

Municipality/Organization: Town of Chelmsford

EPA NPDES Permit Number: MAR041185

MaDEP Transmittal Number: W-039848

Annual Report Number

& Reporting Period: No. 12: March 2014-March 2015

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information



Contact Person: Stephen Jahnle

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### Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: \_\_\_\_\_

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

Title: \_\_\_\_\_

Date: \_\_\_\_\_

*[Handwritten Signature]*

STEPHEN E. JAHNLE

Assistant P.P.W. Director

4/28/15

## **Part II. Self-Assessment**

The Town of Chelmsford has completed year 12 of the Stormwater Phase 2 program. We continued our involvement with the Northern Middlesex Stormwater Coalition (NMSC). We are one of 13 communities to be involved in a Stormwater Collaborative. The Northern Middlesex Council of Governments (NMCOG) was awarded a Community Innovation Challenge (CIC) Grant to implement a Stormwater Collaborative throughout the Northern Middlesex Region. The primary goal is to establish and implement a regional Stormwater collaborative to address stormwater issues using an innovative approach that reduces municipal costs and fosters regional cooperation and coordination.

NMSC budgeted \$81,000 for the project. The tasks included:

1. Develop, implement and maintain a secure web-based mapping system and database for all 13 communities
2. Expand public education and outreach program including:
  - a. Create a regional public service announcement
  - b. Develop and print educational flyers
  - c. Conduct workshops with resident groups, business owners, non-profits
  - d. Organize community-based programs like stream cleanups, rain barrel distributions, etc.
3. Develop and conduct training sessions for municipal staff and officials
4. Establish common stormwater and pollution prevention practices, policies and protocols; create manual/toolbox for use by municipal staff and officials.
5. Develop and issue RFPs, RFQs and bid documents for the procurement of equipment, supplies, materials and services, as described within this report.
6. Assist communities with grant writing.

Being a part of NMSC has allowed the 13 communities to share resources and has eliminated the need for duplicative activities. This collaborative has been most valuable to Chelmsford's success in the stormwater program.

### **Progress was made in the following areas:**

#### **BMP # 1-2: Stormwater Lesson Plan for students.**

- A new lesson plan was created for 3 groups in Chelmsford. The lessons included information on stormwater pollution, watersheds, and a demonstration of the Enviroscope Model. The students got a hands-on lesson about point-source and non-point-source pollution. The Sr. Civil Engineer conducted stormwater informational session for:
  - 14 Fourth Grade Girl Scouts in April 2014 (See Appendix)
  - 100 Third Grade Students at Harrington Elementary School in November 2014
  - 200 Fifth Grade Students at Parker Middle School in March 2015
  - Variety of residents at the Library in June 2014

**BMP # 1-5: Stormwater Video.**

- Girl Scouts created a PSA on Stormwater Pollution based on their lesson with the Sr. Civil Engineer. Can be seen on Youtube [http://www.youtube.com/watch?v=Sh\\_M9WzaQ2U&feature=youtu.be](http://www.youtube.com/watch?v=Sh_M9WzaQ2U&feature=youtu.be) (See Appendix)
- NMSC developed a PSA for all the communities to air on our local cable TV. It will run every March, April, September and October. It is available on YouTube in a 30-second version and a 2 minute version. (See Appendix) <https://www.youtube.com/watch?v=NkXWJ3bHUt0&feature=youtu.be>  
<https://www.youtube.com/watch?v=FysGFDhPys0>

**BMP # 1-6: Stormwater Web Page.**

- NMSC developed a webpage for all the participating communities. [www.nmstormwater.org](http://www.nmstormwater.org)
- The Town's Stormwater Website is updated annually. <http://www.townofchelmsford.us/index.aspx?NID=375>

**BMP # 2-1: Stormwater Traveling Display. (See Appendix)**

- Adams Library – “Keeping Stormwater Clean” May 2014
- Senior Center September 2014
- Stormwater Display and Enviroscope demonstrations at the Hart Pond Association outing, Library and at the Farmer's Market. There was also a sign-up sheet for volunteers for the storm drain stenciling program. Summer 2014

**BMP # 2-2: Stormwater Poster Contest.**

- Third Grade Stormwater Posters on display in the DPW lobby during December 2014 – January 2015 (See Appendix)

**BMP # 2-4: Stormwater Summit event.**

- Local officials were gathered at the Chelmsford Senior Center for a NMSC-sponsored Stormwater Training Workshop. EPA presented information on the MS4 Permit. April 23, 2014

**BMP # 2-6: Provide Support for clean-up and collection days.**

- 250 Brochures on Stormwater pollution were handed out at the Hazardous waste collection day. April 26, 2014
- Annual Town Cleanup day – 20 bags of trash picked up by 20 volunteers (See Appendix)
- Chelmsford renewed involvement in the Rain Barrel Community Program offering discounted Rain Barrels to the residents. Rain barrels are advertised on cable TV, website, Facebook and emails.

**BMP # 2-7: Develop a Catch Basin Stenciling Program. (See Appendix)**

- Organized a stenciling program and promoted it at the Farmer’s Market in the summer, on Cable TV year-round, on the Town website, on Facebook, in the newspaper and by email.
  - Total storm drains stenciled = 107
- The DPW had a local high school student volunteer to help the Sr. Civil Engineer place the Storm Drain Markers around Town in locations that have high foot traffic (e.g. the center of town and near schools.)
  - Total storm drains with markers = 170

**BMP # 3-1: Create a stormwater system map.** With help from a grant from Massachusetts Interlocal Insurance Association (MIIA) the stormwater mapping is mostly complete in both CAD and GIS. A contract was secured with CGIS, Inc. to complete our GIS map of all drain features. Regional stormwater mapping was done by NMCOG. A new grant from MIIA for \$10,000 will be used to convert all the sewer data from CAD to GIS. The sewer data is being mapped in anticipation of the new MS4 Permit’s requirements to do so. The ultimate goal is to have both sewer and stormwater data available online for the DPW staff as well as the public.

See table below for summary of all stormwater features.

Item	Mapped in CAD	Mapped in GIS	Numbered	What was added in Yr. 12
Outfalls	100%	100%	Yes	CAD to GIS conversion
Catch Basins	97%	97%	No	CAD to GIS conversion
Drain Manholes	97%	97%	No	CAD to GIS conversion
Drain Pipes	95%	95%	No	GIS w/size and material
Culverts	100%	100%	No	CAD to GIS conversion
Headwalls	100%	100%	No	CAD to GIS conversion
Watersheds	100%	100%	Named	No updates
Detention Basins	92%	92%	Named	Mapping in both CAD and GIS

**BMP # 3-2: Create an Illicit Discharge Inspection/Elimination Plan.**

- Stormwater Sampling Training for all local municipalities was held in Westford June 2014
- Clean Harbors responded to an incident involving stormwater pollution August-September 2014. **(Report attached)**
- “See Click Fix” is a citizen request tracker for residents to use when reporting non-emergency issues around the Town using their smartphone, tablet or computer. They can report concerns such as, drainage issues, illicit discharges or illegal dumping.

**BMP # 6-3: Stormwater pollution prevention in municipal operations.**

- The parking lot behind the Town Offices was in need of drainage improvements, and additional parking spaces. The new design includes: a subsurface infiltration system designed to treat the 100-yr storm, and a bio-retention area in the center to capture, treat and infiltrate the parking lot runoff. This design was approved in August 2014 and construction began in September 2014. The new parking lot will be complete by early summer 2015.

**BMP # 6-4: Develop a training program for DPW employees.**

- All local DPW staff were gathered at Westford's DPW for a 2 hour training on Stormwater BMPs which relate to their daily work duties. May 2014
- Stormwater Symposium held at CMRSWC offered for all local MS4 communities. August 2014
- Sr. Civil Engineer attended a workshop at the UNH Stormwater Center on BMP Performance. September 2014
- All local Municipal Engineering staff were gathered in Dracut for a 2.5 hr. BMP workshop held by NMSC. March 2015
- NEIWPC held an 8 hr. Stormwater Utility Workshop in Chelmsford. March 2015

**The following BMPS are not completely fulfilled:**

**BMP # 2-3: Stormwater photo contest for high school students.** The Suasco Watershed Council has decided to abandon this contest and replace it with a different activity. We were able to hold a poster contest in Year 12. We will be attempting to sponsor a photo contest or another type of "art contest" next year.

**BMP # 4-1: Development of an erosion and sediment control by-law for construction projects.** Currently the Town has authority through the site plan process to regulate erosion and sediment control based upon approvals for a specific project. A stand-alone bylaw is not necessary at this time. We will reevaluate our decision once the new permit is released.

**BMP # 5-1: Development of a by-law to require certain construction sites to follow MADEP Stormwater Standards 2, 3, 4 and 7.** The Town currently has authority to fine property owners in violation of their approved operation and maintenance manuals included with site plan or subdivision approvals. Our site plan stormwater by-law was re-written to clarify the language so that it specifically states compliance with MassDEP Stormwater Standards. A stand-alone bylaw is not necessary at this time. We will reevaluate our decision once the new permit is released.

**Review of Draft MS4 Permit:**

In addition to the work done on the 2003 MS4 Permit, the Draft MS4 permit was released by the EPA in September 2014 for the public's review and comment. In October, the NMSC held a meeting to review the Draft Permit. Chelmsford published a comment letter to the EPA in December 2014, after reviewing the permit.

## Part III. Summary of Minimum Control Measures

### 1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
1-1	Stormwater flyer/survey distributed to residents	DPW/Suasco	Distribute flyers to a minimum of 75% of the residents	Complete. Flyers have been distributed to residents and copies are available with the traveling display and online via the town web site.	Continued distribution of flyers and displaying material to help awareness.
Revised					
1-2	Stormwater lesson plan for 5 <sup>th</sup> grade students	DPW/Suasco	Develop and distribute lesson plan to 5 <sup>th</sup> grade	Complete. See Self-Assessment	Continuation of new lesson plan in the schools.
Revised					
1-3	Stormwater flyer to business community	DPW/Suasco	Flyer distributed to a minimum of 50% of businesses and a logo to be displayed for compliance	Completed in Year 11.	Update and republish
Revised					
1-4	Stormwater media campaign	DPW/Suasco	Develop a media information packet to be distributed	Complete. Chelmsford Independent ran the top story on Chelmsford's Stormwater Matters program and Storm Drain Stenciling.	Update and republish ad campaign
Revised					
1-5	Stormwater video	DPW/Suasco	Show a stormwater video at one public meeting and re-air video on local cable	Complete. New video from NMSC. Video runs twice a year on local cable.	Run ad campaign twice a year on local cable focusing on gardening in the spring and good housekeeping in the fall.
Revised					
1-6	Stormwater web page	DPW	Creation of a stormwater web page	Complete. A stormwater web page has been updated once a year <a href="http://www.townofchelmsford.us/index.aspx?NID=375">http://www.townofchelmsford.us/index.aspx?NID=375</a>	Maintain website
Revised					
1-7	Provide brochures on recycling, composting and water conservation	DPW/Recycling	Maintain a supply of brochures	Complete. Currently have a supply of brochures from the SuAsCo Watershed, EPA, Mass DEP and other organizations available	Continuation of current supply
Revised					

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
2-1	Stormwater traveling display	DPW/SuAsCo	Display and circulate traveling display at various buildings and events	Complete. Rotation throughout town buildings and events. The Library had a special display in May 2014. Demonstrations were done at the farmer's market all summer. The Senior Center display was in September.	Continued rotation throughout town buildings and events.
Revised					
2-2	Stormwater poster contest for 5 <sup>th</sup> grade students	DPW/SuAsCo	Hold a stormwater awareness poster contest, judge and display it.	3 <sup>rd</sup> graders made posters on Stormwater Pollution based on what they learned in the lesson from the Sr. Civil Engineer. The posters were displayed at the DPW.	Continue to offer the poster project to students who attend the stormwater presentations.
Revised					
2-3	Stormwater photo contest for high school students	DPW/Suasco	A stormwater photo contest is held, judged, and displayed	SuAsCo has decided to abandon the contest.	We are exploring other options for an "art contest".
Revised					
2-4	Stormwater Summit event	DPW/Suasco	Hold a local Stormwater event	April 23, 2014 all local officials gathered at the Chelmsford Sr. Center for a Stormwater Training Presentation.	Present the new permit, once approved, to all local officials.
Revised					
2-5	Participate in Suasco Super Summit and conduct and evaluation and assessment survey of public stormwater awareness.	DPW/SuAsCo	Town participation in the Suasco summit and evaluation and assessment survey results compiled.	Currently waiting on information for the summit event.	Hold Summit once available.
2-6	Provide support for clean up and collection days	DPW/Recycling	Provide support at least twice per year	Complete. Support has been provided for brush drop off, Haz-mat, town clean up. See self-assessment for more information.	Continued support for these days.
Revised					
2-7	Develop a catch basin stenciling program	DPW	Develop a program to stencil catch basins in priority areas	Complete. See self-assessment	Continue stenciling program
Revised					

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
3-1	Create a stormwater system map	DPW	Develop a stormwater system map, maintain and update as needed	See self-assessment for more detailed info. Approximately 97% of the town drainage system mapped in CAD and GIS and all new construction added. NMCOG has created a map showing all the drainage structures in our region.	See self-assessment. Continued mapping and updating of existing information. Prepare all GIS data for an online application for use by the DPW and the public. CAD to GIS conversion of all Sewer data.
Revised					
3-2	Create an illicit discharge inspection/elimination plan	DPW	Develop a plan to locate and eliminate illicit and illegal connections	Target areas and map system for connections. No illicit discharges found. Training of all local DPW staff on illicit discharge detection and elimination.	We have inspected multiple areas for connections and plan on continued inspections in targeted areas as well as roadway construction projects.
Revised					
3-3	Develop and implement an ordinance that prohibits illicit and illegal connections	DPW	An ordinance is developed to prevent illicit and illegal stormwater and non-stormwater connections to the system	Complete. Implementing bylaw.	Continue to implement bylaw and review for any potential improvements.
Revised					
3-4	Increase number of Haz Mat days	Recycling/DPW	Make disposal easier of hazardous materials	Complete. The recycling office has entered into an agreement with other towns to provide homeowners more opportunities to dispose of their Haz. Waste. There are collection bins located at Town Hall for recycling of light bulbs, batteries, cardboard, etc.	Continued support for these days.
Revised					
Revised					

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
4-1	Development of an erosion and sediment control by-law for all construction projects	DPW/Community Development	Develop and implement a by-law	See self-assessment.	Review current requirements and revise as necessary.
Revised					
4-2	Plan reviews	DPW	All plans reviewed for water quality issues and concerns	Complete. Currently reviewing plans for standard erosion and sedimentation protection and making contractors aware of the Phase 2 program and it's requirements	Continued review of plans for revised current stormwater regulations. Develop a plan review checklist.
Revised					
4-3	Site inspections of construction projects	DPW/Community Development	Periodic inspection of ongoing sites	Complete. Inspectors trained on Stormwater runoff control.	Continued inspections and enforcement of the proposed erosion and sediment control plans presented by the developers. Develop an inspection form.
Revised					
4-4	All work within the public right of way inspected to prevent erosion and sediment build up	DPW	Minimize and/or prevent sediment from entering the public right of way	Complete. Require all contractors to provide a gravel construction entrance, periodically sweep streets and install silt sack protection to existing basins where necessary. Inspectors trained on stormwater runoff control to the ROW.	Continued inspections and enforcement.
Revised					
Revised					
Revised					

## 5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
5-1	Develop a by-law to require certain construction sites to follow MADEP stormwater standards 2,3,4, and 7	DPW/ Community Development	All regulated projects required to follow same standards	See self-assessment.	Review current requirements and revise as necessary.
Revised					
5-3	Post construction inspection of regulated projects	DPW	Inspections are performed to ensure proper construction and that facilities are working as they where proposed	Design engineers are required to submit as-builts and letters certifying construction has been conducted in accordance with the plans. Follow-up inspections conducted by DPW staff to ensure the facilities are working as proposed.	Continued inspection and recommendation to private system owners that they maintain their systems in accordance with the design or proposed post construction plan along with the approved operations and maintenance manual.
Revised					
5-2	Develop a list of BMP's for the post construction maintenance schedule	DPW	Develop a list as a guideline for post construction maintenance	We have worked with the local engineers and developers to have parameters for post construction maintenance of facilities.	Continued work on a finalized list to be added into our regulations. Work with private property owners on maintenance of systems.
Revised					
Revised					
Revised					
Revised					

## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year
6-1	Catch Basin cleaning	DPW	Continuation of current catch basin cleaning schedule	Complete. Every catch basin was cleaned last year.	Continue to clean each catch basin.
Revised					
6-2	Street Sweeping	DPW	Continuation of the current street sweeping program	Complete. All public streets, sidewalks and municipal parking lots are swept utilizing the town owned and operated sweepers	Continued Spring sweeping schedule
Revised					
6-3	Stormwater pollution plan in place and in effect for DPW facility	DPW	Maintain the current plan and update as needed	Continued maintenance of oil separators, traps and containment systems.	Ongoing operation and maintenance
Revised					
6-4	Develop a training program for DPW employees	DPW	Employee training program established	Complete. NMCOG developed a training program for DPW employees. All essential DPW employees trained in the Spring of 2014 in Illicit Discharge Detention and Good Housekeeping practices.	Continue training to all new staff.
Revised					
6-5	Stormwater system mapping used to identify critical areas for catch basin cleaning	DPW	Stormwater system mapping used to optimize basin cleaning procedures	Stormwater system map in GIS.	GIS map proposed to go online in summer 2015.
6-6	Identify catch basins in poor condition and repair or replace those structures	DPW	Utilize mapping to identify facilities in poor condition and repair or replace a minimum of 5 per year	Complete. Repaired or replaced approximately 36 drainage structures.	Ongoing maintenance
Revised					
6-7	DPW drainage maintenance permit	DPW	Renew drainage facility maintenance permit	No dredging was done over the winter.	Renew dredging permit as needed.
Revised					

**Assessment of the appropriateness of the selected BMPs.**

*The Best Management Practices (BMPs) selected for the stormwater program appear to be appropriate. Anticipation of a new NPDES MS4 permit has caused us to improve our current Stormwater Management Program, so that when the revised permit is issued, we will have a head start. Additional GIS mapping of the drainage system has added a significant amount of information to our drain map. Furthermore, the decision to join the Northern Middlesex County of Governments Stormwater Coalition (NMSC) allows the Town the opportunity to further improve our stormwater program while at the same time save money by sharing resources.*

**Reference any reliance on another entity for achieving any measurable goals:**

**SUASCO** – educational material and displays

**Northern Middlesex County of Governments (NMCOG) – Northern Middlesex Stormwater Collaborative (NMSC)** - Regional Stormwater Collaborative. Hazardous Waste days support, Stormwater Coalition purchased Enviroscope for educational use, created a map of all drainage structures in our region for all the local towns to use.

**Massachusetts Interlocal Insurance Association MIIA-** \$13,000 grant for improvements to our GIS mapping of Stormwater infrastructure. \$10,000 grant for improvements to our Sewer GIS map

**CGIS, Inc.** – Consultant who is performing the updates to our GIS mapping of Stormwater infrastructure with the \$13,000 grant.

**APPENDIX TO  
CHELMSFORD, MASSACHUSETTS  
ANNUAL STORMWATER REPORT  
YR- 12  
MARCH 2014 TO MARCH 2015**

# GIRL SCOUT STORMWATER DEMONSTRATION – APRIL 2014




https://www.youtube.com/watch?v=5Kt8B7fzQ2U&feature=youtu.be

How to Make a Collage on Mac... Middlesex Stormwater Collabo... GSTroop 75

Google Maps Weather - WHDH-TV 7Ne... Yahoo Mail Chelmsford Public School... MapGeo - Town of Chelms... Chelmsford, MA - Official... Get more Add-ons - Solarize Mass Prici

YouTube



**GSTroop 75440 WOW PSA video**

G5 Troop 75440

Subscribe

30 views

+ Add to Share ... More

Uploaded on Jun 2, 2014  
This is the video that the girls put together to educate others about the importance of storm drains and how we can protect our water

SHOW MORE

# LIBRARY STORMWATER DEMONSTRATION – SUMMER 2014



# YOUTUBE PSA ON STORMWATER (ALSO SHOWN ON CABLE) FEBRUARY 2015

The screenshot shows a web browser window with a YouTube video player. The browser's address bar contains the URL: <https://www.youtube.com/watch?v=1KXW3bHUN0&feature=youtu.be>. The browser's taskbar shows several open tabs, including "Middlesex Stormwater Coll...", "Google Maps", "Weather - WMDH-TV 7Ne...", "Yahoo Mail", "Chelmsford Public School...", "MapGeo - Town of Chelm...", "Chelmsford, MA - Official...", "Get more Add-ons", and "Solarize Mass Prici".

The YouTube video player displays a map of the Middlesex Stormwater Collaborative watershed area. The map is color-coded by watershed: Parker (blue), Merrimack (green), Shawmut (pink), North Coastal (light blue), French Blackstone (light green), and South Coastal (light blue). Other labeled watersheds include Millers, Nantua, Chicopee, Quinfaug, Ten Mile, Taunton, and Narragansett Bay. The map also shows state boundaries for NH, CT, and RI, and the Atlantic Ocean to the east. A video player interface is overlaid on the map, showing a play button, a progress bar at 0:01 / 0:30, and various control icons.

**Middlesex Stormwater Collaborative Water PSA 30 sec**

**Danielle Mucclarone**  
Subscribe 1

29 views

+ Add to < Share ... More

Published on Feb 26, 2015

Category: People & Blogs  
License: Standard YouTube License

LIBRARY DISPLAY – MAY 2014



# CHELMSFORD SENIOR CENTER DISPLAY – SEPTEMBER 2014



**FARMERS MARKET DISPLAY, DEMONSTRATION AND  
SIGN-UP FOR CATCH BASIN STENCILING – SUMMER 2014**



**STORMWATER POSTERS DONE BY 3<sup>RD</sup> GRADE STUDENTS**

**DECEMBER-JANUARY 2015**



# TOWN-WIDE CLEANUP (WEBSITE)

APRIL 26, 2014



## Chelmsford Town-Wide Cleanup Saturday, April 26<sup>th</sup>, 2014

*It's in your hands. The snow has melted to reveal the roadside waste that accumulated over the winter.*

*Join us in cleaning up our town!*

Sponsored by: Allied Waste

Date: Saturday, April 26, 2014  
Time: Throughout the day  
Where: All roads and parks  
What: Town Litter Cleanup

Pick up bags from the office of  
Recycling and Solid Waste  
Monday-Friday 9am till Noon

For more information:  
[nparlee@TownofChelmsford.us](mailto:nparlee@TownofChelmsford.us)

 or 978-250-5203

# CATCH BASIN STENCILING PROGRAM

## (WEBSITE AND NEWSPAPER ARTICLE)

SUMMER, 2014





Clean Harbors  
42 Longwater Drive  
P.O. Box 9149  
Norwell, MA 02061-9149  
781.792.5000  
800.282.0058  
www.cleanharbors.com

October 22, 2014

Town of Chelmsford  
Town Manager  
50 Billerica Road  
Chelmsford, MA 01824

Re: Notice of Sampling and Laboratory Report Transmittal  
Diesel Fuel Release  
Billerica Road  
Chelmsford, Massachusetts  
DEP Release Tracking No.: 3-32291

To Whom It May Concern:

As indicated in an August 13, 2014 letter addressed to your office, CHES returned to the site of a vehicular accident near 297 Billerica Road in Chelmsford for the removal of petroleum-impacted soil. On September 22, 2014, CHES removed petroleum-impacted soil from CB-1 (estimated 1 cubic yard) and MH-2 (estimated 0.8 cubic yards). These locations are identified on the attached site sketch.

Clean Harbors Environmental Services, Inc. (CHES) is submitting this Informational Notice of Environmental Sampling (BWSC123) in regards to two soil samples (CB-1G and MH-2F) collected on your property. The soil samples were submitted to Geolabs in Braintree, Massachusetts for extractable petroleum hydrocarbon (EPH) laboratory analysis. The laboratory report is attached. The data is also summarized in the attached table.

If you have any questions or concerns, please do not hesitate to contact me at 781-792-5821.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa Irwin". The signature is fluid and cursive.

Lisa Irwin  
Project Manager

Cc: Project file 1401195933  
Steve Jahnle via [sjahnle@TownofChelmsford.us](mailto:sjahnle@TownofChelmsford.us)

Attachment: lab report; 123 Form, data table, site sketch

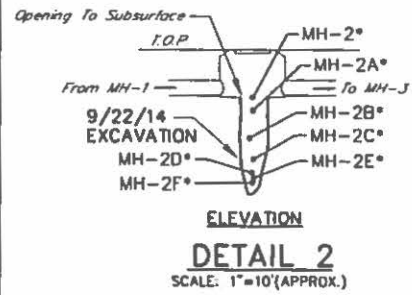
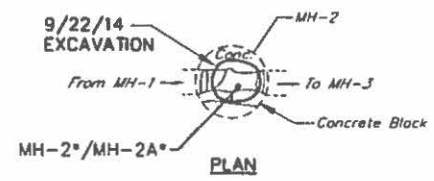
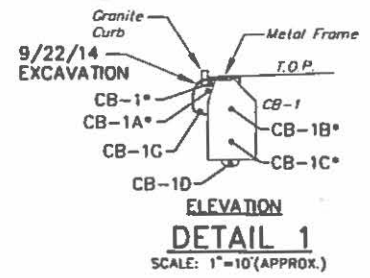
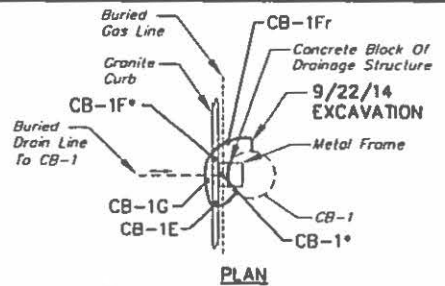
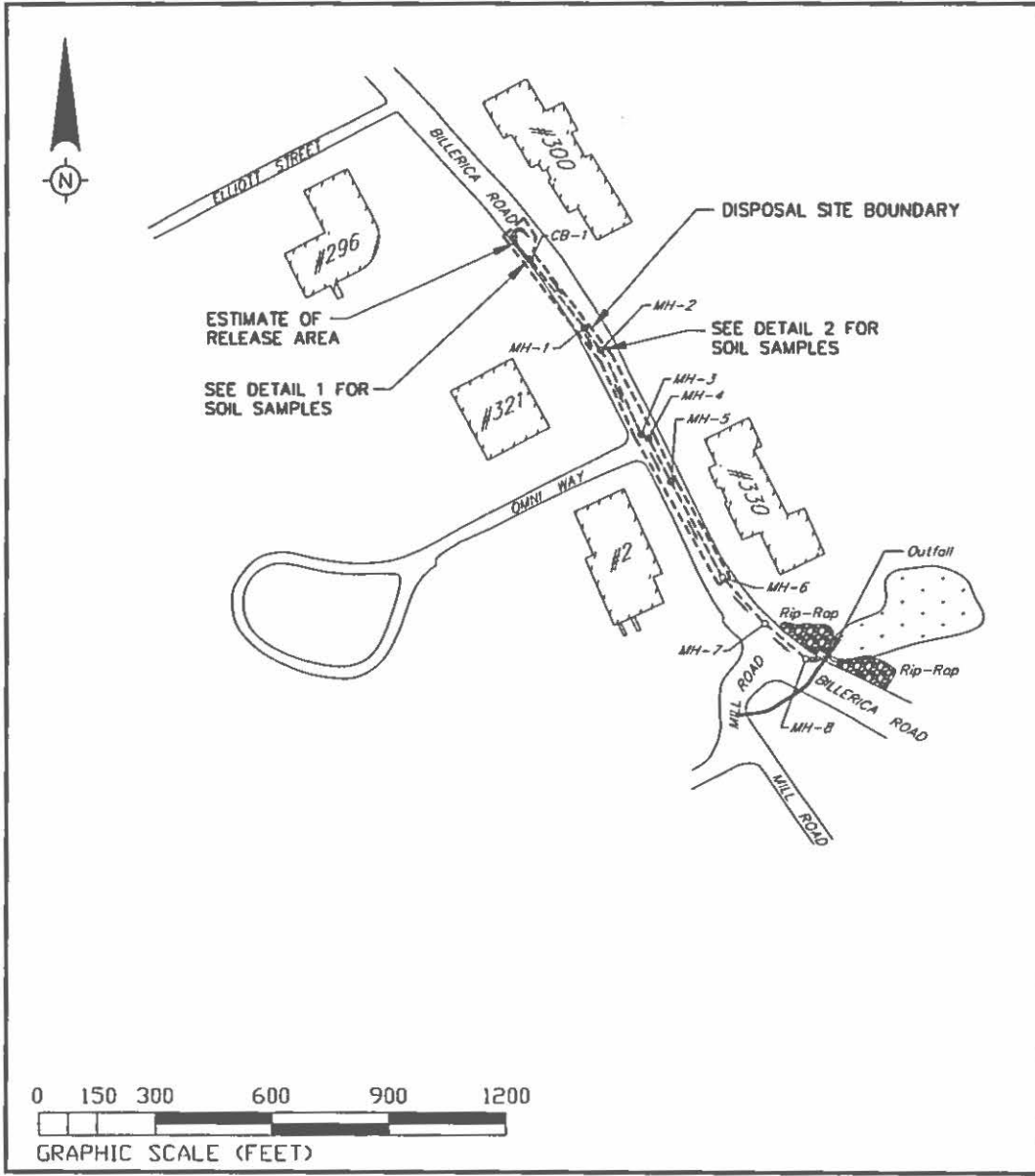


FIGURE 2

PERMANENT SOLUTION STATEMENT	DESCRIPTION	DRWN.	CHKD.	APPR.	DATE
B	RTN 3-32291	K.M.C.	L.I.	A.M.D.	9/27/14
A	ISSUE				

DIESEL FUEL RELEASE  
BILLERICA ROAD  
CHELMSFORD, MASSACHUSETTS

**SITE SKETCH**

PROJECT NO. 1401195933 (Dwg. No. 1401195933-C-01)  
SCALE: 1"=300'(APPROX.)

MODIFIED LAST ON 10-22-14

**CleanHarbors**  
ENVIRONMENTAL SERVICES  
REMEDIAL INVESTIGATIONS  
42 Longwater Drive  
Norwell, Massachusetts 02061  
Telephone (781) 792-5000

**LEGEND**

CB-10	CATCH BASIN
MH-10	MANHOLE
CB-10*	ROADWAY SEDIMENT/ SOIL SAMPLE
*	SAMPLE LOCATION REMOVED FOR DISPOSAL

Table 2  
 Laboratory Analysis of Soil  
 Billerica Road, Chelmsford, Massachusetts

Sample ID:	CB-1G**	MH-2F	Method I Risk Standards
Sample Depth (feet below grade):	3	10.25	S-1 Soils & GW-1/GW-3 Groundwater
Sample Date:	9/22/2014	9/22/2014	
VOCs (ppm)	5.4	74.5	
<b>EPH (mg/kg)</b>			
C9-C18 Aliphatics	ND(17.6)	160	1,000
C19-C36 Aliphatics	ND(17.6)	108	3,000
C11-C22 Aromatics	ND(17.6)	81.6	1,000
Naphthalene	ND(0.118)	ND(0.112)	4/500
2-Methylnaphthalene	ND(0.118)	ND(0.112)	0.7/300
Acenaphthene	ND(0.118)	ND(0.112)	4/1,000
Phenanthrene	ND(0.118)	ND(0.112)	10/500
<i>Total EPH</i>	ND	350	

Notes: VOC = volatile organic compounds; ppm = parts per million measured with a PID calibrated to a benzene response; EPH = extractable petroleum hydrocarbons; mg/kg = milligrams per kilogram; ND = analyte not detected at the laboratory detection limit specified in parenthesis;



### NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

**BWSC 123**

This Notice is Related to  
Release Tracking Number

3 32291

**A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):**

1. Street Address: Billerica Road  
City/Town: Chelmsford Zip Code: 01824

**B. This notice is being provided to the following party:**

1. Name: Town of Chelmsford  
2. Street Address: 50 Billerica Road  
City/Town: Chelmsford Zip Code: 01824

**C. This notice is being given to inform its recipient (the party listed in Section B):**

- 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.
- 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

**D. Location of the property where the environmental sampling will be/has been conducted:**

1. Street Address: Billerica Road (roadway from #296 - #321)  
City/Town: Chelmsford Zip Code: 01824

2. MCP phase of work during which the sampling will be/has been conducted:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Immediate Response Action   | <input type="checkbox"/> Phase III Feasibility Evaluation                   |
| <input type="checkbox"/> Release Abatement Measure              | <input type="checkbox"/> Phase IV Remedy Implementation Plan                |
| <input type="checkbox"/> Utility-related Abatement Measure      | <input type="checkbox"/> Phase V/Remedy Operation Status                    |
| <input type="checkbox"/> Phase I Initial Site Investigation     | <input type="checkbox"/> Post-Class C Operation, Maintenance and Monitoring |
| <input type="checkbox"/> Phase II Comprehensive Site Assessment | <input type="checkbox"/> Other _____  |
- (specify)

3. Description of property where sampling will be/has been conducted:

- residential     commercial     industrial     school/playground     Other \_\_\_\_\_
- (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater) to the extent known at the time of this notice.

soil sample CB-1G and MH-2F collected to reflect soil at CB-1 and MH-2, respectively.

**E. Contact information related to the party providing this notice:**

Contact Name: Lisa Irwin  
Street Address: 42 Longwater Drive  
City/Town: Norwell Zip Code: 02061-9149  
Telephone: (781) 792-5821 Email: irwin.lisa@cleanharbors.com

## NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

### MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

### THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

### PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation under the Massachusetts Contingency Plan at a property on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

**Section C** on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

**Section D** on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

### FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/dep/cleanup/oview.htm>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in **Section A** is also available in files at the Massachusetts Department of Environmental Protection. See <http://mass.gov/dep/about/region/schedule.htm> if you would like to make an appointment to see these files. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

ANALYTICAL REPORT



Friday, September 26, 2014

Lisa Irwin  
Clean Harbors  
42 Longwater Drive  
Norwell, MA 02061

GeoLabs, Inc.  
45 Johnson Lane  
Braintree MA 02184  
Tele: 781 848 7844  
Fax: 781 848 7811

TEL: (781) 792-5821  
FAX: (781) 792-5938

Project: CEMS  
Location:

Order No.: 1409151

Dear Lisa Irwin:

GeoLabs, Inc. received 2 sample(s) on 9/23/2014 for the analyses presented in the following report.

The laboratory results in this report relate only to samples submitted. All data for associated QC met method or laboratory specifications, except where noted in the Case Narrative.

Analytical methods and results meet requirements of 310CMR 40.1056(J) as per MADEP Compendium of Analytical Methods (CAM).

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

David Mick  
Laboratory Director

For current certifications, please visit our website at [www.geolabs.com](http://www.geolabs.com)

Certifications:

CT (PH-0148) - MA (M-MA015) - NH (2508) - RI (LA000252)

**MassDEP Analytical Protocol Certification Form**

Laboratory Name: GeoLabs, Inc.

Project #:

Project Location: CEMS

RTN:

This form provides certification for the following data set: 1409151 (001-002)

Matrices:  Groundwater/Surface Water  Soil/Sediment  Drinking Water  Air  Other

**CAM Protocol** (check all that apply below):

8260 VOC CAM II A <input type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	MassDEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	MassDEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	MassDEP EPH CAM IV B <input checked="" type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

**Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>D</b>	Does the laboratory report comply with all reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>E</b>	VPH, EPH, APH and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>F</b>	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Responses to Questions G, H, and I below are required for "Presumptive Certainty" status**

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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**Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2) (k) and WSC-07-350.

<b>H</b>	Were all QC performance standards as specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: David Mick

Position: Laboratory Director

Printed Name: David Mick

Date: September 26, 2014

Date: 26-Sep-14

CLIENT: Clean Harbors  
Project: CEMS  
Lab Order: 1409151

## CASE NARRATIVE

### Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

### Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

### Analysis of Sample(s)

EPH carbon ranges and diesel targets only reported via method MADEP EPH, per client request.

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples.

SIGNATURE:



LAB DIRECTOR

PRINTED NAME: David Mick

DATE: 09/26/14

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

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**CLIENT:** Clean Harbors  
**Project:** CEMS  
**Lab Order:** 1409151

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**CASE NARRATIVE**

EPH Methods

Method for Ranges: MADEP EPH 04-1.1  
Method for Target Analytes: 8270 GC/MS

Carbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range  
Adjusted C11-C22 Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes

**CERTIFICATION:**

Were all QA/QC procedures REQUIRED by the EPH Method followed? YES  
Were all performance/acceptance standards achieved? YES  
Were any significant modifications made to the EPH method? NO

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

**SIGNATURE:**



**LAB DIRECTOR**

**PRINTED NAME:** David Mick

**DATE:** 09/26/14

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**ANALYTICAL REPORT**

Reported Date: 26-Sep-14

CLIENT: Clean Harbors  
 Lab Order: 1409151  
 Project: CEMS  
 Lab ID: 1409151-001

Client Sample ID: CB-1g  
 Collection Date: 9/22/2014 10:30:00 AM  
 Date Received: 9/23/2014  
 Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**EPH RANGES - MADEP EPH**

Analyst: KG

Prep Method: (eph\_Spr)

Prep Date: 9/24/2014 11:20:27 AM

Adjusted C11-C22 Aromatics	ND	17.6		mg/Kg-dry	1	9/24/2014
C09-C18 Aliphatics	ND	17.6		mg/Kg-dry	1	9/24/2014
C19-C36 Aliphatics	ND	17.6		mg/Kg-dry	1	9/24/2014
Unadjusted C11-C22 Aromatics	ND	17.6		mg/Kg-dry	1	9/24/2014
Surr: 1-Chlorooctadecane	70.6	40-140		%REC	1	9/24/2014
Surr: o-Terphenyl	103	40-140		%REC	1	9/24/2014

**EPH TARGET ANALYTES - MADEP EPH**

Analyst: ZYZ

Prep Method: (eph\_Spr)

Prep Date: 9/24/2014 11:20:27 AM

Naphthalene	ND	0.118		mg/Kg-dry	1	9/24/2014 7:12:00 PM
2-Methylnaphthalene	ND	0.118		mg/Kg-dry	1	9/24/2014 7:12:00 PM
Acenaphthene	ND	0.118		mg/Kg-dry	1	9/24/2014 7:12:00 PM
Phenanthrene	ND	0.118		mg/Kg-dry	1	9/24/2014 7:12:00 PM
Total PAH Target Concentration	ND	0.118		mg/Kg-dry	1	9/24/2014 7:12:00 PM
Surr: 2,2-Difluorobiphenyl	85.0	40-140		%REC	1	9/24/2014 7:12:00 PM
Surr: 2-Fluorobiphenyl	59.9	40-140		%REC	1	9/24/2014 7:12:00 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811



# ANALYTICAL QC SUMMARY REPORT

Date: 26-Sep-14

CLIENT: Clean Harbors  
 Work Order: 1409151  
 Project: CEMS

TestCode: EPHP\_S\_DIESEL

Sample ID: MB-24713	SampType: mblk	TestCode: EPHP_S_DIE	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56063						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH_ (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 625650						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.100									
2-Methylnaphthalene	ND	0.100									
Acenaphthene	ND	0.100									
Phenanthrene	ND	0.100									
Total PAH Target Concentration	ND	0.100									
Surr: 2,2-Difluorobiphenyl	1.814	0	2.5	0	72.6	40	140				
Surr: 2-Fluorobiphenyl	1.404	0	2.5	0	56.2	40	140				

Sample ID: lcs-24713	SampType: lcs	TestCode: EPHP_S_DIE	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56063						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH_ (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 825651						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.845	0.100	5	0	56.9	40	140				
2-Methylnaphthalene	2.834	0.100	5	0	56.7	40	140				
Acenaphthene	3.015	0.100	5	0	60.3	40	140				
Phenanthrene	3.228	0.100	5	0	64.6	40	140				
Surr: 2,2-Difluorobiphenyl	1.888	0	2.5	0	75.5	40	140				
Surr: 2-Fluorobiphenyl	1.566	0	2.5	0	62.6	40	140				

Sample ID: lcs2-24713	SampType: lcsd	TestCode: EPHP_S_DIE	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56063						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH_ (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 625652						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.669	0.100	5	0	53.4	40	140	2.845	6.38	50	
2-Methylnaphthalene	3.322	0.100	5	0	66.4	40	140	2.834	15.9	50	
Acenaphthene	3.588	0.100	5	0	71.8	40	140	3.015	17.4	50	

Qualifiers: BRL Below Reporting Limit      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits      ND Not Detected at the Reporting Limit      R RPD outside recovery limits  
 RL Reporting Limit      S Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CLIENT:** Clean Harbors  
**Work Order:** 1409151  
**Project:** CEMS

**TestCode:** EPHP\_S\_DIESEL

Sample ID: lcs2-24713	SampType: lcsd	TestCode: EPHP_S_DIE	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56063						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH_ (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 625652						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	3.604	0.100	5	0	72.1	40	140	3.228	11.0	50	
Surr: 2,2-Difluorobiphenyl	2.228	0	2.5	0	89.1	40	140	0	0	0	
Surr: 2-Fluorobiphenyl	1.734	0	2.5	0	69.4	40	140	0	0	50	

**Qualifiers:** BRL Below Reporting Limit  
 J Analyte detected below quantitation limits  
 RL Reporting Limit  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 S Spike Recovery outside recovery limits  
 H Holding times for preparation or analysis exceeded  
 R RPD outside recovery limits

**GeoLabs, Inc.**

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

CLIENT: Clean Harbors  
 Work Order: 1409151  
 Project: CEMS

TestCode: eph\_t\_s

Sample ID: MB-24713	SampType: mblk	TestCode: eph_t_s	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56062						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 625693						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Adjusted C11-C22 Aromatics	ND	15.0									
C09-C18 Aliphatics	ND	15.0									
C19-C36 Aliphatics	ND	15.0									
Unadjusted C11-C22 Aromatics	ND	15.0									
Surr: 1-Chlorooctadecane	6.708	0	10	0	67.1	40	140				
Surr: o-Terphenyl	9.895	0	10	0	99.0	40	140				

Sample ID: LCS-24713	SampType: Lcs	TestCode: eph_t_s	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56062						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 625694						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

C09-C18 Aliphatics	ND	15.0	10	0	64.5	40	140				
C19-C36 Aliphatics	ND	15.0	10	0	96.2	40	140				
Unadjusted C11-C22 Aromatics	ND	15.0	10	0	73.2	40	140				
Surr: 1-Chlorooctadecane	7.494	0	10	0	74.9	40	140				
Surr: o-Terphenyl	10.57	0	10	0	106	40	140				

Sample ID: LCS2-24713	SampType: Lcsd	TestCode: eph_t_s	Units: mg/Kg	Prep Date: 9/24/2014	RunNo: 56062						
Client ID: ZZZZ	Batch ID: 24713	TestNo: MADEP EPH (eph_Spr)		Analysis Date: 9/24/2014	SeqNo: 625695						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

C09-C18 Aliphatics	ND	15.0	10	0	79.7	40	140	6.447	0	25	
C19-C36 Aliphatics	ND	15.0	10	0	111	40	140	9.617	0	25	
Unadjusted C11-C22 Aromatics	ND	15.0	10	0	93.1	40	140	7.32	0	25	
Surr: 1-Chlorooctadecane	8.402	0	10	0	84.0	40	140	0	0		
Surr: o-Terphenyl	12.11	0	10	0	121	40	140	0	0	0	

Qualifiers: BRL Below Reporting Limit      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits      ND Not Detected at the Reporting Limit      R RPD outside recovery limits  
 RL Reporting Limit      S Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**CHAIN OF CUSTODY RECORD**

GeoLabs, Inc. Environmental Laboratories  
 45 Johnson Lane, Braintree, MA 02184  
 p 781.848.7844 • f 781.848.7811  
 www.geolabs.com

Sample Handling: circle choice  
 Filtration Done  
 Not Needed  
 Lab to do  
 Lab to do Y/N

Preservation

1409151

PAGE 1 OF 1

Special Instructions

Turnaround: circle one  
 1-day  
 2-day  
 3-day  
 5-7-days

Data Delivery: circle choice (s)  
 Fax  
 Format:  
 Excel

email  
 PDF

GW-1  
 S-1  
 QC

MCP Methods  
 DEP  
 Other

Requirements: circle choice (s)  
 CT RCP (Reasonable Confidence Protocols)  
 State / Fed Program - Criteria

Client: CHES  
 Address: 42 LONGWATER DRV  
NORWELL, MA  
 Contact: LISA IRWIN

Phone: 781-792-5821  
 Fax:  
 email: irwinalisa@clearharbortjs.com

Project: CEMS  
 Project PO:  
 Invoice to \*: LISA IRWIN

COLLECTION			SAMPLE LOCATION / ID	CONTAINER					GeoLabs SAMPLE NUMBER	Preservative: <input checked="" type="checkbox"/>	Analysis Requested					Lab Use Only	
DATE	TIME	SAMPLED		TYPE	QUANTITY	MATRIX	COMP	GRAB			EPH	if these targets	TEMPERATURE	LAB	PH		
9/22	10:30 AM	LI	CB-1g	G	1	S		X	9151-001	X							
9/22	12:00 PM	LI	<del>CB</del> MH-2F	G	1	S		X	-002	X							

Matrix Codes: GW = Ground Water DW = Drinking Water S = Soil A = Air WW = Waste Water SL = Sludge O = Oil OT = Other

Received on Ice

Preservatives: 1 = Hcl 2 = HN03 3 = H2SO4 4 = Na2S2O3 5 = NaOH 6 = ME0H 7 = Other

Containers: A = Amber G = Glass S = Summa B = Bag P = Plastic V = Voa O = Other

Relinquished by: Colin W. Irwin Date / Time: 9/22/14 4:00 PM

Received by: [Signature] Date / Time: 9/22/14 9:40

[Signature] Date / Time: 9/23/14 10:30

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