

**TOWN OF GLASTONBURY**  
**BLACKLEDGE DAM REMOVAL AND RIVER RESTORATION**  
**MMI #2600-13 / GL-2018-11**

**ADDENDUM NO. 1**  
January 3, 2018

Proposal Due Date: 01-09-18 @ 11:00 A.M.

The attention of bidders submitting proposals for the above-referenced project is called to the following Addendum to the specifications. The items set forth herein, whether of omission, addition, substitution or other change, are all to be included in and form a part of the proposed Contract Documents for the work. Bidders shall acknowledge this Addendum on the Bid Proposal Page (BP-1).

Addendum No. 1 contains clarifications and responses to questions posed by potential bidders, changes to insurance information, revisions to technical specifications, and the modification of General Note No. 1 on Sheet SP-3 of the design plans.

**1. GENERAL INFORMATION:**

- A. The State of Connecticut Dam Safety Permit public comment period has ended, but the formal approval has not yet been issued. It is expected to be finalized in the month of January 2018. Regarding regulatory time of year restrictions associated with the Dam Safety Permit, CT DEEP Fisheries will expect that all in-water work will be substantially complete by March 31, 2018. This varies from what was expressed on the plans and specifications, which stated that in water work must be completed before March 1. Therefore, all references to schedule are hereby revised to be consistent with the following:
- **All in-water work shall be substantially complete by March 31, 2018.**
  - **The project will be substantially complete by June 30, 2018.**
- B. Other permit approvals include the following, and are included with this Addendum for the use of potential bidders.
- Attachment A - CTDEEP Section 401 Water Quality Certification #201607149
  - Attachment B1 - USACE NAE-2017-01675 General Permit No. 10
  - Attachment B2 - CTDEEP License #201705330
- C. The Town has made the Tryon Street Bulky Waste Facility in Glastonbury available to the Contractor at no additional charge for the disposal of materials that are accepted at that facility. Please see page SC-4 of the Special Conditions, section 07.00 "Disposal Area" for more information on the disposal area, the materials that will be accepted. The Contractor will be responsible for disposal of all material that is not accepted to that facility.

## 2. QUESTIONS:

*1: There is mention of contaminated sediment in the project documents. Can you provide any further additional information regarding what we are to expect regarding contaminated "Sediment"?*

**Answer:** Sediment sampling in the impoundment behind Blackledge Dam was performed in 2014 (by others). The results of that sampling did not find elevated levels of contaminants of concern in the sediment. The full results of that sampling are attached to this addendum. Errant references to contaminated sediment, found in Sections 02245 and 02300 have been removed from the specifications, see Section 4 of this addendum.

*2: Note 1 on Plan Sheet SP-3 is confusing to us and we request some further clarification. The note indicates we are to work in during low flows in the river but it appears as though the requirement to get the project substantially complete before 6/30/18 requires the bulk of the work to be performed during high flows. The note also says that no channel work can be performed between March 1<sup>st</sup> to June 30<sup>th</sup>. The project seems to require that a lot of the channel work be performed during this time so we are requesting further clarification as to what work this note is referring to.*

**Answer:** Note 1 on Plan Sheet SP-3 states the following:

*"Contractor shall perform work during low flows in the Blackledge River, while abiding by all time-of-year restrictions set forth by the regulatory approvals. No channel work will be done between March 1 to June 30."*

Note 1 on Plan Sheet SP-3 is revised as follows:

*"Contractor shall perform work during low flows in the Blackledge River, while abiding by all time-of-year restrictions set forth by the regulatory approvals. ~~No channel work will be done between March 1 to June 30.~~"*

This note was meant to convey two things: A) That all work shall be completed within the calendar restrictions of work within the active channel imposed by the regulatory approvals (hereby revised as described in Section 1, General Information of this Addendum), and B) to recommend that work be in the active channel being (while performed within those restrictions) be done during periods of low flow in the Blackledge River (i.e. no precipitation or other causes which might elevate base flows in the river above its normal range) within those restrictions.

*3: There is a note stating that the temporary opening in the spillway is to be 20 feet at the bottom. Plan sheet EL-1 shows the opening to be approximately 4' at the bottom and 20 feet at the top which makes sense considering how much of the existing spillway is proposed to be saved. Please clarify where the 20' requirement for the temporary opening is to be applied.*

**Answer:** The intention of the water control plan as shown on the plan is to provide guidance and a possible method of controlling water safely at the project site during construction. The regulatory permits require that a stable bypass for base flows and added protection with capacity and stability up to and including the 2-year flow (256 cfs) be provided for. A 20-foot wide top width with one-to-one side slopes is one method that could provide a channel adequately wide to accomplish this. The one to one slope as shown on the plan is intended to be a guide, but steeper slopes may be possible depending on the stability of the existing masonry as it is disassembled. Use of the existing low flow operator found at the dam is another method that may be adequate to meet the water control requirements. The contractor is encouraged to explore the site and consider alternative methods of water control. The selected contractor will be required to submit a Water Control Plan, as well as an

**Emergency Operations and Flood Contingency Plan (see Specifications Section 01410) before work is commenced.**

*4: The proposed 459 contour goes over the existing island on the downstream side of the spillway. This will require 1 to 2' fills over this island. Please clarify if the elevation of the existing island is to be raised and if so please provide additional grading information detailing the limits of the fill area.*

**Answer:** The existing island immediately downstream of the dam is extremely variable in elevation and composition due to common inundation and erosion caused by floodwaters, as well as collected debris and rock that have accumulated. Cross Sections 1+50 and 2+00 on sheet CS-2 show the intent of regrading on the island, but field adjustment will be necessary after the debris is cleaned and the grade is smoothed. A wholesale approach of clearing, grubbing, excavation and reconstruction of the island is not authorized. The island shall remain as undisturbed as possible, through the minor grading to knock down high spots, fill in low spots and work around existing trees (greater than 6" in diameter). Sheet SP-4 calls for the planting of three additional trees at the upstream-end of the island, where the most disturbance is expected due to the need to access the dam for deconstruction. The limits of disturbance shall be minimized, and the grading on the island as it progresses downstream shall be field adjusted to blend into the existing conditions.

*5: Sheet SP-4 notes that the downstream island to remain undisturbed as much as possible. SP-4 shows new trees to be installed- can you confirm if we are to at the very least clear to existing trees/vegetation from this island prior to installing the new trees?*

**Answer:** Please see response to Question 4.

*6: Under Section 02373 Bank Slope protection and Section 02675 Instream Features. The documents ask for matching to the existing rounded natural boulders and gravels 2" to 12" to be used in various reconstruction methods. There does not appear to be a sufficient quantity of in site materials to complete the project without off site sources. We do not know of a permitted off site source to obtain the required natural rounded boulders and gravel tailing. We have attached photos of a similar project we are completing for CT DEEP that asked for rounded boulders. As none where locally available the agency had us use quarried shot rock boulders to construct bank stabilization. Please let us know if this would be acceptable to the town.*

**Answer:** The photograph that are referred to in the original question have been attached to this addendum as Attachment C (Spingborn Dam Removal) for the reference of all bidders. It is likely that stone will need to be imported to meet the channel armoring and grade control structure specifications. Some stone encountered on-site may be suitable for reuse, such as stone excavated from the existing channel bed, stone found from the historic channel bed beneath the sediment, and rounded stones that are part of the existing dam. While angular rock such as that shown in the photograph will be allowed outside of the bankfull channel, rounded stones will be required within the channel. This includes use of rounded field or river stones for:

- River bed armoring;
- Random boulder clusters;
- Construction of the stepping stones;
- And grade control structures.

The requirements are described in greater detail in the specifications Sections 02373 "Bank Slope Treatments" and 02675 "Instream Features."

*7: The documents prohibit work in the water from March 1<sup>st</sup> to June 30<sup>th</sup>. Given the bid date and an award most likely at the end of January 2018 this will only allow the contractor 28 calendar days to complete most of the work. This schedule will be impossible to meet. We would ask the town to contact Steve Gephard from Deep Fisheries for an exemption and extension of time to run to June 2018. If this is not possible we would ask to have the contract start June 1 2018 to finish by the end of year 2018. In our experience on the CT DEEP Project @ Springborn Removal Project. DEEP Fisheries gave us an extension to work in the river during the no work dates due to unforeseen project conditions. We found the department to be very accommodating to work with.*

**Answer: Please see the information presented in Section 1 "General Information" of this Addendum. Steve Gephard, of CTDEEP Fisheries is a sponsor and proponent of the project who has remained involved throughout its design, and will continue to remain involved during construction. CTDEEP is expected to continue to be a partner to the Town in ensuring project success as it progresses.**

*8: Is it the town's intentions to leave all the excavated sediment on site for regrading?*

**Answer: No sediment is to be reused on site. The Contractor shall achieve finished grading as shown on the plans. Any excess material is to be excavated and removed from the site. Sediment removed from the impoundment is to be dewatered on site and transported to an approved sediment disposal site. Please refer to the project specifications, Sections 01000 "Introduction to the Technical Specifications," 02260 "Demolition and Removal," 02300 "Earthwork." The Town has made the Tryon Street Bulky Waste Facility in Glastonbury available to the Contractor at no additional charge for the disposal of materials that are accepted at that facility. Please see page SC-4 of the Special Conditions, section 07.00 "Disposal Area" for more information on the disposal area, the materials that will be accepted. The contractor will be responsible for disposal of all other material that is not accepted at that facility.**

*9: Is it the town's intentions to use the existing dam debris for slope protection and instream features?*

**Answer: Please see response to Question 6, and refer to Section 2.1 in the specifications. "Large stones from any stone masonry to be removed from the structure may be reused for stone protection if it is free of cement, mortar, steel, and meets the requirements described in Section 02373 - Bank Slope Treatment, Section 02675 - Instream Features and/or Section 02900 - Site Restoration."**

*10: The drawings call for the removal of debris at the beaver dam. Will the town allow a path to be cut to allow equipment access to perform this work?*

**Answer: The work being referred to consists of bucking two trees into four-foot segments and positioning them around the banks of the river so as not to prevent flow. It is intended for this work to be done by hand, as no additional disturbance for machine access is permitted.**

*11: The Foote Lane access road will require clearing to allow equipment to access the dam removal. Will the town allow a path to be cut to allow equipment access to perform this work?*

**Answer: Selective tree trimming will be allowed along the Foote Road access route, as shown on Sheet SP-2.**

*12: The access road excavation appears to be in a possible rock cut. Is the town going to pay for rock excavation as a unit price or is this the contractor's responsibility?*

**Answer: The intent is not to excavate into bedrock for construction of the access road, and relocation of the access road may be authorized dependent upon the field conditions.**

**13:** *The clearing limits on the drawings are not sufficient to access the work on the west side of the project. Also the temp soil stock pile area is not sufficient to allow for the staging of excavated soils and sediments. Can additional areas be cleared?*

**Answer:** Clearing limits as shown have been approved by the Town of Glastonbury. Any changes to the proposed clearing limits would have to be flagged for approval by the Town. The stockpile location as shown is intended for staging and laydown, not for the dewatering of sediments, which are intended to be dewatered within the limits of the existing impoundment and disturbed area.

**14:** *The documents water control plan shows a phase one dam breach at 2' per day to lower the river to approximately elevation 458 at the dam. The documents do not address the temporary channel excavation that will be needed to divert the water. Will a temporary bypass channel be allowed to accommodate the flows (we have attached a photo of a bypass we have used in the past. Please let us know if this will be allowable.)*

**Answer:** Please refer to sheet CP-2, where the following callout points to the location of a temporary water control bypass channel and states:

*"Temporary water control bypass channel to divert Blackedge River during dam removal and channel construction, to be refilled upon completion of construction. Channel shall be Adequately sized to provide the capacity to pass 256 cfs (2-year flood), and armored/lined as necessary to prevent erosion of the channel or banks during such flows."*

**15:** *By using the bypass channel for water diversion as show. Will the Town allow the existing sediment to be used to refill the bypass channel to redirect the river flow back to the proposed new channel?*

**Answer:** Soft sediments removed from the impoundment will not be authorized for reuse as general fill on the project site. Suitable fill such as the soil found beneath the soft sediment layer will be authorized for reuse.

**16:** *Will the town require the contractor rebuild the temporary bypass channel breach in the dam. And if so what construction methods and materials are to be used. (IE will we have to repour a concrete core and or masonry?)*

**Answer:** The breach in the dam is to be minimized to the extent necessary for control of water, but reconstruction of the dam after the completion of the project will not be required.

**17:** *The drawings indicate that no work within the streambed is allowed between March 1 and June 30, however the imposed substantial completion date is also June 30. Is the intention that the project will take place this winter and all work within the stream bed will be completed by March 1? Or does the temporary bypass channel meet the definition of the restriction on work within the channel?*

**Answer:** Please see response to Questions 2 and 7.

**18:** *Does all of the unsuitable silt, clay and organic material, along with the excess material get transported to the designated sediment disposal site and where is this site?*

**Answer:** Please see General Information Section 1, and response to Question 8.

**19:** *Section 02300 Item 3.3.A.3 indicates that water from the dewatering operations shall be handled, transported and disposed of. Is this correct?*

**Answer:** To improve clarity, the above referenced specification has been revised. See Section 3 of this addendum.

**20:** *The temporary bypass channel through the dam is indicated to be 20 feet wide at the base on drawing CP-2, however the elevation plan EL-1 indicates that the channel is 20 feet wide at the top of the*

dam and tapers at a 1:1 slope to the base, which would create a very narrow channel for the temporary flow. Please clarify.

**Answer: Please see response to Question 3.**

**21:** *Is it anticipated that the existing armoring and rock removed from the dam itself will provide sufficient boulders to accomplish the intended design or will boulders need to be imported?*

**Answer: Please see response to Question 6.**

**22:** *Spec section 02260 item 1.1.B.5 indicates that there is a stone wall south of the dam that gets removed, however the only stone wall I saw at the site seems to be indicated to remain on the drawings. I attached a snip of the SP-2 drawing to indicate the wall I'm referring to.*

**Answer: The existing retaining wall south of the dam on the eastern bank was not intended to be removed as part of the water control. The specification as referenced above has been modified for clarity. See section 3 of this addendum.**

### **3. INSURANCE REQUIREMENTS:**

**Insurance requirements stated in Special Conditions, section 4 of the bid are revised as follows:**

#### **04.00 INSURANCE**

04.01 The Bidder shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Bidder and all of its agents, employees and sub-contractors and other providers of services and shall name the **Town of Glastonbury and Connecticut DEEP and their employees and agents as an Additional Insured** on a primary and non-contributory basis to the Bidders Commercial General Liability and Automobile Liability policies. **These requirements shall be clearly stated in the remarks section on the Bidders Certificate of Insurance.** Insurance shall be written with insurance carriers approved in the State of Connecticut and with a minimum Best's Rating of A-VIII. In addition, all carriers are subject to approval by the Town. Minimum Limits and requirements are stated below:

a. Worker's Compensation Insurance:

- Statutory Coverage
- Employer's Liability
- \$500,000 each accident/\$500,000 disease-policy limit/\$500,000 disease each employee
- A Waiver of Subrogation shall be provided in favor of the Town of Glastonbury and Connecticut DEEP and their employees and agents.

b. Commercial General Liability:

- Including Premises and Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors
- Limits of Liability for Bodily Injury and Property Damage  
Each Occurrence: \$1,000,000  
Aggregate: \$2,000,000  
(The Aggregate Limit shall apply separately to each job.)

- A Waiver of Subrogation shall be provided in favor of the Town of Glastonbury and Connecticut DEEP and their employees and agents.
- c. Automobile Insurance:
- Including all owned, hired, borrowed, and non-owned vehicle
  - Limit of Liability for Bodily Injury and Property Damage  
Per Accident: \$1,000,000
  - A Waiver of Subrogation shall be provided in favor of the Town of Glastonbury and Connecticut DEEP and their employees and agents.
- d. Umbrella of Excess Liability:
- State in the Remarks Section that coverage is to follow form.
  - Limit of Liability Each Occurrence \$3,000,000  
Aggregate \$3,000,000

#### 4. TECHNICAL SPECIFICATIONS:

##### **01100 Summary – Page TS-6, Part 1, Section 1.7B and 1.7C**

*Shall be revised as follows:*

- B. All in-water work shall be substantially complete by March 31, 2018.
- C. The project will be substantially complete by June 30, 2018.

##### **02245 Water Control – Page TS-33, Section 3.6E**

*Shall be revised as follows:*

- E. Upon removal of the de-watering measures, the Contractor shall regrade any disturbed surfaces, ~~remove any contaminated soils,~~ and restore all areas consistent with the stabilization of the project site as set forth in the Contract Documents.

##### **02260 Demolition and Removals – Page TS-35, Section 1.1B.5**

*Shall be revised as follows:*

- 5. Removal of ~~stone retaining wall south of the~~ portion of spillway to facilitate water control during construction.

##### **02300 Earthwork – Page TS-39, Section 1.3F**

*Shall be revised as follows:*

- F. Unsuitable Material: On-site materials which are of improper gradation to allow adequate compaction, ~~are organically contaminated~~ that have been identified as improper for the intended use by the Engineer.

**02300 Earthwork – Page TS-46, Section 3.3A.3**

*Shall be revised as follows:*

3. All sediment and subsequent water from the dewatering operations shall be handled, transported and disposed of in compliance with all federal, state, local, and other applicable regulations, laws and permits.

**5. PLANS:**

Sheet SP-3 (5 of 20), General Note No. 1. shall be revised as follows:

~~“Contractor shall perform work during low flows in the Blackledge River, while abiding by all time-of-year restrictions set forth by the regulatory approvals. No channel work will be done between March 1 to June 30.”~~

**End of Addendum No. 1 Text**

This Addendum consists of the text above (8 pages) and the following attachments:

- Attachment A - CTDEEP Section 401 Water Quality Certification #201607149 (37 pages)
- Attachment B1 - USACE NAE-2017-01675 General Permit No. 10 (5 pages)
- Attachment B2 - CTDEEP License #201705330 (4 pages)
- Attachment C - Photo Springborn Dam Removal (1 page)



**CERTIFICATE OF ANALYSIS**

The Nature Conservancy  
Attn: Ms. Sally Harold  
Box 1162  
Weston, CT 06883

**Date Received:** 12/3/2014  
**Date Reported:** 12/12/2014  
**P.O. #:**  
**Work Order #:** 1412-26965

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**DESCRIPTION:** BLACKLEDGE RIVER DAM

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Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.


Reference: All parameters were analyzed by U.S. EPA approved methodologies.  
The specific methodologies are listed in the methods column of the Certificate of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.  
The Certificate of Analysis shall not be reproduced except in full, without written approval of R.I. Analytical.  
Results relate only to samples submitted to the laboratory for analysis.  
Test results are not blank corrected.

Certification #: RI LAI00033, MA M-RI015, CT PH-0508, ME RI00015  
NH 2537, NY 11726

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:



Sharon Baker  
MIS / Data Reporting

enc: Chain of Custody

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 001

SAMPLE DESCRIPTION: BL2

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Alpha-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Beta-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Delta-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Gamma-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Chlordane	<0.4	0.4	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
4-4'-DDD	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
4-4'-DDE	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
4-4'-DDT	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Dieldrin	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Endosulfan I	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Endosulfan II	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Endosulfan Sulfate	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Endrin	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Endrin Aldehyde	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Heptachlor	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Heptachlor epoxide	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Methoxychlor	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Toxaphene	<0.4	0.4	mg/kg dry	SW-846 8081B	12/9/2014 15:50	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:06	JEB
Moisture	68.3		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/5/2014 12:06	JEB
Tetrachloro-m-xylene (TCMX)	56		30-150%	SW-846 8081B	12/5/2014 12:06	JEB
Decachlorobiphenyl	56		30-150%	SW-846 8081B	12/5/2014 12:06	JEB
Volatile Organic Compounds						
Benzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Bromobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Bromochloromethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Bromodichloromethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Bromoform	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Bromomethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
n-Butylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Sec-butylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
tert-Butylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 001

SAMPLE DESCRIPTION: BL2

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Chlorobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Chloroethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Chloroform	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Chloromethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
2-Chlorotoluene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
4-Chlorotoluene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Dibromochloromethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2-Dibromo-3-Chloropropane	<0.66	0.66	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2-Dibromoethane(EDB)	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Dibromomethane	<0.66	0.66	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2-Dichlorobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,3-Dichlorobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,4-Dichlorobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Dichlorodifluoromethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1-Dichloroethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2-Dichloroethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1-Dichloroethene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
cis-1,2-Dichloroethene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
trans-1,2-Dichloroethylene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2-Dichloropropane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,3-Dichloropropane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
2,2-Dichloropropane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1-Dichloropropene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Ethylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Hexachlorobutadiene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Isopropylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
p-Isopropyltoluene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Methylene Chloride	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
n-Propylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Naphthalene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Styrene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1,1,2-Tetrachloroethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1,2,2-Tetrachloroethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Tetrachloroethene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Toluene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2,3-Trichlorobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2,4-Trichlorobenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1,1-Trichloroethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,1,2-Trichloroethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Trichloroethene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Trichlorofluoromethane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 001

SAMPLE DESCRIPTION: BL2

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,2,4-Trimethylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
1,3,5-Trimethylbenzene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Vinyl Chloride	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
o-Xylene	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
m,p-Xylene	<0.66	0.66	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
MTBE	<0.33	0.33	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
2-Butanone(MEK)	<3.3	3.3	mg/kg dry	5035/8260C	12/4/2014 15:17	KAC
Surrogates		RANGE		5035/8260C	12/4/2014 15:17	KAC
Dibromofluoromethane	116		70-130%	5035/8260C	12/4/2014 15:17	KAC
Toluene-d8	117		70-130%	5035/8260C	12/4/2014 15:17	KAC
4-Bromofluorobenzene	117		70-130%	5035/8260C	12/4/2014 15:17	KAC
1,2 Dichloroethane-d4	120		70-130%	5035/8260C	12/4/2014 15:17	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Acenaphthylene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Anthracene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Benzidine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Benzo(a)anthracene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Benzo(b)fluoranthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Benzo(k)fluoranthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Benzo(g,h,i)perylene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Benzo(a)pyrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Bis(2-chloroethyl)ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Bis(2-Chloroethoxy)methane	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Bis(2-Chloroisopropyl)Ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Bis(2-ethylhexyl)phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
4-Bromophenyl phenyl ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Butylbenzyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2-Chloronaphthalene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
4-Chlorophenyl phenyl ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Chrysene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Dibenzo(a,h)anthracene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Di-n-butyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
1,2-Dichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
1,3-Dichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
1,4-Dichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
3,3'-Dichlorobenzidine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Diethyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Dimethyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2,4-Dinitrotoluene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 001

SAMPLE DESCRIPTION: BL2

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Di-n-octyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
1,2-Diphenylhydrazine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Fluoranthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Fluorene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Hexachlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Hexachlorobutadiene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Hexachlorocyclopentadiene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Hexachloroethane	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Indeno(1,2,3-cd)pyrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Isophorone	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2-Methylnaphthalene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Naphthalene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Nitrobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
N-nitrosodimethylamine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
N-nitrosodiphenylamine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
N-nitrosodi-n-propylamine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Phenanthrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Pyrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
1,2,4-Trichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
4-Chloro-3-methylphenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2-Chlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2,4-Dichlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2,4-Dimethylphenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2-Methyl-4,6-dinitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2,4-Dinitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2-Nitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
4-Nitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Pentachlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Phenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2,4,5-Trichlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2,4,6-Trichlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
4-Chloroaniline	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Dibenzofuran	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
2-Methyl Phenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
3 & 4-Methylphenols	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Aniline	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Acetophenone	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Azobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 18:17	KF
Surrogates			RANGE	SW-846 8270D	12/8/2014 18:17	KF
Phenol-d5	55		30-130%	SW-846 8270D	12/8/2014 18:17	KF
2-Fluorophenol	55		30-130%	SW-846 8270D	12/8/2014 18:17	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 001

SAMPLE DESCRIPTION: BL2

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,4,6-Tribromophenol	70		30-130%	SW-846 8270D	12/8/2014 18:17	KF
Nitrobenzene-d5	53		30-130%	SW-846 8270D	12/8/2014 18:17	KF
2-Fluorobiphenyl	51		30-130%	SW-846 8270D	12/8/2014 18:17	KF
P-Terphenyl-d14	55		30-130%	SW-846 8270D	12/8/2014 18:17	KF
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS
Total Metals						
Antimony	<15.7	15.7	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Arsenic	<7.8	7.8	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Beryllium	<0.16	0.16	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Cadmium	0.96	0.78	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Chromium	13	4.7	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Copper	19	7.8	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Lead	42	6.3	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Mercury	<0.32	0.32	mg/kg dry	SW-846 7471B	12/10/2014 11:21	JRW
Nickel	16	3.1	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Selenium	<16	16	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Silver	<3.1	3.1	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Thallium	<7.8	7.8	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Zinc	58	6.3	mg/kg dry	SW-846 6010C	12/5/2014 13:01	JRW
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS
Extraction date				SW846 3546	12/4/2014 13:05	KS
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 002

SAMPLE DESCRIPTION: BL3

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Alpha-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Beta-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Delta-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Gamma-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Chlordane	<0.7	0.7	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
4-4'-DDD	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
4-4'-DDE	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
4-4'-DDT	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Dieldrin	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Endosulfan I	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Endosulfan II	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Endosulfan Sulfate	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Endrin	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Endrin Aldehyde	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Heptachlor	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Heptachlor epoxide	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Methoxychlor	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Toxaphene	<0.7	0.7	mg/kg dry	SW-846 8081B	12/9/2014 16:27	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 12:34	JEB
Moisture	75.8		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/5/2014 12:34	JEB
Tetrachloro-m-xylene (TCMX)	49		30-150%	SW-846 8081B	12/5/2014 12:34	JEB
Decachlorobiphenyl	43		30-150%	SW-846 8081B	12/5/2014 12:34	JEB
Volatile Organic Compounds						
Benzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Bromobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Bromochloromethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Bromodichloromethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Bromoform	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Bromomethane	<2.3	2.3	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
n-Butylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Sec-butylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
tert-Butylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 002

SAMPLE DESCRIPTION: BL3

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Chlorobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Chloroethane	<2.3	2.3	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Chloroform	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Chloromethane	<2.3	2.3	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
2-Chlorotoluene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
4-Chlorotoluene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Dibromochloromethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2-Dibromo-3-Chloropropane	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2-Dibromoethane(EDB)	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Dibromomethane	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2-Dichlorobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,3-Dichlorobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,4-Dichlorobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Dichlorodifluoromethane	<2.3	2.3	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1-Dichloroethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2-Dichloroethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1-Dichloroethene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
cis-1,2-Dichloroethene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
trans-1,2-Dichloroethylene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2-Dichloropropane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,3-Dichloropropane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
2,2-Dichloropropane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1-Dichloropropene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Ethylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Hexachlorobutadiene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Isopropylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
p-Isopropyltoluene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Methylene Chloride	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
n-Propylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Naphthalene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Styrene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1,1,2-Tetrachloroethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1,2,2-Tetrachloroethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Tetrachloroethene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Toluene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2,3-Trichlorobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2,4-Trichlorobenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1,1-Trichloroethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,1,2-Trichloroethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Trichloroethene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Trichlorofluoromethane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC



## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 002

SAMPLE DESCRIPTION: BL3

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,2,4-Trimethylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
1,3,5-Trimethylbenzene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Vinyl Chloride	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
o-Xylene	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
m,p-Xylene	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
MTBE	<0.47	0.47	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
2-Butanone(MEK)	<4.7	4.7	mg/kg dry	5035/8260C	12/4/2014 15:45	KAC
Surrogates			RANGE	5035/8260C	12/4/2014 15:45	KAC
Dibromofluoromethane	121		70-130%	5035/8260C	12/4/2014 15:45	KAC
Toluene-d8	119		70-130%	5035/8260C	12/4/2014 15:45	KAC
4-Bromofluorobenzene	119		70-130%	5035/8260C	12/4/2014 15:45	KAC
1,2 Dichloroethane-d4	121		70-130%	5035/8260C	12/4/2014 15:45	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Acenaphthylene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Anthracene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Benzidine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Benzo(a)anthracene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Benzo(b)fluoranthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Benzo(k)fluoranthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Benzo(g,h,i)perylene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Benzo(a)pyrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Bis(2-chloroethyl)ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Bis(2-Chloroethoxy)methane	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Bis(2-Chloroisopropyl)Ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Bis(2-ethylhexyl)phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
4-Bromophenyl phenyl ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Butylbenzyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2-Chloronaphthalene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
4-Chlorophenyl phenyl ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Chrysene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Dibenzo(a,h)anthracene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Di-n-butyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
1,2-Dichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
1,3-Dichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
1,4-Dichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
3,3'-Dichlorobenzidine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Diethyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Dimethyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2,4-Dinitrotoluene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 002

SAMPLE DESCRIPTION: BL3

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Di-n-octyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
1,2-Diphenylhydrazine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Fluoranthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Fluorene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Hexachlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Hexachlorobutadiene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Hexachlorocyclopentadiene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Hexachloroethane	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Indeno(1,2,3-cd)pyrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Isophorone	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2-Methylnaphthalene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Naphthalene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Nitrobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
N-nitrosodimethylamine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
N-nitrosodiphenylamine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
N-nitrosodi-n-propylamine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Phenanthrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Pyrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
1,2,4-Trichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
4-Chloro-3-methylphenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2-Chlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2,4-Dichlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2,4-Dimethylphenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2-Methyl-4,6-dinitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2,4-Dinitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2-Nitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
4-Nitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Pentachlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Phenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2,4,5-Trichlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2,4,6-Trichlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
4-Chloroaniline	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Dibenzofuran	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
2-Methyl Phenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
3 & 4-Methylphenols	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Aniline	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Acetophenone	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Azobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 18:48	KF
Surrogates						
Phenol-d5	48		RANGE	SW-846 8270D	12/8/2014 18:48	KF
2-Fluorophenol	50		30-130%	SW-846 8270D	12/8/2014 18:48	KF
			30-130%	SW-846 8270D	12/8/2014 18:48	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 002

SAMPLE DESCRIPTION: BL3

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,4,6-Tribromophenol	51		30-130%	SW-846 8270D	12/8/2014 18:48	KF
Nitrobenzene-d5	48		30-130%	SW-846 8270D	12/8/2014 18:48	KF
2-Fluorobiphenyl	43		30-130%	SW-846 8270D	12/8/2014 18:48	KF
P-Terphenyl-d14	34		30-130%	SW-846 8270D	12/8/2014 18:48	KF
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS
Total Metals						
Antimony	<20.7	20.7	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Arsenic	<10	10	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Beryllium	<0.21	0.21	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Cadmium	1.7	1.0	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Chromium	17	6.2	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Copper	24	10	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Lead	56	8.3	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Mercury	<0.41	0.41	mg/kg dry	SW-846 7471B	12/10/2014 11:23	JRW
Nickel	25	4.1	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Selenium	<21	21	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Silver	<4.1	4.1	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Thallium	<10	10	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Zinc	120	8.3	mg/kg dry	SW-846 6010C	12/5/2014 13:06	JRW
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS
Extraction date				SW846 3546	12/4/2014 13:05	KS
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 003

SAMPLE DESCRIPTION: BL4

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Alpha-BHC	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Beta-BHC	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Delta-BHC	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Gamma-BHC	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Chlordane	<0.5	0.5	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
4-4'-DDD	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
4-4'-DDE	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
4-4'-DDT	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Dieldrin	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Endosulfan I	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Endosulfan II	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Endosulfan Sulfate	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Endrin	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Endrin Aldehyde	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Heptachlor	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Heptachlor epoxide	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Methoxychlor	<0.05	0.05	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Toxaphene	<0.5	0.5	mg/kg dry	SW-846 8081B	12/9/2014 17:04	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:03	JEB
Moisture	67.0		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/5/2014 13:03	JEB
Tetrachloro-m-xylene (TCMX)	62		30-150%	SW-846 8081B	12/5/2014 13:03	JEB
Decachlorobiphenyl	49		30-150%	SW-846 8081B	12/5/2014 13:03	JEB
Volatile Organic Compounds						
Benzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Bromobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Bromochloromethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Bromodichloromethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Bromoform	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Bromomethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
n-Butylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Sec-butylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
tert-Butylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 003

SAMPLE DESCRIPTION: BL4

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Chlorobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Chloroethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Chloroform	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Chloromethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
2-Chlorotoluene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
4-Chlorotoluene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Dibromochloromethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2-Dibromo-3-Chloropropane	<0.65	0.65	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2-Dibromoethane(EDB)	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Dibromomethane	<0.65	0.65	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2-Dichlorobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,3-Dichlorobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,4-Dichlorobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Dichlorodifluoromethane	<1.6	1.6	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1-Dichloroethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2-Dichloroethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1-Dichloroethene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
cis-1,2-Dichloroethene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
trans-1,2-Dichloroethylene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2-Dichloropropane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,3-Dichloropropane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
2,2-Dichloropropane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1-Dichloropropene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Ethylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Hexachlorobutadiene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Isopropylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
p-Isopropyltoluene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Methylene Chloride	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
n-Propylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Naphthalene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Styrene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1,1,2-Tetrachloroethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1,2,2-Tetrachloroethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Tetrachloroethene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Toluene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2,3-Trichlorobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2,4-Trichlorobenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1,1-Trichloroethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,1,2-Trichloroethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Trichloroethene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Trichlorofluoromethane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 003

SAMPLE DESCRIPTION: BL4

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,2,4-Trimethylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
1,3,5-Trimethylbenzene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Vinyl Chloride	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
o-Xylene	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
m,p-Xylene	<0.65	0.65	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
MTBE	<0.32	0.32	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
2-Butanone(MEK)	<3.2	3.2	mg/kg dry	5035/8260C	12/4/2014 16:13	KAC
Surrogates			RANGE	5035/8260C	12/4/2014 16:13	KAC
Dibromofluoromethane	116		70-130%	5035/8260C	12/4/2014 16:13	KAC
Toluene-d8	116		70-130%	5035/8260C	12/4/2014 16:13	KAC
4-Bromofluorobenzene	110		70-130%	5035/8260C	12/4/2014 16:13	KAC
1,2 Dichloroethane-d4	121		70-130%	5035/8260C	12/4/2014 16:13	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Acenaphthylene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Anthracene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Benzidine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Benzo(a)anthracene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Benzo(b)fluoranthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Benzo(k)fluoranthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Benzo(g,h,i)perylene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Benzo(a)pyrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Bis(2-chloroethyl)ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Bis(2-Chloroethoxy)methane	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Bis(2-Chloroisopropyl)Ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Bis(2-ethylhexyl)phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
4-Bromophenyl phenyl ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Butylbenzyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2-Chloronaphthalene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
4-Chlorophenyl phenyl ether	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Chrysene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Dibenzo(a,h)anthracene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Di-n-butyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
1,2-Dichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
1,3-Dichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
1,4-Dichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
3,3'-Dichlorobenzidine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Diethyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Dimethyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2,4-Dinitrotoluene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 003

SAMPLE DESCRIPTION: BL4

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Di-n-octyl phthalate	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
1,2-Diphenylhydrazine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Fluoranthene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Fluorene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Hexachlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Hexachlorobutadiene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Hexachlorocyclopentadiene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Hexachloroethane	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Indeno(1,2,3-cd)pyrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Isophorone	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2-Methylnaphthalene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Naphthalene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Nitrobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
N-nitrosodimethylamine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
N-nitrosodiphenylamine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
N-nitrosodi-n-propylamine	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Phenanthrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Pyrene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
1,2,4-Trichlorobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
4-Chloro-3-methylphenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2-Chlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2,4-Dichlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2,4-Dimethylphenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2-Methyl-4,6-dinitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2,4-Dinitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2-Nitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
4-Nitrophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Pentachlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Phenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2,4,5-Trichlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2,4,6-Trichlorophenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
4-Chloroaniline	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Dibenzofuran	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
2-Methyl Phenol	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
3 & 4-Methylphenols	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Aniline	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Acetophenone	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Azobenzene	<1.0	1.0	mg/kg dry	SW-846 8270D	12/8/2014 19:19	KF
Surrogates		RANGE		SW-846 8270D	12/8/2014 19:19	KF
Phenol-d5	38	30-130%		SW-846 8270D	12/8/2014 19:19	KF
2-Fluorophenol	39	30-130%		SW-846 8270D	12/8/2014 19:19	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 003

SAMPLE DESCRIPTION: BL4

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,4,6-Tribromophenol	39		30-130%	SW-846 8270D	12/8/2014 19:19	KF
Nitrobenzene-d5	40		30-130%	SW-846 8270D	12/8/2014 19:19	KF
2-Fluorobiphenyl	34		30-130%	SW-846 8270D	12/8/2014 19:19	KF
P-Terphenyl-d14	29*		30-130%	SW-846 8270D	12/8/2014 19:19	KF
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS
Total Metals						
Antimony	<14.8	14.8	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Arsenic	<7.4	7.4	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Beryllium	<0.15	0.15	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Cadmium	0.96	0.74	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Chromium	15	4.5	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Copper	23	7.4	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Lead	45	5.9	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Mercury	<0.26	0.26	mg/kg dry	SW-846 7471B	12/10/2014 11:30	JRW
Nickel	19	3.0	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Selenium	<15	15	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Silver	<3.0	3.0	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Thallium	<7.4	7.4	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Zinc	82	5.9	mg/kg dry	SW-846 6010C	12/5/2014 13:11	JRW
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS
Extraction date				SW846 3546	12/4/2014 13:05	KS
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC

Method 8270: \* Surrogate outside the recommended range - Method allows for one acid and one base surrogate to be outside the recommended range.



## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 004

SAMPLE DESCRIPTION: BL5

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Alpha-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Beta-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Delta-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Gamma-BHC	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Chlordane	<0.7	0.7	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
4-4'-DDD	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
4-4'-DDE	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
4-4'-DDT	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Dieldrin	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Endosulfan I	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Endosulfan II	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Endosulfan Sulfate	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Endrin	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Endrin Aldehyde	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Heptachlor	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Heptachlor epoxide	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Methoxychlor	<0.07	0.07	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Toxaphene	<0.7	0.7	mg/kg dry	SW-846 8081B	12/9/2014 17:41	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 13:31	JEB
Moisture	75.9		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/5/2014 13:31	JEB
Tetrachloro-m-xylene (TCMX)	60		30-150%	SW-846 8081B	12/5/2014 13:31	JEB
Decachlorobiphenyl	36		30-150%	SW-846 8081B	12/5/2014 13:31	JEB
Volatile Organic Compounds						
Benzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Bromobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Bromochloromethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Bromodichloromethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Bromoform	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Bromomethane	<2.1	2.1	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
n-Butylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Sec-butylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
tert-Butylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 004

SAMPLE DESCRIPTION: BL5

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Chlorobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Chloroethane	<2.1	2.1	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Chloroform	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Chloromethane	<2.1	2.1	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
2-Chlorotoluene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
4-Chlorotoluene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Dibromochloromethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2-Dibromo-3-Chloropropane	<0.84	0.84	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2-Dibromoethane(EDB)	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Dibromomethane	<0.84	0.84	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2-Dichlorobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,3-Dichlorobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,4-Dichlorobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Dichlorodifluoromethane	<2.1	2.1	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1-Dichloroethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2-Dichloroethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1-Dichloroethene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
cis-1,2-Dichloroethene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
trans-1,2-Dichloroethylene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2-Dichloropropane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,3-Dichloropropane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
2,2-Dichloropropane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1-Dichloropropene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Ethylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Hexachlorobutadiene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Isopropylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
p-Isopropyltoluene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Methylene Chloride	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
n-Propylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Naphthalene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Styrene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1,1,2-Tetrachloroethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1,2,2-Tetrachloroethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Tetrachloroethene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Toluene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2,3-Trichlorobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2,4-Trichlorobenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1,1-Trichloroethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,1,2-Trichloroethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Trichloroethene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Trichlorofluoromethane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 004

SAMPLE DESCRIPTION: BL5

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,2,4-Trimethylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
1,3,5-Trimethylbenzene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Vinyl Chloride	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
o-Xylene	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
m,p-Xylene	<0.84	0.84	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
MTBE	<0.42	0.42	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
2-Butanone(MEK)	<4.2	4.2	mg/kg dry	5035/8260C	12/4/2014 16:40	KAC
Surrogates			RANGE	5035/8260C	12/4/2014 16:40	KAC
Dibromofluoromethane	127		70-130%	5035/8260C	12/4/2014 16:40	KAC
Toluene-d8	123		70-130%	5035/8260C	12/4/2014 16:40	KAC
4-Bromofluorobenzene	123		70-130%	5035/8260C	12/4/2014 16:40	KAC
1,2 Dichloroethane-d4	125		70-130%	5035/8260C	12/4/2014 16:40	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Acenaphthylene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Anthracene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Benzidine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Benzo(a)anthracene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Benzo(b)fluoranthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Benzo(k)fluoranthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Benzo(g,h,i)perylene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Benzo(a)pyrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Bis(2-chloroethyl)ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Bis(2-Chloroethoxy)methane	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Bis(2-Chloroisopropyl)Ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Bis(2-ethylhexyl)phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
4-Bromophenyl phenyl ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Butylbenzyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2-Chloronaphthalene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
4-Chlorophenyl phenyl ether	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Chrysene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Dibenzo(a,h)anthracene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Di-n-butyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
1,2-Dichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
1,3-Dichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
1,4-Dichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
3,3'-Dichlorobenzidine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Diethyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Dimethyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2,4-Dinitrotoluene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 004

SAMPLE DESCRIPTION: BL5

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Di-n-octyl phthalate	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
1,2-Diphenylhydrazine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Fluoranthene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Fluorene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Hexachlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Hexachlorobutadiene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Hexachlorocyclopentadiene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Hexachloroethane	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Indeno(1,2,3-cd)pyrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Isophorone	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2-Methylnaphthalene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Naphthalene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Nitrobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
N-nitrosodimethylamine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
N-nitrosodiphenylamine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
N-nitrosodi-n-propylamine	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Phenanthrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Pyrene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
1,2,4-Trichlorobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
4-Chloro-3-methylphenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2-Chlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2,4-Dichlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2,4-Dimethylphenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2-Methyl-4,6-dinitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2,4-Dinitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2-Nitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
4-Nitrophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Pentachlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Phenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2,4,5-Trichlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2,4,6-Trichlorophenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
4-Chloroaniline	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Dibenzofuran	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
2-Methyl Phenol	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
3 & 4-Methylphenols	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Aniline	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Acetophenone	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Azobenzene	<1.4	1.4	mg/kg dry	SW-846 8270D	12/8/2014 20:21	KF
Surrogates			RANGE	SW-846 8270D	12/8/2014 20:21	KF
Phenol-d5	52		30-130%	SW-846 8270D	12/8/2014 20:21	KF
2-Fluorophenol	57		30-130%	SW-846 8270D	12/8/2014 20:21	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Sample # 004						
SAMPLE DESCRIPTION: BL5						
SAMPLE TYPE: COMPOSITE						
				SAMPLE DATE/TIME:	11/25/2014	
2,4,6-Tribromophenol	53		30-130%	SW-846 8270D	12/8/2014 20:21	KF
Nitrobenzene-d5	56		30-130%	SW-846 8270D	12/8/2014 20:21	KF
2-Fluorobiphenyl	50		30-130%	SW-846 8270D	12/8/2014 20:21	KF
P-Terphenyl-d14	33		30-130%	SW-846 8270D	12/8/2014 20:21	KF
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS
Total Metals						
Antimony	<20.2	20.2	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Arsenic	<10	10	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Beryllium	<0.20	0.20	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Cadmium	1.1	1.0	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Chromium	15	6.1	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Copper	21	10	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Lead	56	8.1	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Mercury	<0.38	0.38	mg/kg dry	SW-846 7471B	12/10/2014 11:32	JRW
Nickel	21	4.0	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Selenium	<20	20	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Silver	<4.0	4.0	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Thallium	<10	10	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Zinc	82	8.1	mg/kg dry	SW-846 6010C	12/5/2014 13:15	JRW
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS
Extraction date				SW846 3546	12/4/2014 13:05	KS
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 005

SAMPLE DESCRIPTION: BL6

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Alpha-BHC	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Beta-BHC	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Delta-BHC	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Gamma-BHC	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Chlordane	<0.3	0.3	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
4-4'-DDD	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
4-4'-DDE	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
4-4'-DDT	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Dieldrin	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Endosulfan I	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Endosulfan II	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Endosulfan Sulfate	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Endrin	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Endrin Aldehyde	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Heptachlor	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Heptachlor epoxide	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Methoxychlor	<0.03	0.03	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Toxaphene	<0.3	0.3	mg/kg dry	SW-846 8081B	12/9/2014 18:18	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/8/2014 14:28	JEB
Moisture	52.1		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/8/2014 14:28	JEB
Tetrachloro-m-xylene (TCMX)	32		30-150%	SW-846 8081B	12/8/2014 14:28	JEB
Decachlorobiphenyl	33		30-150%	SW-846 8081B	12/8/2014 14:28	JEB
Volatile Organic Compounds						
Benzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Bromobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Bromochloromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Bromodichloromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Bromoform	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Bromomethane	<0.95	0.95	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
n-Butylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Sec-butylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
tert-Butylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 005

SAMPLE DESCRIPTION: BL6

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Chlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Chloroethane	<0.95	0.95	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Chloroform	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Chloromethane	<0.95	0.95	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
2-Chlorotoluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
4-Chlorotoluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Dibromochloromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2-Dibromo-3-Chloropropane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2-Dibromoethane(EDB)	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Dibromomethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2-Dichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,3-Dichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,4-Dichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Dichlorodifluoromethane	<0.95	0.95	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1-Dichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2-Dichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1-Dichloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
cis-1,2-Dichloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
trans-1,2-Dichloroethylene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2-Dichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,3-Dichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
2,2-Dichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1-Dichloropropene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Ethylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Hexachlorobutadiene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Isopropylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
p-Isopropyltoluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Methylene Chloride	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
n-Propylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Naphthalene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Styrene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1,1,2-Tetrachloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1,2,2-Tetrachloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Tetrachloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Toluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2,3-Trichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2,4-Trichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1,1-Trichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,1,2-Trichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Trichloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Trichlorofluoromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 005

SAMPLE DESCRIPTION: BL6

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,2,4-Trimethylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
1,3,5-Trimethylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Vinyl Chloride	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
o-Xylene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
m,p-Xylene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
MTBE	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
2-Butanone(MEK)	<1.9	1.9	mg/kg dry	5035/8260C	12/4/2014 17:08	KAC
Surrogates			RANGE	5035/8260C	12/4/2014 17:08	KAC
Dibromofluoromethane	117		70-130%	5035/8260C	12/4/2014 17:08	KAC
Toluene-d8	115		70-130%	5035/8260C	12/4/2014 17:08	KAC
4-Bromofluorobenzene	115		70-130%	5035/8260C	12/4/2014 17:08	KAC
1,2 Dichloroethane-d4	118		70-130%	5035/8260C	12/4/2014 17:08	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Acenaphthylene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Anthracene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Benzidine	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Benzo(a)anthracene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Benzo(b)fluoranthene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Benzo(k)fluoranthene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Benzo(g,h,i)perylene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Benzo(a)pyrene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Bis(2-chloroethyl)ether	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Bis(2-Chloroethoxy)methane	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Bis(2-Chloroisopropyl)Ether	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Bis(2-ethylhexyl)phthalate	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
4-Bromophenyl phenyl ether	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Butylbenzyl phthalate	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2-Chloronaphthalene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
4-Chlorophenyl phenyl ether	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Chrysene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Dibenzo(a,h)anthracene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Di-n-butyl phthalate	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
1,2-Dichlorobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
1,3-Dichlorobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
1,4-Dichlorobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
3,3'-Dichlorobenzidine	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Diethyl phthalate	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Dimethyl phthalate	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2,4-Dinitrotoluene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF



## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 005

SAMPLE DESCRIPTION: BL6

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Di-n-octyl phthalate	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
1,2-Diphenylhydrazine	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Fluoranthene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Fluorene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Hexachlorobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Hexachlorobutadiene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Hexachlorocyclopentadiene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Hexachloroethane	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Indeno(1,2,3-cd)pyrene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Isophorone	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2-Methylnaphthalene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Naphthalene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Nitrobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
N-nitrosodimethylamine	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
N-nitrosodiphenylamine	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
N-nitrosodi-n-propylamine	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Phenanthrene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Pyrene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
1,2,4-Trichlorobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
4-Chloro-3-methylphenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2-Chlorophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2,4-Dichlorophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2,4-Dimethylphenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2-Methyl-4,6-dinitrophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2,4-Dinitrophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2-Nitrophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
4-Nitrophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Pentachlorophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Phenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2,4,5-Trichlorophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2,4,6-Trichlorophenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
4-Chloroaniline	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Dibenzofuran	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
2-Methyl Phenol	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
3 & 4-Methylphenols	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Aniline	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Acetophenone	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Azobenzene	<0.70	0.70	mg/kg dry	SW-846 8270D	12/8/2014 20:52	KF
Surrogates			RANGE	SW-846 8270D	12/8/2014 20:52	KF
Phenol-d5	55		30-130%	SW-846 8270D	12/8/2014 20:52	KF
2-Fluorophenol	57		30-130%	SW-846 8270D	12/8/2014 20:52	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 005				SAMPLE DATE/TIME: 11/25/2014			
SAMPLE DESCRIPTION: BL6							
SAMPLE TYPE: COMPOSITE							
PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST	
2,4,6-Tribromophenol	60		30-130%	SW-846 8270D	12/8/2014 20:52	KF	
Nitrobenzene-d5	56		30-130%	SW-846 8270D	12/8/2014 20:52	KF	
2-Fluorobiphenyl	52		30-130%	SW-846 8270D	12/8/2014 20:52	KF	
P-Terphenyl-d14	40		30-130%	SW-846 8270D	12/8/2014 20:52	KF	
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS	
Total Metals							
Antimony	<10.4	10.4	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Arsenic	<5.2	5.2	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Beryllium	<0.10	0.10	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Cadmium	0.69	0.52	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Chromium	8.1	3.1	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Copper	8.6	5.2	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Lead	22	4.2	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Mercury	<0.19	0.19	mg/kg dry	SW-846 7471B	12/10/2014 11:34	JRW	
Nickel	12	2.1	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Selenium	<10	10	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Silver	<2.1	2.1	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Thallium	<5.2	5.2	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Zinc	64	4.2	mg/kg dry	SW-846 6010C	12/5/2014 13:33	JRW	
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS	
Extraction date				SW846 3546	12/4/2014 13:05	KS	
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC	
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC	

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 006

SAMPLE DESCRIPTION: BL7

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Alpha-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Beta-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Delta-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Gamma-BHC	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Chlordane	<0.4	0.4	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
4-4'-DDD	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
4-4'-DDE	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
4-4'-DDT	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Dieldrin	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Endosulfan I	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Endosulfan II	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Endosulfan Sulfate	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Endrin	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Endrin Aldehyde	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Heptachlor	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Heptachlor epoxide	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Methoxychlor	<0.04	0.04	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Toxaphene	<0.4	0.4	mg/kg dry	SW-846 8081B	12/9/2014 18:55	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:25	JEB
Moisture	53.3		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/5/2014 15:25	JEB
Tetrachloro-m-xylene (TCMX)	56		30-150%	SW-846 8081B	12/5/2014 15:25	JEB
Lecachlorobiphenyl	46		30-150%	SW-846 8081B	12/5/2014 15:25	JEB
Volatile Organic Compounds						
Benzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Bromobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Bromochloromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Bromodichloromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Bromoform	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Bromomethane	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
n-Butylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Sec-butylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
tert-Butylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 006

SAMPLE DESCRIPTION: BL7

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Chlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Chloroethane	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Chloroform	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Chloromethane	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
2-Chlorotoluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
4-Chlorotoluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Dibromochloromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2-Dibromo-3-Chloropropane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2-Dibromoethane(EDB)	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Dibromomethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2-Dichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,3-Dichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,4-Dichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Dichlorodifluoromethane	<0.94	0.94	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1-Dichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2-Dichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1-Dichloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
cis-1,2-Dichloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
trans-1,2-Dichloroethylene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2-Dichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,3-Dichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
2,2-Dichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1-Dichloropropene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Ethylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Hexachlorobutadiene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Isopropylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
p-Isopropyltoluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Methylene Chloride	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
n-Propylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Naphthalene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Styrene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1,1,2-Tetrachloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1,2,2-Tetrachloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Tetrachloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Toluene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2,3-Trichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2,4-Trichlorobenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1,1-Trichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,1,2-Trichloroethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Trichloroethene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Trichlorofluoromethane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC

**R.I. Analytical Laboratories, Inc.**  
**CERTIFICATE OF ANALYSIS**

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 006

**SAMPLE DESCRIPTION:** BL7

**SAMPLE TYPE:** COMPOSITE

**SAMPLE DATE/TIME:** 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,2,4-Trimethylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
1,3,5-Trimethylbenzene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Vinyl Chloride	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
o-Xylene	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
m,p-Xylene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
MTBE	<0.19	0.19	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
2-Butanone(MEK)	<1.9	1.9	mg/kg dry	5035/8260C	12/4/2014 17:36	KAC
Surrogates			RANGE	5035/8260C	12/4/2014 17:36	KAC
Dibromofluoromethane	123		70-130%	5035/8260C	12/4/2014 17:36	KAC
Toluene-d8	121		70-130%	5035/8260C	12/4/2014 17:36	KAC
4-Bromofluorobenzene	122		70-130%	5035/8260C	12/4/2014 17:36	KAC
1,2 Dichloroethane-d4	123		70-130%	5035/8260C	12/4/2014 17:36	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Acenaphthylene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Anthracene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Benzidine	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Benzo(a)anthracene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Benzo(b)fluoranthene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Benzo(k)fluoranthene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Benzo(g,h,i)perylene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Benzo(a)pyrene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Bis(2-chloroethyl)ether	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Bis(2-Chloroethoxy)methane	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Bis(2-Chloroisopropyl)Ether	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Bis(2-ethylhexyl)phthalate	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
4-Bromophenyl phenyl ether	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Butylbenzyl phthalate	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2-Chloronaphthalene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
4-Chlorophenyl phenyl ether	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Chrysene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Dibenzo(a,h)anthracene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Di-n-butyl phthalate	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
1,2-Dichlorobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
1,3-Dichlorobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
1,4-Dichlorobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
3,3'-Dichlorobenzidine	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Diethyl phthalate	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Dimethyl phthalate	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2,4-Dinitrotoluene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 006

SAMPLE DESCRIPTION: BL7

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Di-n-octyl phthalate	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
1,2-Diphenylhydrazine	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Fluoranthene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Fluorene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Hexachlorobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Hexachlorobutadiene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Hexachlorocyclopentadiene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Hexachloroethane	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Indeno(1,2,3-cd)pyrene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Isophorone	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2-Methylnaphthalene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Naphthalene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Nitrobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
N-nitrosodimethylamine	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
N-nitrosodiphenylamine	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
N-nitrosodi-n-propylamine	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Phenanthrene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Pyrene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
1,2,4-Trichlorobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
4-Chloro-3-methylphenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2-Chlorophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2,4-Dichlorophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2,4-Dimethylphenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2-Methyl-4,6-dinitrophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2,4-Dinitrophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2-Nitrophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
4-Nitrophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Pentachlorophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Phenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2,4,5-Trichlorophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2,4,6-Trichlorophenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
4-Chloroaniline	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Dibenzofuran	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
2-Methyl Phenol	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
3 & 4-Methylphenols	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Aniline	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Acetophenone	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Azobenzene	<0.71	0.71	mg/kg dry	SW-846 8270D	12/8/2014 21:24	KF
Surrogates			RANGE	SW-846 8270D	12/8/2014 21:24	KF
Phenol-d5	55		30-130%	SW-846 8270D	12/8/2014 21:24	KF
2-Fluorophenol	55		30-130%	SW-846 8270D	12/8/2014 21:24	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 006

SAMPLE DESCRIPTION: BL7

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,4,6-Tribromophenol	58		30-130%	SW-846 8270D	12/8/2014 21:24	KF
Nitrobenzene-d5	53		30-130%	SW-846 8270D	12/8/2014 21:24	KF
2-Fluorobiphenyl	46		30-130%	SW-846 8270D	12/8/2014 21:24	KF
P-Terphenyl-d14	42		30-130%	SW-846 8270D	12/8/2014 21:24	KF
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS
Total Metals						
Antimony	<10.6	10.6	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Arsenic	<5.3	5.3	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Beryllium	<0.10	0.10	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Cadmium	0.75	0.53	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Chromium	7.8	3.2	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Copper	10	5.3	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Lead	23	4.2	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Mercury	<0.21	0.21	mg/kg dry	SW-846 7471B	12/10/2014 11:35	JRW
Nickel	14	2.1	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Selenium	<10	10	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Silver	<2.1	2.1	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Thallium	<5.3	5.3	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Zinc	69	4.2	mg/kg dry	SW-846 6010C	12/5/2014 13:38	JRW
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS
Extraction date				SW846 3546	12/4/2014 13:05	KS
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 007

SAMPLE DESCRIPTION: BL8

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Pesticides / PCB'S						
Aldrin	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Alpha-BHC	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Beta-BHC	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Delta-BHC	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Gamma-BHC	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Chlordane	<0.6	0.6	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
4-4'-DDD	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
4-4'-DDE	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
4-4'-DDT	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Dieldrin	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Endosulfan I	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Endosulfan II	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Endosulfan Sulfate	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Endrin	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Endrin Aldehyde	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Heptachlor	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Heptachlor epoxide	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Methoxychlor	<0.06	0.06	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Toxaphene	<0.6	0.6	mg/kg dry	SW-846 8081B	12/9/2014 19:32	JEB
Aroclor-1016	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Aroclor-1221	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Aroclor-1232	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Aroclor-1242	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Aroclor-1248	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Aroclor-1254	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Aroclor-1260	<0.1	0.1	mg/kg dry	SW-846 8082A	12/5/2014 15:53	JEB
Moisture	73.5		%	SM2540 G.	12/4/2014 8:05	AK
Surrogate			RANGE	SW-846 8081B	12/5/2014 15:53	JEB
Tetrachloro-m-xylene (TCMX)	63		30-150%	SW-846 8081B	12/5/2014 15:53	JEB
Decachlorobiphenyl	58		30-150%	SW-846 8081B	12/5/2014 15:53	JEB
Volatile Organic Compounds						
Benzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Bromobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Bromochloromethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Bromodichloromethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Bromoform	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Bromomethane	<1.9	1.9	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
n-Butylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Sec-butylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
tert-Butylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC



## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 007

SAMPLE DESCRIPTION: BL8

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Carbon Tetrachloride	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Chlorobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Chloroethane	<1.9	1.9	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Chloroform	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Chloromethane	<1.9	1.9	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
2-Chlorotoluene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
4-Chlorotoluene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Dibromochloromethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2-Dibromo-3-Chloropropane	<0.76	0.76	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2-Dibromoethane(EDB)	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Dibromomethane	<0.76	0.76	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2-Dichlorobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,3-Dichlorobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,4-Dichlorobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Dichlorodifluoromethane	<1.9	1.9	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1-Dichloroethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2-Dichloroethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1-Dichloroethene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
cis-1,2-Dichloroethene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
trans-1,2-Dichloroethylene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2-Dichloropropane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,3-Dichloropropane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
2,2-Dichloropropane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1-Dichloropropene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Ethylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Hexachlorobutadiene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Isopropylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
p-Isopropyltoluene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Methylene Chloride	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
n-Propylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Naphthalene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Styrene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1,1,2-Tetrachloroethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1,2,2-Tetrachloroethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Tetrachloroethene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Toluene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2,3-Trichlorobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2,4-Trichlorobenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1,1-Trichloroethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,1,2-Trichloroethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Trichloroethene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Trichlorofluoromethane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

Sample # 007

SAMPLE DESCRIPTION: BL8

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
1,2,3-Trichloropropane	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,2,4-Trimethylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
1,3,5-Trimethylbenzene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Vinyl Chloride	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
o-Xylene	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
m,p-Xylene	<0.76	0.76	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
MTBE	<0.38	0.38	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
2-Butanone(MEK)	<3.8	3.8	mg/kg dry	5035/8260C	12/4/2014 18:03	KAC
Surrogates			RANGE	5035/8260C	12/4/2014 18:03	KAC
Dibromofluoromethane	116		70-130%	5035/8260C	12/4/2014 18:03	KAC
Toluene-d8	114		70-130%	5035/8260C	12/4/2014 18:03	KAC
4-Bromofluorobenzene	112		70-130%	5035/8260C	12/4/2014 18:03	KAC
1,2 Dichloroethane-d4	118		70-130%	5035/8260C	12/4/2014 18:03	KAC
Semi-Volatile Organic Comp.						
Acenaphthene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Acenaphthylene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Anthracene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Benzidine	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Benzo(a)anthracene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Benzo(b)fluoranthene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Benzo(k)fluoranthene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Benzo(g,h,i)perylene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Benzo(a)pyrene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Bis(2-chloroethyl)ether	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Bis(2-Chloroethoxy)methane	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Bis(2-Chloroisopropyl)Ether	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Bis(2-ethylhexyl)phthalate	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
4-Bromophenyl phenyl ether	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Butylbenzyl phthalate	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2-Chloronaphthalene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
4-Chlorophenyl phenyl ether	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Chrysene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Dibenzo(a,h)anthracene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Di-n-butyl phthalate	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
1,2-Dichlorobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
1,3-Dichlorobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
1,4-Dichlorobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
3,3'-Dichlorobenzidine	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Diethyl phthalate	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Dimethyl phthalate	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2,4-Dinitrotoluene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
 Date Received: 12/3/2014  
 Work Order #: 1412-26965

Sample # 007

SAMPLE DESCRIPTION: BL8

SAMPLE TYPE: COMPOSITE

SAMPLE DATE/TIME: 11/25/2014

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
2,6-Dinitrotoluene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Di-n-octyl phthalate	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
1,2-Diphenylhydrazine	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Fluoranthene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Fluorene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Hexachlorobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Hexachlorobutadiene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Hexachlorocyclopentadiene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Hexachloroethane	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Indeno(1,2,3-cd)pyrene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Isophorone	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2-Methylnaphthalene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Naphthalene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Nitrobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
N-nitrosodimethylamine	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
N-nitrosodiphenylamine	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
N-nitrosodi-n-propylamine	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Phenanthrene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Pyrene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
1,2,4-Trichlorobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
4-Chloro-3-methylphenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2-Chlorophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2,4-Dichlorophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2,4-Dimethylphenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2-Methyl-4,6-dinitrophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2,4-Dinitrophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2-Nitrophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
4-Nitrophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Pentachlorophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Phenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2,4,5-Trichlorophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2,4,6-Trichlorophenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
4-Chloroaniline	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Dibenzofuran	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
2-Methyl Phenol	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
3 & 4-Methylphenols	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Aniline	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Acetophenone	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Azobenzene	<1.3	1.3	mg/kg dry	SW-846 8270D	12/8/2014 21:55	KF
Surrogates			RANGE	SW-846 8270D	12/8/2014 21:55	KF
Phenol-d5	61		30-130%	SW-846 8270D	12/8/2014 21:55	KF
2-Fluorophenol	61		30-130%	SW-846 8270D	12/8/2014 21:55	KF

## R.I. Analytical Laboratories, Inc.

## CERTIFICATE OF ANALYSIS

The Nature Conservancy  
Date Received: 12/3/2014  
Work Order #: 1412-26965

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Sample # 007						
SAMPLE DESCRIPTION: BL8						
SAMPLE TYPE: COMPOSITE						
				SAMPLE DATE/TIME:	11/25/2014	
2,4,6-Tribromophenol	76		30-130%	SW-846 8270D	12/8/2014 21:55	KF
Nitrobenzene-d5	60		30-130%	SW-846 8270D	12/8/2014 21:55	KF
2-Fluorobiphenyl	60		30-130%	SW-846 8270D	12/8/2014 21:55	KF
P-Terphenyl-d14	66		30-130%	SW-846 8270D	12/8/2014 21:55	KF
Semi Extraction date				SW846 3546	12/5/2014 11:35	KS
Total Metals						
Antimony	<18.9	18.9	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Arsenic	<9.4	9.4	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Beryllium	<0.19	0.19	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Cadmium	0.96	0.94	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Chromium	16	5.7	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Copper	18	9.4	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Lead	61	7.6	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Mercury	<0.32	0.32	mg/kg dry	SW-846 7471B	12/10/2014 11:37	JRW
Nickel	19	3.8	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Selenium	<19	19	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Silver	<3.8	3.8	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Thallium	<9.4	9.4	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Zinc	97	7.6	mg/kg dry	SW-846 6010C	12/5/2014 13:42	JRW
Pest/PCB Extraction date	Extracted			SW846 3546	12/4/2014 13:05	KS
Extraction date				SW846 3546	12/4/2014 13:05	KS
ICP Digestion				SW-846 3050	12/4/2014 23:25	OMC
Mercury Digestion				SW-846 7471B	12/10/2014 8:49	OMC



# CHAIN OF CUSTODY RECORD

41 Illinois Avenue  
Warwick, RI 02888-3007  
800-937-2580 • Fax: 401-738-1970 800-937-2580 • Fax: 978-568-0078

131 Coolidge St., Suite 105  
Hudson, MA 01749-1331  
800-937-2580 • Fax: 401-738-1970 800-937-2580 • Fax: 978-568-0078

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type										Preservation Code <sup>P</sup>	Matrix Code <sup>M</sup>	13 Priority Metals	VOCs	SVOCs	PCBs	pesticides
				C	2	NP	M	S	X	X	X	X	X							
11/25/14	3:00	BLL	C	2	NP	M	S	X	X	X	X	X	X	X	X	X	X	X	X	X
11/25/14	3:08	BLL3	C	1																
11/25/14	3:21	BLL4	C	1																
11/25/14	3:50	BLL5	C	1																
11/25/14	4:00	BLL6	C	1																
11/25/14	4:18	BLL7	C	1																
11/25/14	4:22	BLL8	C	1																

**Client Information**

Company Name: The Nature Conservancy  
 Address: Box 1162  
 City / State / Zip: Weston, CT 06883  
 Telephone: 203 226-4991 x113 Fax: 203 226-4807  
 Contact Person: Sally Harold

**Project Information**

Project Name: Blackledge River Dam  
 Project Number:  
 Report To:  
 Phone:  
 Email report to these addresses: shardd@trc.org  
James.G.Turek@noaa.gov  
 Quote No:

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time	Turn Around Time	
						Normal	EMAIL Report
<i>Sally Harold</i>	12/3/14	3:02pm	<i>[Signature]</i>	12/3/14	15:02	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
						5 Business days. Possible surcharge	
						Rush - Date Due: / /	

**Project Comments**

Circle if applicable: GW-1, GW-2, GW-3, S-1, S-2, S-3 MCP Data Enhancement QC Package? Yes No

Temp. Upon Receipt 1.8 °C

**Lab Use Only**

Sample Pick-Up Only  
 RTAL sampled; attach field hours  
 Shipped on ice  
 Workorder No: 1412-26969

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SB=NaHSO4, SH=NaOH, T=Na2S2O3, Z=ZnOAc  
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=

Page 1 of 1



79 Elm Street • Hartford, CT 06106-5127

[www.ct.gov/deep](http://www.ct.gov/deep)

Affirmative Action/Equal Opportunity Employer

Date December 4, 2017

Robert J. DeSista, Chief  
Regulatory and Enforcement Branch B  
U.S. Army Corps of Engineers  
New England District  
CENAE-RDB  
696 Virginia Road  
Concord, MA 01742-2751

Town of Glastonbury  
Daniel A. Pennington  
2155 Main Street  
Glastonbury CT 06033

SUBJECT: DEEP License #: 201705330  
3874 Hebron Avenue, Glastonbury

Dear Mr. DeSista and Mr. Pennington:

Please find attached a copy of your subject license and relevant enclosures which are being issued pursuant to your application of July 6, 2017. Your attention is directed to the conditions of the license. All work must conform to that which is specifically authorized.

Any work in regulated areas of the State which has not been authorized by a valid license is a violation of state law and subject to enforcement action by the Department of Energy & Environmental Protection and the Office of the Attorney General.

Your initiation of authorized activities will be relied upon as your agreement to comply with the terms and conditions of the license.

If you have not already done so, you should contact your local Planning and Zoning Office and the U. S. Army Corps of Engineers to determine local and federal permit requirements on your project, if any. Write the Corps' New England District, Regulatory Branch, 696 Virginia Road, Concord, MA 01742-2751; <http://www.nae.usace.army.mil/> or call 1-800-343-4789.

If you should have any questions or concerns, please contact Danielle Missell, 860 424-3698, [Danielle.missell@ct.gov](mailto:Danielle.missell@ct.gov).

Sincerely,

A handwritten signature in blue ink that reads "Danielle Missell".

Danielle Missell, Environmental Analyst  
Land & Water Resources Division  
Bureau of Water Protection & Land Reuse

Encl(s): License # 201705330 ; 2016 Section 401 WQC #201607149

cc: File 201705330

cc (via email): Town of Glastonbury Daniel.pennington@glastonbury-ct.gov  
Kelly F. Kerrigan, Milone & MacBroom Inc., kkerrigan@mminc.com  
Richard J. Johnson, Town Manager Richard.johnson@glastonbury-ct.gov  
Diane Ray, USACE, Diane.M.Ray@usace.army.mil  
Stephen Gephard, DEEP Fisheries steve.gephard@ct.gov



**Connecticut Department of Energy and Environmental Protection License\***

**USACE CT GP - Pre-Construction Notification Approval**

**Licensee(s):** Town of Glastonbury

**Licensee Address(s):** 2155 Main Street  
Glastonbury CT 06033

**License Number(s):** 201705330-PCN

**Municipality:** Glastonbury

**Project Description:** Removal of the Blackledge Dam

**Project Address/Location:** Blackledge Falls Park, 3874 Hebron Avenue

**Waters:** Blackledge River

**Authorizing CT Statute(s) and/or Federal Law:** Section 401 CWA (33 USC 1341)

**Applicable Regulations of CT State Agencies:** 22a-426-1 to 9

**Agency Contact:** Land & Water Resources Division,  
Bureau of Water Protection & Land Reuse, 860-424-3019

**License Expiration:** Upon expiration of the U.S. Army Corps of Engineers Section 404 permit for the same activity.

**Project Site Plan Set:** *Blackledge Dam Removal and River Restoration*, prepared by Milone & MacBroom, dated June 5, 2017 revised through September 25, 2017.

**License Enclosures:** 2016 Section 401 WQC General Permit for State of Connecticut

**Authorized Activities:**

1. The Town of Glastonbury is authorized to remove the Blackledge dam and stabilize the channel and banks. There will be a total of 5.2 acres of wetland/watercourse impacts at the site.

\*Connecticut's Uniform Administrative Procedure Act defines License to include, "the whole or part of any agency permit, certificate, approval, registration, charter or similar form of permission required by law . . ."



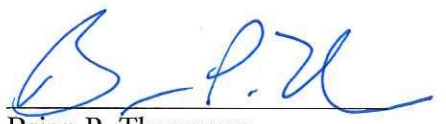
*Failure to comply with the terms and conditions of this license shall subject the Licensee and / or the Licensee's contractor(s) to enforcement actions and penalties as provided by law.*

**This license is subject to the following Terms and Conditions:**

1. **License Enclosure(s) and Conditions.** The Licensee shall comply with all applicable terms and conditions as may be stipulated within the License Enclosure(s) listed above.
2. The Licensee must contact DEEP Fisheries Division, Stephen Gephard at 860 447-4316, prior to the drawdown of the impoundment so that the Fisheries Division may rescue and relocate any fish, mussels, and other aquatic life.
3. The Licensee must contact DEEP Fisheries Division, Stephen Gephard at 860 447-4316, prior to the placement of the rock riffles and placement of habitat features to facilitate the Division's supervision of the installation of these features.

Issued by the Commissioner of Energy and Environmental Protection on:

December 4, 2017  
Date

  
Brian P. Thompson  
Division Director  
Land & Water Resources Division

REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751

October 20, 2017

Regulatory Division  
File Number: NAE-2017-01675

Mr. Richard J. Johnson  
Town of Glastonbury  
P.O. Box 6523  
Glastonbury, Connecticut 06033

Dear Mr. Johnson:

We have reviewed your application to remove the Blackledge Dam, an old low-hazard dam that is in poor physical condition, and construct a new river channel to restore the flow regime and adjacent riparian floodplain wetlands. This project site is situated within and adjacent to the Blackledge River at Blackledge Falls State Park, located at 3874 Hebron Avenue in the Town of Glastonbury, Connecticut (41.6976°N, 72.4547°W). This work will involve the permanent placement of 1,143 cubic yards within 0.59 acre below the ordinary high water mark of the Blackledge River, in the form of a joint planted boulder revetment, willow brush mattress with log toe, riffle grade control structure, boulder and log revetment, stone-lined channel, grading, and boulder revetment, and will place 60.2 cubic yards within 0.11 acre of adjacent wetland, including grading, a willow brush mattress with log toe, and boulder revetment. There will also be temporary placement of 167 cubic yards of cofferdam material along 282 lineal feet and 2.4 cubic yards of a pump setting area within 128 square feet. In addition, 4.22 acres of Blackledge Pond will be converted to riparian floodplain wetland when the dam is removed. This work is illustrated on 17 sheets of plans, which you have in possession, entitled "Blackledge Dam Removal and River Restoration" and dated June 5, 2017.

Based on the information that you have provided, we have determined that the proposed activity, which includes a discharge of dredged or fill material into waters or wetlands, will have only minimal individual and cumulative impacts on waters of the United States, including wetlands. Therefore, this work is authorized under General Permit No. 10 of the enclosed Federal permit known as the Connecticut General Permits (GPs). This work must be performed in accordance with the terms and conditions of the GPs and must also be in compliance with the following special conditions:

1. This authorization requires you to complete and return the enclosed Work Start Notification Form to this office at least two weeks before the anticipated starting date. You must also complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.
2. You must submit a post-construction monitoring report within one month of completion of the authorized work. This report should pay special attention to any areas of the project site where invasive species are encroaching.

You are responsible for complying with all of the GPs' requirements. Please review the enclosed GPs carefully; as well as the general conditions, to be sure you understand its requirements. You should ensure that whoever does the work also fully understands the requirements and that a copy of the permit document and this authorization letter are at the project site throughout the time the work is being performed.

This authorization expires on August 19, 2021, unless the GPs are modified, suspended, or revoked before then. You must commence or be under contract to commence the work authorized herein by that expiration date and complete the work by August 19, 2022. If not, you must contact this office to determine the need for further authorization *before* beginning or continuing the activity. We recommend you contact us before this permit expires to discuss a permit reissuance.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

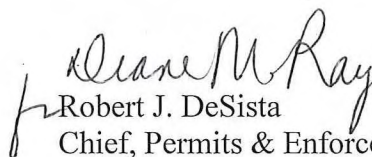
This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law. Performing work not specifically authorized by this determination or failing to comply with any special condition(s) and all the terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization presumes that the work as described above and as shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to this office.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=regulatory\\_survey](http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey).

Please contact Daniel Breen of my staff at (978) 318-8732 if you have any questions.

Sincerely,



Robert J. DeSista  
Chief, Permits & Enforcement Branch  
Regulatory Division

Enclosures

Copies furnished:

Ms. Kelly F. Kerrigan  
Milone & MacBroom, Inc.  
99 Realty Drive  
Cheshire, Connecticut 06410

Mr. Bob Gilmore, CT DEEP, Chief, Land & Water Resources Division – via email

Mr. Steve Gephard, CT DEEP, Fisheries Division – via email



**US Army Corps  
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New England District

**WORK-START NOTIFICATION FORM**  
(Minimum Notice: Two weeks before work begins)

\*\*\*\*\*  
 \* EMAIL TO: [cenae-r@usace.army.mil](mailto:cenae-r@usace.army.mil); or \*  
 \* \* \* \* \*  
 \* MAIL TO: **Daniel Breen** \*  
 \* U.S. Army Corps of Engineers, New England District \*  
 \* Permits and Enforcement Branch B \*  
 \* Regulatory Division \*  
 \* 696 Virginia Road \*  
 \* Concord, Massachusetts 01742-2751 \*  
 \*\*\*\*\*

Corps of Engineers Permit No. NAE-2017-01675 was issued to the Town of Glastonbury, Connecticut. This work is located within the Blackledge River at 3874 Hebron Avenue in Glastonbury, Connecticut. The permit authorized the removal of the Blackledge Dam. Authorized impacts included permanent placement of 1,143 cubic yards within 0.59 acre below the ordinary high water mark, including a joint planted boulder revetment, willow brush mattress with log toe, riffle grade control structure, boulder and log revetment, stone-lined channel, grading, and boulder revetment, and 60.2 cubic yards within 0.11 acre of wetland, including grading, a willow brush mattress with log toe, and boulder revetment. Also permitted was the temporary placement of 167 cubic yards of cofferdam along 282 lineal feet and 2.4 cubic yards of pump setting area within 128 square feet. Lastly, the Corps also permitted the conversion of 4.22 acres of open water to wetland.

The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

**PLEASE PRINT OR TYPE**

Name of Person/Firm: \_\_\_\_\_

Business Address: \_\_\_\_\_

Telephone Numbers: ( ) \_\_\_\_\_ ( ) \_\_\_\_\_

Proposed Work Dates: Start: \_\_\_\_\_ Finish: \_\_\_\_\_

Permittee/Agent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Date Permit Issued: \_\_\_\_\_ Date Permit Expires: \_\_\_\_\_

\*\*\*\*\*

**FOR USE BY THE CORPS OF ENGINEERS**

PM: \_\_\_\_\_ Submittals Required: \_\_\_\_\_

Inspection Recommendation: \_\_\_\_\_



**US Army Corps  
of Engineers®**  
New England District

**COMPLIANCE CERTIFICATION FORM**

(Minimum Notice: Permittee must sign and return notification  
within one month of the completion of work.)

**Permit Number:** NAE-2017-01675  
**Project Manager:** Daniel Breen  
**Name of Permittee:** Town of Glastonbury, Connecticut  
**Permit Issuance Date:** October 20, 2017

Please sign this certification and return it to our office upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

\*\*\*\*\* \*  
 \* E-MAIL TO: [cenae-r@usace.army.mil](mailto:cenae-r@usace.army.mil); or \*  
 \* \*  
 \* MAIL TO: Permits and Enforcement Branch B \*  
 \* U.S. Army Corps of Engineers, New England District \*  
 \* Regulatory Division \*  
 \* 696 Virginia Road \*  
 \* Concord, Massachusetts 01742-2751 \*  
 \*\*\*\*\* \*

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

**I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.**

<hr/>	<hr/>
Signature of Permittee	Date
<hr/>	<hr/>
Printed Name	Date of Work Completion
<hr/>	<hr/>
( )	( )
Telephone Number	Telephone Number



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