

GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

Project Name	<u>GILL CREEK (Olin Industrial Welding Site)</u>	ProjectID: 02-17
Last Updated:	05/26/99	
City:	Niagara Falls	
County:	Niagara	
State:	NY	
Country:	USA	
Bodies of Water:	Gill Creek; Niagara River	
US EPA Region:	II	
Status (Active, Complete, or Monitoring Only):	Complete	
Date On NPL:	N/A	
ROD/ESD Date:	November 1994 (NYS)	
Operable Unit:	N/A	
Areas of Concern (length or acres):	About 1,800 feet in length of Gill Creek bed (From the E. Falls Street bridge to the Buffalo Avenue bridge).	
Other Characteristics of Water Body:	Creek water depth varies from several inches to 2-3 feet in project area.	
Contaminants of Concern:	Mercury; hexachlorocyclohexane (BHCs) (a product manufactured at the plant); PAHs	
Source of Contamination:	Backfilling of site with brine sludge, miscellaneous industrial scrap, building rubble, fly-ash, and possibly waste transformer oil.	
Contaminated Area Physical Characteristics:	Initial contaminant concentrations in Gill Creek sediment were: Mercury: ND-11 ppm; BHCs: ND-1.3 ppm; PAHs: 0.7-70 ppm.	
Type of Regulatory Action:	NYSDEC Order-on-Consent	
Overall Status Summary:	An RI reported submitted to NYSDEC in February 1992 indicated a need for additional soil investigation at the site. Sampling of site soils, along with Gill Creek sediments, was performed during September 1992. Gill Creek sediments were found to contain low levels of mercury, BHCs, and PAHs. A ROD was issued in November 1994 by NYSDEC. The selected remedy for the site included waste containment with a leachate collection system, excavation of off-site contaminated soils and Gill Creek sediments and their consolidation under the capped containment area, and long-term operation and maintenance. The sediment remedial action was performed from mid-July 1998 to the end of August 1998. The stream was diverted and 6,850 cy of contaminated sediments were removed from 1800 ft of stream bed using typical construction equipment. The dredged material was placed in an on-site temporary containment area and will be used as site fill material as needed. The removal effort was considered successful by the PRP.	
Remedial Action Planned:	<input checked="" type="checkbox"/>	
Risk Assessment:	<input checked="" type="checkbox"/>	
Remedial Action Implemented:	<input checked="" type="checkbox"/>	
Status of Dredging	<input type="checkbox"/>	
PRPs:	<input checked="" type="checkbox"/>	
Contacts:	<input checked="" type="checkbox"/>	

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<i>Last Updated:</i>	05/26/99	

<i>References:</i>	<input checked="" type="checkbox"/>	
<i>Modeling:</i>	<input type="checkbox"/>	
<i>Fishing Advisory:</i>	<input checked="" type="checkbox"/>	
<i>Key Conditions:</i>	dedicated landfill or CDF, dredge spoil reuse/fill	

REMEDIAL ACTION PLANNED

Project Name	<u>GILL CREEK (Olin Industrial Welding Site)</u>	ProjectID: 02-17
Last Updated:	02/01/99	
Target Sediment Cleanup Standards (TSCS):	0.045 ppm for BHCs; 22 ppm for PAHs; 0.2 ppm for mercury.	
How TSCS Established:	Based on the use of NYSDEC sediment criteria (using a sediment organic carbon content of 3%) for guidance.	
Target Bank and Floodplain Cleanup Levels (if applicable):	N/A	
Other Target:	N/A	
Environmental Sample Data References:	<ul style="list-style-type: none">• Sediment:• Water:• Fish:	
Estimated Target Volume:	7,500 cy of contaminated soft sediments.	
Planned Disposal Method:	Dewatered and capped in an on-site containment area equipped with a leachate collection system. Olin originally requested of EPA that the sediments be used as fill material at Olin's Hooker 102nd Street NPL site; EPA denied this request.	
Estimated Calendar Time to Implement Remedy:		
Estimated Time to Implement Remedy:		
Estimated Cost to Implement Remedy:	\$1.4 million	
Stated Remedial Action Objectives (and Source):	Contamination was found to exist in creek sediments at a depth of no greater than 2 feet. Instead of financing further investigations to more precisely determine the exact depth of contamination for different areas of the creek, the PRP decided to remove to the full depth of two feet for the entire length of the creek designated for remediation.	
Measures of Success to be Used:	The Department sediment criteria will be used as guidance for the removal of contaminated sediments.	
Planned Monitoring and Restoration:	(Source: 1994 ROD): During the removal of sediments, adequate measures will be taken to prevent any upstream or downstream migration of contaminated sediments from the work area. After removal of contaminated sediments, confirmatory samples will be taken to ensure compliance to the Department sediment criteria as much as practicable. The creek is to be reasonably restored to pre-remediation topography.	
Agency Position on Sediment Removal (and Source):		

RISK ASSESSMENT

<i>Project Name</i>	<i>GILL CREEK (Olin Industrial Welding Site)</i>	<i>ProjectID:</i> 02-17
<i>Last Updated:</i>	08/11/98	
<i>RA Type:</i>	Baseline Human Health & Ecological; Public Health	
<i>RA Status:</i>	Complete	
<i>RA Objectives:</i>	To determine if an unacceptable risk to human health exists as a result of contamination at the site and Gill Creek sediments.	
<i>Company Performing RA:</i>	Not known at this time	
<i>RA Reference Report:</i>	N/A	
<i>RA Summary and Conclusions:</i>	The human health study indicated that no unacceptable risk to human health exists for the site as a result of exposure to Gill Creek sediments.	

(Source: 1994 ROD) "The following pathways were evaluated for environmental exposure:

- Direct contact with surface water and sediment.
- Ingestion of bioaccumulated levels of chemicals in food items by fish and wildlife at the creek.

The Gill Creek characterization report identified the presence of mercury, BHCs, and PAHs at levels that exceeded 1993 NYSDEC Fish and Wildlife sediment criteria for the protection of aquatic life. In addition, the RI showed that the contaminated groundwater is moving offsite into Gill Creek and may eventually reach the Niagara River."

REMEDIAL ACTION IMPLEMENTED

Project Name:	<u>GILL CREEK (Olin Industrial Welding Site)</u>	ProjectID: 02-17
Last Updated:	05/26/99	
Physical Target:	Top two feet of creek bed.	
Goals:	Diversion of stream followed by removal of contaminated sediments down to clean clay.	
Primary Contractor:	Sevenson Environmental Services	
Other Contractors:	Law Engineering	
Generic Remediation Method:	Dry excavation	
Equipment:	Typical construction equipment	
Material Handling:	Typical construction equipment	
Volume Removed:	6850 cy	
Calendar Time:	Early August to mid-September 1998	
Time To Implement:	1.5 months	
Total Cost:	Not available	
Dredging Cost:	Not available	
Disposal of Sediment:	Placed in on-site temporary containment area and air dried; used as fill material at site.	
Volume of Water:	N/A	
Method of Water Treatment:	None	
Water Discharge Limit:	N/A	
Air Monitoring During Remediation:	Performed; no details available	
Water Monitoring During Remediation:	Limited performed; no details available	
Outcome:	PRP considers the project to be successful, but further details not obtained.	
Restoration and Post-Monitoring:	Five-year monitoring of wetland vegetation.	
Site-Specific Difficulties:	No major construction issues identified.	
Monitoring Data References:		
	<ul style="list-style-type: none">• Sediment• Water:• Fish:	

POTENTIALLY RESPONSIBLE PARTIES

Project Name GILL CREEK (Olin Industrial Welding Site)

ProjectID: 02-17

PRP Name: PRP INFORMATION NOT RELEASED

PRPID:

Street Address:

City:

State:

KEY CONTACTS

Project Name **GILL CREEK (Olin Industrial Welding Site)**

ProjectID: 02-17

Last Name: KEY CONTACT INFORMATION NOT RELEASED

Contact ID:

First Name:

Title:

Company:

Address:

City:

State:

Postal Code:

Work Phone # :

Other Phone #:

Fax # :

Email Address:

REFERENCES

Project Name GILL CREEK (Olin Industrial Welding Site)

ProjectID: 02-17

Reference Type: A

ReferenceID: 400

Title: *Record of Decision: Gill Creek - Olin Industrial Welding Site
City of Niagara Falls, Niagara County
I.D. Number 9-32-050*

Location: AEM

Category: ROD/Proposed Plan/Action Memo/Decision Document

Prepared by/Author: New York State Department of Environmental Conservation

**Preparer/Author
Address:**

Prepared For: General Public

Date Published: November 1994

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 277

Title: *Gill Creek - Olin Corporation-Industrial Welding; NYSDEC
Inactive Hazardous Waste Disposal Report*

Location: AEM

Category: Site Update

Prepared by/Author: New York State Department of Environmental Conservation

**Preparer/Author
Address:** Albany, NY

Prepared For: General Public

Date Published: April 1998

**Key Words and
Phrases:**

REFERENCES

Project Name GILL CREEK (Olin Industrial Welding Site)

ProjectID: 02-17

Reference Type: B

ReferenceID: 770

Title: *Realizing Remediation I - Great Lakes Contaminated Sediments
Gill Creek - Olin Industrial Welding Site
(see Reference A-905)*

Location: AEM

Category: Dredging: Remedial (Contaminated Sediments)

Prepared by/Author: US EPA Great Lakes National Program Office (GLNPO)

**Preparer/Author
Address:** 77 West Jackson Boulevard (G-17J)
Chicago, IL 60604

Prepared For: General Public

Date Published: August 1, 2002

**Key Words and
Phrases:**

Reference Type: B

ReferenceID: 825

Title: *Realizing Remediation II - Updated Summary:
Niagara River: Gill Creek - Olin Industrial Welding Site
(see Reference A-907)*

Location: AEM

Category: Dredging: Remedial (Contaminated Sediments)

Prepared by/Author: US EPA Great Lakes National Program Office (GLNPO)

**Preparer/Author
Address:** 77 West Jackson Boulevard (G-17J)
Chicago, IL 60604

Prepared For: General Public

Date Published: July 2000

**Key Words and
Phrases:**

REFERENCES

Project Name GILL CREEK (Olin Industrial Welding Site)

ProjectID: 02-17

Reference Type: C

ReferenceID: 577

Title: *Sediment Remediation Can Improve Great Lakes Water Quality*

Location: AEM

Category: Miscellaneous

Prepared by/Author: (1) John H. Hartig, (2) Lisa Maynard, (3) Michael A. Zarull, (4) Gail Krantzberg

Preparer/Author (1) Greater Detroit American Heritage River Institute

Address: Detroit, MI

(2) International Joint Commission

Windsor, Ontario, Canada

(3) National Water Research Institute

Burlington, Ontario, Canada

(4) Ontario Ministry of Environment

Prepared For: Water Environment & Technology (WE&T)

Date Published: October 1999

**Key Words and
Phrases:**

Reference Type: J

ReferenceID: 15

Title: *Gill Creek - Olin Industrial Welding Site*

Location: AEM

Category: Site Update

Prepared by/Author: New York State Department of Environmental Conservation

Preparer/Author Buffalo, NY

Address:

Prepared For: NYSDEC Internet Website

Date Published: 1997 circa

**Key Words and
Phrases:**

REFERENCES

Project Name **GILL CREEK (Olin Industrial Welding Site)**

ProjectID: 02-17

Reference Type: R

ReferenceID: 23

Title: ***Letter to PRP re: Case Histories: Contaminated Sediment Sites
(with response from Olin Corporation)***

Location: AEM

Category: Site Update

Prepared by/Author: AEM, Inc. with response from Olin Corporation

***Preparer/Author
Address:*** Malvern, PA 19355

Prepared For: Olin Corporation, submitted to

Date Published: May 14, 1999

***Key Words and
Phrases:***

FISH ADVISORIES

Project Name **GILL CREEK (Olin Industrial Welding Site)**

ProjectID: 02-17

Advisory: Gill Creek

AdvisoryID: 464

Extent: Mouth to Hyde Park Lake Dam (Niagara County)

Pollutant: PCBs (total)

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 2107

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Tony Forti

Contact Number: 518-402-7815

Advisory: Gill Creek

AdvisoryID: 454

Extent: Mouth to Hyde Park Lake Dam (Niagara County)

Pollutant: PCBs (total)

Species: all fish

Population: NCSP

Population Definition: No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.

Advisory Type: River

Advisory Number: 2107

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Tony Forti

Contact Number: 518-402-7815

Advisory: Gill Creek

AdvisoryID: 955

Extent: Mouth to Hyde Park Lake Dam (Niagara County)

Pollutant: dioxin

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 2107

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Tony Forti

Contact Number: 518-402-7815

FISH ADVISORIES

Project Name **GILL CREEK (Olin Industrial Welding Site)**

ProjectID: 02-17

Advisory: Gill Creek

AdvisoryID: 954

Extent: Mouth to Hyde Park Lake Dam (Niagara County)

Pollutant: dioxin

Species: all fish

Population: NCSP

Population Definition: No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.

Advisory Type: River

Advisory Number: 2107

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: Tony Forti

Contact Number: 518-402-7815
