Administrator shall provide AutoCAD drawing(s) for construction layout purposes prior to construction commencement. The Contractor shall ensure the AutoCAD Drawings are consistent with the conditions on the site.

Costs associated with all survey layout activities, including field verification work undertaken by the Contractor, shall be included in the Contractor's tender bid.

13. Restrictions on Open Burning

Open fires will not be permitted within the limits of this Contract. Brush and debris may as an alternative to burning, be disposed of outside the Contract Limits and in compliance with the requirements specified elsewhere for Management and Disposal of Excess Material.

14. Species at Risk Act

Should a federally or provincially listed species at risk be found on or near the project site, the Contractor is required to ensure that the species will not be affected by this project. If they are found to be affected, the Contractor will be required to cease work immediately and contact the local Environment Canada and/or Fisheries and Oceans Canada office, as applicable depending on the species, for measures to mitigate any effects this project may have on the species.

Species at Risk website:

https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html

15. Payments

Except as herein provided, payments under this Contract will be made in accordance with Subsection GC 8.02 of the General Conditions. Measurement for payment will be in accordance with GC 8.01, including items designated (P) on the Tender Form will be by Plan Quantity, and may be revised by adjusted Plan Quantity.

Progress Payments

Progress Payments shall be processed in accordance with GC 8.02.04.01. Progress payments shall be made on a monthly basis unless specified otherwise in the Contract Documents.

GC 8.02.04.01.04 is deleted and replaced with the following:

Payment shall be made within 30 days of receipt of a proper invoice and defined in this contract.

Fifteen percent (15%) of all monies due to the Contractor in accordance with the Progress Payment Certificate, up to a limit of fifteen percent (15%) of the contract price, shall be retained by the Town and shall be termed the holdback. The holdback shall be comprised of a ten percent (10%) Statutory Holdback in accordance with the Construction Act and a five percent (5%) Maintenance Holdback of the total amount of all monies due the Contractor, which shall be held for the full duration of the twenty-four (24) month maintenance period. No interest shall be paid on the holdback.

The Contractor shall submit an invoice, which must include the following to be considered a Proper Invoice under the Construction Act:

1. The Contractor's name and address;

- 2. The date of the application for payment and the period during which services or materials were supplied;
- 3. Information identifying the authority under which services or materials were supplied;
- 4. The amount payable for the services or materials that were supplied and the payment terms;
- 5. The name, title, telephone number and mailing address of the person to whom payment is to be sent;
- 6. Approved Change Orders signed by the Owner, Consultant and Contractor;
- 7. Copy of successful testing and commissioning reports where specified in the Contract Special Provisions,
- 8. Proposed payment certificate;
- 9. Copy of completed Time and Material breakdown form, when work was performed on a Time and Material basis; and
- 10. A Substantial Performance Release of Claims letter, a Completion Release of Claims letter or a Final Release of Claims letter (when applicable)

Substantial Performance Certificate, Payment and Statutory Holdback Release

At the time of Substantial Performance of the Contract, the Town shall issue a Progress Payment with the Substantial Performance Certificate which shall show the total amount due the Contractor, less five percent (5%) Maintenance Holdback and any additional amounts which are to be retained to cover work to be performed as outlined in GC 8.02.04.11 Owners Set-off.

Ten percent (10%) holdback of completed work shall become payable after sixty (60) days from the date on which a copy of the Certificate of Substantial Performance is published in a construction trade newspaper, providing that no notice of liens or other claims against the Contract have been received by the Town during this period. This payment shall be set forth on a Holdback Release Certificate.

The Contractor shall include in the price the publication of the Certificate of Substantial Performance. Publication is mandatory whether the Contractor requests Substantial Performance or not.

The Contractor shall submit an invoice, which must include a Substantial Performance Release of Claims letter in addition to the previously noted requirements to be considered a proper invoice.

The Contractor is advised that the Town may withhold payment on Interim and Holdback Release Certificates up to twenty-eight (28) calendar days from the date of receipt of the executed Payment Certificates and Proper Invoices.

Completion Certification, Payment and Completion Holdback Release

At the time of completion of the Contract, the Town shall issue a completion payment with the Completion Certificate which shall show the total amount due the Contractor, less the five percent (5%) maintenance holdback and any additional amounts which are to be retained to cover work to be performed as outlined in GC 8.02.04.11 Owners Set-off.

The Completion Payment Certificate is to include the completion holdback release will be issued within sixty-one (61) days after the date of completion as specified under Sub Section 2.03 of the Construction Act as amended in 2018. The date for interest due to late payment shall commence following ninety-one (91) days after the date of completion of the Work.

Ten percent (10%) of all work completed after the issuance of the Substantial Performance Certificate may be subject to holdback to become payable after issuance of the certificate of contract completion.

As a condition of the final holdback payment, the Contractor shall provide the required Property Owner's Releases as specified in the Contract Administration Forms and attached, as appropriate

The Contractor shall submit an invoice, which must include A Final Release of Claims letter in addition to the previously noted requirements to be considered a proper Invoice.

16. Utilities

Sections GC 2.01.01 and GC 7.13.02 of the General Conditions are deleted in their entirety and are replaced by the following:

"The Contractor shall be responsible for the protection of all utilities at the job site during the time of construction."

The Owner will be responsible for the relocation of utilities where required. However, no claims will be considered which are based on delays or inconvenience resulting from the relocation not being completed before the start of this Contract.

The location of underground utilities shown on the Contract drawings are based on preliminary investigations made by the Owner and therefore the accuracy cannot be guaranteed. It is, however, the Contractor's responsibility to contact the appropriate agencies for further information prior to commencing work in regard to the exact location of all utilities, to exercise the necessary care in construction operations and to take such other precautions as are necessary to safeguard the utilities from damage.

The Contractor shall be responsible for supporting of all existing utilities, including poles, within the Contract Limits, including co-ordination with the required utility stakeholder authorities.

17. Dust Control

As a part of the work required under Section GC 7.03 of the General Conditions, the Contractor shall take such steps as may be required to prevent dust nuisance resulting from his operations either within the right-of-way or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the work.

Where the work requires the sawing of asphalt or the sawing or grinding of concrete, blades and grinders of the wet type shall be used together with sufficient water to prevent the incidence of dust, wherever dust would affect traffic or wherever dust would be a nuisance to residents of the area where the work is being carried out.

The cost of all such preventative measures shall be borne by the Contractor.

18. Traffic Control, Flagging

Flagging for traffic control on this Contract shall be in conformance with the procedure outlined in OTM Book 7 (Ontario Traffic Manual), and as per the requirements of the Ontario Health and Safety Act Reg. 213/91, Section 69.1.

19. Construction Signs

In accordance with Section GC 7.06 of the General Conditions, the Contractor is responsible for the supply, erection, maintenance and subsequent removal of all temporary traffic controls, including signs, lights, barricades, delineators, cones, detour signage, etc., required on the work.

Traffic controls shall be provided in general accordance with the latest edition of the "OTM Book 7".

A Traffic Control Plan indicating all traffic signage layout and types in a neat legible manner shall be submitted for approval by the Contract Administrator a minimum of three weeks prior to construction commencement and shall be in accordance with the latest edition of the "OTM Book 7". Revisions to the Traffic Control Plan shall be made to reflect ongoing changes on the project as needed and shall be approved by the Contract Administrator.

Traffic controls shall be operational before work affecting traffic begins.

A minimum of four (4) TC-67 signs shall be supplied and erected by the Contractor at Contract limits with approved text, as directed by the Contract Administrator. The Contractor shall maintain signs for the duration of the construction, including removal upon completion.

20. Maintenance of Traffic

It is the responsibility of the Contractor to visit the site to become familiar with existing traffic volumes and patterns. No specific AADT (Average Annual Daily Traffic) is available at this time. However, the Contractor shall take into consideration all traffic info and out of the job site area as will occur during regular working hours.

It is understood that implementation of traffic controls will require ongoing review and adjustment to suit construction operations.

No claims for delays due to traffic will be considered for compensation.

The Contractor shall notify Police, Fire and Ambulance services at least 48 hours prior to any street closures.

Safe pedestrian access to residences shall be maintained at all times.

21. Emergency and Maintenance Measures

Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the contracting firm, shall be given to the Contract Administrator. This official shall be available at all times and have the necessary authority to mobilize workmen and machinery and to take any action as directed by the Contract Administrator in case emergency or maintenance measures are required regardless whether the emergency or requirement for maintenance was caused by the Contractor's negligence, act of God, or any cause whatsoever.

It shall be the Contractor's responsibility to ensure that erosion and sedimentation control measures within the limits of the Contract are in place and fully operational to the satisfaction of the Contract Administrator, should the onset of severe inclement weather be forecast.

Should the Contractor be unable to carry out immediate remedial measures required, the Owner will carry out the necessary repairs, the costs for which shall be charged to the Contractor.

22. Management and Disposal of Excess Material

The requirements of OPSS.MUNI 180 shall apply to this Contract, revised as follows:

.1 Section 180.03, Definitions, shall be amended by the addition of the following:

Work area: means the road allowance, right-of-way, and property with a boundary common to the road allowance or right-of-way within the Contract limits.

.2 Subsection 180.07.03, Conditions on Management as Disposable Fill, shall be amended by the addition of the following:

Recycled hot mix asphalt or excess bituminous pavement shall not be used as trench backfill or bedding.

All excess materials shall be managed, handled and disposed of at suitable locations, in accordance with applicable Municipal, Provincial, Federal and locally governing Conservation Authority jurisdictions, policies and legislations.

Contractors to note the requirement as stipulated in Town of Cobourg Bylaw 035-2012, Dumping of Fill and the Removal of Fill which can be viewed at:

https://cobourg.civicweb.net/filepro/documents?expanded=9849,145645,153634, 130458&preview=7972

Prior to the commencement of any earth removal from the site, the Contract Administrator and the Owner shall be provided with proposed locations to allow for a preliminary screening, as the locations may relate to Provincially Significant Wetlands, future Municipal projects, or areas regulated by the local Conservation Authority. The Contractor shall provide the Contract Administrator with the proposed disposal location two (2) weeks prior to the commencement of any earth removal from the site. For the purpose of this Contract, all excess materials shall meet the requirements of the Ministry of Environment "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (April 15, 2011)", which can be viewed at the following website:

https://www.ontario.ca/environment-and-energy/soil-ground-water-and-sediment-standards-use-under-part-xv1-environmental

The Owner has undertaken an assessment of the environmental quality of the soils to provide a general measure with respect to disposal requirements of the soils. Soils were subject to analyses of the parameters as described in the attached Sediment Sampling Report prepared by CIMA+.

The Contractor shall ensure excess material (fill) acceptors are aware of and have acknowledged (written) the concentrations of Antimony, Zinc, Sodium Absorption Ratio, Pyrene, Benz[a]anthracene, Benzo[b]fluoranthene and Indeno[1 2 3-cd]pyrene as described in the Sediment Sampling Report, prior to the use of any disposal site. Copies of completed forms and written acknowledgement of concentrations shall be provided to the Owner, in accordance with OPSS.MUNI 180 timelines.

23. Resampling of Sediment

If the Contractor deems necessary any resampling, sampling shall follow the Guidelines for Environmental Site Assessments under Ontario Regulation 153/04 (as amended), April 2011, created by the Association of Professional Geoscientists of Ontario. Resampling must be performed at the expense of the Contractor by a Qualified Person (QP), and the QP must ensure that the supporting reports meet the requirements set out in the Regulation. List of minimum sampling requirements from the report are listed below.

Pile Volume	Minimum Number of Field Screening Samples	Minimum Number of Samples for Laboratory Analysis
< 50 m ³	5	1
>50 m ³ to 150 m ³	15	3
>150 m ³ to 500 m ³	30	5
>500 m ³ to 1500 m ³	50	10
>1500 m ³	75	15

Report can be found at:

https://www.pgo.ca/files/APGO Brownfields Guidance Document.pdf

24. Occupational Health And Safety Act 2013 – Designated Substances

In accordance with the requirements of Part III 30.(1) of the Occupational Health and Safety Act, the Owner has determined that the designated substances as listed in the act may be present on the site and are identified in the attached soils analysis report if found.

It is the responsibility of the Contractor to ensure that all Subcontractors performing work under this Contract have received a copy of this specification, where Designated Substances are identified as being present at the site of the work.

The Contractor shall comply with the governing Ministry of Labour Regulations respecting protection of workers, removal, handling and disposition of the Designated Substances encountered on this Contract.

Prior to commencement of this work, the Contractor shall provide written notification to the Ministry of the Environment at 1259 Gardiners Road, Kingston, Ontario K7P 3J6, of the location(s) proposed for disposal of Designated Substances. A copy of the notification shall be provided to the Contract Administrator a minimum of two weeks in advance of work starting.

In the event that the Ministry of the Environment has concerns with any proposed disposal location, further notification shall be provided until the Ministry of the Environment's concerns have been addressed.

All costs associated with the removal and disposition of Designated Substances herein identified, shall be deemed to be included in the appropriate tender Items.

Should a Designated Substance not herein identified be encountered in the work, then management of such substance shall be treated as Extra Work.

The requirements of Section GC 4.03 of the General Conditions of the Contract shall apply.

25. Health and Safety Policy

The Tenderer shall submit, prior to award of the Contract, a copy of their Health and Safety Policy.

26. Workplace Hazardous Material Information System (WHMIS)

Reporting

Section GC 4.03.06 is deleted and replaced with the following:

Prior to the commencement of work the Contractor shall provide, to the Contract Administrator, a list of those products controlled under WHMIS which it expects to use on this Contract. Related Material Safety Data Sheets shall accompany the submission. All containers used in the application of products controlled under WHMIS shall be labelled.

The Contractor shall notify the Contract Administrator of changes to the list in writing and provide the relevant Material Safety Data Sheets.

27. Spills Reporting

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations that cause or are likely to cause adverse effects shall forthwith be reported to the Contract Administrator. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act R.S.O. 1990.

All spills or discharges of liquid, other than accumulated rain water, from luminaires, internally illuminated signs, lamps, and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Contract Administrator.

This reporting will not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

28. Environmental Protection Plan and Protection of Water Quality

If, in the opinion of the Contract Administrator or Approving Authorities the Contractor is not fulfilling the conditions and requirements of the Environmental Protection Plan as described herein, the Contract Administrator or Approving Agency has the right to stop the Contractor's operation and/or work, at any time, until the deficiency or default has been resolved to their satisfaction. Compensation to the Contractor for any delays incurred as a result of this stoppage of work will not be considered.

Equipment and Operation

The Contractor shall control equipment and operations to limit disruption to the watercourse and surrounding areas the greatest extent possible. Control measures shall include, but not be limited to, the following requirements:

- Equipment shall arrive at the site sufficiently clean such that the Contract Administrator may confirm that no invasive species or noxious weeds including phragmites are transported onto the site by equipment.
- Equipment shall arrive on site in good repair and shall be regularly inspected and maintained by the Contractor throughout the duration of the contract to ensure that it remains free of fluid leaks.
- All SWM pond cleanout and rehabilitation works to be completed per MNR quidance between April 15 to September 30, 2021.
- Restoration of disturbed areas shall be completed immediately following the disturbance of an area regardless of whether it is vegetation, hard surfaces, watercourse surfaces or embankment surfaces.

- Storage, maintenance and cleaning of equipment shall be performed a minimum of 30 meters away from the active watercourse and above the high water mark.
- Storage of fuel tanks and refueling operations shall be performed a minimum of 30 meters away from the active watercourse and above the high water mark. All fuel tanks shall be sound, leak free and where necessary certified by the required authority.
- Bio hazardous, Poisonous, Corrosive and/or Toxic Materials shall be stored a
 minimum of 30 meters away from the active watercourse and above the high
 water mark. Regulated materials shall be handled and used in accordance
 with applicable regulations. Quantities of these materials on site at any time
 shall be the minimum deemed required to carry out this Contract.
- A procedure for interception, clean-up, proper disposal and reporting of spills shall be in place prior to the commencement of the work and subject to the approval of the Contract Administrator and other Approving Authorities (i.e. MOE, Conservation Authority, DFO, MNR). Materials and equipment to facilitate spill clean-up shall be readily available and appropriately stored onsite prior to the commencement of work. All spills shall be reported to the Contract Administrator immediately.

29. Traffic and Street Signs

The Contractor will be responsible for the removal and salvage of existing traffic and street signs, and their re-erection as directed by the Contract Administrator following completion of the work.

Scheduling for sign removal shall be as approved in advance by the Contract Administrator.

Regulatory signs such as "Stop" and "Yield" must be maintained throughout.

30. Garbage Collection and Mail Delivery

The Contractor will be responsible for ensuring that garbage collection, including recyclables, is maintained and, when necessary, the Contractor shall make arrangements directly with the collecting agency to permit and coordinate pick-up.

The Contractor shall ensure that Canada Post employees have daily access to properties for mail delivery services at all times.

31. Asphalt Mix Designs

The Contractor shall be responsible for the provision of current mix designs for all hot mix asphalt required for the work, or for having the necessary mix designs prepared by a certified laboratory. The mix designs proposed for use by the Contractor shall be submitted in writing to the Contract Administrator for his approval and no work shall commence until the design mixes are approved.

All costs associated with the provision of approved mix designs shall be borne by the Contractor.

Steel slag and blast furnace slag coarse and fine aggregates shall not be used in any hot mix required by this Contract.

Any requests by the Contractor for adjustment to previously approved mix designs shall be requested by the Contractor within 24 hours of the commencement of asphalt placement. After which period, no adjustments will be considered by the Contract Administrator.

32. Preparation and Posting of Requirements for Work in Confined Spaces

Clause GC 7.01.04 of the OPS General Conditions of Contract is amended by the addition of the following:

Detailed written procedures addressing the confined space requirements of the Occupational Health and Safety Act and Ontario Regulations for Construction Projects, Ontario Regulation 213/91, shall be clearly posted at the project site and available to all personnel, including the Contractor's workers, Owner staff, Contract Administrator, and Ministry of Labour inspectors.

The procedures must include the rescue procedures to be followed during a rescue or evacuation of all personnel from an unsafe condition or in the event of personal injury.

The Contractor shall have personnel trained in rescue procedures readily available on site.

33. Confined Space Entry

Without relieving the Contractor of his responsibilities under the Occupational Health and Safety Act the Contractor shall be responsible for the supply of personal protective equipment for the use of the Contract Administrator, in connection with confined space entry while the Contractor is operating on site.

The following equipment shall be made available on request:

- Mechanical Ventilation Equipment
- Gloves
- Gas Detector (C95-80)
- Full body harness securely attached to a rope
- Rope
- Gas mask or dust, mist or fume respirator (optional)
- 30 minute self-contained breathing apparatus (need not be worn but, if required, be readily available to supply air for instant egress)
- 7 minute Escape Pack
- Explosion-proof temporary lighting
- Adequate clothing to ensure protection against abrasions and contamination.

In addition the Contractor shall provide a competent person who shall inspect all safety equipment prior to use to ensure that it is in good working order and appropriate for the task at hand.

34. Entry Onto Private Property

The Contractor shall not enter private property or property which is to be acquired to construct the works without the prior consent of the Contract Administrator. This requirement will be strictly enforced.

35. Storage Areas

Clause GC 7.03 of the General Conditions of Contract is amended by the addition of the following:

The use of the road right-of-way as a long term storage area is not allowed under this Contract. The storage of materials and movement of equipment will only be allowed for normally accepted construction practices.

36. Workplace Safety and Insurance Board

The Contractor shall at the time of entering into any Contract with the Town, furnish a satisfactory clearance certificate from the Workplace Safety and Insurance Board stating that all assessments or compensation payable to the Board have been paid. The Contractor shall also at any time during the performance, when requested by the Town, and upon completion of such Contract, furnish a satisfactory certificate from the Board as outlined above. Such certificates shall also be required prior to the release of progress payment certificates.

37. General Liability Insurance

The Corporation of the Town of Cobourg, Lakefront Utility Services Inc. and CIMA Canada Inc. shall be named as additional insured's with limits of not less than Five Million Dollars (\$5,000,000) per occurrence. (See Clause GC 6.03.02.01).

38. Construction Act

The Contractor shall give the Owner notice in writing, immediately, of all lien claims or potential lien claims coming to the knowledge of the Contractor or his agents.

When a claim for lien is filed by a Subcontractor, labour or material supplier or equipment renter acting under the Contractor, and proceedings are commenced by the Owner to vacate the lien, the Contractor agrees and shall forthwith pay to the Owner, in addition to their reasonable legal fees therefore, all interest costs and expenses incurred by the Owner and an additional sum equal to ten percent (10%) of the sum found to be owing as liquidated damages, and such remedy shall be in addition to any other remedy available to the Owner under the Contract Documents.

Where any lien claimant asks from the Owner the production for inspection of the Contract Documents or the state of the accounts between the Owner and the Contractor, the Contractor shall be liable for an administration fee of Two Hundred Dollars (\$200.00) for each request made as compensation for the preparation of

such accounting or for the preparation of the Contract, or both, as the case may be, and the Contractor acknowledges that such administrative fee shall be properly deductible, if the Owner should so choose, from monies otherwise payable to the Contractor under the terms of the Contract Documents.

Where an application is brought to a judge of a competent jurisdiction to compel production of any particular document to a lien claimant, the Contractor further agrees to indemnify the Owner from reasonable legal fees incurred in appearing on such an application and in addition agrees to pay to the Owner its reasonable costs incurred in producing such documents to the extent that the same is made necessary under the disposition of the matter by such judge, and the Contractor further agrees that such reasonable costs and fees incurred by the Owner as stated herein may be properly deductible from monies otherwise payable to the Contractor under the terms of the Contract Documents.

39. Construction Noise

Contractors are advised that construction operations shall be undertaken recognizing the restrictions imposed by Town of Cobourg By-law Number 011-2011 that can be viewed at https://cobourg.civicweb.net/filepro/documents.

Contractors attention is drawn to Clause 3.1 at the aforementioned website regarding maximum allowable sound levels over a 24 hour period.

Any approved night, weekend, or holiday work will require the Contractor to submit a request for an amendment to the Town of Cobourg By-law Number 011-2011 that can be viewed at https://cobourg.civicweb.net/filepro/documents. Any delays/costs incurred as a result of the requirement to obtain the noise by-law amendment will not be considered.

40. Variations in Tender Quantities

Clause GC 8.01.02.01 (b) of the General Conditions of Contract is amended as follows:

The last sentence beginning "Alternatively" and ending "paid" is deleted and replaced by "The Owner shall not be liable to the Company for loss of anticipated profit".

41. Provisional Items

Where it occurs in this document, the notation "Provisional" shall be understood to mean that the inclusion in the contract of items so described, shall be at the discretion of the Town and no claims for extra payment due to the exclusion of nay or all of these items will be accepted by the Town.

42. Deletions from contract

The Town reserves the right to delete any portion of the work from the Contract should it be deemed in the interest of the Town to do so.

The Town reserves the right to award this contract in whole or in part.

43. Property Claims During Construction

The Contractor shall be the primary contact for claims made by homeowners and other property owners within the project limits during construction processes. The Contractor shall inform the Contract Administrator of said claims, immediately upon receipt. The Contractor shall inform the Owner, in writing, their intentions with regard to resolution of said claim within twenty-four (24) hours of receipt.

If it is deemed by the Owner that the Contractor is not adequately providing and/or retaining the services to resolve a claim by homeowners within the project limits during construction, the Owner may elect to holdback sufficient funds to resolve the claim. All claims, negotiations, and/or mediation completed under this Contract, including Arbitration, shall be completed in Accordance with Clauses and Sub-clauses of GC 3.13 and 3.14 of the General Conditions of Contract.

The application of this Clause shall not make the Owner or Contract Administrator liable in any way for subsequent performance, and in no way relieves the Contractor from his continuing responsibilities in accordance with this Contract.

44. Construction Staging

The Contractor shall provide a construction schedule detailing all major activities, including sequence of activities.

The Contractor shall consider the following constraints in developing construction schedule:

- Anticipated start date April 15, 2021;
- Half Load Restrictions;
- MNR construction window;
- Completion of all Contract work on or before September 30, 2021.

Underground and surface improvements shall be completed in an organized and sequential methodology, to accommodate adjacent homeowners' entrances, and travel to/from adjacent streets. The methodology is to be approved by the Contract Administrator, prior to the commencement of any work.

Consideration shall be given to the provision of potable water supply and maintenance of sewer (storm) flows, at all times as part of this staging schedule.

45. Access to Private Property During Construction

The Contractor is reminded that access to private properties, buildings, driveways, lanes must be provided at all times. The Contractor is advised that every attempt must be made to provide access to private properties. During the evening and weekend periods, traffic is to be permitted on the roadway, using appropriate signage if a detour is not in place. Therefore, the Contractor will be required to schedule work and construct necessary temporary works as necessary to ensure this requirement is met. All costs anticipated for compliance with this Clause shall be included in the Tendered Price.

46. COVID-19 Pandemic

At the time of issuing this Tender it is unknown how long the COVID-19 pandemic situation will continue along with the resultant State of Emergency Orders and related restrictions imposed by the Government of Ontario and other levels of government.

Without limiting the parties' mutual obligation to mitigate the impact of the current and future COVID-19 related restrictions on the performance of their respective obligations under this Contact, the parties acknowledge and agree that if renewed, additional or increased COVID-19 related restrictions are imposed, and those restrictions impact the ability for the work called for under this Request for Tender to continue, then the Contract Time shall be extended for such reasonable duration as the Town and the Contractor shall agree based on the prevailing circumstances. The extension of time shall not be less than the delay/time lost as a result of renewed, additional or increased COVID-19 related restrictions that limit the ability for the work called for under this Request for Tender to continue, unless the Contactor agrees to a shorter extension. The Contractor shall not be entitled to payment for costs incurred due to such delays and lost time. Upon reaching an agreement on the extension of time to be provided due to renewed, additional or increased COVID-19 related restrictions the Contractor and the Town shall execute a Change Order confirming the extension of Contract Time and establishing revised completion dates and confirming that there are no costs payable by the Township to the Contractor as a result of the extension of Contact Time.

Should renewed, additional or increased COVID-19 related restrictions require the Town to make a determination with respect to the essential nature of the work called for under this tender the Town will do so at its sole discretion. The Contractor shall not be entitled to any payment by the Town as a result of such decisions and determinations as the Town may be required to make.

The Contractor will be required to submit a plan that outlines how the Contractor will address the requirements of all COVID-19 related restrictions in the context of the Work called for under this Tender. This shall include, but not be limited to required social distancing, hygiene and personal protective equipment measures for the Contractor's employees, suppliers, subcontractors, as well as Town of Cobourg staff and their representatives and regulatory agency staff required to attend the site along with the general public. The plan shall also outline how the Contractor will suspend progress of the Work called for under this Tender in a safe and efficient manner should such action be required due to renewed, additional or increased COVID-19 related restrictions.

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Special Provisions Items

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

Index to Special Provisions Items

Clause	SPI Page
Site Preparation – Item No. 1.1	1
Access Route Improvements – Item No. 1.2	2
Dewatering and Flow Maintenance – Item 1.3	3
Water Quality Riser, Inlet and Outlet Maintenance – Item No. 1.4	5
Sediment Removal and Disposal – Items No. 1.5 & 1.6	5
Coffer Dam – Item No. 1.7	7
Rip Rap – Item No. 1.8	8
Mud Mat – Item No. 1.9	8
Bonds, Insurance and Maintenance Security – Item No. 1.10	8

Specifications

Site Preparation – Item No. 1.1

For the lump sum bid, the Contractor shall supply all labor, equipment and material to complete the following:

- Access Terry Fox SWM Pond solely via Fraser Court, as shown on the Contract Drawings. Any deviation from the location and general arrangement of the temporary access routes shown on the Contract Drawings and as noted herein will require the approval of the Contract Administrator, prior to implementation.
- All temporary lane restrictions shall be installed, configured and signed in accordance with Ontario Traffic Manual (OTM) Book 7. Contractors shall note only temporary single lane restrictions are permitted. A detailed traffic control plan shall be submitted to the Consultant for review a minimum 48 hours prior to any planned lane closures.
- Protect asphalt and concrete surfaces on Fraser Court and the connecting concrete sidewalk from damage during periods of equipment access and movement. This may include the use of granular ramping, plywood or timber coverings or other methods as required. The Contractor is responsible for the adequacy of the selected protection method. No temporary protective materials shall be left in place outside of normal working hours, or as approved by the Contract Administrator.
- Restore all damaged asphalt and concrete surfacing on Fraser Court and connecting concrete sidewalks including all material, labour and equipment to do so. The restoration shall be completed with the use of new materials to restore existing conditions to an equal or better condition than the pre-construction condition, as approved by the Contract Administrator.
- Construct, maintain and remove temporary access route through Terry Fox SWM
 Pond along the concrete sidewalk shown on the contract drawings to access the
 work location. The design of access routes shall be the sole responsibility of the
 Contractor with respect to its stability and suitability for its intended loadings.
- Prepare, maintain and remove temporary access route surfaces including removal of muddy debris, topsoil and organics along the routes shown on the contract drawings to access site.
- Undertake mechanical sweeping on the adjacent municipal streets as directed by the Contract Administrator, and as may be required to prevent dust/mud nuisance resulting from operations.
- Supply, install and maintain temporary 1.8 m high modular steel safety fences along access route and storage areas to ensure they are safely isolated from public areas.
- Supply and install "Danger. Construction Zone. Do Not Enter" signs on all temporary and existing fences used to isolate the site at a maximum spacing of 10.0 meters.

- Protect existing trees along access routes and within working area limits including root structure and canopy as indicated on the Contract Drawings in accordance with OPSD 220.010 and/or as directed by the Contract Administrator.
- Trim existing overhanging vegetation along access routes as necessary. All
 trimming limits shall be approved by the Contract Administrator prior to removals
 as per OPSS.MUNI 201. Excess material shall be disposed of offsite.
- Clear and grub all shrubs around inlet headwalls, dead trees, and prune branches along edge of pond and access roads on all locations shown on the drawings. Disposal of debris resulting from the removals shall be off-site at a location arranged for by the Contractor.
- Two (2) weeks before commencing the Contractor shall submit to the Contract Administrator two (2) copies of the temporary access, construction and staging methodology and details including location, alignment, equipment, materials and storage areas. Any deviation from the location and general arrangement of the temporary access routes shown on the Contract Drawings and as noted herein will require the approval of the Contract Administrator, prior to implementation.

Should any of the salvaged materials be deemed not reusable for reinstatement / reinstallation, the Contractor shall replace in kind or with an approved equivalent at the Contractors expense and to the satisfaction of the Contract Administrator.

Access Route Improvements – Item No. 1.2

For the lump sum and unit price bid, the Contractor shall supply all labour, equipment and material to complete the following:

- Trim branches and bushes to provide access along the existing access from
 Fraser Court. The Contractor shall clear all trees, stumps, hedges, brush etc.
 where indicated on the Contract Drawings or as directed by the Contract
 Administrator. All material to be disposed of offsite at a location arranged for by
 the Contractor. All work shall be done with sharp tools to ensure a clean cut.
- Excavation to 300 mm depth along area of access road improvement area as shown on the Contract Drawings and dispose of excess material offsite at a location arranged for by the Contractor.
- Supply and place non-woven geotextile along excavated access route as per OPSS MUNI.1860.
- The Contractor shall supply, place and compact 250 mm depth of 50 mm crusher run limestone.
- Granulars used for any temporary entrances or accesses are included in Item 1.1 and not included in this Item.

Upon completion of pond cleanout:

 Supply, place and compact 50 mm depth of 19 mm crusher run limestone over the previously placed 50 mm crusher run limestone to create a pedestrian walkway extending from edge of existing concrete sidewalk.

- Supply and place screened topsoil and seed to restore disturbed areas adjacent
 to access route. The finished grading and depth of topsoil shall be approved by
 the Contract Administrator prior to placing seed or sod. Any seed or sod placed
 prior to approval of the topsoil material shall be deemed to be unacceptable.
- Restore disturbed areas with seed consisting of Ontario Seed Co. (OSC) Bank Seed Mix 8215 or approved equivalent. Seed shall be distributed manually at the rate recommended by the supplier.
- Watering shall be carried out to ensure proper germination and subsequent growth to a height of 75 mm. Water supply and application necessary to achieve the desired growth is the Contractor's responsibility under the unit price for this Item.
- Payment shall be released by 50% upon placement of the seeding, and the remaining 50% will be released 30 days after satisfactory germination of the permanent seed species. Satisfactory germination shall be as specified in OPSS.MUNI 804.

Dewatering and Flow Maintenance – Item 1.3

The specifications under this Item as outlined herein, and as shown on the Contract Drawings are conceptual dewatering configurations which have been reviewed with the Ganaraska Region Conservation Authority, and should be regarded as minimum requirements under this Item. It is recommended the Contractor visit the site to familiarize themselves with the site conditions (i.e. flow, vegetation, substrate composition etc.) impacting works under this Item.

For the lump sum price bid, the Contractor shall supply all labour, equipment and material to complete the following:

- Organize and schedule the works for sufficient successive days of forecasted dry weather conditions.
- Ensure that the construction methodologies utilized are completed in an organized and sequential manner. Every effort shall be made to limit the extent of dewatering operations.
- Two (2) Weeks before commencing dewatering the Contractor shall submit to the Consultant copies of the dewatering methodology. These shall include detailed shop drawings and specifications with respect to dewatering and staging plans as per OPSS.MUNI 517.
- Submitted methodologies (i.e. pump sizes, pumping durations, outlet dissipation etc.) and staging (including consideration to requirements outside of working day hours) for the purposes of implementation, as per OPSS.MUNI 517, shall be the sole responsibility of the Contractor and subject to the approval of the Consultant. Upon written approval of the drawings and procedures, the Contractor may commence the implementation of the dewatering.
- Install appropriately sized fish screen in a trapezoidal configuration in front of the inlet pipe at the water quality riser. Extend top of screen to a minimum 200 mm above water elevation.

- Setup pump intake behind fish screen and pump water to a sediment bag surrounded by silt control fence and straw bales at the location indicated on Detail 2 on Contract Drawing No. 1.
- A Ministry of Natural Resources and Forestry (MNRF) Fish and Wildlife Collection Permits are anticipated to be received by the Town of Cobourg, or their designates for the SWM Ponds. In conformance with the permits the Contractor shall supply all labour, equipment and material to complete the following:
 - Provide the Consultant a minimum of five (5) working days prior to the commencement of dewatering activities requiring the Town's specialist(s) and/or biologist(s) retained under the permits.
 - Work under the direction of the Town's retained fish/wildlife transfer specialist(s) and/or biologist(s) to complete the fish/wildlife rescue activities during dewatering operations including the following:
 - Attend a pre-dewatering site meeting with the Consultant and the Town's retained fish/wildlife transfer specialist(s) and/or biologist(s) to review methodology and timing of the fish/wildlife transfer activities.
 - Allow all work areas to drain by gravity, wherever possible. Under the direction of the Town's retained fish/wildlife transfer specialist(s) and/or biologist(s), assist with encouraging fish/wildlife to migrate out of the work area during the recession of water levels.
 - Under the direction of the Town's retained fish/wildlife transfer specialist(s) and/or biologist(s), assist with rescue of fish, wildlife and crustaceans (i.e. crayfish) by controlling water levels and facilitating safe access to the work areas within the pond.
 - The Town's retained fish/wildlife transfer specialist(s) and/or biologist(s) will complete any required electro-fishing of pools or low areas within the dewatered work area that are too deep to be effectively cleared by netting and transfer. The Town's retained fish/wildlife transfer specialist(s) and/or biologist(s) will provide electro-fishing equipment.
 - Note that the fish / wildlife rescue process may take up to two (2) days to complete for the SWM pond depending on the number of fish / wildlife encountered in the pond.
- Periodically pump water from the pond to maintain a de-watered condition.
- Maintain sediment & erosion control measures as required for the duration of the contract including, but not limited to, removal of accumulated sediment and reinforcing of outlet locations.

Water Quality Riser, Inlet and Outlet Maintenance – Item No. 1.4

For the lump sum bid, the Contractor shall supply all labor, equipment and material to complete the following:

- Cleanout and remove sediment from the existing inlet and outlet structures at locations shown on the Contract Drawings.
- Cleanout and flush both 450 mm culverts connecting forebay and main pond.
- Cleanout and flush the 250 mm storm sewer pipe (60 m) by the use of a Hydro-Vac unit including the cost to supply water.
- Sediment is plugging the water quality riser and requires cleanout, removal and restoration. Take care not to allow silt or debris to enter the outfall pipe. Remove and dispose of clearstone jacket surrounding the water quality outlet riser, as well as surrounding wire mesh. Remove and dispose of the 1,500 mm diameter CSP riser. The Hickenbottom riser, connection tee and outlet pipe are to be cleaned out but remain installed. Remove and replace concrete slab foundation. Install new 1,500 mm diameter CSP riser with lockable grate and 25 mm holes. Replace clearstone jacket with 20 mm 50 mm well graded clearstone and surround with galvanized wire mesh jacket. Refer to "Extended Detention & Quality Control Outlet" detail on reference drawing PP11 by D.R. Barker & Associates LTD. Consulting Engineers, as well as OPSS 1004 and OPSS.MUNI 1430.
- The 1,500 mm diameter aluminized type 2 corrugated steel pipe (CSP) shall be 2.8 mm thick (125 X 25 mm corrugation profile). The 25 mm holes shall be spaced 150 mm on center with a minimum 300 total holes 0.30 m from bottom. The length shall be 2.2 m.
- Contractor shall capture and control mobilized debris and sediment to prevent conveyance downstream. Removal and disposal of all accumulated sediment debris to be paid under Item 1.5.

Sediment Removal and Disposal - Items No. 1.5 & 1.6

All sediment removal shall follow OPSS.MUNI 180.

For the unit price bid, the Contractor shall supply all labor, equipment and material to complete the following:

- Two (2) weeks before sediment removal, the Contractor shall submit to the Contract Administrator copies of the containment, drying and/or processing methodology.
- Containment, drying and/or processing methodology shall be subject to approval by the Contract Administrator and other Approving Authorities (i.e. Conservation Authority, DFO, MNRF), prior to implementation.
- The Contractor shall provide the Consultant with the proposed disposal locations two (2) weeks prior to the commencement of sediment removal including Municipal by-law approvals for the site accepting the material, proposed hauling route and a signed letter from the owner of that site confirming they will be

- receiving the material. Any deviation from the disposal location provided will require the approval of the Contract Administrator, prior to implementation.
- The Contractor shall visit the site to examine and become familiar with the extent of vegetation growth in the forebay and main pond. The price shall include all cost to properly strip, remove, store and dispose of vegetation and plant material as follows:
 - Phase 1: Vegetation stripped from the main pond cell shall be stockpiled on site and disposed of at an approved location arranged for by the contractor.
 - Phase 2: The forebay area is known to contain invasive plant species (phragmites). All vegetation stripped from the forebay shall be immediately placed into closed bins or bags for storage and shall be disposed of at a Ministry of the Environment Conservation and Parks (MECP) approved landfill site in accordance with the Invasive Species Act, which can viewed at the following website: https://www.ontario.ca/laws/statute/s15022
- Remove sediment from the pond to an extent that exposes the underlying turfstone, clay liner or solid bottom as approved by the Contract Administrator. Contractor is expected to use provided reference drawing GP-8 as reference for as-built pond elevations. Utilize excavation equipment to complete removal, in stages if necessary, due to the saturated "slurry" nature of the sediment. In order to facilitate separate disposal, sediment removed from the forebay area shall not be intermixed with sediment removed from the main pond cell.
- Contain, dry and/or process the sediment in the pond area to solidify the
 material. Cost to include use of "LIQUI-SORB 2000" or approved alternative to
 solidify. Once the "LIQUI-SORB 2000" is applied to the sediment, it shall be
 allowed to activate prior to loading and shipping as per the manufacturer's
 recommendations. Mulch and or/sawdust shall not be used for solidifying.
- Assemble a drainage system and collect all water that leaches from the removed sediment. Ensure all water drains directly towards the pond. Cover solidified sediment to prevent saturation from precipitation.
- Participate in site visit(s), as organized by the Contract Administrator, during drying/processing to witness testing for the determination of "liquid waste" (slump test) as detailed in schedule 9 of r.r.o 1990, reg. 347 to determine when material is sufficiently dry and can be disposed of as solid waste in accordance with r.r.o 1990, reg. 347. All testing will be coordinated by the Contract Administrator and completed by the geotechnical consultant retained by the Town.
- Remove and dispose off-site solidified sediment at an approved location, arranged for by the Contractor shall be as follows:
 - Phase 1: Sediment, intermixed plant material and other biomass removed from the main pond cell will contain elevated concentrations of chemicals and shall only be disposed of at an MECP permitted soil treatment and/or

disposal facility capable of processing/disposing of the soil in accordance with the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (April 15, 2011), which can be viewed at the following website:

https://www.ontario.ca/page/soil-ground-water-and-sediment-standards-use-under-part-xv1-environmental-protection-act

 Phase 2: Sediment, intermixed plant material, soil and other biomass removed from the forebay is considered to contain seeds from invasive plant species, elevated concentrations of chemicals and shall only be disposed of at an MECP permitted landfill site in accordance with Invasive Species Act and Environmental Protection Act.

The Contractor shall note that the chemical analysis for the Terry Fox SWM Pond completed by the Town is available in Appendix E of this document. All excess materials shall be managed, handled, transported and disposed of at an approved location or locations arranged for by the Contractor, in accordance with applicable Municipal, Provincial, Federal and locally governing Conservation Authority jurisdictions, policies and legislations.

- Decommission and dispose of the sediment containment, drying and processing areas.
- Remove and dispose of temporary siltation controls once all sediment has been removed from site as per OPSS.MUNI 805.
- Restore all disturbed areas with topsoil & seed to satisfaction of the Contract Administrator.
- Measurement for the purpose of payment under this Item shall be made by the tonne. The Contractor will be responsible for providing weight tickets including soil description, source site, drop off date and receiving site details.

Coffer Dam – Item No. 1.7

For the lump sum bid, the Contactor shall supply all labor, equipment and material to complete the following:

- Supply, place, maintain and remove pea-gravel filled bags per Detail 1 on Contract Drawing No. 1 to create a coffer dam along the inlets to the pond following phasing directions to isolate flows from work area. Height of coffer dams should be sufficient to create enough ponding for water to utilize existing weir during phase 1 and to create enough ponding for water to be pumped to filter bags during phase 2 as per OPSS.MUNI 805.
- After sediment removal and restoration the coffer dams shall be removed from the site.

Rip Rap - Item No. 1.8

For the unit price bid, the Contractor shall supply all labor, equipment and material to complete the following:

- Excavate accumulated sediment and debris from existing bank and place 450 mm depth of 200-300 mm diameter rip-rap per OPSS MUNI 1004.
- Supply and place non-woven geotextile as per OPSS MUNI.1860.

Mud Mat – Item No. 1.9

For the unit price bud, the Contractor shall supply all labor, equipment and material to complete the following:

- Excavate and stockpile approximately 400 mm depth topsoil in the proposed access location as shown on the Contract Drawings or as directed by the Contract Administrator.
- Construction and maintenance and subsequent removal upon completion of stone mud mats. Mud mats shall consist of 200-300 mm diameter rip-rap or a reclaimed concrete equivalent, minimum 400 mm thick. Length and width of mud mats shall be as shown on the drawings. Location to be as shown. Filter cloth shall be placed over the entire area prior to placing the stone.
- The unit price bid shall also include inspection and required maintenance after each rain by the Contractor, removal and replacement of stone where it has become too contaminated to be effective.
- Upon completion of construction, remove and dispose of mud mat, and restore with stockpiled topsoil.
- Payment at the Contract Unit Price shall be full compensation for all labour, equipment and material to do the work. Payment of siltation and erosion control tender items shall be made on the following bases:
 - 50% for initial construction.
 - 25% for maintenance.
 - 25% for removal.

Bonds, Insurance and Maintenance Security - Item No. 1.10

Reference: RMDCS, Section 01001

Include:

- 1. 100% Performance and Guaranteed Maintenance Bond for 24 months.
- 2. 50% Labour and Materials Payment Bond.
- 3. Liability Insurance based on the Contract Price.

100% payment of this Item shall be made on the first Payment Certificate.

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

General Conditions

The OPSS MUNI 100 November 2019 General Conditions have not been reproduced as part of these Contract Documents.
It will be the Contractor's responsibility to obtain current copies of these
Documents.

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Contract Administration Forms

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Contract Administration Forms

Letter of Consent

General Release in Respect to Landfilling

Property Owner's Release

Substantial Performance Release of Claims Letter

Completion Release of Claims Letter

Contractor's Letterhead

Letter of Consent

Re: Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout

	oration of the Town of Cobourg and its' Contractor, , have my authority to enter and
use designated areas of my p construction activities.	property for material storage and/or access to facilitate
	agrees to restore the area used to
original condition plus any spec	
The Corporation of the Town of responsible for any damages ar	f Cobourg and CIMA Canada Inc. will at no time be held nd/or restoration.
Name of Property Owner:	
Address of Property Used:	
Material to be Stored:	
Special Conditions:	
Date Letter of Consent Expires:	
(Witness)	(Signature of Owner)
	(Date)

Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

General Release of
The Corporation of the Town of Cobourg
Its Servants and
CIMA Canada Inc.
In Respect of Landfilling

Know all paragne by those presents	that I	
owner remise and forever discharge T	that I, the he Corporation of the Town of Cobourg (Owne	r)
	nistrator) and	
· ·	•	
	(Contractor), their successors in title a of actions, causes of actions, suits, debts, due	
	claims and demands whatsoever which again	
	ict Administrator, I have, ever had, now have a ors or assigns or any of them hereafter can, sha	
	use, matter to thing whatsoever arising or whi	
	permission to have the said Contractor to place	
,	k, stumps or trees whatsoever in, on or over r	
said lands.		
In Witness Whereof I have hereto set	my hand this	
day of	A.D. 20	
Witness	Signature	—

Final Payment will not be paid to the Contractor until all the applicable Forms of Release have been signed by each of the property owners and have been received by the Owner and checked.

The Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout

Property Owner's Release of Privately Owned Land Used by the Contractor

Upon completion of the contract, the Contractor shall provide the Corporation of the Town of Cobourg with two (2) copies of a Form of Release signed by each property owner upon whose land he has entered for any reason in conjunction with the contract as follows:

Date	e:		
To:	The Corporation of the Town of Cobourg		
RE:	: Terry Fox SWM Pond Cleanout, Contract No. CO-21-03 PWD		
I here	reby certify that		
(Nam	me of Contractor)		
	fulfilled the terms of our Agreement attached sfactory condition.	herewith and has left my property in a	
	ve accepted their final payment and release to not Cobourg, its servants, and CIMA Canada	•	
Your	rs truly,		
Signa	nature		
Prop	perty owner's name (Please Print)		
Lot_	Concession	Town	

Final Payment will not be paid to the Contractor until all the applicable Forms of Release have been signed by each of the property owners and have been received by the Owner and checked.

Substantial Performance Release of Claims Letter

Before the release of any portion of the 10% Statutory Holdback, the Contractor must provide a Substantial Performance Release Letter to the Contract Administrator using the following wording and format:

(Cont	ractor's letterhead)	
Date:		
То:	The Corporation of the Town of Cobou 55 King Street West Cobourg, ON K9A 2M2	rg
RE:	Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD, Substa	ntial Performance Release
and tl comp (inclu	he Town of Cobourg, I (<u>first & last name</u> any, hereby certify that (company na	ng a contract between (<u>Contractor's name</u>), being the (<u>position</u>) of the above named me) agrees that the amount of \$xxxx.xx work completed under this contract up to
(xxx b	peing the date of Substantial Performand	<u>ce.</u>)
		urther claims related to work performed or tial Performance except as noted below.
	ner certify that (company name) will expe and to discharge all unfulfilled obligation	editiously complete any and all outstanding s under the Contract.
Outst	anding issues previously submitted in ac	ccordance with GC 3.13.03:
1.		
2.		
3.		
Signa	ature	Date
Nam	<u>e</u>	Position

Completion Release of Claims Letter

Before the release of the Completion Payment Certificate or Invoice, the Contractor must provide a Completion Release Letter to the Contract Administrator using the following wording and format:

(Cont	ractor's letterhead)								
Date:									
То:	The Corporation of the Town of Cobour 55 King Street West Cobourg, ON K9A 2M2	rg							
RE:	Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD, Town of Cobourg Completion Release of Claims								
and to composite (inclusive) repre	he Town of Cobourg, I (<u>first & last name</u> any, hereby certify that (<u>company nar</u> ding HST) as shown on your propose	ng a contract between (<u>Contractor's name</u>)), being the (<u>position</u>) of the above named <u>me</u>) agrees that the amount of \$xxxx.xx d Completion Payment Certificate No. #, pleted under this Contract, subject to the							
Outst	anding issues previously submitted in ac	cordance with GC 3.13.03:							
1.									
2.									
3.									
Sign	ature	Date							
Nam	e	Position							

Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Standard Drawings

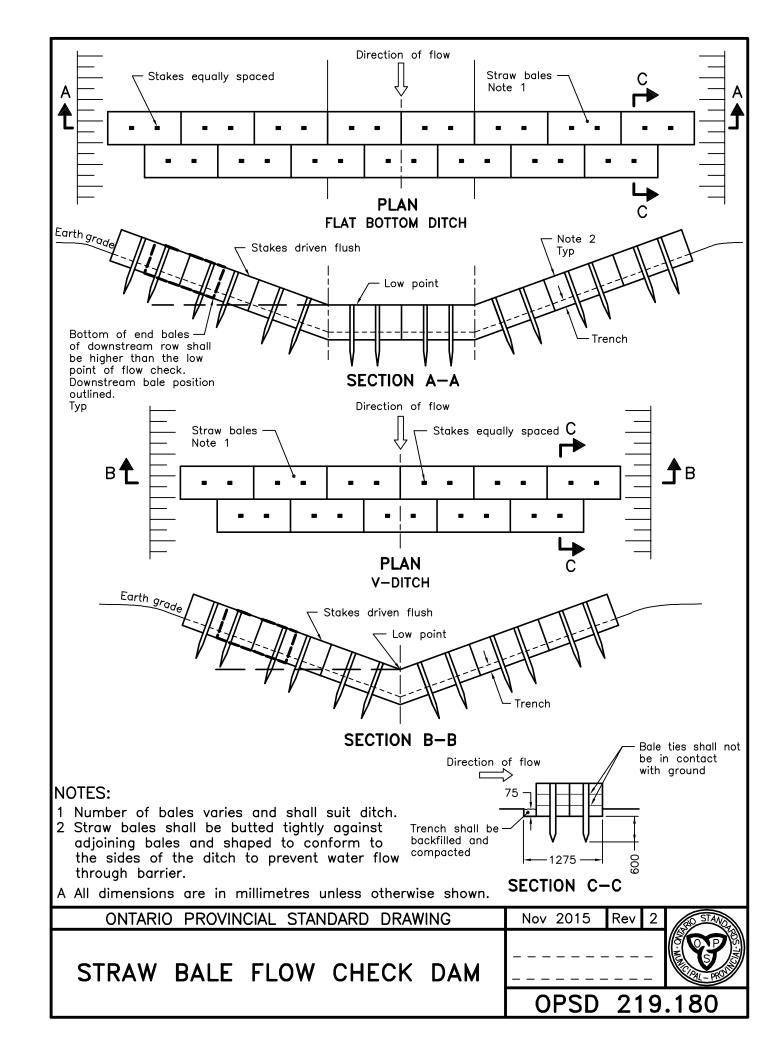
Corporation of the Town of Cobourg

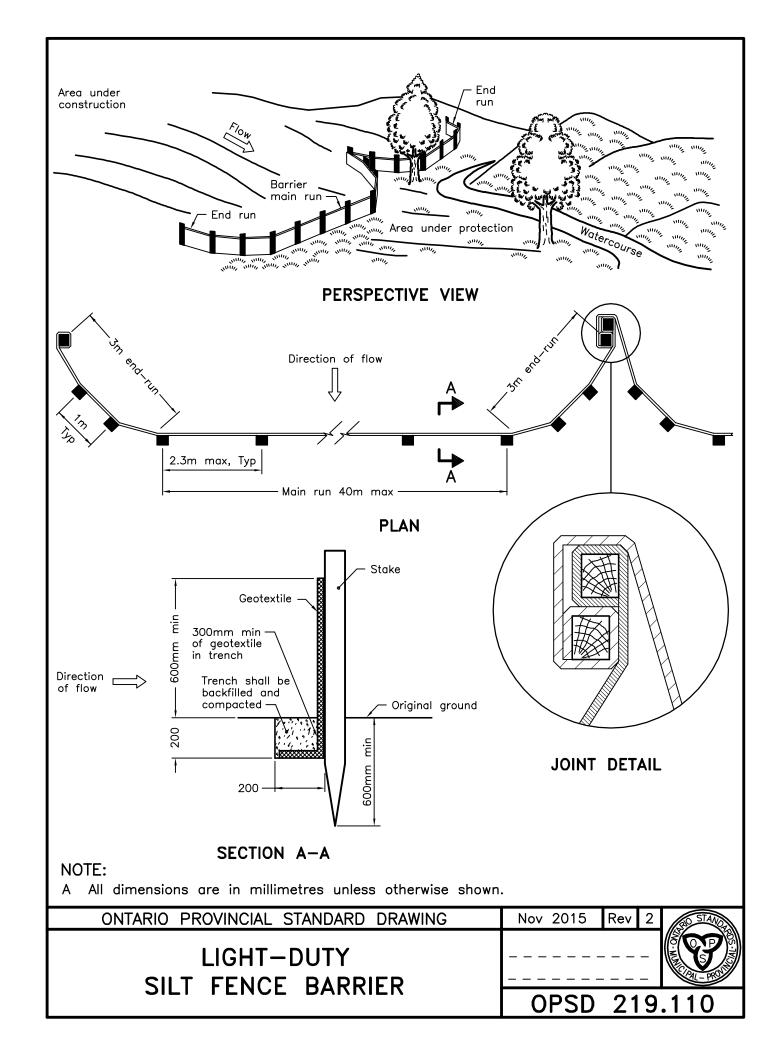
Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD Index To Standard Drawings

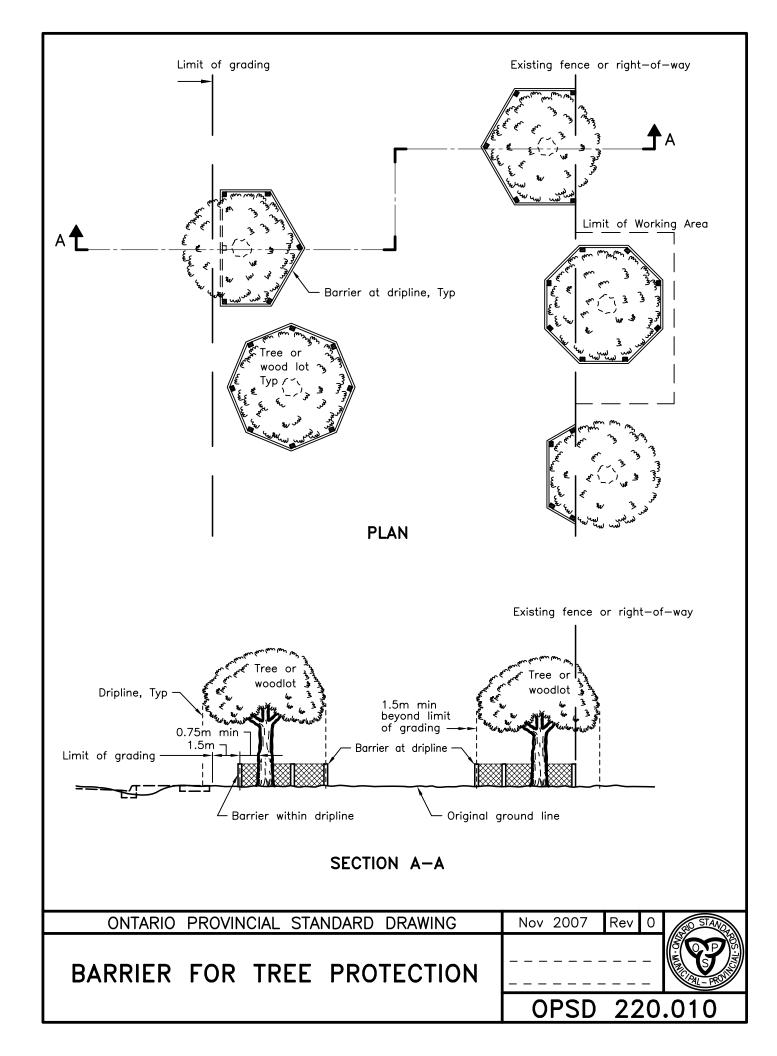
Standard	Description		
OPSD-			
219.110	Light Duty Silt Fence Barrier		
219.180	Straw Bale Flow Check Dam		
220.010	Barrier for Tree Protection		

^{*}Contractors attention is called to the following website to review and agree to the Regional Municipality of Durham's Design and Construction Specifications for Regional Services disclaimer prior to referencing the Region Standard Drawings listed above.

https://apps.durham.ca/Applications/Works/DCSpecs/Disclaimer.aspx







Corporation of the Town of Cobourg Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD

Geotechnical Investigation

The Corporation of the Town of Cobourg

Terry Fox SWM Pond Cleanout Contract No. CO-21-03 PWD Sediment Sampling Report

Sediment Sampling Report, Terry Fox Stormwater Pond Cleanout, July 2019

Town of Cobourg

Sediment Sampling Report, Terry Fox Stormwater Pond Cleanout

Terry Fox Stormwater Pond









CIMA+ file number : C14-0305

17 July 2019

Town of Cobourg

Sediment Sampling Report, Terry Fox Stormwater Pond Cleanout

Terry Fox Stormwater Pond

Prepared by:

Kai Markvorsen, Specialist

Environment

Verified by:

Nicholas Bertrand, Biologist

Environment



415 Baseline Road West, Bowmanville, ON L1C 5M2

CIMA+ file number : C14-0305 17 July 2019

Confidentiality and ownership

Unless CIMA+ s.e.n.c. and its client have agreed otherwise, the intellectual property rights and all documents delivered by CIMA+, whether in hard or electronic copy, are the property of CIMA+, which reserves copyright therein. It is strictly prohibited to use or reproduce such proprietary rights on any support, even in part, without the authorisation of CIMA+.



Table of Contents

1.	Introduction	1
	Sampling Methodology	
3.	Results	2
3.1 3.2	O.Reg. 153 ResultsOntario Regulation 558 Results	2
4.	Conclusion	4
5.	Limitations	5
	of Tables	
lable	1. Summary of Soil Exceedances Compared to MECP O.Reg. 153 Standards	ć

List of Appendices

Appendix A Appendix A - Figures
Appendix B Appendix B - Certificate of Analysis



1. Introduction

CIMA+ was retained by the Town of Cobourg to complete environmental sampling to assess sediment quality and determine potential disposal options for cleanout and rehabilitation of the pond.

The location of the pond is shown on Figure 1 in Appendix A.

The following scope of work was completed by CIMA +:

- Sampling of pond sediment and collection of two (2) discrete sediment samples, as well as one
 (1) composite sample and a duplicate sample for quality assurance purposes from Terry Fox Stormwater Pond;
- + Submission of samples and duplicate for chemical analysis of Metals and Inorganics ("M&I"), Petroleum Hydrocarbon Fractions F1-F4 ("PHC F1-F4"), Volatile Organic Compounds ("VOCs") (which includes benzene, toluene, ethylbenzene and xylenes ("BTEX")), Polyaromatic Hydrocarbons ("PAHs"), Organochlorinated Pesticides ("OCP") and total polychlorinated biphenyls ("PCBs");
- + Submission of composite sample for Toxicity Characteristic Leaching Procedure ("TCLP") for the following parameters: VOCs, M&I, OCP & total PCBs and Ignitibility; and
- + Comparison of results to the Ministry of Environment Conservation and Parks (MECP) Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.
- Completion of a report outlining the findings of the sampling and laboratory analysis.

2. Sampling Methodology

The site visit occurred on the April 29th, 2019 at 2:30 pm. Weather conditions at the time of the site visit was overcast with a temperature of 8°C.

The forebay of Terry Fox pond was separated from the main pond by a large berm and was completely overgrown by invasive Phragmites while the main pond was filled with water up to Approximately 1.5m at its deepest point. Surveys conducted at the time of sapling indicated that average sediment depth was 23 cm. The maximum sediment depth was 47.6 cm near the center of the pond

Discrete sediment samples were obtained using sediment corer (main pond) and clean shovel (forebay). Each sample was placed in a clean bucket for transport back to shore. Samples were taken from two (2) locations within the pond: in proximity to the inflow (SD2) in the forebay and in proximity to the outflow (SD1).

The approximate collection location of all samples is shown on the Figure 1 in Appendix A.



Once on shore, samples were then taken from the buckets and placed into laboratory-supplied sampling containers using a clean gloved hand for submittal to the analytical laboratory. A duplicate of Sample SD2 was collected and designed as DUP1. After collecting each sample, a composite sample (COMP1) was produced by mixing an approximately even amount of sediment from each sample together in a bucket before transferring to laboratory supplied sampling containers.

3. Results

Samples were submitted to AGAT Laboratories of Mississauga, Ontario, under chain-of-custody documentation for chemical analysis. The results are presented in **Appendix B**.

Analytical results were compared to the site condition standards listed in Table 1 (Residential / Parkland / Institutional / Industrial / Commercial / Community Property Use - soil) and Table 3 (Residential/Parkland/Institutional Property Use - for coarse grained soils) of the "Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" dated April 15, 2011 (i.e., the "Table 1 Standards" and the "Table 3 Standards").

3.1 O.Reg. 153 Results

Analytical results were compared to Table 1 and Table 3 Standards, and the following was noted:

- + Sample SD1 exceeded Table 1 criteria for Sodium Absorption Ratio.
 - + Sample SD2 exceeded Table 1 criteria for Antimony, Sodium Absorption Ratio, Pyrene, Benz[a]anthracene, and Indeno[1 2 3-cd]pyrene. Sample SD2 exceeded both Table 1 and Table 3 criteria for Zinc and Benzo[b]fluoranthene.

The samples satisfied the Table 1 and Table 3 Standards for all other parameters tested. Table 1 below is a summary of soil sample concentrations for the above-noted exceedances. The duplicate sample DUP1, showed comparable results to the original sample.



Table 1. Summary of Soil Exceedances Compared to MECP O.Reg. 153 Standards

			SD1	SD2	DUP1	
		Sa	2019-04-30	2019-04-30	2019-04-30	
Parameters	Units	Table 1	Table 3	Measured Concentration	Measured Concentration	Measured Concentration
Metals and Inorganics						
Antimony	μg/g	1.3	(50) 40	<0.8	1.3	<0.8
Zinc	μg/g	290	340	202	399	231
Sodium Absorption Ratio	μg/g	2.4	12	11.3	9.10	11.8
Pyrene	μg/g	1	96	0.39	1.1	0.45
Benz[a]anthracene	μg/g	0.36	0.96	0.12	0.43	0.15
Benzo[b]fluoranthene	μg/g	0.47	0.96	0.37	1.0	0.41
Indeno[1 2 3-cd]pyrene	μg/g	0.23	(0.95) 0.76	0.12	0.30	0.15

Notes:

- < indicates a value under the detection limit
- Results in **bold** represent an exceedance of the Table 1 Standards
- Results in *italics* represent an exceedance of the Table 3 Standards
- Standard in bracket () applies to medium and fine textured soils.



3

3.2 Ontario Regulation 558 Results

Analytical results for the composite sample (COMP1) were compared to the standards listed in O. Reg. 558 (for disposal purposes). No exceedances were identified for the parameters tested and, as such, the material can be considered nonhazardous waste.

4. Conclusion

Based on the results of the sediment sampling, sediments represented by samples SD1 and SD2 do not satisfy the Table 1 Standards. Sediments represented by sample SD2 also do not meet Table 3 Standards.

Given the above, sediments represented by Sample SD1 may be suitable for re-use on site as fill. However, due to the exceedance of Table 1 criteria, they would not be suitable for re-use off site as clean fill and excess material would need to be transported to a site registered to accept Table 3 soils or an MECP-permitted soil treatment and/or disposal facility.

Furthermore, due to the exceedance of Table 3 standards sediments represented by sample SD2 would not be suitable for re-use on-site material would need to be transported to a site registered to accept them or an MECP-permitted soil treatment and/or disposal facility. TCLP analysis indicates that this material would be considered a non-hazardous waste.



5. Limitations

CIMA+ completed a diligent and reasonable research to support the evaluation contained within this report, with respect to the recognized laws and standards of practice. The facts presented in this report are strictly limited to the period of investigation. The conclusions presented in this report are based on the available information and documents as well as the conditions encountered during the site visit.

CIMA+ has evaluated environmental conditions at select locations on the site as part of this investigation. The interpretation presented in this report is limited to this data. Only limited chemical analyses of sediment samples were carried out. The results of this investigation should not be construed as a warranty that the Site is free from any and all contamination from past or current practices. This report has been prepared as part of environmental due diligence activities at the site and is not intended to support a Record of Site Condition under Ontario Regulation 153/04.

CIMA+ does not hold itself responsible for erroneous conclusions due to the voluntary abstention or the non-availability of pertinent information. Any opinion expressed in relation to legal or regulatory conformity is technical and should not be, in any case, considered as legal advice.

CIMA+ has prepared this report for the sole use of the client. Any use of this report by a third party, as any decision based on this report, is the singular responsibility of the third party. CIMA+ will not be held responsible for eventual damages towards a third party resulting from decisions taken, or based, on this report.





Appendix A – Figures







B

Appendix B – Certificate of Analysis







CLIENT NAME: CIMA+ S.E.N.C.

240 CATHERINE STREET, SUITE 110

OTTAWA, ON K2P2G8

(613) 860-2462

ATTENTION TO: Nicholas B

PROJECT: C14.0305

AGAT WORK ORDER: 19Z462604

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

DATE REPORTED: May 09, 2019

PAGES (INCLUDING COVER): 24

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES	

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories (V1)

Page 1 of 24

Member of: Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Western Enviro-Agricultural Laboratory Association (WEALA) Environmental Services Association of Alberta (ESAA)



AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C. SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

Ignitability in Soil

DATE RECEIVED: 2019-05-01 DATE REPORTED:

SAMPLE DESCRIPTION: COMP1
SAMPLE TYPE: Sediment

DATE SAMPLED: 2019-04-29

Parameter Unit G / S RDL 167548

Ignitability N

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

167548 N = Non-Flammable Solid

PI note: Ignitability is not an accredited parameter.

Wet muddy sample.

Analysis performed at AGAT Toronto (unless marked by *)

Amanjot Shelds Amanor Break CHEMIST & CHEMIST



AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

O Reg 153(511) - Metals & Ingranics (Soil)

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C.
SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

O. Reg. 133(311)	- Metals & Inorganics (60	")

DATE RECEIVED: 2019-05-01					DATE REPORTED: 2019-05-07	
Parameter	S <i>i</i> Unit	AMPLE DESCRIPTION: SAMPLE TYPE: DATE SAMPLED: G/S RDL	SD1 Sediment 2019-04-29 167526	SD2 Sediment 2019-04-29 167546	DUP1 Sediment 2019-04-29 167547	
Antimony	μg/g	0.8	<0.8	1.3	<0.8	
Arsenic	μg/g	1	4	3	4	
Barium	μg/g	2	177	117	179	
Beryllium	μg/g	0.5	0.6	0.5	0.6	
Boron	μg/g	5	7	9	7	
Boron (Hot Water Soluble)	μg/g	0.10	0.51	0.69	0.55	
Cadmium	μg/g	0.5	<0.5	<0.5	<0.5	
Chromium	μg/g	2	40	51	43	
Cobalt	μg/g	0.5	11.1	9.2	11.2	
Copper	μg/g	1	39	87	43	
Lead	μg/g	1	23	32	24	
Molybdenum	μg/g	0.5	1.5	1.9	1.9	
Nickel	μg/g	1	21	22	21	
Selenium	μg/g	0.4	0.6	1.2	0.5	
Silver	μg/g	0.2	<0.2	<0.2	<0.2	
Thallium	μg/g	0.4	<0.4	<0.4	<0.4	
Uranium	μg/g	0.5	0.9	0.9	0.9	
Vanadium	μg/g	1	52	41	53	
Zinc	μg/g	5	202	399	231	
Chromium VI	μg/g	0.2	<0.2	<0.2	<0.2	
Cyanide	μg/g	0.040	< 0.040	<0.040	<0.040	
Mercury	μg/g	0.10	<0.10	0.10	<0.10	
Electrical Conductivity	mS/cm	0.005	3.86	5.46	4.62	
Sodium Adsorption Ratio	NA	NA	11.3	9.10	11.8	
pH, 2:1 CaCl2 Extraction	pH Units	NA	6.84	7.07	6.82	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

167526-167547 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated

parameter.

Analysis performed at AGAT Toronto (unless marked by *)



mg/L

mg/L

mg/L

150

20

1000

0.05

0.05

0.70

Certificate of Analysis

AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C.

SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B
SAMPLED BY:Kai Markversen

O. Reg. 558 Metals and Inorg	ganics
------------------------------	--------

ATE RECEIVED: 2019-05-0	1				DATE REPORTED: 2019-0
	S	AMPLE DES	CRIPTION:	COMP1	
		SAM	PLE TYPE:	Sediment	
		DATE	SAMPLED:	2019-04-29	
Parameter	Unit	G/S	RDL	167548	
Arsenic Leachate	mg/L	2.5	0.010	<0.010	
Barium Leachate	mg/L	100	0.100	0.990	
Boron Leachate	mg/L	500	0.050	0.060	
Cadmium Leachate	mg/L	0.5	0.010	<0.010	
Chromium Leachate	mg/L	5	0.010	0.017	
Lead Leachate	mg/L	5	0.010	0.019	
Mercury Leachate	mg/L	0.1	0.01	<0.01	
Selenium Leachate	mg/L	1	0.010	<0.010	
Silver Leachate	mg/L	5	0.010	<0.010	
Uranium Leachate	mg/L	10	0.050	<0.050	

RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

0.09

< 0.05

< 0.70

Analysis performed at AGAT Toronto (unless marked by *)

Fluoride Leachate

Cyanide Leachate

(Nitrate + Nitrite) as N Leachate

Amanjot Bhelly Amanjor Bhelly Shannor Bhelly Shanno



%

Certificate of Analysis

AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C.

SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B
SAMPLED BY:Kai Markversen

79

60-140

O. Reg. 153(511) - OC Pesticides + PCBs (Soil)							
DATE RECEIVED: 2019-05-01						DATE REPORTED: 2019-05-06	
		SAMPLE DESCRIPTION: SAMPLE TYPE: DATE SAMPLED:	SD1 Sediment 2019-04-29	SD2 Sediment 2019-04-29	DUP1 Sediment 2019-04-29		
Parameter	Unit	G/S RDL	167526	167546	167547		
Gamma-Hexachlorocyclohexane	μg/g	0.005	<0.005	<0.005	<0.005		
Heptachlor Aldrin	μg/g	0.005	<0.005 <0.005	<0.005	<0.005 <0.005		
	μg/g	0.005		<0.005			
Heptachlor Epoxide	μg/g	0.005	<0.005	<0.005	<0.005		
Endosulfan	μg/g	0.005	<0.005	<0.005	<0.005		
Chlordane	μg/g	0.007	<0.007	<0.007	<0.007		
DDD DDE	μg/g	0.007	<0.007	<0.007	<0.007		
DDT	μg/g	0.007	<0.007	<0.007	<0.007 <0.007		
	μg/g	0.007	<0.007	<0.007			
Dieldrin	μg/g	0.005	<0.005	<0.005	<0.005		
Endrin	μg/g	0.005	<0.005	<0.005	<0.005		
Methoxychlor Hexachlorobenzene	μg/g	0.005 0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005		
Hexachlorobutadiene	μg/g	0.005	<0.005	<0.005	<0.005		
Hexachloroethane	μg/g	0.01	<0.01	<0.01	<0.01		
Aroclor 1242	μg/g	0.01	<0.01	<0.01	<0.01		
Aroclor 1248	μg/g	0.10	<0.10	<0.10	<0.10		
Aroclor 1248 Aroclor 1254	μg/g	0.10	<0.10	<0.10	<0.10		
Aroclor 1260	μg/g	0.10	<0.10	<0.10	<0.10		
	μg/g	0.10	<0.10	<0.10	<0.10		
Polychlorinated Biphenyls	μg/g	0.10	60.4		<0.10 62.7		
Moisture Content	% Unit	Acceptable Limits	60.4	79.1	02.7		
Surrogate TCMX	%	50-140	79	87	83		

Certified By:

86



Decachlorobiphenyl

97



AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C.

SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

O. Reg. 153(511) - OC Pesticides + PCBs (Soil)

DATE RECEIVED: 2019-05-01 DATE REPORTED: 2019-05-06

Comments:

RDL - Reported Detection Limit; G / S - Guideline / Standard

167526-167547

Due to the high moisture content of the sample it was air dried prior to extraction.

Results are based on the dry weight of the soil.

DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT. DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD. DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.

Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.

Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.

PCB total is a calculated parameter. The calculated value is the sum of Aroclor 1242, Aroclor 1248, Aroclor 1254 and Aroclor 1260.

Analysis performed at AGAT Toronto (unless marked by *)



AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C.

SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B
SAMPLED BY:Kai Markversen

O. Reg. 153(511)	- PAHS (SOII)	

DATE RECEIVED: 2019-05-01						DATE REPORTED: 2019-05-08
		SAMPLE DESCRIPTION: SAMPLE TYPE: DATE SAMPLED:	SD1 Sediment 2019-04-29	SD2 Sediment 2019-04-29	DUP1 Sediment 2019-04-29	
Parameter	Unit	G/S RDL	167526	167546	167547	
Naphthalene	μg/g	0.05	<0.05	<0.05	<0.05	
Acenaphthylene	μg/g	0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	μg/g	0.05	< 0.05	< 0.05	< 0.05	
Fluorene	μg/g	0.05	< 0.05	<0.05	< 0.05	
Phenanthrene	μg/g	0.05	0.13	0.34	0.15	
Anthracene	μg/g	0.05	< 0.05	<0.05	< 0.05	
Fluoranthene	μg/g	0.05	0.46	1.2	0.53	
Pyrene	μg/g	0.05	0.39	1.1	0.45	
Benz(a)anthracene	μg/g	0.05	0.12	0.43	0.15	
Chrysene	μg/g	0.05	0.34	0.84	0.37	
Benzo(b)fluoranthene	μg/g	0.05	0.37	1.0	0.41	
Benzo(k)fluoranthene	μg/g	0.05	0.12	0.31	0.14	
Benzo(a)pyrene	μg/g	0.05	0.18	0.50	0.22	
Indeno(1,2,3-cd)pyrene	μg/g	0.05	0.12	0.30	0.15	
Dibenz(a,h)anthracene	μg/g	0.05	< 0.05	0.05	< 0.05	
Benzo(g,h,i)perylene	μg/g	0.05	0.17	0.37	0.20	
2-and 1-methyl Naphthalene	μg/g	0.05	< 0.05	<0.05	< 0.05	
Moisture Content	%	0.1	57.5	71.8	57.8	
Surrogate	Unit	Acceptable Limits				
Chrysene-d12	%	50-140	98	72	97	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

167526-167547 Due to the high moisture content of the sample it was air dried prior to extraction.

Results are based on the dry weight of the soil.

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.

2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)





AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C. SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2019-05-01								DATE REPORTED: 2019-05-07
		SAMPLE DESCRIPTION:	SD1		SD2		DUP1	
		SAMPLE TYPE:	Sediment		Sediment		Sediment	
		DATE SAMPLED:	2019-04-29		2019-04-29		2019-04-29	
Parameter	Unit	G/S RDL	167526	RDL	167546	RDL	167547	
F1 (C6 to C10)	μg/g	10	<10	15	<15	10	<10	
F1 (C6 to C10) minus BTEX	μg/g	10	<10	15	<15	10	<10	
F2 (C10 to C16)	μg/g	20	<20	30	<30	20	<20	
F2 (C10 to C16) minus Naphthalene	μg/g	20	<20	30	<30	20	<20	
F3 (C16 to C34)	μg/g	100	110	150	<150	100	120	
F3 (C16 to C34) minus PAHs	μg/g	100	110	150	<150	100	120	
F4 (C34 to C50)	μg/g	100	<100	150	<150	100	<100	
Gravimetric Heavy Hydrocarbons	μg/g	100	NA	150	NA	100	NA	
Moisture Content	%	0.2	57.5	0.3	71.8	0.2	57.8	
Surrogate	Unit	Acceptable Limits						
Terphenyl	%	60-140	80		81		79	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

167526-167547

Due to high moisture content of the sample the reporting detection limit has been raised.

Results are based on sample dry weight.

The C6-C10 fraction is calculated using toluene response factor.

C6-C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons > C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX and PAH contributions.

C>10 - C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.

C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene,

Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)





AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C. ATTENTION TO: Nicholas B
SAMPLING SITE:Coburg SAMPLED BY:Kai Markversen

O. Reg. 153	(511) - VOCs ((Soil)
-------------	------	------------	--------

DATE RECEIVED: 2019-05-01							DA	TE REPORTED: 2019-05-07
Parameter	S Unit	SAMPLE DESCRIPTION: SAMPLE TYPE: DATE SAMPLED: G/S RDL	SD1 Sediment 2019-04-29 167526	RDL	SD2 Sediment 2019-04-29 167546	RDL	DUP1 Sediment 2019-04-29 167547	
Dichlorodifluoromethane	μg/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Vinyl Chloride	ug/g	0.04	<0.04	0.06	<0.06	0.04	<0.04	
Bromomethane	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Trichlorofluoromethane	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Acetone	ug/g	1.00	<1.00	1.50	<1.50	1.00	<1.00	
1,1-Dichloroethylene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Methylene Chloride	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Trans- 1,2-Dichloroethylene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Methyl tert-butyl Ether	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,1-Dichloroethane	ug/g	0.04	<0.04	0.06	<0.06	0.04	<0.04	
Methyl Ethyl Ketone	ug/g	1.00	<1.00	1.50	<1.50	1.00	<1.00	
Cis- 1,2-Dichloroethylene	ug/g	0.04	<0.04	0.06	0.10	0.04	<0.04	
Chloroform	ug/g	0.08	<0.08	0.12	<0.12	0.08	<0.08	
1,2-Dichloroethane	ug/g	0.06	<0.06	0.09	< 0.09	0.06	<0.06	
1,1,1-Trichloroethane	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Carbon Tetrachloride	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Benzene	ug/g	0.04	< 0.04	0.06	<0.06	0.04	<0.04	
1,2-Dichloropropane	ug/g	0.06	<0.06	0.09	<0.09	0.06	<0.06	
Trichloroethylene	ug/g	0.06	<0.06	0.09	< 0.09	0.06	<0.06	
Bromodichloromethane	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Methyl Isobutyl Ketone	ug/g	1.00	<1.00	1.50	<1.50	1.00	<1.00	
1,1,2-Trichloroethane	ug/g	0.08	<0.08	0.12	<0.12	0.08	<0.08	
Toluene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Dibromochloromethane	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Ethylene Dibromide	ug/g	0.08	<0.08	0.12	<0.12	0.08	<0.08	
Tetrachloroethylene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,1,1,2-Tetrachloroethane	ug/g	0.08	<0.08	0.12	<0.12	0.08	<0.08	
Chlorobenzene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Ethylbenzene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
m & p-Xylene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	





AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C. SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

O. Rea	. 153	(511)	- VOCs	(Soil))
--------	-------	-------	--------	--------	---

DATE RECEIVED: 2019-05-01								DATE REPORTED: 2019-05-07
	SA	AMPLE DESCRIPTION: SAMPLE TYPE:	SD1 Sediment		SD2 Sediment		DUP1 Sediment	
		DATE SAMPLED:	2019-04-29		2019-04-29		2019-04-29	
Parameter	Unit	G/S RDL	167526	RDL	167546	RDL	167547	
Bromoform	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Styrene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,1,2,2-Tetrachloroethane	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
o-Xylene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,3-Dichlorobenzene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,4-Dichlorobenzene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,2-Dichlorobenzene	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Xylene Mixture	ug/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
1,3-Dichloropropene	μg/g	0.08	<0.08	0.12	<0.12	0.08	<0.08	
n-Hexane	μg/g	0.10	<0.10	0.15	<0.15	0.10	<0.10	
Surrogate	Unit	Acceptable Limits						
Toluene-d8	% Recovery	50-140	100		101		99	
4-Bromofluorobenzene	% Recovery	50-140	102		92		87	

Comments:

RDL - Reported Detection Limit; G / S - Guideline / Standard

167526-167547

Due to high moisture content of the sample the reporting detection limit has been raised.

The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.

1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

Jinkal Jota



AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C.
SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

Unit mg/L mg/L	_	CRIPTION: PLE TYPE: SAMPLED: RDL 0.0003	COMP1 Sediment 2019-04-29 167548	DATE REPORTED: 2019-05-07
Unit mg/L mg/L	DATE: G/S 0.3	PLE TYPE: SAMPLED: RDL	Sediment 2019-04-29 167548	
mg/L mg/L	0.3			
mg/L		0.0003		
•	0.07		< 0.0003	
mg/L		0.0007	< 0.0007	
5	3.0	0.003	< 0.003	
mg/L	90.0	0.09	<0.09	
mg/L	0.7	0.0007	<0.0007	
mg/L		0.0002	<0.0002	
mg/L		0.0001	< 0.0001	
mg/L		0.0002	<0.0002	
mg/L		0.0004	<0.0004	
mg/L		0.0005	<0.0005	
mg/L		0.0015	<0.0015	
mg/L		0.0015	<0.0015	
mg/L		0.0005	<0.0005	
mg/L		0.0005	<0.0005	
mg/L		0.0001	<0.0001	
mg/L		0.0002	<0.0002	
mg/L		0.0004	<0.0004	
mg/L	0.02	0.0004	<0.0004	
mg/L	0.5	0.0005	<0.0005	
mg/L	0.3	0.0002	<0.0002	
NA			Υ	
Unit	Acceptab	ole Limits_		
%	60-	130	100	
	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	mg/L 90.0 mg/L 0.7 mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	mg/L 90.0 0.09 mg/L 0.7 0.0007 mg/L 0.0002 0.0001 mg/L 0.0002 0.0004 mg/L 0.0005 0.0015 mg/L 0.0015 0.0015 mg/L 0.0005 0.0005 mg/L 0.0005 0.0001 mg/L 0.0001 0.0001 mg/L 0.0002 0.0004 mg/L 0.02 0.0004 mg/L 0.5 0.0005 mg/L 0.3 0.0002 NA Unit Acceptable Limits	mg/L 90.0 0.09 <0.09 mg/L 0.7 0.0007 <0.0007





AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C. SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY:Kai Markversen

O. Reg. 558 - OC Pesticides & PCBs

DATE RECEIVED: 2019-05-01 DATE REPORTED: 2019-05-07

Comments:

RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

167548

The sample was leached according to Regulation 558 protocol. Analysis was performed after extraction of the leachate.

Heptachlor + Heptachlor Epoxide is a calculated parameter. The calculated value is the sum of Heptachlor and Heptachlor Epoxide.

Aldrin + Dieldrin is a calculated parameter. The calculated value is the sum of Aldrin and Dieldrin.

PCB total is a calculated parameter. The calculated value is the sum of Aroclor 1242, Aroclor 1248, Aroclor 1254 and Aroclor 1260.

DDT + Metabolites is a calculated parameter. The calculated value is the sum of op'DDT, pp'DDT, pp'DDE and pp'DDD.

Analysis performed at AGAT Toronto (unless marked by *)



AGAT WORK ORDER: 19Z462604

PROJECT: C14.0305

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: CIMA+ S.E.N.C. SAMPLING SITE:Coburg

ATTENTION TO: Nicholas B SAMPLED BY: Kai Markversen

					O. Reg. 558 - VOCs
DATE RECEIVED: 2019-05-01					DATE REPORTED: 2019-05-07
	;	SAMPLE DES	_	COMP1	
		_	PLE TYPE:	Sediment	
_			SAMPLED:	2019-04-29	
Parameter	Unit	G/S	RDL	167548	
Vinyl Chloride	mg/L	0.2	0.030	< 0.030	
1,1 Dichloroethene	mg/L	1.4	0.020	< 0.020	
Dichloromethane	mg/L	5.0	0.030	< 0.030	
Methyl Ethyl Ketone	mg/L	200	0.090	< 0.090	
Chloroform	mg/L	10.0	0.020	< 0.020	
1,2-Dichloroethane	mg/L	0.5	0.020	<0.020	
Carbon Tetrachloride	mg/L	0.5	0.020	< 0.020	
Benzene	mg/L	0.5	0.020	<0.020	
Trichloroethene	mg/L	5.0	0.020	< 0.020	
Tetrachloroethene	mg/L	3.0	0.050	< 0.050	
Chlorobenzene	mg/L	8.0	0.010	<0.010	
1,2-Dichlorobenzene	mg/L	20.0	0.010	<0.010	
1,4-Dichlorobenzene	mg/L	0.5	0.010	<0.010	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria

93

Acceptable Limits

60-130

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

167548 Sample was prepared using Regulation 558 protocol and a zero headspace extractor.

Unit

% Recovery

Analysis performed at AGAT Toronto (unless marked by *)

Surrogate

Toluene-d8



Quality Assurance

CLIENT NAME: CIMA+ S.E.N.C.

PROJECT: C14.0305
SAMPLING SITE:Coburg

AGAT WORK ORDER: 19Z462604
ATTENTION TO: Nicholas B
SAMPLED BY:Kai Markversen

							AIVIP	LED D	T:Nai ivi	arkvei	sen			
			Soi	l Ana	alysis	5								
			UPLICATI	<u> </u>		REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		KE
Batch	Sample	Dup #1	Dup #2	RPD	Method Blank				Recovery	Lie		Recovery	Lie	ptable nits
	la la					value	Lower	Upper		Lower	Upper		Lower	Upper
organics (Soil)														
169556		<0.8	<0.8	NA	< 0.8	120%	70%	130%	107%	80%	120%	70%	70%	130%
169556		6	6	0.0%	< 1	122%	70%	130%	108%	80%	120%	115%	70%	130%
169556		73	74	1.4%	< 2	108%	70%	130%	101%	80%	120%	105%	70%	130%
169556		8.0	0.7	NA	< 0.5	101%	70%	130%	108%	80%	120%	92%	70%	130%
169556		8	8	NA	< 5	80%	70%	130%	101%	80%	120%	82%	70%	130%
167573		0.30	0.29	NA	< 0.10	105%	60%	140%	101%	70%	130%	101%	60%	140%
169556		< 0.5	< 0.5	NA	< 0.5	111%	70%	130%	100%	80%	120%	99%	70%	130%
169556		25	25	0.0%	< 2	106%	70%	130%	104%	80%	120%	110%	70%	130%
169556		14.7	15.1	2.7%	< 0.5	115%	70%	130%	107%	80%	120%	111%	70%	130%
169556		40	40	0.0%	< 1	107%	70%	130%	107%	80%	120%	101%	70%	130%
169556		10	10	0.0%	< 1	112%	70%	130%	103%	80%	120%	102%	70%	130%
169556		<0.5	<0.5	NA	< 0.5	105%	70%	130%	103%	80%	120%	107%	70%	130%
169556		28	29	3.5%	< 1	109%	70%	130%	102%	80%	120%	105%	70%	130%
169556		< 0.4	< 0.4	NA	< 0.4	120%	70%	130%	98%	80%	120%	85%	70%	130%
169556		<0.2	<0.2	NA	< 0.2	109%	70%	130%	102%	80%	120%	97%	70%	130%
169556		<0.4	<0.4	NA	< 0.4	111%	70%	130%	102%	80%	120%	103%	70%	130%
169556		0.6	0.7	NA	< 0.5	123%	70%	130%	104%	80%	120%	112%	70%	130%
169556		33	34	3.0%	< 1	115%	70%	130%	101%	80%	120%	111%	70%	130%
169556		68	68	0.0%	< 5	111%	70%	130%	107%	80%	120%	106%	70%	130%
170750		<0.2	<0.2	NA	< 0.2	109%	70%	130%	96%	80%	120%	100%	70%	130%
166153		<0.040	<0.040	NA	< 0.040	99%	70%	130%	92%	80%	120%	101%	70%	130%
169556		<0.10	<0.10	NA	< 0.10	120%	70%	130%	100%	80%	120%	103%	70%	130%
169556		0.948	0.942	0.6%	< 0.005	107%	90%	110%	NA			NA		
169335		3.79	3.76	0.8%	NA	NA			NA			NA		
153756		7.72	7.69	0.4%	NA	100%	80%	120%	NA			NA		
	169556 169556	169556 169556	Batch Sample Id Dup #1 brganics (Soil) 169556 <0.8	Batch Sample Id Dup #1 Dup #2 organics (Soil) 169556 <0.8	Batch Sample Dup #1 Dup #2 RPD	DUPLICATE Dup #1 Dup #2 RPD Method Blank	Batch Sample Id Dup #1 Dup #2 RPD Method Blank Measured Value	Soil Analysis DUPLICATE Batch Sample Id Dup #1 Dup #2 RPD Method Blank Measured Ling Lower Lower	Batch Sample Id Dup #1 Dup #2 RPD Method Blank Measured Value Limits Lower Upper Upper	Soil Analysis Soil Analysis Reference Material Macaured Value Covery Cov	Batch Sample Dup #1 Dup #2 RPD Method Blank Measured Value Limits Limits	Batch Sample Id Dup #1 Dup #2 RPD Method Blank Measured Value Dup #1 Dup #3 RPD Method Blank Measured Value Dup #4 Dup #4 Dup #4 RPD Measured Value Dup #4 Dup #4	Batch Sample Dup #1 Dup #2 RPD Method Blank Method Measure Limits Lower Upper Limits Lower Upper Limits Lower Upper Uppe	Batch Sample Dup #1 Dup #2 RPD Method Blank Method B

Comments: NA signifies Not Applicable.

Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

O. Reg. 558 Metals and Inorganics

•	•													
Arsenic Leachate	166645	< 0.010	<0.010	NA	< 0.010	98%	90%	110%	90%	80%	120%	95%	70%	130%
Barium Leachate	166645	0.465	0.525	NA	< 0.100	102%	90%	110%	107%	80%	120%	110%	70%	130%
Boron Leachate	166645	0.089	0.092	NA	< 0.050	92%	90%	110%	85%	80%	120%	87%	70%	130%
Cadmium Leachate	166645	< 0.010	<0.010	NA	< 0.010	95%	90%	110%	98%	80%	120%	96%	70%	130%
Chromium Leachate	166645	0.016	0.016	NA	< 0.010	100%	90%	110%	108%	80%	120%	106%	70%	130%
Lead Leachate	166645	<0.010	<0.010	NA	< 0.010	102%	90%	110%	109%	80%	120%	102%	70%	130%
Mercury Leachate	166645	<0.01	<0.01	NA	< 0.01	90%	90%	110%	91%	80%	120%	76%	70%	130%
Selenium Leachate	166645	< 0.010	<0.010	NA	< 0.010	96%	90%	110%	98%	80%	120%	103%	70%	130%
Silver Leachate	166645	< 0.010	<0.010	NA	< 0.010	97%	90%	110%	97%	80%	120%	96%	70%	130%

AGAT QUALITY ASSURANCE REPORT (V1)

Page 14 of 24



AGAT WORK ORDER: 19Z462604

Quality Assurance

CLIENT NAME: CIMA+ S.E.N.C.

PROJECT: C14.0305 ATTENTION TO: Nicholas B SAMPLING SITE:Coburg SAMPLED BY:Kai Markversen

	Soil Analysis (Continued)														
RPT Date:	PT Date: DUPLICATE							REFERENCE MATERIAL			BLANK	SPIKE	MATRIX SPIKE		
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Blank Measured		Acceptable Limits		Acceptable Limits		Recovery	Acceptable Limits	
		ld			KPD		Value	Lower	Upper	,	Lower	Upper	,		Upper
Uranium Leachate	166645		<0.050	<0.050	NA	< 0.050	99%	90%	110%	102%	80%	120%	101%	70%	130%
Fluoride Leachate	166645		0.08	0.08	NA	< 0.05	100%	90%	110%	106%	90%	110%	88%	70%	130%
Cyanide Leachate	166645		< 0.05	< 0.05	NA	< 0.05	103%	90%	110%	95%	90%	110%	95%	70%	130%
(Nitrate + Nitrite) as N Leachate	166645		<0.70	<0.70	NA	< 0.70	100%	80%	120%	94%	80%	120%	97%	70%	130%

Comments: NA signifies Not Applicable.

Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL

Ignitability in Soil

Ignitability 166129 N N NA <

Comments: N = Non-Flammable Solid NA = Not Applicable

manyot Bhells AMANJOT BHELD SHELD SH

Quality Assurance

CLIENT NAME: CIMA+ S.E.N.C.

PROJECT: C14.0305 SAMPLING SITE:Coburg AGAT WORK ORDER: 19Z462604
ATTENTION TO: Nicholas B
SAMPLED BY:Kai Markversen

Trace Organics Analysis															
RPT Date:				UPLICATI	Ē		REFEREN	NCE MA	TERIAL	METHOD	BLANK	SPIKE	MAT	RIX SPI	KE
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured		eptable mits	Recovery	Acceptable Limits		Recovery		ptable nits
		ld					Value	Lower	Upper		Lower	Upper	,	Lower	Upper
O. Reg. 153(511) - OC Pesticide	s + PCBs (So	oil)									•			•	•
Gamma-Hexachlorocyclohexane	167677		< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	98%	50%	140%	90%	50%	140%
Heptachlor	167677		< 0.005	< 0.005	NA	< 0.005	91%	50%	140%	90%	50%	140%	98%	50%	140%
Aldrin	167677		< 0.005	< 0.005	NA	< 0.005	98%	50%	140%	102%	50%	140%	94%	50%	140%
Heptachlor Epoxide	167677		< 0.005	< 0.005	NA	< 0.005	94%	50%	140%	102%	50%	140%	101%	50%	140%
Endosulfan	167677		< 0.005	< 0.005	NA	< 0.005	93%	50%	140%	96%	50%	140%	105%	50%	140%
Chlordane	167677		< 0.007	< 0.007	NA	< 0.007	95%	50%	140%	98%	50%	140%	90%	50%	140%
DDD	167677		< 0.007	< 0.007	NA	< 0.007	96%	50%	140%	108%	50%	140%	99%	50%	140%
DDE	167677		< 0.007	< 0.007	NA	< 0.007	98%	50%	140%	98%	50%	140%	102%	50%	140%
DDT	167677		< 0.007	< 0.007	NA	< 0.007	93%	50%	140%	106%	50%	140%	96%	50%	140%
Dieldrin	167677		< 0.005	< 0.005	NA	< 0.005	94%	50%	140%	100%	50%	140%	102%	50%	140%
Endrin	167677		< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	102%	50%	140%	104%	50%	140%
Methoxychlor	167677		< 0.005	< 0.005	NA	< 0.005	97%	50%	140%	96%	50%	140%	103%	50%	140%
Hexachlorobenzene	167677		< 0.005	< 0.005	NA	< 0.005	99%	50%	140%	100%	50%	140%	99%	50%	140%
Hexachlorobutadiene	167677		< 0.01	< 0.01	NA	< 0.01	92%	50%	140%	94%	50%	140%	81%	50%	140%
Hexachloroethane	167677		< 0.01	< 0.01	NA	< 0.01	92%	50%	140%	89%	50%	140%	80%	50%	140%
Aroclor 1242	167677		< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Aroclor 1248	167677		< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Aroclor 1254	167677		< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Aroclor 1260	167677		< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Polychlorinated Biphenyls	167677		< 0.10	< 0.10	NA	< 0.10	108%	60%	140%	95%	60%	140%	96%	60%	140%
T diyenlennated Diprientyla	107077		< 0.10	< 0.10	INA	< 0.10	10070	0070	14070	3370	0070	14070	3070	0070	14070
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	157221		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	65%	50%	140%	81%	50%	140%
Acenaphthylene	157221		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	75%	50%	140%	88%	50%	140%
Acenaphthene	157221		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	77%	50%	140%	89%	50%	140%
Fluorene	157221		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	77%	50%	140%	88%	50%	140%
Phenanthrene	157221		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	79%	50%	140%	92%	50%	140%
Anthracene	157221		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	74%	50%	140%	85%	50%	140%
Fluoranthene	157221		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	84%	50%	140%	101%	50%	140%
Pyrene	157221		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	86%	50%	140%	103%	50%	140%
Benz(a)anthracene	157221		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	90%	50%	140%	107%	50%	140%
Chrysene	157221		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	82%	50%	140%	100%	50%	140%
Benzo(b)fluoranthene	157221		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	71%	50%	140%	91%	50%	140%
Benzo(k)fluoranthene	157221		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	71%	50%	140%	84%	50%	140%
Benzo(a)pyrene	157221		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	108%	50%	140%	104%	50%	140%
Indeno(1,2,3-cd)pyrene	157221		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	80%	50%	140%	84%	50%	140%
Dibenz(a,h)anthracene	157221		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	65%	50%	140%	80%	50%	140%
Benzo(g,h,i)perylene	157221		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	73%	50%	140%	85%	50%	140%
2-and 1-methyl Naphthalene	157221		< 0.05	< 0.05	NA	< 0.05	93%		140%	72%		140%	84%		140%

AGAT QUALITY ASSURANCE REPORT (V1)

Page 16 of 24

AGAT WORK ORDER: 19Z462604

Quality Assurance

CLIENT NAME: CIMA+ S.E.N.C.

PROJECT: C14.0305 ATTENTION TO: Nicholas B SAMPLING SITE:Coburg SAMPLED BY:Kai Markversen

	_	Γrace	Org	anics	Ana	alysis	(Coi	ntin	ued)					
RPT Date:				UPLICAT	E		REFERE	NCE MA	TERIAL	METHOD	BLAN	SPIKE	MAT	RIX SPI	KE
DADAMETED		Sample				Method Blank	Measured		ptable nits	_	Liv	ptable nits	_	Lin	ptable nits
PARAMETER	Batch	ld	Dup #1	Dup #2	RPD		Value	Lower	Upper	Recovery	Lower	Upper	Recovery	Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4	(with PAHs	and VOC)	(Soil)			1									
F1 (C6 to C10)	161696		< 5	< 5	NA	< 5	105%	60%	130%	90%	85%	115%	78%	70%	130%
F2 (C10 to C16)	166196		< 10	< 10	NA	< 10	91%	60%	130%	107%	80%	120%	99%	70%	130%
F3 (C16 to C34)	166196		< 50	< 50	NA	< 50	96%	60%	130%	113%	80%	120%	91%	70%	130%
F4 (C34 to C50)	166196		< 50	< 50	NA	< 50	86%	60%	130%	89%	80%	120%	95%	70%	130%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	168716		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	80%	50%	140%	104%	50%	140%
Vinyl Chloride	168716		< 0.02	< 0.02	NA	< 0.02	79%	50%	140%	104%	50%	140%	93%	50%	140%
Bromomethane	168716		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	93%	50%	140%	83%	50%	140%
Trichlorofluoromethane	168716		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	99%	50%	140%	82%	50%	140%
Acetone	168716		< 0.50	< 0.50	NA	< 0.50	96%	50%	140%	98%	50%	140%	91%	50%	140%
1,1-Dichloroethylene	168716		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	90%	60%	130%	91%	50%	140%
Methylene Chloride	168716		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	97%	60%	130%	89%	50%	140%
Trans- 1,2-Dichloroethylene	168716		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	89%	60%	130%	89%	50%	140%
Methyl tert-butyl Ether	168716		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	89%	60%	130%	79%	50%	140%
1,1-Dichloroethane	168716		< 0.02	< 0.02	NA	< 0.02	84%	50%	140%	104%	60%	130%	79%	50%	140%
Methyl Ethyl Ketone	168716		< 0.50	< 0.50	NA	< 0.50	99%	50%	140%	98%	50%	140%	99%	50%	140%
Cis- 1,2-Dichloroethylene	168716		< 0.02	< 0.02	NA	< 0.02	85%	50%	140%	93%	60%	130%	97%	50%	140%
Chloroform	168716		< 0.04	< 0.04	NA	< 0.04	90%	50%	140%	99%	60%	130%	91%	50%	140%
1,2-Dichloroethane	168716		< 0.03	< 0.03	NA	< 0.03	98%	50%	140%	102%	60%	130%	99%	50%	140%
1,1,1-Trichloroethane	168716		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	97%	60%	130%	95%	50%	140%
Carbon Tetrachloride	168716		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	93%	60%	130%	96%	50%	140%
Benzene	168716		< 0.02	< 0.02	NA	< 0.02	85%	50%	140%	99%	60%	130%	86%	50%	140%
1,2-Dichloropropane	168716		< 0.03	< 0.03	NA	< 0.03	84%	50%	140%	99%	60%	130%	99%	50%	140%
Trichloroethylene	168716		< 0.03	< 0.03	NA	< 0.03	77%	50%	140%	96%	60%	130%	90%	50%	140%
Bromodichloromethane	168716		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	105%	60%	130%	92%	50%	140%
Methyl Isobutyl Ketone	168716		< 0.50	< 0.50	NA	< 0.50	102%	50%	140%	89%	50%	140%	100%	50%	140%
1,1,2-Trichloroethane	168716		< 0.04	< 0.04	NA	< 0.04	89%	50%	140%	98%	60%	130%	100%	50%	140%
Toluene	168716		< 0.05	< 0.05	NA	< 0.05	77%	50%	140%	83%	60%	130%	94%	50%	140%
Dibromochloromethane	168716		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	92%	60%	130%	92%	50%	140%
Ethylene Dibromide	168716		< 0.04	< 0.04	NA	< 0.04	98%	50%	140%	96%	60%	130%	97%	50%	140%
Tetrachloroethylene	168716		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	93%	60%	130%	98%	50%	140%
1,1,1,2-Tetrachloroethane	168716		< 0.04	< 0.04	NA	< 0.04	91%			94%	60%	130%	86%		140%
Chlorobenzene	168716		< 0.05	< 0.05	NA	< 0.05	76%	50%		91%	60%	130%	99%		140%
Ethylbenzene	168716		< 0.05	< 0.05	NA	< 0.05	71%		140%	93%		130%	102%		140%
m & p-Xylene	168716		< 0.05	< 0.05	NA	< 0.05	95%		140%	111%		130%	105%		140%
Bromoform	168716		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	102%	60%	130%	90%	50%	140%
Styrene	168716		< 0.05	< 0.05	NA	< 0.05	81%		140%	89%		130%	96%		140%
1,1,2,2-Tetrachloroethane	168716		< 0.05	< 0.05	NA	< 0.05	103%		140%	101%	60%		101%		140%
o-Xylene	168716		< 0.05	< 0.05	NA	< 0.05	93%		140%	91%		130%	99%		140%

AGAT QUALITY ASSURANCE REPORT (V1)

Page 17 of 24

AGAT WORK ORDER: 19Z462604

Quality Assurance

CLIENT NAME: CIMA+ S.E.N.C.

PROJECT: C14.0305 ATTENTION TO: Nicholas B
SAMPLING SITE:Coburg SAMPLED BY:Kai Markversen

	-	Trace	Org	anics	Ana	alysis	(Coı	ntin	ued	l)					
RPT Date:				UPLICATI	=		REFERE	NCE MA	TERIAL	METHOD	BLANK	SPIKE	МАТ	RIX SPI	KE
		Sample				Method Blank	Measured	Acceptable Limits				ptable			ptable
PARAMETER	Batch	Id	Dup #1	Dup #2	RPD	DIAIIK	Value	Lower	Upper	Recovery	Lower	Upper	Recovery	Lower	upper
1,3-Dichlorobenzene	168716		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	102%	60%	130%	104%	50%	140%
1,4-Dichlorobenzene	168716		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	94%	60%	130%	99%	50%	140%
1,2-Dichlorobenzene	168716		< 0.05	< 0.05	NA	< 0.05	77%	50%	140%	95%	60%	130%	94%	50%	140%
1,3-Dichloropropene	168716		< 0.04	< 0.04	NA	< 0.04	91%	50%	140%	98%	60%	130%	90%	50%	140%
n-Hexane	168716		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	95%	60%	130%	92%	50%	140%
O. Reg. 558 - VOCs															
Vinyl Chloride	167548	167548	< 0.030	< 0.030	NA	< 0.030	87%	60%	140%	109%	60%	140%	NA	60%	140%
1,1 Dichloroethene	167548	167548	< 0.020	< 0.020	NA	< 0.020	94%	70%	130%	85%	70%	130%	NA	60%	140%
Dichloromethane	167548	167548	< 0.030	< 0.030	NA	< 0.030	98%	70%	130%	105%	70%	130%	NA	60%	140%
Methyl Ethyl Ketone	167548	167548	< 0.090	< 0.090	NA	< 0.090	95%	70%	130%	102%	70%	130%	NA	60%	140%
Chloroform	167548	167548	< 0.020	< 0.020	NA	< 0.020	102%	70%	130%	85%	70%	130%	NA	60%	140%
1,2-Dichloroethane	167548	167548	< 0.020	< 0.020	NA	< 0.020	96%	70%	130%	96%	70%	130%	NA	60%	140%
Carbon Tetrachloride	167548	167548	< 0.020	< 0.020	NA	< 0.020	94%	70%	130%	75%	70%	130%	NA	60%	140%
Benzene	167548	167548	< 0.020	< 0.020	NA	< 0.020	104%	70%	130%	93%	70%	130%	NA	60%	140%
Trichloroethene	167548	167548	< 0.020	< 0.020	NA	< 0.020	102%	70%	130%	102%	70%	130%	NA	60%	140%
Tetrachloroethene	167548	167548	< 0.050	< 0.050	NA	< 0.050	112%	70%	130%	115%	70%	130%	NA	60%	140%
Chlorobenzene	167548	167548	< 0.010	< 0.010	NA	< 0.010	116%	70%	130%	107%	70%	130%	NA	60%	140%
1,2-Dichlorobenzene	167548	167548	< 0.010	< 0.010	NA	< 0.010	103%	70%	130%	103%	70%	130%	NA	60%	140%
1,4-Dichlorobenzene	167548	167548	< 0.010	< 0.010	NA	< 0.010	108%	70%	130%	110%	70%	130%	NA	60%	140%
O. Reg. 558 - OC Pesticides & PC	Bs														
Heptachlor + Heptachlor Epoxide	167138		< 0.0003	< 0.0003	NA	< 0.0003	107%	60%	140%	113%	60%	140%	NA	60%	140%
Aldrin + Dieldrin	167138		< 0.0007	< 0.0007	NA	< 0.0007	103%	60%	140%	96%	60%	140%	NA	60%	140%
DDT + Metabolites	167138		< 0.003	< 0.003	NA	< 0.003	96%	60%	140%	107%	60%	140%	NA	60%	140%
Methoxychlor	167138		< 0.09	< 0.09	NA	< 0.09	105%	60%	140%	107%	60%	140%	NA	60%	140%
Chlordane (Total)	167138		< 0.0007	< 0.0007	NA	< 0.0007	104%	60%	140%	91%	60%	140%	NA	60%	140%
Aldrin	167138		< 0.0002	< 0.0002	NA	< 0.0002	102%	60%	140%	99%	60%	140%	NA	60%	140%
alpha - chlordane	167138		< 0.0001	< 0.0001	NA	< 0.0001	104%	60%	140%	91%	60%	140%	NA	60%	140%
gamma-Chlordane	167138		< 0.0002	< 0.0002	NA	< 0.0002	103%	60%	140%	91%	60%	140%	NA	60%	140%
Oxychlordane	167138		< 0.0004	< 0.0004	NA	< 0.0004	101%	60%	140%	99%	60%	140%	NA	60%	140%
pp'-DDE	167138		< 0.0005	< 0.0005	NA	< 0.0005	109%	60%	140%	92%	60%	140%	NA	60%	140%
pp'-DDD	167138		< 0.0015	< 0.0015	NA	< 0.0015	111%	60%	140%	87%	60%	140%	NA	60%	140%
op'-DDT	167138		< 0.0015	< 0.0015	NA	< 0.0015	96%	60%	140%	102%	60%	140%	NA	60%	
pp'-DDT	167138			< 0.0005	NA	< 0.0005			140%	113%	60%	140%	NA		140%
Dieldrin	167138		< 0.0005	< 0.0005	NA	< 0.0005			140%	92%		140%	NA		140%
Heptachlor	167138		< 0.0001	< 0.0001	NA	< 0.0001	107%	60%	140%	113%	60%	140%	NA	60%	140%
Heptachlor Epoxide	167138		< 0.0002	< 0.0002	NA	< 0.0002	105%	60%	140%	102%		140%	NA	60%	140%
Lindane	167138		< 0.0004	< 0.0004	NA	< 0.0004			140%	100%	60%	140%	NA	60%	140%
Endrin	167138		< 0.0004	< 0.0004	NA	< 0.0004			140%	100%		140%	NA	60%	
Toxaphene	167138		< 0.0005	< 0.0005	NA	< 0.0005	NA NA	60%	140%	85%	60%	140%	NA	60%	140%

AGAT QUALITY ASSURANCE REPORT (V1)

Page 18 of 24



Quality Assurance

CLIENT NAME: CIMA+ S.E.N.C. AGAT WORK ORDER: 19Z462604 PROJECT: C14.0305 **ATTENTION TO: Nicholas B SAMPLING SITE:Coburg** SAMPLED BY: Kai Markversen

	7	Ггасе	Org	anics	Ana	llysis	(Cor	ntin	uec	l)					
RPT Date:			DUPLICATE				REFERENCE MATERIAL			METHOD	BLANK	SPIKE	MATRIX SPIKE		
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured	Acceptable Limits		Recovery	Acceptable Limits		Recovery		ptable nits
TANAMETER		ld		- up			Value	Lower	Upper		Lower	Upper		Lower	Upper
PCB's	167138		< 0.0002	< 0.0002	NA	< 0.0002	104%	60%	140%	96%	60%	140%	NA	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).



Method Summary

PARAMETER	AGAT S.O.P	ANALYTICAL TECHNIQUE	
Soil Analysis	1		
Ignitability	INOR-93-6063	EPA SW-846 1030	BURN MOLD
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER
Arsenic Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Barium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Boron Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Cadmium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Chromium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	
Lead Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Mercury Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Selenium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	ICP-MS
Silver Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	
Uranium Leachate	MET-93-6103	EPA SW-846 1311 & 3010A & 6020A	
Fluoride Leachate	INOR-93-6018	EPA SW-846-1311 & SM4500-F- C	ION SELECTIVE ELECTRODE
Cyanide Leachate	INOR-93-6052	EPA SW-846-1311 & MOE 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
(Nitrate + Nitrite) as N Leachate	INOR-93-6053	EPA SW 846-1311 & SM 4500 - NO3-I	LACHAT FIA

Method Summary

SAMPLING SITE:CODUIG	1017000		ANALYTICAL TECHNIQUE						
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE						
Trace Organics Analysis									
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Heptachlor	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Aldrin	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Endosulfan	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Chlordane	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
DDD	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
DDE	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
DDT	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Dieldrin	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Endrin	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Methoxychlor	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Hexachloroethane	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Aroclor 1242	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD						
Aroclor 1248	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD						
Aroclor 1254	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD						
Aroclor 1260	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD						
Polychlorinated Biphenyls	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD						
TCMX	ORG-91-5112	EPA SW-846 3541, 3620,8081	GC/ECD						
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD						
Moisture Content	GRG 01 0110	MOE E3139	BALANCE						
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
			GC/MS						
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270D EPA SW846 3541 & 8270D							
Benz(a)anthracene	ORG-91-5106		GC/MS						
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270D	BALANCE						
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270D	GC/MS						
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID						
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID						
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC/FID						
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	CCME Tier 1 Method	GC/FID						
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC/FID						
F3 (C16 to C34) minus PAHs	VOL-91-5009	CCME Tier 1 Method	GC/FID						
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC/FID						

Method Summary

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE						
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE						
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE						
Terphenyl	VOL-91-5009	COME THE T WELLOW	GC/FID						
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Methylene Chloride	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Trans- 1,2-Dichloroethylene	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Methyl tert-butyl Ether	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,1-Dichloroethane	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Methyl Ethyl Ketone	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Cis- 1,2-Dichloroethylene	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Chloroform	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,2-Dichloroethane	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,1,1-Trichloroethane	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D EPA SW-846 5035 & 8260D	,						
Carbon Tetrachloride	VOL-91-5002 VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS (P&T)GC/MS						
			• •						
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260D	(P&T)GC/MS						
Heptachlor + Heptachlor Epoxide	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD						
Aldrin + Dieldrin	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD						
DDT + Metabolites	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD						
Methoxychlor	ORG-91-5112	EPA SW-846 8081A & 8082	GC/ECD						
Chlordane (Total)	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD						

Method Summary

or time continues and										
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQU							
Aldrin	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
alpha - chlordane	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
gamma-Chlordane	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Oxychlordane	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
pp'-DDE	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
pp'-DDD	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
op'-DDT	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
pp'-DDT	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Dieldrin	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Heptachlor	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Heptachlor Epoxide	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Lindane	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Endrin	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
Toxaphene	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
PCB's	ORG-91-5112	EPA SW-846 3550 & 8082	GC/ECD							
Decachlorobiphenyl	ORG-91-5112	EPA SW-846 3550 & 8081	GC/ECD							
OC/PCB Pest Extr			N/A							
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
1,1 Dichloroethene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Dichloromethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Chloroform	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Benzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Trichloroethene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Tetrachloroethene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Chlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030C & 8260D	(P&T)GC/MS							
Toluene-d8	VOL-91-5001	EPA SW-846 5230B & 8260	(P&T)GC/MS							



5835 Coopers Avenue Mississauga, Ontario L4Z 1Y2 Ph: 905.712.5100 Fax: 905.712.5122 webearth.agatlabs.com Laboratory Use Only

Cooler Quantity:

Work Order #: 197462604

onain of Gustouy Record	Chain	of	Custody	Record
-------------------------	-------	----	---------	--------

Chain of Custody Reco	rd If this Is	a Drinking Wa	ter sample, p	please use	e Drinking Water Chain of Custody Form (p	otable	water o	onsume	d by humar	s)		<i> ^</i>	Arrival	Temp	oerati		_		2 1		3,1
Report Information: Company: Contact: Address: Report Information: CTMA Nicholas 240 (ath	Canad Bentre	a In		_	Regulatory Requirements: (Please check all applicable boxes) WRegulation 153/04 Sewer		No R		tory Red		ment		Custody Seal Intact: Yes No N/A Notes: ON TC6 Turnaround Time (TAT) Required:								
Address: 240 (wth	erine Si le 110	K2P	Hawa 2GE		Table	tary			CME					arou ar T/		Γim			_	ed: ess Days	
Phone: Reports to be sent to: 1. Email: 2. Email: A: Cholas.					Soil Texture (Check One) ☐ Coarse ☐ Fine ☐ MISA				Prov. Water Objectives Other	(PWQ0		R	ush '	3 Bu Days	sines	ss		2 Busi Days		□ Nex Day es May App	
Project Information: Project: Site Location: Sampled By:	kuuse-				Is this submission for a Record of Site Condition? Yes No		Cer	tifica: Yes	Guideling te of An	e on	S			Pi *TAT	lease is exc	prov	ide pride e of we lysis, p	or notice ekende	ification	n for rush TA statutory ho ct your AGA	AT olidays
AGAT Quote #: Please note: If quotation number Invoice Information: Company: Contact: Address: Email:		ill be billed full price			Sample Matrix Legend B Biota GW Ground Water O Oil P Paint S Soil SD Sediment SW Surface Water	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	☐ All Metals ☐ 153 Metals (excl. Hydrides) .O ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)	ORPs: □B-HWS □Cr □CN □ST □Cr* □Ec □FOC □Hg □ □AR	als Scan	Regulation/Custom Metals Nutrients: ロ TP	S: EVOC DETEX DTHM	F4			Motal □ Aroclors	Organochlorine Pesticides	TCLP: OCP	ab: 1.42		
Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample		Y/N	Metals	☐ All Met	ORPs: [Full Metals	Regulat Nutrient	Volatiles:	PHCs F1 - F4	ABNS	PAHs	PCBs: Protal	Organoc	Sewer Use	Tur		
SPI	19-04-29	PIL	5	50		N	×					×	_		×	X	×	1			100
502	19.04.29	سنام	5	50		~	×					×	×		×	¥	N.			_	
DUPI	19.04.29	pm	5	50		~	X					×	×		×	X	×				
COMPI	19.04.29	P M	5	50		2											>	4 X	У		
Samples Relinquished By (Print Name and Sign): Ka. Markrowsca. / / / / / / / / / / / / / / / / / / /	ye_	Date 15.05	5. C1 Tin	ne 1:20 j	Samples Received By (Print, Name and Sign):	7	2	9			Date i Ma		- 1	Time	32			Pag	e e	/ of /	
Samples Relinquished By (Print Name and Sign):		Date	Tin	ne	Samples Received By (Print Name and Sign):	na)	MM	P. 1	-	Date	1		Time	12		Nº:	0	78	170	
Ocument to: DIV-15-1311-U13									Pink (onv - (lient	rellow	Conv	- AGA	KE I !	White	Conv-	ACAT	ř	nate lessons Mar	46 2018