FIVE-YEAR REVIEW REPORT FOR MIDCO II SUPERFUND SITE LAKE COUNTY, INDIANA

US EPA RECORDS CENTER REGION 5
461581

Prepared by

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LIST OF ACRONYMS

CALs	cleanup action levels (required to be achieved in soil below sediments that are excavated)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
ENVIRON	ENVIRON International Corporation, a consultant for the MRC
EPA	United States Environmental Protection Agency
ERM	Environmental Resources Management, a consultant for the MRC from approximately 1987 to September 2002
ESD	Explanation of Significant Differences
ESD #1	Explanation of Significant Differences dated 1/9/96 (EPA document to change MAC and GWCAL for 1,1-dichloroethane)
ESD #2	Explanation of Significant Differences dated 11/2/99 (EPA document to change the MAC and GWCALs for certain polyaromatic hydrocarbons)
ESD #3	Explanation of Significant Differences dated 9/30/04 (EPA document primarily to change soil cleanup components)
FYR	five-year review
GC	gas chromatograph
GWCALs	groundwater cleanup action levels (these are concentrations of contaminants required to be achieved at the end of the groundwater cleanup)
GWR_g	Groundwater Risk Factor
ICs	Institutional Controls
ICIAP	Institutional Controls Implementation and Assurance Plan
IDEM	Indiana Department of Environmental Management
MACs	maximum allowable concentrations (the treated groundwater must be less than these concentrations before being deep well injected)
MCLs	Primary Maximum Contaminant Levels for drinking water from 40 CFR 121
mg/l	milligrams per liter, a unit for contaminant concentration in groundwater, equal to parts per million
MNA	monitored natural attenuation
MRC	MIDCO Remedial Corporation (a corporation formed by the Settling Defendants to the MIDCO I and MIDCO II Consent Decree for the purpose of implementing the requirements of the Consent Decree)
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	operable unit
PCBs	Polychlorinated biphenyls
PID	Photoionization detector
ppm	parts per million
PRPs	Potentially Responsible Parties

RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SPLP	synthetic precipitation leaching procedure
SVE/AS	soil vapor extraction/air sparging
µg/1	micrograms per liter
UU/UE	unlimited use and unrestricted exposure
UV/HP	ultraviolet/hydrogen peroxide
VOCs	volatile organic compounds
Weston	Weston Solutions, Inc., EPA's oversight contractor

EXECUTIVE SUMMARY

This is the fourth five-year review (FYR) for the MIDCO II Superfund site located in Gary, Lake County, Indiana. The purpose of this FYR is to review information to determine if the remedy is and will continue to be protective of human health and the environment. The triggering action for this statutory FYR was the signing of the previous FYR on 3/12/2009.

The selected remedy for this industrial disposal site is being implemented in three operable units (OUs). Each OU and its major remedy components are as follows:

> OU #1 (Groundwater Pump-and-Treat System and Deep Well Injection): groundwater pump-and-treat and disposal via deep injection well located at the MIDCO I site to achieve the groundwater cleanup action levels (GWCALs), with treated groundwater from MIDCO II pumped to the MIDCO I site via an underground pipeline; and access and deed restrictions.
>
> OU #2 (Soil Treatment System, Soil Excavation, and Sediment Excavation): soil and groundwater treatment by soil vapor extraction/air sparging (SVE/AS) to achieve at least a 97% reduction in volatile organic compounds (VOCs) in soil; excavation or solidification/stabilization of the source area soils most highly contaminated by metals and cyanide; excavation of contaminated sediments and underlying soils from the ditch north of MIDCO II to achieve soil/sediment cleanup action levels (CALs), and consolidation of the excavated soil/sediments onto the MIDCO II source area; and access and deed restrictions.
>
> OU #3 (Final Cover): construction of a final site cover over the source area; and access and deed restrictions.

The remedial actions are being implemented under a Consent Decree by a group of Settling Defendants, who have formed the MIDCO Remedial Corporation (MRC). The U.S. Environmental Protection Agency (EPA) and the Indiana Department of Environmental Management (IDEM) are overseeing implementation of the remedy.

In 1993, the MRC partially excavated contaminated sediments and soil from the ditch, but contamination remains in the sediments and soils left in place. In 1994, the MRC constructed a pipeline along the ditch to bypass the area of contaminated sediments and soils, and the site fence was extended to enclose those areas to restrict human access. Also in 1993, the MRC filed a deed restriction on one of the site properties. In 1994 and 1995, the MRC constructed the pump-and-treat and deep well injection system, which was in operation from 1997 through September 2010. During 2005-2006, the MRC constructed the SVE/AS system, which operated from March 2006 until its shutdown on May 15, 2013.

After the groundwater pump-and-treat system reached the limit of its effectiveness, on September 24, 2010, the system was temporarily shut down to allow an evaluation of monitored natural attenuation (MNA) as an alternate groundwater remedy to address the remaining low-level groundwater contamination at the site. The MNA evaluation is ongoing.

The following active remedy components have not been completed: treatment of one area of source area soils with high cyanide concentrations (it was determined that no excavation of

source area soils was needed) and construction of the final site cover; and construction of a cover over the remaining sediment area contamination.

The access restrictions, groundwater pump-and-treat and deep well injection, and SVE/AS portions of the remedy functioned as intended in the Record of Decision (ROD), including complying with air emission limitations and deep well injection requirements. The pump-and-treat system adequately contained the contaminated groundwater during its operation, and there have been reductions in the concentrations of most groundwater contaminants. The SVE/AS system was very successful in removing a large quantity of VOCs from the source area soils and groundwater, and in reducing groundwater contamination in areas where air sparging was conducted. As of May 15, 2013, the SVE/AS system achieved the ROD performance standard of 97% soil vapor reduction to protect groundwater, and the system was shut down. Although there is a deed restriction on one of the properties, the deed language and other institutional controls (ICs) need to be updated, fully implemented, and monitored.

The remedy at OU #1 protects human health and the environment in the short term because fencing prevents access, and a deed restriction on one of the properties and a City of Gary ordinance prohibit residential usage of groundwater. In order for the remedy to be protective in the long-term, the following actions are needed: continued access restrictions; GWCALs waiver for non-site related contaminants; evaluation and revision of GWCALs; monitoring of groundwater to evaluate the potential for MNA as an alternate groundwater remedy to achieve the GWCALs; and full implementation and monitoring of effective ICs. Currently, no one in the area uses groundwater.

The remedy at OU #2 is expected to be protective of human health and the environment upon its completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas. These remedial activities include the SVE/AS system which was successful in achieving a 97% reduction of soil vapors in sediment and soil to protect groundwater, and operation of the pump-and-treat system. Remaining actions to be completed include: treating one area of cyanide-contaminated source area soils with chemical oxidation to protect groundwater; evaluation of ecological risks and update of the soil/sediment CALs; covering remaining areas of contaminated sediments with a soil cover; and full implementation and monitoring of effective ICs.

The remedy at OU #3 is expected to be protective of human health and the environment upon its completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas. These remedial activities include fencing, a deed restriction, and an interim soil cover to prevent contact with impacted soils and sediment. Remaining actions to be completed include: the design and construction of the site multi-layer cap as per the requirements of the 1989 ROD as amended in 1992; and full implementation and monitoring of effective ICs.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: MIDCO II		
EPA ID: IND980679559		
Region: 5	**State:** IN	**City/County:** Gary/ Lake County

SITE STATUS	
NPL Status: Final	
Multiple OUs? Yes	**Has the site achieved construction completion?** No

REVIEW STATUS
Lead agency: EPA
Author name (Federal or State Project Manager): Pablo N. Valentín
Author affiliation: EPA
Review period: 9/18/2013 - 3/12/2014
Date of site inspection: 11/7/2013
Type of review: Statutory
Review number: 4
Triggering action date: 3/12/2009
Due date *(five years after triggering action date)*: 3/12/2014

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
None

Issues and Recommendations Identified in the Five-Year Review:				
OU(s): 1	**Issue Category: Changed Site Conditions**			
	Issue: Unable to achieve all GWCALs due to off-site source of contamination.			
	Recommendation: GWCAL waiver or modification of non-MIDCO II-related constituents for pentachlorophenol.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/IDEM	9/30/2016

OU(s): 1	**Issue Category: Remedy Performance**			
	Issue: GWCALs may not be protective in the long-term.			
	Recommendation: Evaluate and update GWCALs.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/IDEM	9/30/2016

OU(s): 1	**Issue Category: Remedy Performance**			
	Issue: Groundwater pump and treat has reached its maximum effectiveness at the MIDCO II site.			
	Recommendation: Evaluate monitored natural attenuation to address low-level residual constituents in groundwater.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/IDEM	9/30/2016

OU(s): 1	**Issue Category: Changed Site Conditions**			
	Issue: Decision document needed for shutdown of pump-and-treat system to evaluate MNA.			
	Recommendation: Issue ESD #4.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/IDEM	9/30/2014

OU(s): 2	Issue Category: Remedy Performance			
	Issue: Soil/sediment CALs may not be protective.			
	Recommendation: Evaluate protectiveness of soil/sediment CALs and revise as needed; treat cyanide-contaminated soils near MW-1 with chemical oxidation; in ditch, cover remaining soil/sediment exceeding CALs with soil cover; document in ESD #4.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/IDEM	9/30/2014

OU(s): 1, 2, and 3	Issue Category: Institutional Controls			
	Issue: Full implementation and monitoring of effective ICs.			
	Recommendation: Prepare an ICIAP for approval. ICIAP shall include updated deed language for all properties where unrestricted usage or access presents an unacceptable threat to human health or the environment; work with the City of Gary to assure notification of non-potable water usage near MIDCO II; update title work; prepare and implement an IC monitoring or Long-Term Stewardship Plan; and include further evaluation and implementation of ICs, as necessary, to enhance the long-term protectiveness of the remedy.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/IDEM	12/31/2015

Protectiveness Statement(s)	
Operable Unit: 1	*Protectiveness Determination:* Short-term Protective
Protectiveness Statement: The remedy at OU #1 protects human health and the environment in the short term because fencing prevents access, and a deed restriction on one of the properties and a City of Gary ordinance prohibit residential usage of groundwater. In order for the remedy to be protective in the long-term, the following actions are needed: continued access restrictions; GWCALs waiver for non-site related contaminants; evaluation and revision of GWCALs; monitoring of groundwater to evaluate the potential for MNA as an alternate groundwater remedy to achieve the GWCALs; and full implementation and monitoring of effective ICs. Currently, no one in the area uses groundwater.	

Protectiveness Statement(s)	
Operable Unit: 2	*Protectiveness Determination:* Will be Protective
Protectiveness Statement: The remedy at OU #2 is expected to be protective of human health and the environment upon its completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas. These remedial activities include the SVE/AS system which was successful in achieving a 97% reduction of soil vapors in sediment and soil to protect groundwater, and operation of the pump-and-treat system. Remaining actions to be completed include: treating one area of cyanide-contaminated source area soils with chemical oxidation to protect groundwater; evaluation of ecological risks and update of the soil/sediment CALs; covering remaining areas of contaminated sediments with a soil cover; and full implementation and monitoring of effective ICs.	

Protectiveness Statement(s)	
Operable Unit: 3	*Protectiveness Determination:* Will be Protective
Protectiveness Statement: The remedy at OU #3 is expected to be protective of human health and the environment upon its completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas. These remedial activities include fencing, a deed restriction, and an interim soil cover to prevent contact with impacted soils and sediment. Remaining actions to be completed include: the design and construction of the site multi-layer cap as per the requirements of the 1989 ROD as amended in 1992; and full implementation and monitoring of effective ICs.	

I. INTRODUCTION

The purpose of a five-year review is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

EPA prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA 121 states:

> *"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews."*

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii) states:

> *"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such actions no less often than every five years after the initiation of the selected remedial action."*

EPA conducted a FYR of the remedy implemented at the MIDCO II Superfund site in Gary, Lake County, Indiana. The site location is shown in Figure 1 in Appendix B. EPA is the lead agency for developing and implementing the remedy for the site. IDEM, as the support agency representing the State of Indiana, has reviewed all supporting documentation and provided input to EPA during the FYR process.

This is the fourth FYR for the MIDCO II Superfund site. The triggering action for this statutory review is the completion date of the previous FYR. The FYR is required due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE). The site consists of three operable units, all of which are addressed in this FYR. Background information about the site can be found in Appendix A.

II. PROGRESS SINCE THE LAST REVIEW

Table 1: Protectiveness Determinations/Statements from the 2009 FYR

OU #	Protectiveness Determination	Protectiveness Statement
OUs 1, 2, and 3	Short-term Protective	The remedy protects human health and the environment in the short term because: • fencing, deed restrictions on some properties, and on-site staff prevent human exposure to the contaminated groundwater, soils and sediments (a City of Gary ordinance also prohibits residential usage of groundwater); • although wildlife can be exposed to the contaminants remaining in the sediment areas, the area affected is small, the value of the habitat is minor, and the contaminant concentrations may not exceed background; and • monitoring is being performed to assure compliance with air emission limitations, and the regenerative thermal oxidizer is being maintained to treat the air emissions, if necessary. In order for the remedy to be protective in the long term, the following actions are needed: <u>OU #1</u> -Continued O&M, and monitoring of the pump-and-treat system to contain the contaminated groundwater and attempt to achieve the GWCALs; -Update the GWCALs. <u>OU #2</u> -Repair and continued O&M and monitoring of the SVE/AS system to effectively treat all areas where the contaminated groundwater exceeds the GWCALs; -Addition of fluoride to the groundwater monitoring; -Excavation of high metals and cyanide contamination; -Consideration, and if necessary, evaluation of ecological risks and adjustment of the soil/sediment CALs during design of the site cover and final sediment excavation; and -Completion of sediment excavation; <u>OU #3</u> -Installation of the final site cover. <u>All OUs</u> -Continued restriction of access; -Full implementation and monitoring of ICs.

Table 2: Status of Recommendations from the 2009 FYR

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date (if applicable)
1	Fluoride is not being monitored in the groundwater, but is likely to exceed its GWCAL, and the fluoride contamination may be from Midco II.	Add fluoride to the groundwater monitoring parameter list	PRP	EPA/ IDEM	5/1/2009	Completed	7/20/2009
1	Contamination from off-site may make it impossible for the pump-and-treat system to achieve all GWCALs.	Evaluate and update GWCALs at the time of review of request to shut down pump-and-treat.	PRP	EPA/ IDEM	12/31/2011	Ongoing	NA
1	GWCALs may not be protective.		PRP	EPA/ IDEM	12/31/2011	Ongoing	NA
2	SVE/AS has not been performed in Cell 2, Cell 4, and eastern portion of Cell 3, where some VOCs significantly exceed GWCALs.	Repair SVE/AS for Cells 2 and 4, and re-initiate treatment.	PRP	EPA/ IDEM	12/31/2009	Completed	5/15/2013
2	Sediments and soils in the ditch exceed CALs.	Evaluate whether to cover or excavate the sediments, and update the soil/sediment CALs during review of design for site cover.	PRP	EPA/ IDEM	12/31/2011	Ongoing	NA
2	Sediment/soil CALs may not be protective.		PRP	EPA/ IDEM	12/31/2011	Ongoing	NA
1, 2, and 3	IC work not complete.	File updated restrictive covenants for all necessary properties; work with the City of Gary to assure notification of non-potable groundwater usage near MIDCO II; add IC monitoring to the O&M plan; and further evaluate and implement ICs, as necessary to enhance the long-term protectiveness of the remedy.	PRP	EPA/ IDEM	12/31/2009	Ongoing	NA

Status of Recommendations for OU #1

Fluoride is not being monitored in the groundwater, but is likely to exceed its GWCAL, and the fluoride contamination may be from Midco II; Contamination from off-site may make it impossible for the pump-and-treat system to achieve all GWCALs, and GWCALs may not be protective. Fluoride was added to the list of groundwater monitoring parameters in 2009, in accordance with the recommendations from the 2009 FYR. In September 2010, EPA granted a request from the potentially responsible parties (PRPs) to shut down the groundwater pump-and-treat system in order to evaluate the effectiveness of monitored natural attenuation (MNA) at the site. The pump-and-treat system operated from 1997–2010 and reached the limit of its effectiveness. EPA intends to issue an Explanation of Significant Differences (ESD) in 2014 (which would be ESD #4) to document the shutdown of the groundwater pump-and-treat system for purposes of evaluating MNA. If MNA is demonstrated to be effective at the site, EPA would then issue a ROD amendment (#2). Some of the GWCALs are currently being evaluated by EPA to determine their protectiveness.

Status of Recommendations for OU #2

SVE/AS has not been performed in Cell 2, Cell 4, and eastern portion of Cell 3, where some VOCs significantly exceed GWCALs; Sediments and soils in the ditch exceed CALs, and the soil/sediment CALs may not be protective. In the fall of 2009, MRC believed it had achieved the required 97% reduction in source area VOCs required by the ROD, and a four-week shutdown of the SVE/AS system showed no significant increase (rebound) in VOC concentrations. Therefore, no additional SVE/AS work was required in Cell 2, Cell 4, and/or the eastern portion of Cell 3. However, MRC continued to operate the SVE/AS system until May 2013 in an effort to achieve additional reductions in contaminant concentrations to protect groundwater. The soils/sediments in the ditch that were not excavated in 1993 did not achieve the soil/sediment CALs, and a screening of ecological risks had indicated the potential for severe effects on invertebrates. As an interim measure, the remaining contaminated soils/sediments had been enclosed within a fence, and the ditch drainage had been diverted around the contaminated soils/sediments. Since the last FYR, MRC completed an updated residual risk evaluation for the sediments, and based on the results, EPA has agreed that a soil cover will provide adequate long-term management of the potential ecological risks from the remaining sediments. This decision will be documented in ESD #4. Also since the last FYR, MRC re-sampled the source area soils and re-evaluated the residual risks. Based on the results, additional excavation of the source area soils is not required because the concentrations detected do not indicate a threat to groundwater. However, one area of source area soils will need to be treated to reduce cyanide concentrations which exceed the CALs and which could pose a threat to groundwater. The cyanide treatment is scheduled occur in 2014 and will be documented in ESD #4.Institutional controls are discussed under Remedy Implementation Activities on page 6.

Remedy Implementation Activities

The remedy implementation activities completed and ongoing during this review period (or upcoming in the near future) at the MIDCO II site are as follows:

OU #1

- In 2009, fluoride was added to the list of parameters to be monitored in groundwater, in accordance with the recommendations from the 2009 FYR. Fluoride was not analyzed during the RI and was not expected to be a significant problem in groundwater at the MIDCO II site. However, fluoride had been detected from 1.73 to 13.1 mg/1 in the quarterly influent samples, and generally exceeded the fluoride MCL (4 mg/1) from 1993 through 2006. Concentrations appeared to be decreasing with time, and in 2007-2008 detections ranged from 2.32 to 2.81 mg/1. Fluoride has been monitored in groundwater since 2009.
- Temporary shutdown of the groundwater pump-and-treat system occurred on September 24, 2010, to allow evaluation of the potential for MNA as an alternate groundwater remedy. The groundwater pump-and-treat system had reached its maximum effectiveness, so MNA will be evaluated in a pilot study to see if it will be effective in addressing the remaining groundwater contamination. The evaluation includes the use of MNA to address remaining low-level contamination and exclusion of certain inorganic constituents from consideration due to off-site and/or background contributions. Modeling of low-level constituents within the site boundary has been performed and the results demonstrate that the low-level constituents are not expected to leave the site.
- Following the temporary shutdown of the groundwater pump-and-treat system, MRC abandoned the pipeline that carried treated water to the MIDCO I site for deep well injection. If EPA ever determines that the groundwater pump-and-treat system needs to be re-started, the PRPs will have to construct a replacement pipeline.

OU #2

- The remaining contaminated sediments and soils in the ditch north of MIDCO II are scheduled to be covered with a soil barrier in 2014 to address residual direct contact risks and ecological risks to invertebrates. Figure 2 in Appendix B shows the area that will be covered. The sediments and soils in the ditch were partially excavated in 1993, and the remaining soils/sediments did not achieve the soil/sediment CALs.
- All seven source area soil grids that in 1998 were determined to require excavation, due to high concentrations of cyanide and metals that could potentially impact groundwater concentrations, were re-sampled in December 2009. ESD #3 allowed re-sampling of grids identified in 1998 to confirm whether excavation remained necessary. Based on the sampling results, which are discussed in more detail in the *Data Review* discussion in Section III of this report, no remaining soil grids require excavation to address cyanide- and metals-contaminated soils.
- Although it was determined that excavation of source area soils is not needed, MRC will be using chemical oxidation to treat cyanide-contaminated soils in an area of source area soils near MW-1. This work is scheduled to occur in 2014.

OU #3

- EPA and IDEM are reviewing the remedial design for the final site cover. Implementation of this portion of the remedy will begin after approval of the design, likely during 2014. The design includes closure with a final cover that is equivalent to

the Resource Conservation and Recovery Act (RCRA) multilayer cap identified in the original ROD.

Since the implementation of the site remedy has not been completed, ICs for the site are in the process of being implemented and re-evaluation of existing deeds is being performed by ENVIRON on behalf of MRC.

Institutional Controls

Institutional controls are required to ensure the protectiveness of the remedy. ICs are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. Compliance with ICs is required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure.

ICs are called for in the ROD, ROD Amendment, ESDs, and in the Consent Decree for the site.

Table 3 summarizes the areas at the MIDCO II site which do not allow for UU/UE and where ICs are required to ensure no inappropriate uses of the site occur.

Table 3: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed ?	ICs Called for in the Decision Documents?	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
On-site soils*	Yes	Yes	MIDCO II	Prevent site trespassing by installing a fence around the perimeter of the site. Prohibit soil excavation to protect final soil cover.	Deed restrictions (planned 09/30/2016)
On-site sediments*	Yes	Yes	MIDCO II	Prevent site trespassing by installing a fence around the perimeter of the site. Prohibit excavation in sediment areas to protect final soil cover.	Deed restrictions (planned 09/30/2016)
On-site groundwater*	Yes	Yes	MIDCO II	Prohibit the use of groundwater as a drinking water source. Prohibit installation of wells.	Deed restriction (planned 09/30/2016); City of Gary Ordinance (September 27, 2007 {see Appendix G})
Off-site* groundwater	Yes	No		Prohibit drilling of new wells to be used as a source of potable water, require existing private wells to be connected to the City water system if possible, and require non-potable water wells to be registered.	City of Gary Ordinance (September 27, 2007 {see Appendix G})

* Areas subject to ICs will be further evaluated and delineated and maps which depict the areas where ICs are needed (i.e., non UU/UE areas) will be prepared.

Current Status of Access and Institutional Controls:

Currently, the MIDCO II property is being used only for implementation of the remedial action. The 1989 ROD required access restrictions by construction of a fence around the site and imposition of deed restrictions. The MRC is maintaining a fence around the contaminated soil and sediment areas and the groundwater treatment facility. Periodic inspections by EPA and IDEM staff have confirmed that the fence is being adequately maintained.

The 1989 ROD and 1992 ROD Amendment include deed restrictions as a component of the remedy. Deed restrictions are one type of IC. The Consent Decree requires that the Settling Defendants perform the following actions relative to deeds and land records applying to the property that they own:

- File an EPA-approved notice to subsequent property owners in the land records of Lake County, Indiana, that they own part of a facility where hazardous substances were disposed;
- Notify EPA and the State of Indiana prior to transfer of the property, and assure that any deed, title or other instrument of conveyance of the property must contain a notice that the property is subject to the Consent Decree;
- Record a copy of the Consent Decree in the chain of title in the land records of Lake County, Indiana, for property that they own; and
- File in the land records deed/use restrictions in the form shown in Appendix 8 of the Consent Decree.

To the extent that property is not owned by the Settling Defendants, the Consent Decree requires them to use their best efforts to cause the owners of such property to implement the deed notices and restrictions identified above.

In 1992 and 1993, the Settling Defendants filed deed restrictions in the land records for one parcel within the MIDCO II site boundaries using the language required in the Consent Decree.

In an action outside of the Consent Decree, on September 27, 2007, the City of Gary passed an ordinance prohibiting drilling of new wells to be used as a source of potable water, requiring existing private wells to be connected to the City water system if possible, and requiring non-potable water wells to be registered. Currently, no one in the area uses the groundwater.

During 2008, EPA performed an initial IC evaluation. EPA determined that the existing access controls along with the City of Gary's groundwater ordinance provide sufficient protection from current public health threats. However, EPA identified the following concerns that may impact the long-term protectiveness of the remedy: deed restrictions required in the Consent Decree are not in place on all properties where contaminants exceed the soil CALs and/or the GWCALs; the existing deed language may not be effective; it is possible for non-potable water usage to draw contaminated groundwater off-site; and existing project plans do not include IC monitoring.

Therefore, EPA has determined that the following additional steps must be taken: update deed language for all properties where unrestricted usage or access presents an unacceptable threat to human health or the environment; work with the City of Gary to assure notification of non-potable water usage near MIDCO II; prepare and implement an IC monitoring plan; and further

evaluate and implement ICs, as necessary, to enhance the long-term protectiveness of the remedy. EPA is currently in communication with the MRC regarding this issue, which will be addressed as part of the site's construction completion phase.

Future Work Required:

Effective ICs must be implemented, monitored, maintained and enforced. Long-term stewardship must be assured. To that end, an Institutional Controls Implementation and Assurance Plan (ICIAP) will be prepared to conduct additional IC evaluation activities such as title work and review of existing ICs, planning for additional ICs that are needed, and preparation of a Long-Term Stewardship Plan. The ICIAP will address the above-mentioned items.

System Operation/Operation and Maintenance Activities

Operation and maintenance (O&M) activities continue to take place at the site. O&M of the deep injection well, site fence, and interim soil cover is performed periodically and the records are available at the site. The groundwater pump-and-treatment system, the SVE system, and the thermal oxidation system have been shut down, so O&M of these remedy components is currently not required.

III. FIVE-YEAR REVIEW PROCESS

Administrative Components

EPA notified the PRPs of the initiation of the five-year review on 9/18/2013. The MIDCO II Superfund site five-year review was led by Pablo N. Valentín, EPA Remedial Project Manager (RPM) for the site, with assistance from Janet Pope, the EPA Community Involvement Coordinator (CIC). Stephanie Andrews, the IDEM project manager, assisted in the review as the representative for the support agency.

The review, which began on 9/18/2013, consisted of the following components:

- Community Notification and Involvement;
- Document Review;
- Data Review;
- Site Inspection; and
- Five-Year Review Report Development and Review.

Community Notification and Involvement

Activities to involve the community in the five-year review process were initiated with communications in September 2013 between the RPM and CIC for the site. A notice was published in the local newspaper (see Appendix D), the "Gary Post Tribune", on 12/20/2013, stating that there was a five-year review and inviting the public to submit any comments to EPA. The results of the review and the final FYR report will be made available at the site information repository located at the Gary Public Library, Indiana Room, 200 W. Fifth Avenue, Gary, Indiana, 46402.

Document Review

This five-year review consisted of a review of relevant documents including O&M records and monitoring data. Applicable groundwater, soil, and sediment cleanup standards, as listed in the June 1989 ROD, April 1992 ROD Amendment, and ESDs #1, #2, and #3, were also reviewed.

Data Review

Figure 3 in Appendix B shows the location of the monitoring well network at the MIDCO II site. A comparison of the 2012 annual monitoring event analytical results with the cleanup action levels at the MIDCO II site, including extraction wells, is presented in Table 5; note in particular the last column of Table 5, which indicates for each location whether the results exceed CALs. (Note: Tables 5 through 11 are located in Appendix C.) Evaluations of quantitation limits and rejected data factors for the 2012 data that may potentially impact the CAL status at the MIDCO II site are presented in Table 6.

Monitoring locations including extraction wells at the MIDCO II site that meet CALs or that meet CALs except for iron are presented in Table 7. Of the 50 monitoring wells, 5 piezometers, and 6 extraction wells locations sampled in 2012, 24 monitoring locations either met all the GWCALS or met all of the GWCALs with the exception of iron. Table 7 also shows which monitoring locations met all the GWCALs or all the GWCALs with the exception of iron for the 1996 through 2012 annual monitoring events.

Groundwater sample results from 2012 that are not consistent with historical trends at the MIDCO II site are presented in Table 8. Comparisons of the most recent (2012) groundwater analytical results with the 1986/1987-2011 results, including the extraction well results, are presented in Table 9.

Maps of total VOC concentrations are presented in Figures 4 and 5 in Appendix B; Figure 4 shows the concentrations in the shallow monitoring wells and Figure 5 shows the concentrations in the intermediate and deep monitoring wells. Since the last FYR, 1,4-dioxane has been identified as a new contaminant of concern and has been added to the list of groundwater monitoring parameters. Maps showing 1,4-dioxane concentrations in the shallow monitoring wells and in the intermediate and deep monitoring wells are presented in Figures 6 and 7 in Appendix B, respectively. Iron concentrations versus time for selected wells are presented on Figure 8 in Appendix B.

Tables 10 and 11 present the concentrations of VOCs and inorganic compounds, respectively, in monitoring location samples from 1993 through 2012.

As compared to historical trends, elevated concentrations of cyanide, mercury, and nickel were detected at certain monitoring locations during the 2012 monitoring event (cyanide: MW-2D, MW-50, E-10, U-50, EW-2, and EW- 4; mercury: P-10, P-50, Q-10, Q-50, V-10, P-1, and P-4; nickel: R-50). It should be noted that two samples from monitoring location Q-50 were analyzed for mercury. The mercury analytical result from one sample (2WQ5016 – 0.344 μg/l) was inconsistent with historical trends, while the other sample (2WQ5016D – not detected at 0.036 μg/l) was consistent with historical trends, suggesting an analytical issue at the laboratory. Two samples from monitoring location P-1 were also analyzed for mercury. The mercury analytical result from one sample (2WP116 – 0.299 μg/l) was inconsistent with historical trends, while the other sample (2WP116 – not detected at 0.036 μg/l) was consistent with historical trends, again

suggesting an analytical issue at the laboratory. In the next groundwater monitoring event, additional re-sampling or investigation of potential chemical interferences associated with these samples and use of proper laboratory techniques to address these interferences will be conducted.

The soil excavation remedy from ESD #3 replaced the requirements for treatment of source area soils for metals and cyanide described in Section V.C.2 of the 1992 ROD amendment. This area of impacted soil was considered to represent a potential threat to groundwater quality due to metals and cyanide contamination. Using EPA's procedures for selecting grids for excavation based on groundwater risk factor (GWR_g) greater than or equal to 50, the following soil grids for soil excavation were identified: 2ST2G91, 2ST3H91, 2ST3E91, 2ST3E94, 2ST4E51, 2ST4F51, and 2ST4G51. ESD #3 allowed re-sampling of grids identified in 1998 to confirm whether excavation remained necessary. Re-sampling of soil grids indicating a GWR_g greater than or equal to 50 require would require excavation and management offsite per applicable regulations and requirements for waste disposal. Soil grids with a GWR_g less than 50 would be considered a low-level threat and would not need to be excavated.

All 7 soil grids noted above were re-sampled in December 2009. A marked reduction in synthetic precipitation leaching procedure (SPLP) leachate was observed. This was likely caused by removal of residual organic waste matrix by the SVE system and flushing of the inorganic constituents by rainfall infiltration through the temporary site cover. Inorganics flushed from the shallow subsurface were collected by extraction wells and managed through the groundwater pump-and-treat system and disposal via the injection well located at the MIDCO I site. Based on the 2009 sampling results for SPLP cyanide and metals, there were no remaining soil grids with a GWR_g factor greater than or equal to 50. Therefore, no additional soil excavation work is required to address cyanide- and metals-contaminated soils.

Site Inspection

The site inspection for the five-year review was conducted on 11/7/2013 (see Appendix E for the Site Inspection Checklist). In attendance were Pablo N Valentín, EPA, and Barbara Coughlin and Tat Ebihara representing MRC. The purpose of the inspection was to assess current site conditions and the protectiveness of the remedy. The inspection findings confirmed that the remedy at the MIDCO II site is in compliance with the requirements of the 1989 ROD, the 1992 ROD Amendment, ESDs #1, #2, and #3, and subsequent EPA written approvals that allowed for the shutdown of the groundwater pump-and–treat system in 2010 and SVE/AS system in 2013. The site currently has an interim cap that is being maintained until the final cap is constructed. Pictures taken during the November 2013 site inspection documenting site conditions are presented in Appendix F.

Interviews

No specific interviews for purposes of this five-year review were conducted. However, the EPA RPM maintains regular communication with technical staff of ENVIRON and IDEM regarding the site O&M and monitoring. As part of several site visits, the RPM and the IDEM Project Manager met with the ENVIRON representatives and discussed operation of the treatment systems and future remedy construction activities. EPA staff has been in communication with the Federal Aviation Administration, the Gary-Chicago Airport Authority, and other agencies regarding an environmental impact statement for expansion of the airport. In May 2013, EPA met with the PRPs, IDEM, and Gary-Chicago Airport Authority to discuss the project status as well as the airport's expansion plans.

IV. TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

This question will be addressed separately for the different components of the site remedy, as presented below.

Groundwater pump-and-treat system and deep well injection system (OU #1) - YES. However, there are concerns: The pump-and-treat system was shut down in September 2010 because it had reached maximum effectiveness. The pump-and-treat and deep well injection systems operated in compliance with all air emission and underground injection well requirements and achieved adequate groundwater capture while in operation. The data indicate that VOCs and other contaminants in groundwater were being cleaned up. There may be an off-site source of arsenic, cyanide, sulfide, iron, thallium, and dieldrin contamination. As a result, it may not be possible to achieve GWCALs for these contaminants. In addition, groundwater could potentially become re-contaminated by VOCs and other contaminants as a result of the shutdown of the pump-and-treat system and SVE/AS system in 2010 and 2013 respectively. The groundwater pump-and-treat system is currently in a trial shutdown period to allow EPA, IDEM, and the PRPs to evaluate whether MNA would be adequate to address the site's remaining low-level groundwater contamination. EPA intends to issue ESD #4 in 2014 to document the shutdown of the groundwater pump-and-treat system for purposes of evaluating MNA.

SVE/AS (OU #2) - YES. The SVE/AS system was successful in removing about 97% of VOCs from the subsurface. The system was shut down on May 15, 2013.

Sediment Excavation (OU #2) - NO. The ROD required that after the sediment excavation, the sediment areas should be below the soil/sediment CALs, but based upon existing data, the remaining sediment continues to exceed the soil/sediment CALs and poses a risk to ecological receptors. As an interim measure, the sediment areas that were not excavated were enclosed inside a fence, which effectively prevents human contact with the contaminants, but does not necessarily prevent wildlife contact. Although wildlife can be exposed to the remaining sediment areas, the area affected is small, the value of the habitat is minor, and the contaminants presenting the potential risk are at levels that may be the result of background contamination in this urban and industrialized area. For these reasons, the final action for the remaining sediment areas will be to construct a soil cover over the remaining sediments in the ditch. This work is scheduled to be completed by 2014 and will be documented in ESD #4.

Soil Excavation (OU #3) – NO. After re-sampling source area soils and evaluating residual risks in soil, it was determined that no additional soil excavation is needed. However, cyanide in site soils in the vicinity of MW-1 will need to be addressed because the soils in this particular area could threaten groundwater quality. MRC will treat this area of cyanide-contaminated soils using chemical oxidation, and this work is scheduled to occur during 2014.

Final Soil Cap (OU #3) – This portion of the remedy has not yet been implemented. Construction of the final site cap will begin after EPA approves the final design for that portion of the remedy, likely during 2014.

Access controls (OUs #1, 2, and 3) - YES. The site fence provides sufficient current protection to public health from exposure to the contaminated soil and sediments.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy section still valid?

NO. The remedial objectives are still valid, and there have been no changes in the physical conditions at the site that would affect the protectiveness of the remedy. The 1992 ROD Amendment incorporated specific requirements for soil and groundwater cleanup (soil/sediment CALs and GWCALs), for limiting contaminants in the groundwater prior to deep well injection (maximum allowable concentrations or MACs), and for air emissions. The ROD Amendment also incorporated toxicity factors, and exposure assumptions for calculating risks for use in calculating soil/sediment CALs, GWCALs, and air emission criteria. EPA's Ambient Water Quality Criteria were identified for calculating GWCALs for protection of aquatic life, and a conservative dilution factor was identified to correct groundwater concentrations for dilution in surface waters. Toxicity factors for a few contaminants were updated or added in ESD #1 (dated 1/9/1996) and ESD #2 (dated 11/2/1999). Only the GWCALs based on MCLs are automatically updated when MCLs change. Since the last FYR, 1,4-dioxane has been identified as a new contaminant of concern and has been added to the list of parameters that require monitoring. This change will be documented in ESD #4, scheduled for 2014.

EPA is currently evaluating data provided by the PRPs in order to determine if a variation for the GWCALs point of compliance is appropriate to address iron and manganese as well as TCE and vinyl chloride in groundwater. If EPA decides to revise the point of compliance, this decision would be documented in an appropriate decision document.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

YES. An ecological risk assessment was conducted in 2009 to determine the protectiveness of the soil/sediment CALs. Based on the results of the risk assessment and the re-sampling of site soils, no additional soil excavation in the source area at the MIDCO II site is required. However, some source area soils contaminated with cyanide in the vicinity of well MW-1 will need to be treated to protect groundwater. MRC has decided to treat the cyanide-contaminated soils through chemical oxidation, and this work will be conducted during 2014. Additionally, it was determined that the remaining sediments in the ditch do not need to be excavated but that a soil cover needs to be constructed over the sediments to address the potential ecological risks that were identified. Other relevant information has been addressed in previous portions of this report.

Technical Assessment Summary

Access controls appear to be acceptable. The groundwater pump-and-treat system and deep well injection system was successful in containing the groundwater contamination, and have helped reduce contaminant concentrations in groundwater. The groundwater pump-and-treat system was shut down in 2010 to allow a pilot evaluation of MNA to address the remaining low-level

groundwater contamination. The SVE/AS system was successful in removing 97% of VOCs in soil to protect groundwater, and it was shut down in 2013.

Based on re-sampling conducted in 2009, no additional soil areas were identified for excavation at the MIDCO II source area because they no longer pose a potential threat to groundwater quality. However, MRC identified the need for treating cyanide contamination in soils in the vicinity of well MW-1 via chemical oxidation due to the cyanide in that area posing a threat to groundwater quality.

An updated residual risk evaluation was completed for the sediments that were not excavated, the results of which concluded that a soil cover would provide adequate long-term management of the potential residual risks from the remaining sediments. The MIDCO II final cover will serve as an engineered barrier to prevent direct contact with site soils and to minimize infiltration and contact with surface run-off.

The groundwater remedy consisted of groundwater extraction, treatment, and disposal at the injection well located at the MIDCO I site. The system began operating in 1997 and was effective in containing organic and inorganic contaminants originating in the MIDCO II source area. The PRPs completed a statistical evaluation to compare updated background data with on-site groundwater data for inorganic analytes that had been detected exceeding a CAL or significantly contributing to exceeding carcinogenic risk or non-cancer hazard index. It was concluded that the following contaminants are present at the MIDCO II site at background concentrations in the near downgradient plume area: arsenic, barium, cadmium, chromium, iron, manganese, mercury, thallium, and vanadium.

V. ISSUES/RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Table 4: Issues and Recommendations/Follow-up Actions

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness?	
						Current	Future
1	Unable to achieve all GWCALs due to off-site source of contamination.	GWCAL waiver or modification of non-MIDCO II-related constituents for pentachlorophenol.	PRP	EPA/ IDEM	9/30/2016	No	Yes
1	GWCALs may not be protective in the long term.	Evaluate and update GWCALs.	PRP	EPA/ IDEM	9/30/2016	No	Yes
1	Groundwater pump-and-treat has reached its maximum effectiveness at the MIDCO II site.	Evaluate monitored natural attenuation to address low-level residual constituents in groundwater.	PRP	EPA/ IDEM	9/30/2016	No	Yes
1	Decision document needed for shutdown of pump-and-treat system to evaluate MNA.	Issue ESD #4.	EPA	EPA/ IDEM	9/30/2014	No	Yes

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness?	
						Current	Future
2	Soil/sediment CALs may not be protective	Evaluate protectiveness of soil/sediment CALs and revise as needed; treat cyanide-contaminated soils near MW-1 with chemical oxidation; in ditch, cover remaining soil/sediment exceeding CALs with soil cover; document in ESD #4.	PRP	EPA/ IDEM	9/30/2014	No	Yes
1, 2, and 3	Full implementation and monitoring of effective ICs.	Prepare an ICIAP for approval. ICIAP shall include updated deed language for all properties where unrestricted usage or access presents an unacceptable threat to human health or the environment; work with the City of Gary to assure notification of non-potable water usage near MIDCO II; update title work; prepare and implement an IC monitoring or Long-Term Stewardship Plan; and include further evaluation and implementation of ICs, as necessary, to enhance the long-term protectiveness of the remedy.	PRP	EPA/ IDEM	12/31/2015	No	Yes

VI. PROTECTIVENESS STATEMENTS

Protectiveness Statement(s)	
Operable Unit: 1	*Protectiveness Determination:* Short-term Protective
Protectiveness Statement: The remedy at OU #1 protects human health and the environment in the short term because fencing prevents access, and a deed restriction on one of the properties and a City of Gary ordinance prohibit residential usage of groundwater. In order for the remedy to be protective in the long-term, the following actions are needed: continued access restrictions; GWCALs waiver for non-site related contaminants; evaluation and revision of GWCALs; monitoring of groundwater to evaluate the potential for MNA as an alternate groundwater remedy to achieve the GWCALs; and full implementation and monitoring of effective ICs. Currently, no one in the area uses groundwater.	

Protectiveness Statement(s)	
Operable Unit: 2	*Protectiveness Determination:* Will be Protective
Protectiveness Statement: The remedy at OU #2 is expected to be protective of human health and the environment upon its completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas. These remedial activities include the SVE/AS system which was successful in achieving a 97% reduction of soil vapors in sediment and soil to protect groundwater, and operation of the pump-and-treat system. Remaining actions to be completed include: treating one area of cyanide-contaminated source area soils with chemical oxidation to protect groundwater; evaluation of ecological risks and update of the soil/sediment CALs; covering remaining areas of contaminated sediments with a soil cover; and full implementation and monitoring of effective ICs.	

Protectiveness Statement(s)	
Operable Unit: 3	*Protectiveness Determination:* Will be Protective
Protectiveness Statement: The remedy at OU #3 is expected to be protective of human health and the environment upon its completion. In the interim, remedial activities completed to date have adequately addressed all exposure pathways that could result in unacceptable risks in these areas. These remedial activities include fencing, a deed restriction, and an interim soil cover to prevent contact with impacted soils and sediment. Remaining actions to be completed include: the design and construction of the site multi-layer cap as per the requirements of the 1989 ROD as amended in 1992; and full implementation and monitoring of effective ICs.	

VII. NEXT REVIEW

The next five-year review report for the MIDCO II Superfund site is required five years from the completion date of this review.

APPENDIX A – Existing Site Information

APPENDIX A – EXISTING SITE INFORMATION

A. SITE CHRONOLOGY

Table A-1: Site Chronology

EVENTS THROUGH REMEDY SELECTION	Date
MIDCO II site used for industrial waste storage, recycling, and disposal	1976-1977
EPA installed a fence around the site	1981
EPA removed all surface wastes (including thousands of drums and a number of tanks) and excavated and removed sludge pit and filter bed	1982-1989
EPA placed MIDCO II site on the National Priorities List	6/10/1986
Settling Defendants conducted Remedial Investigation/ Feasibility Study (RI/FS)	1985-1989
EPA issued Record of Decision (ROD)	6/30/1989
EPA issued ROD Amendment	4/13/1992
EPA, the State of Indiana and Settling Defendants entered into an agreement on the final remedial actions in a Consent Decree. The generator Settling Defendants formed the MRC to carry out the remedial actions.	6/23/1992
EPA issued Explanation of Differences # 1 (ESD #1)	1/9/1996
EPA issued Explanation of Differences # 2 (ESD #2)	11/2/1999
EVENTS FOR GROUNDWATER REMEDY	**Date**
MRC designed, constructed and tested the groundwater pump-and-treat / deep well injection system	1992-1996
MRC operated pump-and-treat/deep well injection system.	1/1997- 9/2010
EPA approved Five-Year Underground Injection Well Re-Application Package	5/7/1998
EPA issued First Five-Year Review Report	10/29/1998
MRC constructed an expansion to pump-and-treat system to improve groundwater capture	2001
EPA issued Second Five-Year Review Report	5/17/2004
EPA approved the second underground injection re-application	6/28/2006
EPA issued Third Five-Year Review Report	3/12/2009
EPA approved temporary shutdown of groundwater pump-and-treat system to evaluate MNA	9/2010
EVENTS FOR SOIL & SEDIMENT REMEDY	**Date**
MRC and EPA performed solidification/stabilization treatability studies	1992-1/1997
MRC performed partial sediment excavation and on-site containment	9/1993-8/1994
MRC planned and performed treatability testing for chemical oxidation	2000–2001
MRC performed additional investigations and evaluation of alternatives	2002

EVENTS FOR SOIL & SEDIMENT REMEDY (continued)	Date
EPA issued ESD #3, which included: performance of more complete SVE treatment by performing SVE/AS; reduction of soil solidification/stabilization requirements; and addition of the option of excavation as an alternative to soil solidification/stabilization	9/30/2004
MRC designed the SVE/AS system	2003-2005
MRC constructed and tested SVE/AS system.	3/2005-2/2006
MRC operated SVE/AS system	3/2006-5/15/2013
EPA approved shut-down of thermal oxidizer	8/6/2008
EPA approved shut-down of SVE/AS system	5/15/2013

B. BACKGROUND

Physical Characteristics

The MIDCO II source area occupies approximately seven acres of sandy soil and fill located at 5900 Industrial Highway, Gary, Indiana, but the fence has been extended on the northeast side to enclose a few more acres to include areas of contaminated groundwater and ditch sediments. Man has extensively modified the original ridge and swale topography. The MIDCO II source area was filled in with industrial wastes to create a relatively flat surface during the 1950s and 1960s. Further east and north of the site, remnants of some of the original ridge and swale topography are present. The ditch bordering the northeast boundary of the site drains into the Grand Calumet River approximately 2 miles southeast of MIDCO II.

MIDCO II is 1.14 miles south of Lake Michigan and 0.85 miles north of the Grand Calumet River. The only aquifer of concern at MIDCO II is the Calumet aquifer, whose water table is approximately 8 feet below the surface. The Calumet aquifer is 45 to 50 feet thick at MIDCO II and is underlain by approximately 62 feet of soft silty clay and silty clay loam, and 6 feet of hard silty till. If no action was taken, the MIDCO II contaminated groundwater could eventually vent to the Grand Calumet River.

Land and Resource Use

The MIDCO II site is located in a predominantly industrial area where 34 other potential hazardous waste sites have been identified. MIDCO II is bordered by a former auto salvage yard on the northwest, a ditch and railroad right of way on the northeast, vacant filled in land now owned by the Gary-Chicago Airport Development Zone on the southeast, and Industrial Highway on the southwest. The Gary/ Chicago International Airport is located on the southwest side of Industrial Highway across from MIDCO II. There are a few residential homes near the corner of Clark Street and Industrial Highway, about 1 mile southeast of MIDCO II. The Gary/Chicago International Airport Authority has plans to use the MIDCO II property as part of an expanded airport, either as part of the airport itself or as a support facility.

The Calumet aquifer is little used because the predominant source of residential and industrial water in the MIDCO II area is Lake Michigan. In an Ordinance dated September 20, 2007, the City of Gary prohibited use of water from the Calumet aquifer as a potable water source.

History of Contamination

Waste operations at MIDCO II were initiated during the summer of 1976. Operations included temporary bulk liquid and drum storage of waste and reclaimable materials, neutralization of acids and caustics, and on-site disposal of liquids via dumping into pits, which allowed seepage of liquids into groundwater and into the ditch. One of these pits, called the "filter bed," had an overflow pipe leading into the ditch. By April 1977, it was estimated that 12,000 to 15,000 55-gallon drums of waste materials were stored on-site. In addition, there were ten above- and below-ground storage tanks used to store liquid wastes. On August 15, 1977, a major fire at MIDCO II destroyed equipment, buildings, and damaged or burned out an estimated 50,000 to 60,000 drums.

Initial Response

Early Court actions which required cleanup actions by the owner/operators were ineffective. In August 1981, EPA installed a 10-foot high fence around MIDCO II. In two separate removal actions in 1984 and 1985, EPA removed all of the drums, tanks, and surface wastes. Also in 1985, EPA excavated contaminated soil and material from the sludge pit and filter bed, which were highly contaminated by polychlorinated biphenyls (PCBs) and cyanide. The sludge pit and filter bed contents were temporarily contained on-site at MIDCO II, and were then removed and disposed off-site in a number of removal actions conducted between 1985 and 1989.

EPA placed the MIDCO II site on the National Priorities List in June 1986. Shortly after EPA initiated the RI/FS, EPA reached a settlement with a group of potential generators to conduct the RI/FS and reimburse EPA costs. The group of generators conducted the RI/FS from 1985 through 1989. EPA issued a ROD in June 1989.

Basis for Taking Action

The RI included an evaluation of site hydrogeology, and extensive sampling of groundwater, source area subsurface soil, and surface sediments in surrounding wetlands. The RI demonstrated that the source area soils and the groundwater near the site were highly contaminated. The groundwater results exceeded the Safe Drinking Water Act Maximum Contaminant Levels (MCLs) for the following contaminants:

benzene
1,1-dichloroethylene
1,2-dichloropropane
ethylbenzene
methylene chloride
tetrachloroethylene
toluene
trans-1,2-dichloroethylene
1,1,1-trichloroethane
trichloroethylene
vinyl chloride
xylene
arsenic
barium
beryllium
cadmium
chromium
cyanide
lead
mercury
silver
selenium
thallium
copper
bis(2-ethylhexyl)phthalate

Other contaminants of concern included:

acetone	aluminum	chlordane
bis(2-chloroethyl)ether	antimony	cresol
2-butanone	iron	1,4-dichlorophenol
chloroform	nickel	di-n-butylphthalate
1,1-dichloroethane	zinc	n-nitrosodiphenylamine
4-methyl-2-pentanone	vanadium	2,4-dimethylphenol
1,1,2-trichloroethane	manganese	isophorone
1,2-dichlorobenzene	PCBs	pentachlorophenol
butylbenzyl phthalate	phenol	polyaromatic hydrocarbons

An unanticipated finding was that the aquifer in the vicinity of MIDCO II is highly saline, primarily due to sodium and potassium chlorides. Chloride is detected as high as 60,000 milligrams per liter (mg/l) in groundwater below the site. It has been theorized that most of the high salinity was caused by fill containing secondary aluminum smelting waste, although it appears that disposal of wastes in the filter bed also contributed to the salinity.

D. REMEDIAL ACTIONS

Remedy Selection

Remedial Action Objectives: The remedial action objectives used to select the remedial action in the 1989 ROD, as revised by the 1992 ROD Amendment and three ESDs, included:

- Eliminate direct contact threat from contaminated source area soil and sediments;
- Treat the principal threat in soil to substantially reduce the threat of groundwater contamination and the direct contact threat;
- Prevent off-site migration of contamination in groundwater;
- Assure that contaminants do not adversely affect biota; and
- Clean up groundwater to CALs.

ROD Requirements: The 1989 ROD, as amended by the 1992 ROD Amendment and revised by ESDs #1, #2, and #3, provides for the following remedy components:

- Excavation of contaminated sediments and underlying soils in defined wetland areas to achieve the soil/sediment CALs, and consolidation onto MIDCO II;
- Construction, O&M, and monitoring of a groundwater pump-and-treat system to contain contaminated groundwater, and to achieve the groundwater cleanup action levels (GWCALs);

- Construction and operation of a deep underground injection well located at the MIDCO I site for disposal of the contaminated groundwater following treatment;

- Construction and operation of an SVE/AS system to clean up source area soils and groundwater, including achieving at least a 97% reduction of VOCs in soil;

- Excavation or solidification/stabilization of the soil most highly contaminated by metals and cyanide;

- Construction of a final cover, access restrictions, deed restrictions, and monitoring.

Remedy Implementation

Prior five-year review reports contain an extensive amount of detail regarding remedy implementation activities at the site. The essential information is provided below.

Groundwater remedy:

MRC designed, constructed, and tested the groundwater pump-and-treat and deep well injection system during 1992-1996. EPA and IDEM oversaw the quality of construction by reviewing and approving design documents, by field oversight of the construction, and by review of post-construction reports. Continuous operation of the pump-and-treat system (until it was temporarily shut down in 2010) was initiated in December 1996. In 2001, MRC constructed an expansion to the pump-and-treat system to improve groundwater capture at the site.

After the MIDCO II groundwater was treated to meet the maximum allowable concentrations (MACs,) it was pumped through an underground pipe for approximately three miles to the MIDCO I site. At the MIDCO I site, the MIDCO I and MIDCO II treated groundwater flows were combined and pumped to the deep injection well, which is located on property adjacent to MIDCO I. The pipeline was pressure tested annually, and was automatically shut down if the pipeline pressure exceeded 50 pounds per square inch. A number of shutdowns occurred due to high pipeline pressures during its operation. Actions taken in response to these shutdowns included: treating the pipeline with bleach, surging the pipeline, removal of obstructions, and fixing the MIDCO I pipeline control valve.

Soil and sediment remedy:

The contaminated sediments and soils in the ditch north of MIDCO II were partially excavated in 1993. The unexcavated soils/sediments did not achieve the soil/sediment CALs, and a screening of ecological risks indicated that contaminants in the unexcavated soils/sediments could potentially cause severe effects on invertebrates. As an interim measure, EPA approved leaving the contaminated soils/sediments in place, enclosed within a fence, and diverting the ditch drainage around the contaminated soils/sediments until design of the final site cover.

ESD #3 eliminated the requirement that the contaminated sediments be treated by solidification/ stabilization. In 2005, as part of the SVE construction, the sediments that had been consolidated on MIDCO II and stored under a plastic liner were spread and then covered by the temporary

vapor barrier and the overlying clean soil. These excavated sediments are now included in the area that was treated by SVE, and will be contained under the final cover.

MRC constructed the SVE/AS system at MIDCO II during 2005-2006. EPA oversaw the quality of construction by reviewing and approving design documents, by field oversight of the construction and a pre-final inspection, and by review of the Construction Completion Report for the Soil Vapor Extraction/Air Sparging System. Weston, under contract with EPA, provided support to EPA in review of design documents and the Construction Completion Report. IDEM also participated in this review. Weston provided EPA with daily oversight of subsurface construction work, which included installation of the horizontal SVE wells, the AS wells, and monitoring wells for soil gas, pressure, and water levels. Weston also provided periodic oversight of other construction work. EPA, Weston, and IDEM staff participated in the pre-final inspections.

During design of the SVE/AS system, ENVIRON predicted air emission rates and performed ambient air modeling. Based on this, ENVIRON determined that a thermal oxidizer was needed to comply with air emission criteria. During startup testing of each header, Summa canister samples were collected from the inlet and outlet of the thermal oxidizer. Using these results, ENVIRON confirmed that the air emissions would comply with the criteria after treatment by the thermal oxidizer. During O&M, Summa canisters samples were collected from the inlet and outlet from the thermal oxidizer once per week during the four week commissioning period, and have been collected monthly thereafter. Sets of ambient air samples (one upwind and three downwind) were collected once during startup, twice during the four week commissioning period, and once per month during the first two months of operation. The regenerative thermal oxidizer operated continuously until, with EPA approval, it was shut down in May 2007 because the influent to the oxidizer consistently complied with the air emission requirements.

System Operation/Operation and Maintenance

EPA, with support from Weston and IDEM, oversaw O&M of the pump-and-treat/deep well injection system and the SVE/AS system through periodic on-site inspections and review of related documents including: the Operation, Maintenance, Monitoring, and Closure Plan; revisions to the health and safety plans; monthly progress reports; and quarterly and annual SVE/AS reports.

ENVIRON produced quarterly reports on the SVE O&M and monitoring. Each of these reports included any ambient air data collected, air emission data, and an assessment of compliance with the air emission criteria. Because the ambient air samples did not identify any significant VOC detections, EPA approved discontinuation of the ambient air sampling in a July 10, 2006, letter after the first four months of operation. Each quarterly report demonstrated that the SVE system was in compliance with the air emission criteria. On May 3, 2007, EPA approved shutdown of the thermal oxidizer because VOC emissions were consistently below the air emission criteria in samples from the inlet to the regenerative thermal oxidizer. ENVIRON restarted the regenerative thermal oxidizer on January 9, 2008, when the AS rates were increased, and operated it until July 23, 2008.

Following inspection of the SVE system on March 30, 2006, Weston expressed concern about detection of hydrogen cyanide in soil gas in SVE wells and advised that further monitoring

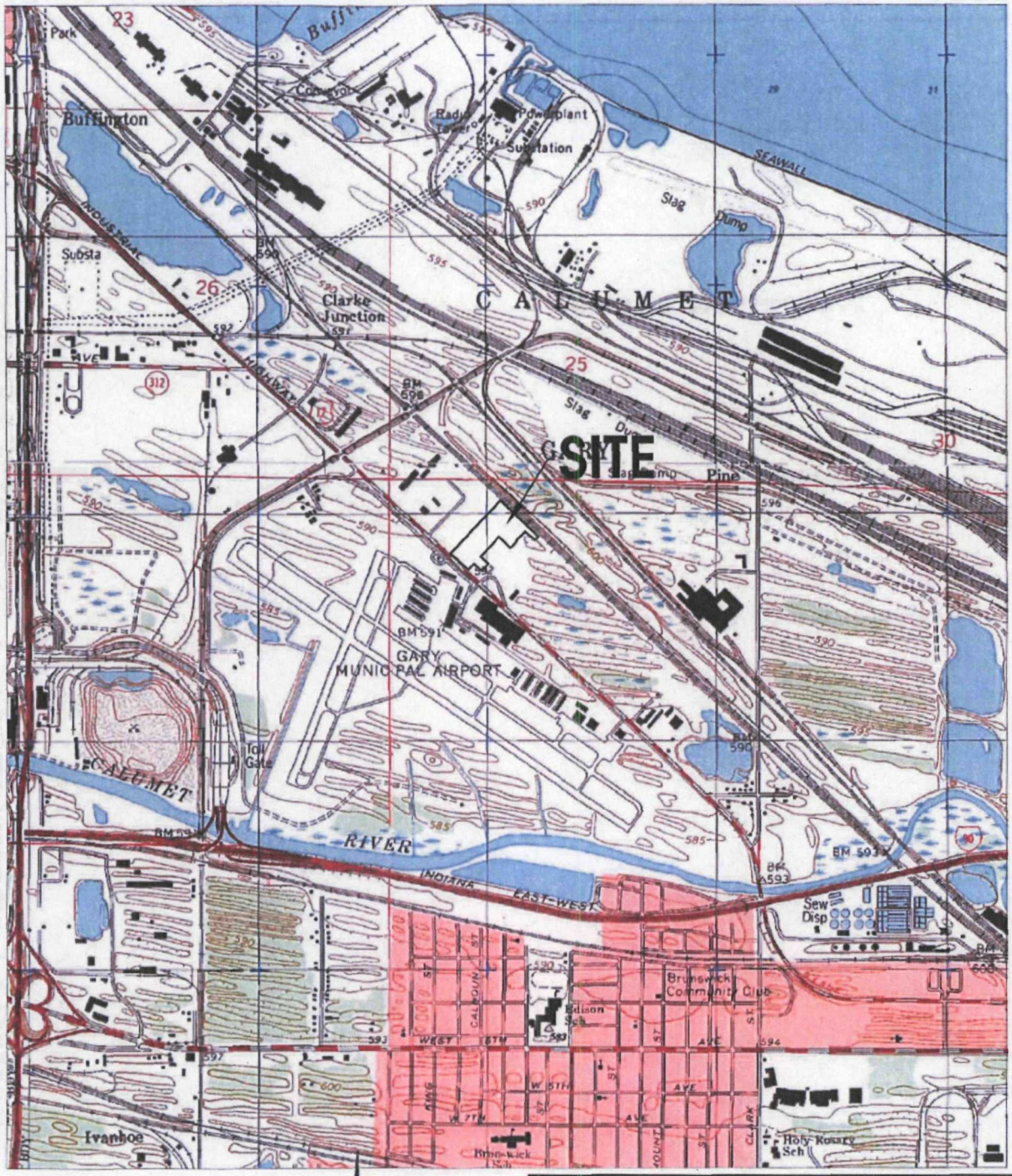
should be performed. In an April 7, 2006 letter, ENVIRON responded that no further monitoring for hydrogen cyanide was necessary for the following reasons: hydrogen cyanide had been monitored in the breathing zone for health and safety reasons using portable meters and had not been detected; and hydrogen cyanide is highly combustible and any hydrogen cyanide from the soil gas would be destroyed in the thermal oxidizer prior to emission. Therefore, EPA did not require the addition of air emission monitoring for hydrogen cyanide.

The project plan for O&M of the groundwater pump-and-treat system is the Ground Water Remediation Systems Operation and Maintenance Plan, ERM, August 1994, November 1996, as updated by a number of documents listed in the Second and Third Five-Year Review Report. During the operation of the pump-and-treat system, the system components included seven groundwater extraction wells, a metals removal system (coagulation, sedimentation, sand filtration, and filter press to dewater sediments), pre-filtration using cartridge filters, an ultraviolet/hydrogen peroxide (UV/HP) unit, and post-treatment filtration using cartridge filters prior to piping the treated groundwater through an underground pipeline to MIDCO I.

ENVIRON provided data and a summary of the groundwater pump-and-treat and monitoring to EPA in monthly progress reports, and continues to provide groundwater monitoring data to EPA. O&M of the pump-and-treat system was acceptable during its operation. The treatment system required frequent maintenance. In a typical month there were ten or more shutdowns to address maintenance items. There were periodic shutdowns to replace the pre-treatment and post-treatment filters, and to correct the following categories of maintenance problems: UV/HP equipment and electrical problems; UV/HP lamp failure; pump problems; air compressor problems; deep well equipment problems; filtration equipment problems; computer problems; power failures; and shutdowns due to high methylene chloride.

More detailed information regarding prior O&M and system operation activities at the site can be found in prior five-year review reports.

APPENDIX B – Figures



Source:
Highland, Indiana (2001)
USGS 7.5 Minute Series
Quadrangle Map

0 2000' 4000'

GRAPHIC SCALE

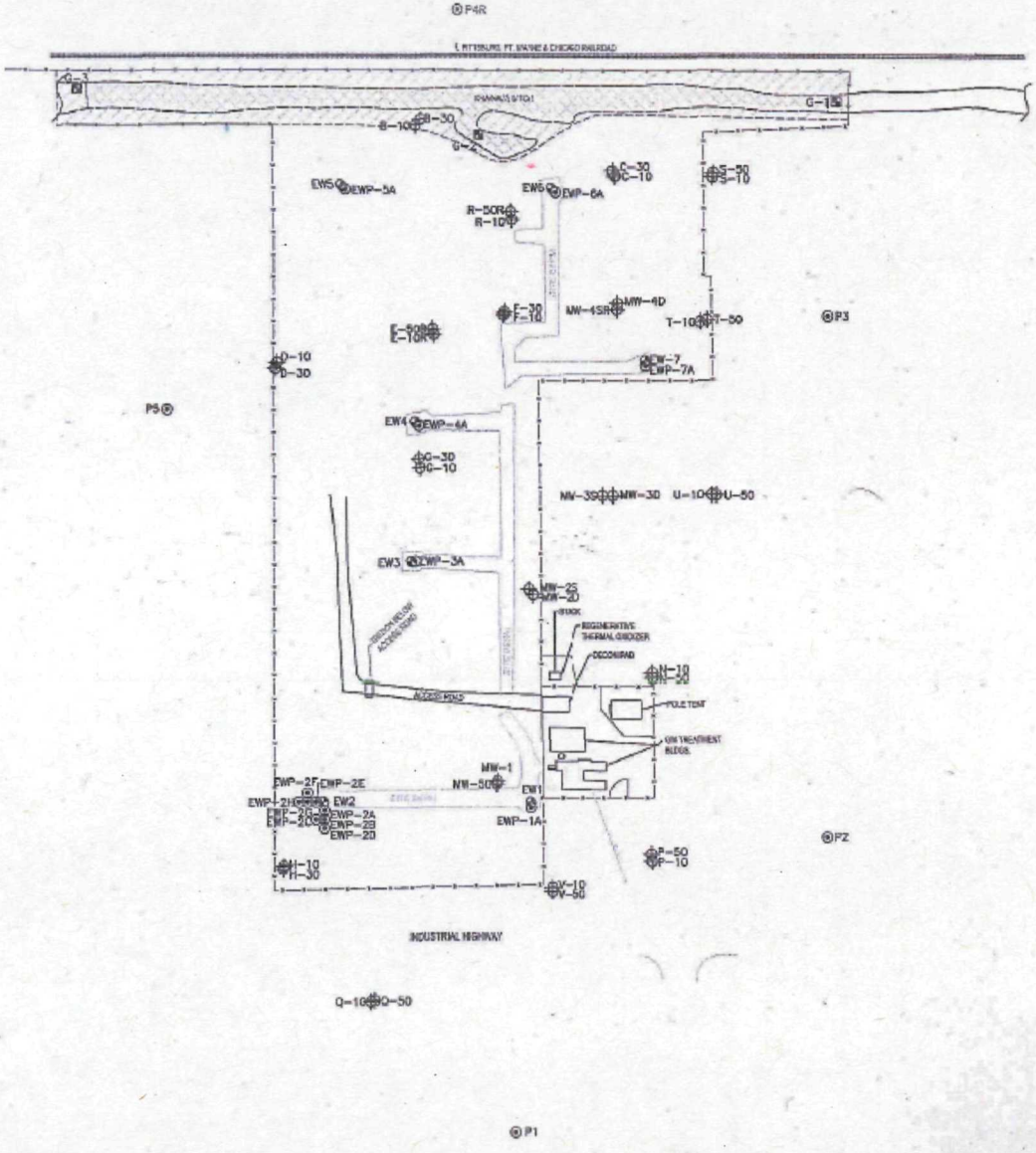
MIDCO II SITE
GARY, INDIANA

SITE LOCATION MAP

ARCADIS

FIGURE
1

XREFS: IMAGES: Topo.jpg PROJECTNAME: —



0 150' 300'

GRAPHIC SCALE

LEGEND

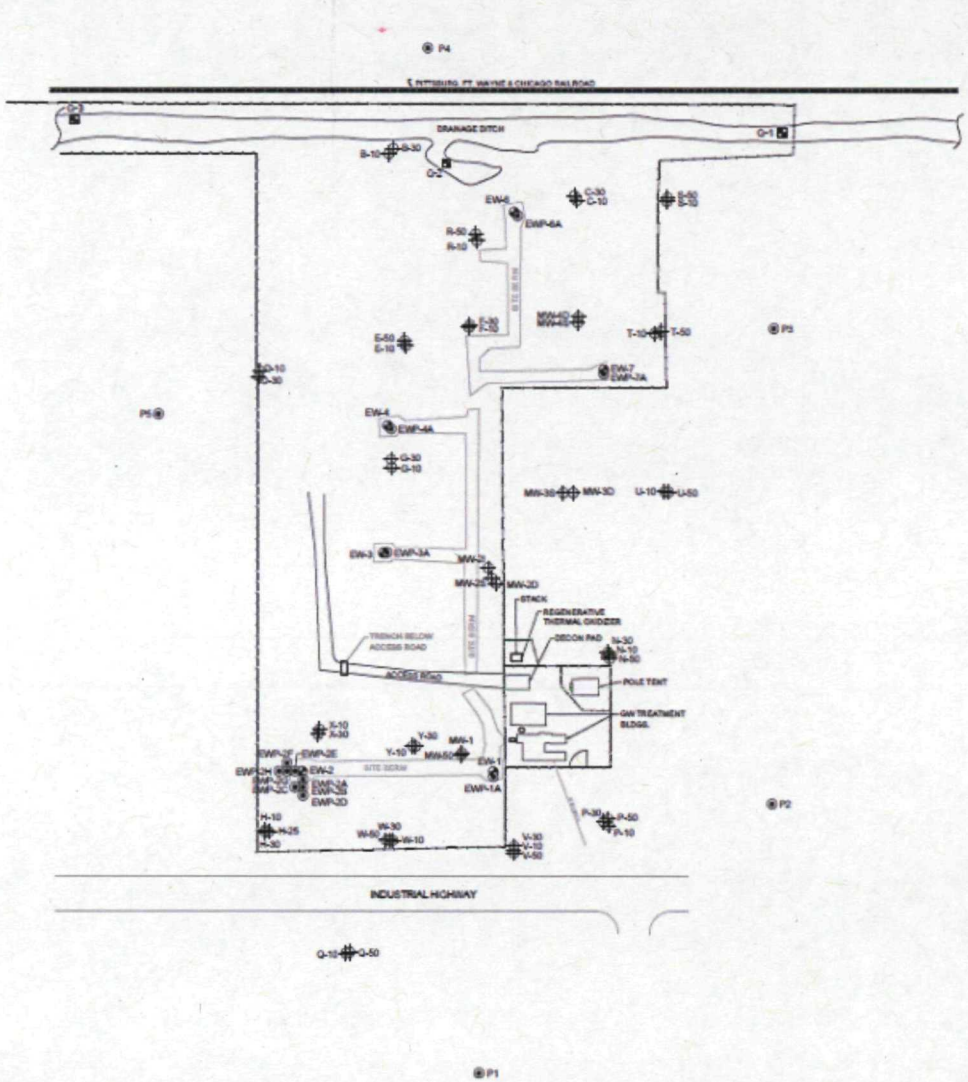
- FENCE
- MONITORING WELL LOCATION
- EXTRACTION WELL LOCATION
- PIEZOMETER LOCATION
- 1993 CONTAMINATED SEDIMENTS AREA
- PROPOSED SEDIMENT COVER AREA

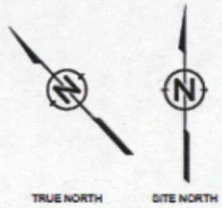
MIDCO II SITE
GARY, INDIANA

SEDIMENT COVER AREAS

ARCADIS

FIGURE 2





LEGEND
FENCE
MONITORING WELL LOCATION
EXTRACTION WELL LOCATION
PIEZOMETER LOCATION
STAFF GAUGE LOCATION

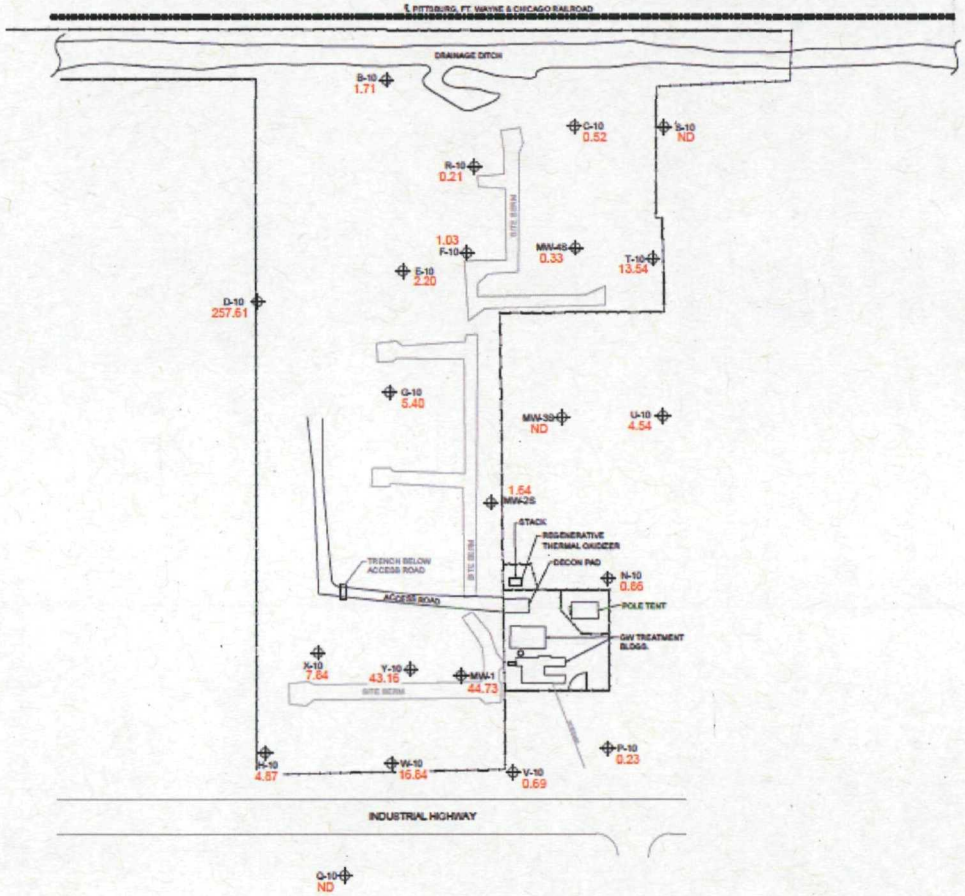
APPROX. SCALE (ft.)
0 150

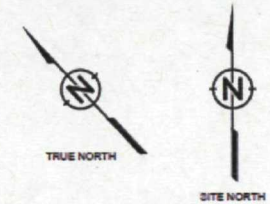
WELL AND PIEZOMETER LOCATIONS
MIDCO II
GARY, INDIANA

ENVIRON

FIGURE 3

DRAFTED BY: ELS | DATE: 4/1/13 | 21-176862





LEGEND
FENCE
MONITORING WELL
4.54 = CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
ND = NOT DETECTED

Total Volatile Organic Compound (VOC) concentrations do not include the concentration values for 1,4-dioxane.

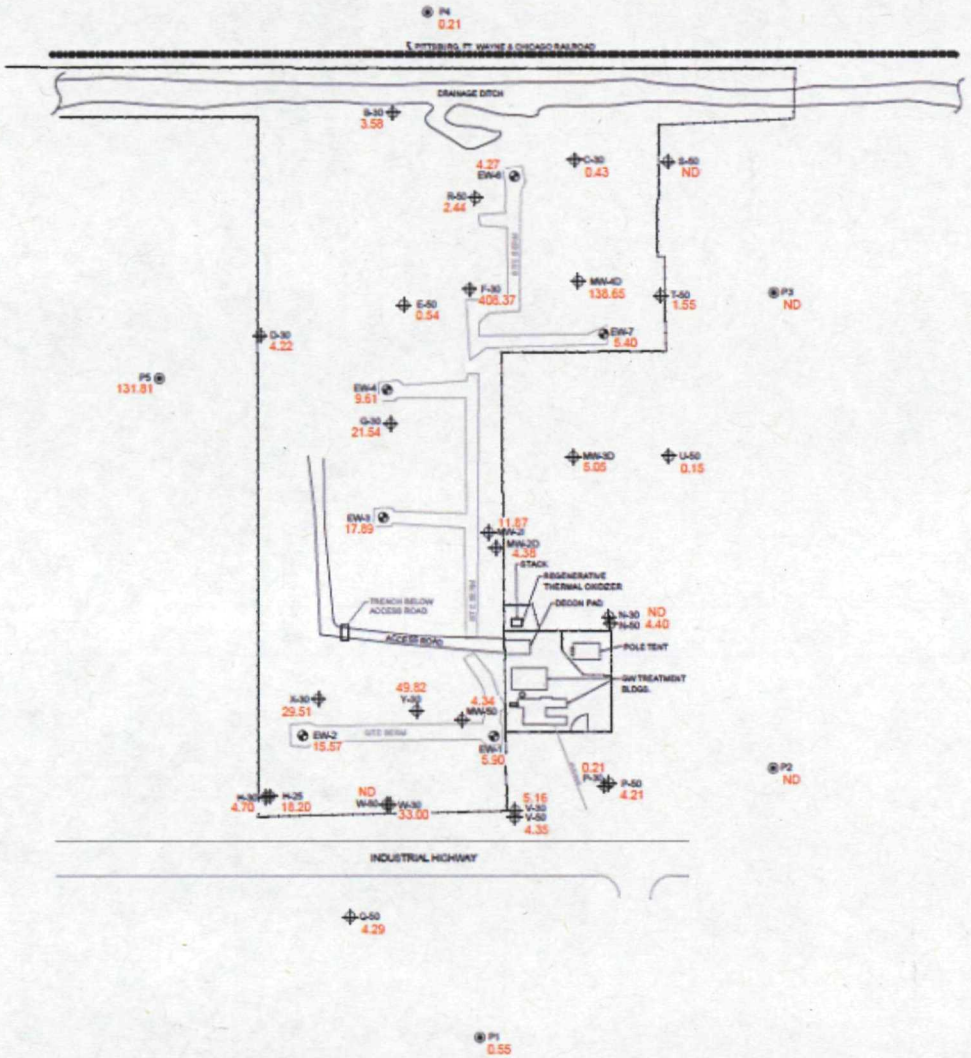
APPROX. SCALE (ft.)
0 150

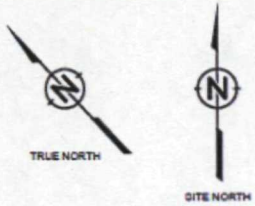
TOTAL VOC CONCENTRATIONS
SHALLOW MONITORING WELL NETWORK
MIDCO II SITE
GARY, INDIANA

ENVIRON

FIGURE 4

DRAFTED BY: ELS | DATE: 4/1/13 | 21-17680Z





LEGEND
FENCE
MONITORING WELL
PIEZOMETER
EXTRACTION WELL
4.90 = CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
ND = NOT DETECTED

Total Volatile Organic Compound (VOC) concentrations do not include the concentration values for 1,4-dioxane.

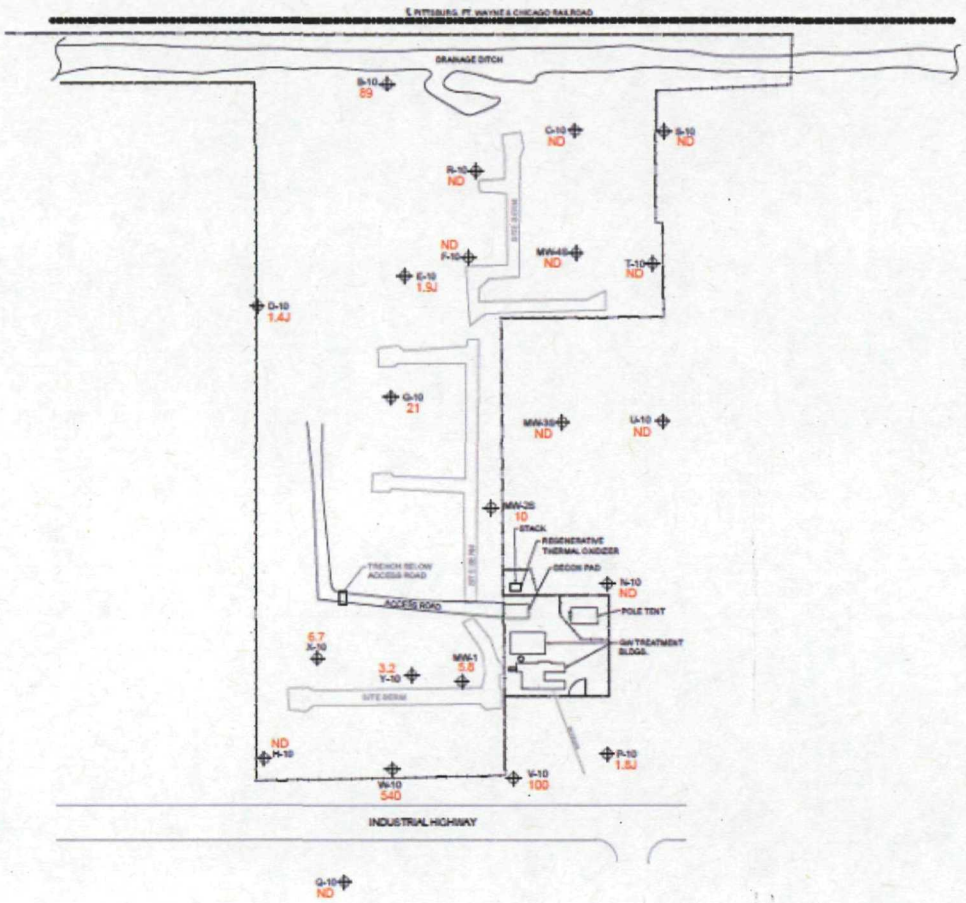
APPROX. SCALE (ft.)
0 150

TOTAL VOC CONCENTRATIONS INTERMEDIATE AND DEEP MONITORING WELL NETWORK
MIDCO II SITE
GARY, INDIANA

ENVIRON

FIGURE 5

DRAFTED BY: ELS | DATE: 4/2/13 | 21-17880Z



TRUE NORTH

SITE NORTH

LEGEND
FENCE
MONITORING WELL
21 = CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
ND = NOT DETECTED
J = DATUM IS ESTIMATED

APPROX. SCALE (ft.)

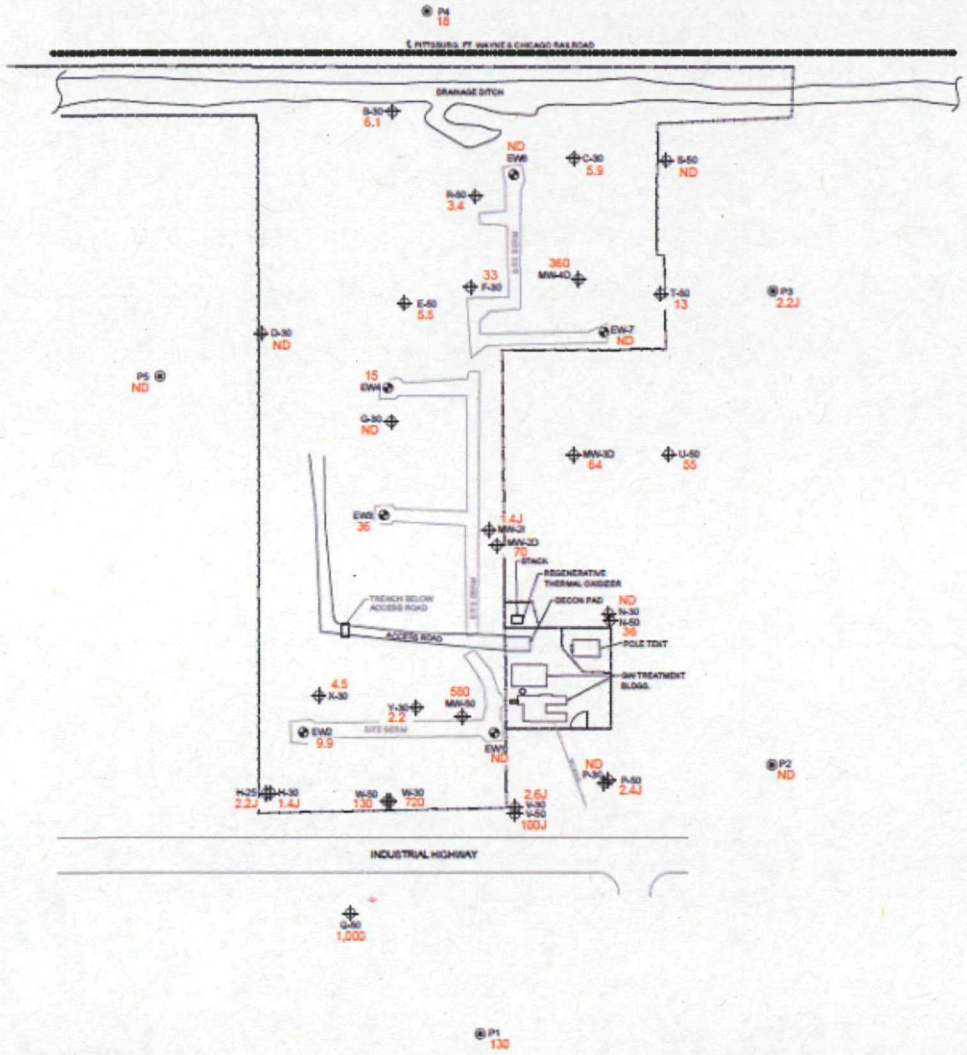
0 150

1,4-DIOXANE CONCENTRATIONS
SHALLOW MONITORING WELL NETWORK
MIDCO II SITE
GARY, INDIANA

ENVIRON

FIGURE 6

DRAFTED BY: ELS | DATE: 4/1/13 | 21-176862



TRUE NORTH

SITE NORTH

LEGEND
FENCE
MONITORING WELL
PIEZOMETER
EXTRACTION WELL
55 = CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
ND = NOT DETECTED
J = DATUM IS ESTIMATED

APPROX. SCALE (ft.)
0 150

1,4-DIOXANE CONCENTRATIONS INTERMEDIATE AND DEEP MONITORING WELL NETWORK

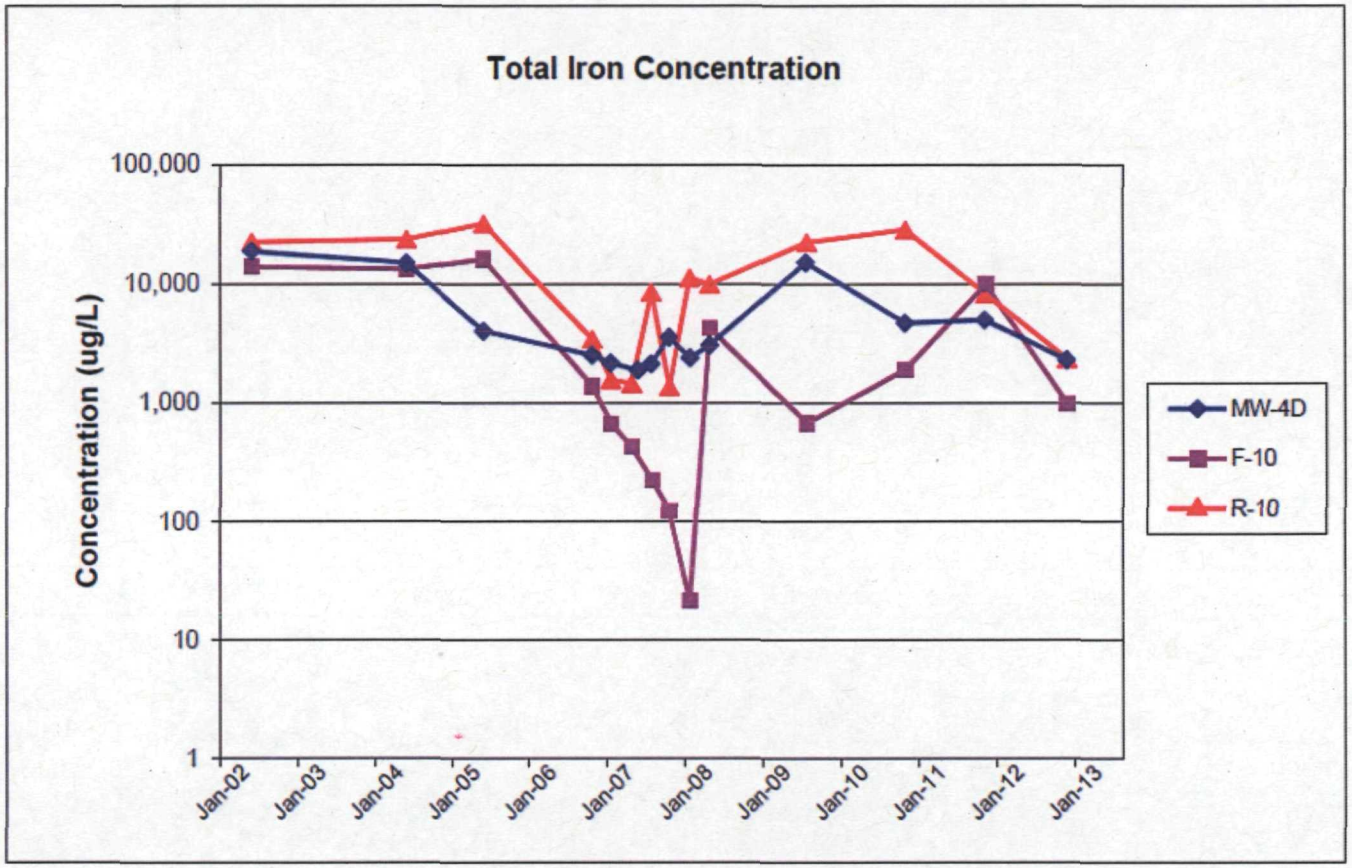
MIDCO II SITE

GARY, INDIANA

ENVIRON

FIGURE 7

DRAFTED BY: ELS | DATE: 4/24/13 | 21-178882



ENVIRON

DRAFTED BY: ELS | DATE: 4/1/13

TOTAL IRON CONCENTRATIONS - MONITORING WELLS MW-4D, F-10, AND R-10
MIDCO II SITE
GARY, INDIANA

FIGURE
8

21-17680Z

APPENDIX C – Additional Tables

(not included in main body of FYR)

TABLE 5

Comparison of Analytical Results with the Clean-Up Action Levels[1,2,3]
Midco II Site
Gary, Indiana

Monitoring Location[4]	Carcinogenic Risk[5]			Noncarcinogenic Risk[5]			Parameters at or Above MCL or AWQC				Background Concentration[6] ug/L	Exceeds CALs
	Total	Contributing Parameters	Concentration ug/L	Total	Contributing Parameters	Concentration ug/L	Parameter	Concentration ug/L	MCL ug/L	AWQC x F ug/L		
MW-1	4.5E-05	Trichloroethene	29	2.5	Cyanide	1,290	Trichloroethene	29	5	–	–	Yes
		Tetrachloroethene	0.79 J		Antimony	2.7	Cyanide	1,290	200	18.7	158	
					Barium	162						
MW-50	2.5E-03	Arsenic[7]	48.5	3.8	Barium	3,430	Arsenic	48.5	10	173	15.1	Yes
					Arsenic	46.5	Barium	3,430	2,000	–	107	
							Iron	28,800	–	3,600	15,300	
MW-2S	3.5E-07			0.1								No
MW-2I	8.2E-04	Vinyl chloride	8.0	0.01			Vinyl chloride	8.0	2	–	2.2	Yes
		1,2-Dichloroethane	1.7									
		Benzene	0.38 J									
MW-2D	3.6E-03	Arsenic[7]	65.9	2.2	Arsenic	65.9	Arsenic	65.9	10	173	15.1	Yes
					Barium	198 J	Iron	23,400	–	3,600	15,300	
MW-3S	0.0E+00			0.3			Iron	28,100	–	3,600	15,300	Yes
MW-3D	4.1E-03	Arsenic[7]	78.1	2.7	Arsenic	78.1	Arsenic	78.1	10	173	15.1	Yes
					Barium	390	Iron	41,600	–	3,600	15,300	
MW-4S	0.0E+00			0.4								No
MW-4D	5.4E-03	Arsenic[7]	99.2	4.1	Arsenic	99.2	Arsenic	99.2	10	173	15.1	Yes
					Barium	652						
					Nickel	254						
					Cadmium	4.4 J						
B-10	1.1E-03	Arsenic	21.2	0.8			Arsenic	21.2	10	173	15.1	Yes
B-30	2.5E-03	Arsenic[7]	45.5	2.4	Arsenic	45.5	Arsenic	45.5	10	173	15.1	Yes
					Barium	1,430						
C-10	0.0E+00			0.1								No
C-30	3.0E-03	Arsenic[7]	55.3	2.0	Arsenic	55.3	Arsenic	55.3	10	173	15.1	Yes
					Barium	412						
D-10	2.7E-04	Benzene	70	0.3			Benzene	70	5	–	0.04	Yes
		Chloroform	0.62 J									
D-30	3.3E-03	Arsenic	61.6	2.1	Arsenic	61.6	Arsenic	61.6	10	173	15.1	Yes
		Benzene	3.0									
E-10	9.9E-04	Arsenic	18.2	0.7			Arsenic	18.2	10	173	15.1	Yes
							Fluoride	8,410	4,000	–	–	

TABLE 5

Comparison of Analytical Results with the Clean-Up Action Levels[1,2,3]
Midco II Site
Gary, Indiana

Monitoring Location[4]	Carcinogenic Risk[5]			Noncarcinogenic Risk[5]			Parameters at or Above MCL or AWQC				Background Concentration[6]	Exceeds CALs
	Total	Contributing Parameters	Concentration ug/L	Total	Contributing Parameters	Concentration ug/L	Parameter	Concentration ug/L	MCL ug/L	AWQC x F ug/L	ug/L	
E-50	0.0E+00			1.3	Manganese	3,670						Yes
					Thallium	1.1 J						
					Barium	214						
					Cadmium	4.9 J						
F-10	0.0E+00			0.4								No
F-30	1.7E-03	Arsenic[7]	31.2	1.7	Arsenic	31.2	Arsenic	31.2	10	173	15.1	Yes
					Barium	549						
					4-Methyl-2-pentanone	400 J						
					Cadmium	4.8 J						
G-10	0.0E+00			0.9			Copper	543	–	120	25.2	Yes
G-30	2.4E-03	Arsenic	43.5	2.5	Barium	1,590	Arsenic	43.5	10	173	15.1	Yes
		Trichloroethene	8.1		Arsenic	43.5	Trichloroethene	8.1	5	–	–	
H-10	1.6E-06			0.7								No
H-25	0.0E+00			0.0								No
H-30	1.3E-03	Arsenic[7]	24.2	1.2	Arsenic	24.2	Arsenic	24.2	10	173	15.1	Yes
					Barium	631						
N-10	1.1E-03	Arsenic[7]	19.8	0.7			Arsenic	19.8	10	173	15.1	Yes
N-30	0.0E+00			0.0								No
N-50	4.1E-03	Arsenic[7]	75.4	2.6	Arsenic	75.4	Arsenic	75.4	10	173	15	Yes
					Barium	357	Iron	39,100 J	–	3,600	15,300	
P-10	0.0E+00			0.3								No
P-30	0.0E+00			0.0								No
P-50	3.2E-03	Arsenic[7]	60.0	2.0	Arsenic	60.0	Arsenic	60.0	10	173	15.1	Yes
					Barium	182 J	Iron	22,000	–	3,600	15,300	
Q-10	0.0E+00			0.00								No
Q-50	3.3E-03	Arsenic[7]	61.3	3.4	Arsenic	61.3	Arsenic	61.3	10	173	15.1	Yes
					Barium	2,170	Barium	2,170	2,000	–	107	
							Fluoride	9,600	4,000	–	–	
R-10	0.0E+00			0.4								No
R-50	0.0E+00			3.7	Thallium	6.3 J	Cadmium	6.6	5	10.4	0.15	Yes
					Manganese	2,650	Chromium	207	100	2,010	7.5	
					Barium	402	Thallium	6.3 J	2	144	–	
					Cadmium	6.6						
S-10	0.0E+00			1.05	Vanadium	150						Yes
					Thallium	0.44 J						
					Antimony	1.2						
					Selenium	9.7						

TABLE 5

Comparison of Analytical Results with the Clean-Up Action Levels[1,2,3]
Midco II Site
Gary, Indiana

Monitoring Location[4]	Carcinogenic Risk[5]			Noncarcinogenic Risk[5]			Parameters at or Above MCL or AWQC				Background Concentration[6]	Exceeds CALs
	Total	Contributing Parameters	Concentration ug/L	Total	Contributing Parameters	Concentration ug/L	Parameter	Concentration ug/L	MCL ug/L	AWQC x F ug/L	ug/L	
S-60	3.7E-03	Arsenic[7]	69.0	2.3	Arsenic	69.0 J	Arsenic	69.0	10	173	15.1	Yes
					Barium	170 J						
T-10	2.2E-03	Arsenic	40.4	1.4	Arsenic	40.4	Arsenic	40.4	10	173	15.1	Yes
		Benzene	0.75 J				Iron	17,200	–	3,600	15,300	
T-50	2.6E-03	Arsenic[7]	47.7	1.7	Arsenic	47.7	Arsenic	47.7	10	173	15.1	Yes
					Barium	325						
U-10	1.6E-03	Arsenic	33.8	1.3	Arsenic	33.8	Arsenic	33.8	10	173	15.1	Yes
					Manganese	1,300	Iron	16,300	–	3,600	15,300	
U-50	3.7E-03	Arsenic[7]	68.2	2.4	Arsenic	68.2	Arsenic	68.2	10	173	15.1	Yes
					Barium	445	Iron	28,600	–	3,600	15,300	
V-10	7.4E-07			0.4								No
V-30	0.0E+00			0.0								No
V-50	3.7E-03	Arsenic[7]	67.6	2.3	Arsenic	67.6	Arsenic	67.6	10	173	15.1	Yes
					Barium	410	Iron	23,500	–	3,600	15,300	
W-10	1.3E-06	Trichloroethene[7]	8.2	0.0			Trichloroethene	8.2	5	–	–	Yes
W-30	0.0E+00			0.0								No
W-50	0.0E+00			0.0								No
X-10	1.7E-06			0.01								No
X-30	4.2E-06			0.05								No
Y-10	9.0E-07			0.2								No
Y-30	0.0E+00			0.0								No
P-1	3.5E-03	Arsenic[7]	64.4	2.2	Arsenic	64.4	Arsenic	64.4	10	173	15.1	Yes
					Barium	275						
P-2	1.6E-03	Arsenic[7]	29.1	1.02	Arsenic	29.1	Arsenic	29.1	10	173	15.1	Yes
					Barium	175 J						
P-3	0.0E+00			0.1								No
P-4	2.0E-03	Arsenic[7]	38.9	1.3	Arsenic	38.9	Arsenic	38.9	10	173	15.1	Yes
							Iron	16,200	–	3,600	15,300	
P-5	1.2E-03	Benzene	92	0.6			Benzene	92	5	–	0.04	Yes
		Arsenic	15.2				Arsenic	15.2	10	173	15.1	
		1,4-Dichlorobenzene	2.7									
EW-1	3.5E-06			0.5								No
EW-2	1.6E-06			0.7								No

TABLE 5

Comparison of Analytical Results with the Clean-Up Action Levels[1,2,3]
Midco II Site
Gary, Indiana

Monitoring Location[4]	Carcinogenic Risk[5]			Noncarcinogenic Risk[5]			Parameters at or Above MCL or AWQC				Background Concentration[6] ug/L	Exceeds CALs
	Total	Contributing Parameters	Concentration ug/L	Total	Contributing Parameters	Concentration ug/L	Parameter	Concentration ug/L	MCL ug/L	AWQC x F ug/L		
EW-3	9.7E-06			0.2			Iron	43,600 J	–	3,600	15,300	Yes
EW-4	2.0E-05	Benzene	5.1	0.3			Benzene	5.1	5	–	0.04	Yes
							Fluoride	7,290	4,000	–	–	
EW-6	0.0E+00			2.4	Manganese	13,200						Yes
					Nickel	221						
EW-7	1.5E-03	Arsenic[7]	33.3	1.8	Arsenic	33.3	Arsenic	33.3	10	173	15.1	Yes
					Manganese	4,660	Iron	73,500	–	3,600	15,300	

Notes:

ug/L = Micrograms per liter

AWQC x F = Site-specific chronic ambient water quality criteria, equal to the federal AWQC for protection of aquatic life times the site-specific factor F; from Table 2 of Attachment 2 of the Midco I and II Statement of Work (SOW), dated June 1992.

MCL = Maximum Contaminant Level

CAL = Cleanup Action Level

J = The concentration is approximate due to limitations identified during the quality assurance review

– = Applicable standard has not been established for the analyte

Parameters are shown in order of risk produced for the risk columns and in the order shown in Table 5-1 for the comparison with the MCLs and AWQCxFs.

[1] Any parameters detected below the background concentrations were not considered, as established in Attachment 2 of the SOW.

[2] The complete validated data tables and risk calculation tables are included in Appendices G and H, respectively.

[3] As sulfide was not included in the SOW, the parameter will not be considered in the evaluation of a monitoring location's compliance with the site-specific CALs.

[4] Monitoring locations installed in March 2011 were only sampled for volatile organic compounds and 1,4-dioxane (MW-2I, H-25, N-30, P-30, V-30, W-10, W-30, W-50, X-10, X-30, Y-10, and Y-30).

[5] Parameters are shown only if the cumulative risks for the location are above the acceptable carcinogenic risk of 1E-05 or above the acceptable noncarcinogenic risk of 1, and:

- Parameters produce individual carcinogenic risks above 1E-05, or they produce individual carcinogenic risks higher than 1E-06 and their sum produces a cumulative carcinogenic risk above 1E-05; or
- Parameters produce individual noncarcinogenic risks above 1, or (for parameters with the same effects) they produce individual noncarcinogenic risks above 0.1 and their sum produces a cumulative noncarcinogenic risk above 1.

[6] The background concentrations were obtained from Table 1 of Attachment 2 of the SOW, dated June 1992.

[7] The carcinogenic or noncarcinogenic risk calculated for this location is above 1E-05 or 1, but it is produced by a single analyte for which an MCL has been promulgated (the list of parameters per sampling locations and risk type is included in Appendix C). In accordance to Attachment 2 of the SOW, the analyte should not be included in the risk calculation, and its clean-up action level should be the corresponding MCL or AWQCxF, whichever is lower.

TABLE 6

Evaluation of Quantitation Limit and Rejected Data Factors Potentially Impacting the CAL Status
Midco II Site
Gary, Indiana

Parameter	Issue	Impacted Monitoring Location	Analysis	Outcome
Benzene	QL above the CAL	W-30	• Monitoring well, W-30, was installed in March 2011. Ground water samples were collected from the monitoring well on a quarterly basis between July 2011 and November 2012 (i.e., July 2011, November 2011, February 2012, May 2012, August 2012, and November 2012). Benzene was not detected (at or above quantitation limits) in groundwater samples collected from this monitoring location in the July 2011 through November 2012 sampling events. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) were below the parameter-specific CAL (2.69 ug/L).	Based on the historical minimal presence of benzene in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
Carbon tetrachloride	QL above the CAL	W-30	• Carbon tetrachloride was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of carbon tetrachloride in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
Chloroform	QL above the CAL	W-30	• Chloroform was detected once, in November 2011, at a concentration (0.37 J ug/L), which did not exceed the parameter-specific CAL (1.2 ug/L). With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the remaining quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL.	Based on the historical minimal presence of chloroform in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
1,2-Dibromo-3-chloropropane (DBCP)	QL above the CAL	W-30	• DBCP was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of DBCP in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.

TABLE 6 (Continued)

Evaluation of Quantitation Limit and Rejected Data Factors Potentially Impacting the CAL Status
Midco II Site
Gary, Indiana

Parameter	Issue	Impacted Monitoring Location	Analysis	Outcome
1,2-Dibromoethane (ethylene dibromide)	QL above the CAL	W-30	• 1,2-Dibromoethane was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of 1,2-dibromoethane in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
1,4-Dichlorobenzene	QL above the CAL	W-30	• 1,4-Dichlorobenzene was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) were well below the parameter-specific CAL (13.5 ug/L).	Based on the historical minimal presence of 1,4-dichlorobenzene in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
1,2-Dichloroethane (1,2-DCA)	QL above the CAL	W-30	• 1,2-DCA was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of 1,2-DCA in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
1,1-Dichloroethene (1,1-DCE)	QL above the CAL	W-30	• 1,1-DCE was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of 1,1-DCE in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.

TABLE 6 (Continued)

Evaluation of Quantitation Limit and Rejected Data Factors Potentially Impacting the CAL Status
Midco II Site
Gary, Indiana

Parameter	Issue	Impacted Monitoring Location	Analysis	Outcome
1,2-Dichloropropane	QL above the CAL	W-30	• 1,2-Dichloropropane was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (4.76 ug/L).	Based on the historical minimal presence of 1,2-dichloropropane in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
Methylene chloride	QL above the CAL	W-30	• Methylene chloride was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (5 ug/L).	Based on the historical minimal presence of methylene chloride in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
1,1,2,2-Tetrachloroethane (1,1,2,2-PCA)	QL above the CAL	W-30	• 1,1,2,2-PCA was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of 1,1,2,2-PCA in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
Tetrachloroethene (PCE)	QL above the CAL	W-30	• PCE was detected once, in November 2011, at a concentration (0.70 J ug/L), which did not exceed the parameter-specific CAL (5 ug/L). With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the remaining quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL.	Based on the historical minimal presence of PCE in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.

TABLE 6 (Continued)

Evaluation of Quantitation Limit and Rejected Data Factors Potentially Impacting the CAL Status
Midco II Site
Gary, Indiana

Parameter	Issue	Impacted Monitoring Location	Analysis	Outcome
1,1,2-Trichloroethane (1,1,2-TCA)	QL above the CAL	W-30	• 1,1,2-TCA as not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) were below the parameter-specific CAL (1.37 ug/L).	Based on the historical minimal presence of 1,1,2-TCA in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
Trichloroethene (TCE)	QL above the CAL	W-30	• TCE was detected twice, in July (0.97 J ug/L) and November (39 ug/L) 2011, at concentrations which did exceed the parameter-specific CAL (5 ug/L). With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the remaining quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL.	Based on the historical minimal presence of TCE in ground water at this monitoring location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.
Vinyl chloride	QL above the CAL	W-30	• Vinyl chloride was not detected in ground water collected from W-30 during the six ground water sampling events the well has been sampled. With the exception of the November 2012 sampling event (20 U ug/L), the quantitation limits for the quarterly sampling events (1.0 ug/L) did not exceed the parameter-specific CAL (1 ug/L).	Based on the historical minimal presence of vinyl chloride in ground water at this monitoring. location, the elevated QL does not impact the status of this monitoring location with respect to the CAL.

Notes:

CAL = Clean-up action level
QL = Quantitation limit
ug/L= Micrograms per liter
VOC = Volatile organic compound
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.

TABLE 7

Monitoring Locations Meeting the CALs or Meeting the CALs Except for Iron
Midco II Site
Gary, Indiana

Monitoring Locations[4]	2012		2011	2010	2009	2008	2007	2005	2004	2002	2001		2000	1999	1998	1997	1996
	Below CALs	Below CALs, Except for Iron	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs, Except for Iron	Below CALs	Below CALs	Below CALs	Below CALs	Below CALs
MW-1																	
MW-50																	
MW-2S	X		X	X[1]	X[1]	X[1]	X[1]		X[1]	X			X	X	X	X	
MW-2I				NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
MW-2D																	
MW-3S		X			--	X[1]				X[1]		X		X	X	X	X
MW-3D																	
MW-4S	X		X	X[1]	X[1]	X[1]		X[1]	--	X[1]		X				X	
MW-4D																	
B-10										X[1]			X	X[1]			
B-30																X	
C-10	X					X[1]	X[1]										
C-30																	
D-10																	
D-30																	
E-10						X[1]											
E-50																	
F-10	X		X	X[1]													
F-30																	
G-10																	
G-30																	
H-10	X		X	X[1]			X[1]		X[1]		X		X	X	X	X	
H-25	X		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
H-30																	
N-10												X	X	X	X	X	X
N-30	X		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
N-50																	
P-10	X		X	X[1]		X[1]		X[1]		X[1]	X		X	X	X	X	X
P-30	X		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
P-50																	
Q-10	X		X	X[1]		X[1]	X[1]				X		X	X	X	X	X
Q-50									X[1]								
R-10	X		X														
R-50																	
S-10				No[2]													X
S-50																	
T-10					X[1]			X									X
T-50																	
U-10																	
U-50																	
V-10	X		X			X[1]	X[1]			X[1]		X		X[1]	X	X	X
V-30	X		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
V-50																	
W-10				NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
W-30	X[1]		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
W-50	X		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
X-10	X			NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
X-30	X		X	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
Y-10	X			NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
Y-30	X		No[3]	NI	NI	NI	NI	NI	NI	NI	NI		NI	NI	NI	NI	NI
P-1					X[1]	X[1]	X[1]										
P-2			X								X			--	--	--	--
P-3	X					X[1]								--	--	--	--
P-4					X[1]												
P-6																	
EW-1	X		X	X[1]		NC	NC	NC	NC	NC	NS/NI		NS/NI	NS/NI	NS/NI	NS/NI	NS/NI
EW-2	X					NC	NC	NC	NC	NC	NS/NI		NS/NI	NS/NI	NS/NI	NS/NI	NS/NI
EW-3		X				NC	NC	NC	NC	NC	NS/NI		NS/NI	NS/NI	NS/NI	NS/NI	NS/NI
EW-4						NC	NC	NC	NC	NC	NS/NI		NS/NI	NS/NI	NS/NI	NS/NI	NS/NI
EW-6				X[1]		NC	NC	NC	NC	NC	NS/NI		NS/NI	NS/NI	NS/NI	NS/NI	NS/NI
EW-7						NC	NC	NC	NC	NC	NS/NI		NS/NI	NS/NI	NS/NI	NS/NI	NS/NI

Notes:

-- = Location was not sampled

Blank cell indicates that one or more of the CALs were exceeded.

NC = Not calculated

NS/NI = Well either not sampled or not installed

[1] Location conditionally met the CALs because of elevated analyte quantitation limits or rejected analytical data. Refer to Table 5-3 for the specific compound list for 2012. For all other years, please refer to the specific annual report.

[2] Based on historical arsenic data for S-10, the elevated arsenic quantitation limit impacts the status of this monitoring location with respect to the CALs. As such, arsenic is assumed to be present in S-10 at a concentration above its CAL.

[3] Based on historical vinyl chloride and 1,2-dichloroethane (1,2-DCA) data for Y-30, the elevated vinyl chloride and 1,2-DCA quantitation limits impact the status of this monitoring location with respect to the respective CALs. As such, vinyl chloride and 1,2-dichloroethane are assumed to be present in Y-30 at concentrations above each CAL.

[4] Monitoring locations installed in March 2011 (i.e., MW-2I, H-25, N-30, P-30, V-30, W-10, W-30, W-50, X-10, X-30, Y-10, and Y-30) were only sampled for volatile organic compounds, including 1,4-dioxane.

TABLE 8

Ground Water Sample Results Not Consistent with Historical Trend - 2012 Annual Sampling Event[1]
Midco II Site
Gary, Indiana

Monitoring Location	Sample ID	Compound	2012 Annual Event	2011 Annual Event	Historical Range of Concentrations			Notes
					Annual Events[2]	Min	Max	
MW-50	2WMW5016	Cyanide	348	4.18 J	1993-2010	1.2 U	8.4 J	
MW-2D	2WMW2D16	Cyanide	422	20.2	1993-2010	2.0 J	77.9	
E-10	2WE1016	Cyanide	588	81.6	1993-2010	14.8	1,320	1999-2010: detected at values <150 ug/L
	2WE1016D	Cyanide	539					
P-10	2WP1016	Mercury	0.525	0.036 U	1993-2010	0.050 UJ	0.20 U	
P-50	2WP5016	Mercury	0.398	0.036 U	1994-2010	0.050 UJ	0.20 U	Exception: in 1993 detected at 0.69 ug/L
Q-10	2WQ1016	Mercury	0.260	0.063 J	1993-2010	0.050 UJ	0.20 U	
Q-50	2WQ5016	Mercury	0.344	0.047 J	1994-2010	0.050 UJ	0.20 U	Exception: in 1993 detected at 0.36 ug/L
	2WQ5016D	Mercury	0.036 U					
R-50	2WR5016	Nickel	1,610	61.2	1993-2010	7.2 J	170	Exception: in 2010 the detection limit was 2,000 ug/L
U-50	2WU5016	Cyanide	1,260	50.4	1993-2010	18.0	57.4	
V-10	2WV1016	Mercury	2.3	0.036 U	1993-2010	0.050 UJ	0.20 U	
P-1	2WP116	Mercury	0.036 U	0.036 U	2000-2010	0.20 U	0.081 J	
	2WP116D	Mercury	0.299					
P-4	2WP416	Mercury	0.327	0.036 U	2009-2010	0.20 U	0.070 J	
EW-2	2WEW216	Cyanide	795	13.1	2002-2011	8.0 U*	22.6	
EW-4	2WEW416	Cyanide	610	16.3	2002-2004	7.9 U*	33.3	

Notes:

NA = Not analyzed

NS = Not sampled

J = The concentration is approximate due to limitations identified during the quality assurance review.

U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.

U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review (data validation).

UJ = The compound was analyzed but not detected. The associated value is an estimated sample quantitation limit based on a bias identified during the quality assurance review.

[1] Results reported in micrograms per liter (ug/L).

[2] Annual events were not necessarily conducted each year within the listed range. See Table 5-8 from the 2012 Annual Ground Water Monitoring Report.

Table 9 - Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events, MIDCO II Site

TABLE 5-7

Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events[1,2]
Midco II Site
Gary, Indiana

Parameter	2012 Annual Ground Water Monitoring[4]			2011 Annual Ground Water Monitoring[4]			2010 Annual Ground Water Monitoring			2009 Annual Ground Water Monitoring			2008 Annual Ground Water Monitoring		
	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration
Volatile Organic Compounds															
Acetone	15/61	15	MW-4D	15/61	8.6 J	MW-4D	18/49	680	EW-7	26/48	2,100	EW-7	4/41	3,500 J	MW-4D
Benzene	11/61	92	P-5	13/61	140	P-5	5/49	54	P-5	8/48	62	P-5	6/41	56	D-10
Bromochloromethane						EW-7									
Bromodichloromethane															
Bromoform	36/61	0.25 J	V-50												
Bromomethane	1/61	0.29 J	R-50				1/49	12	R-50						
2-Butanone	2/61	4.7 J	H-30				3/49	110	EW-7	3/48	77	EW-7	4/41	2,800 J	MW-4D
Carbon disulfide	15/61	2.4	D-10	13	13	EW-7	3/49	0.72 J	E-50	10/48	1.9	D-10	6/41	1.6 J	D-30
Carbon tetrachloride															
Chlorobenzene	2/61	0.17 J	B-10 and P-5	2/61	0.20 J	EW-3							1/41	0.12 J	B-10
Chloroethane	2/61	47	Y-30	4/61	2,600	Y-30	6/49	35	EW-3	4/48	59	EW-1	2/41	1.4	E-10R
Chloroform	1/61	0.62 J	D-10	1/61	0.27 J	D-10				1/48	0.56 J	EW-7			
Chloromethane	2/61	1.4	V-30	1/61	2.0	R-50	2/49	13	R-50	3/48	0.83 J	G-30	4/41	0.27 J	S-50
1,2-Dibromo-3-chloropropane (DBCP)															
Dibromochloromethane															
1,2-Dibromoethane (Ethylene dibromide)															
1,2-Dichlorobenzene	1/61	0.51 J	P-5	1/61	0.59 J	P-5							1/41	1.5	MW-1
1,3-Dichlorobenzene															
1,4-Dichlorobenzene	1/61	2.7	P-5	1/61	3.8	P-5				1/48	1.0	P-5			
1,1-Dichloroethane	20/61	30	Y-10	16/61	74	Y-10	8/49	15	G-10	6/48	50	EW-3	6/41	5.9 J	F-10
1,2-Dichloroethane	2/61	1.7	MW-2I	3/61	5.8	Y-10	8/49	54	EW-3	1/48	1.1	EW-2			
1,1-Dichloroethene				1/61	0.70 J	Y-10	3/49	3.6	EW-3	2/48	7.1	EW-3			
cis-1,2-Dichloroethene	23/61	33 J	W-30	24/61	210	X-10	9/49	140	EW-2	9/48	160	EW-2	9/41	200	R-10
trans-1,2-Dichloroethene	12/61	3.3	EW-3	13/61	32	Y-10	5/49	16	EW-3	5/48	38	EW-3	3/41	0.22 J	MW-1
1,2-Dichloropropane	5/61	2.0	X-30	9/61	3.3	X-30, EW-3	3/49	2.1	EW-3	3/48	2.7	D-10	1/41	2.9	R-50R
cis-1,3-Dichloropropene															
trans-1,3-Dichloropropene															
Ethylbenzene	8/61	100	D-10	8/61	72	D-10	6/49	98	D-10	7/48	1,400	R-10	9/41	1,600	R-10
2-Hexanone	1/61	1.4 J	F-30	1/61	1 9 J	F-30									
4-Methyl-2-pentanone	7/61	400 J	F-30	4/61	780 J	F-30	12/49	1,900	F-30	18/48	1,200	F-30	8/41	3,900	F-30
Methylene chloride	1/61	0.52 J	Y-30				2/49	1.9 J	F-30	1/48	21	F-30	4/41	50	F-30
Styrene				1/61	0.16 J	P-5									
1,1,2,2-Tetrachloroethane															
Tetrachloroethene	2/61	0.79 J	MW-1	5/61	0.70 J	W-10	3/49	3.2 J	MW-4D	4/48	8.3 J	R-10	2/41	1.9	MW-1
Toluene	5/61	22	D-10	6/61	10	D-10	7/49	13	D-10	6/48	15	D-10	13/41	5,300	R-10
1,2,4-Trichlorobenzene	1/61	0.20 J	D-10												
1,1,1-Trichloroethane	1/61	0.39 J	G-30	3/61	1 0	G-10	3/49	4.8	EW-4	1/48	0.67 J	EW-4	2/41	80 J	R-10
1,1,2-Trichloroethane							1/49	0.28	EW-3	2/48	0.85 J	D-10			
Trichloroethene	9/61	29	MW-1	11/61	39	W-10	10/49	5.7 J	MW-4D	2/48	6.5	EW-1	2/41	19	MW-1
Vinyl chloride	9/61	8.0	MW-2I	6/61	17	Y-10	7/49	42	EW-2	5/48	58	EW-2			
Xylenes (Total)	11/61	58	D-10	7/61	57	R-10	6/49	53	D-10	8/48	7,900	R-10	9/41	4,700	R-10
1,4-Dioxane[5]	40/61	1,000	Q-50	27/61	1,200	Q-50	16/49	880	MW-4D	10/48	1,600	Q-50			

TABLE 5-7

Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events[1,2]
Midco II Site
Gary, Indiana

	2012 Annual Ground Water Monitoring[4]			2011 Annual Ground Water Monitoring[4]			2010 Annual Ground Water Monitoring			2009 Annual Ground Water Monitoring			2008 Annual Ground Water Monitoring		
Parameter	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration
Inorganic Analytes															
Aluminum	10/49	2,220	N-50	13/49	3,030	N-50	12/49	3,000	P-50	17/48	2,200	P-50	12/41	4,450	P-50
Antimony	34/49	5.1	G-10	24/49	5.8	G-10	6/49	4.0 J	P-5	7/48	10	F-30	3/41	10.7	S-10
Arsenic	35/49	99.2	MW-4D	35/49	116	MW-4D	32/49	250 J	U-50	36/48	83	F-30	30/41	89.8	N-50
Barium	38/49	3,430	MW-50	39/49	4,920	MW-50	48/49	4,600	MW-50	42/48	5,900	MW-50	41/41	6,770 J	MW-50
Beryllium	0/49														
Cadmium	9/49	6.6	R-50	9/49	4.2 J	B-30	3/49	3.0	G-10	7/48	2.3	G-10	6/41	2.0 J	P-2
Calcium	49/49	1,500,000	R-50	49/49	848,000	E-50	48/49	1,000,000	R-50	42/48	1,300,000	R-50	41/41	596,000	MW-3S
Chromium, total	8/49	207	R-50	12/49	135	G-10	11/49	61 J	U-10	11/48	11	H-30	16/41	25	G-30
Chromium (VI)	0/49			4/49	120	G-10	2/49	190	R-50	2/48	39	D-10	12/41	14	MW-3D
Cobalt	16/49	79.1	MW-4D	17/49	74.4	MW-4D	6/49	32	EW-7	8/48	48	MW-4D	14/41	103	MW-4D
Copper	21/49	543	G-10	28/49	311	G-10	17/49	420	G-10	33/48	430	G-10	9/41	231	G-10
Cyanide	32/49	1,290	MW-1	29/49	1,390	MW-1	40/49	920	MW-1	30/48	3,600	MW-1	34/41	211	MW-1
Fluoride	32/49	9,600	Q-50	39/49	8,800	D-10	48/49	15,000	F-30	39/48	12,000	D-10	--	--	--
Iron	42/49	43,600	EW-7	40/49	53,400	EW-3	42/49	46,000	MW-3D	42/48	47,000	MW-3D	33/41	44,300	MW-3D
Lead	3/49	6.5 J	N-50	6/49	6.0 J	C-10	1/49	4.2 J	P-3	16/48	7.5 J	P-50	6/41	4.6	P-50
Magnesium	49/49	690,000	D-10	49/49	694,000	D-10	45/49	660,000	D-10	42/48	670,000	D-10	41/41	773,000	D-10
Manganese	49/49	3,670	E-50	49/49	6,400	EW-6	42/49	5,400	E-50	41/48	2,600	E-50	40/41	2,750	U-10
Mercury	28/49	0.169 J	S-10	18/49	0.075 J	R-10	1/49	0.059 J	EW-1	12/48	0.11 J	S-50	2/41	0.40	R-10
Nickel	30/49	254	MW-4D	30/49	306	MW-4D	14/49	320	EW-6	13/48	190	MW-4D	26/41	350	MW-4D
Potassium	49/49	12,000,000	B-30	49/49	12,200,000	B-30	46/49	12,000,000	B-30	42/48	12,000,000	B-30	41/41	11,900,000	F-30
Selenium	6/49	15.5	H-10	8/49	23.7	H-10	10/49	27 J	MW-1	9/48	7.8 J	C-10	3/41	37.6	S-10
Silver	7/49	0.17 J	MW-3S	4/49	0.12 J	MW-3S	22/49	2.9 J	E-50	10/48	1.3 J	F-30	1/41	0.87 J	MW-2D
Sodium	49/49	12,000,000	B-30	49/49	13,700,000	B-30	46/49	15,000,000	B-30	42/48	13,000,000	B-30	41/41	10,500,000	F-30
Sulfide	23/49	102,000	D-10	16/49	130,000	D-10	22/49	112,000	D-10	26/48	120,000	D-10	--	--	--
Thallium	11/49	6.3 J	R-50	9/49	5.9 J	R-50	9/49	3.0	R-50	2/48	2.1 J	R-50	5/41	13.5	MW-50
Vanadium	7/49	150	S-10	4/49	126	S-10	1/49	51	S-10	2/48	68	S-10	14/41	294	S-10
Zinc	19/49	242	G-10	18/49	99.3	C-10	19/49	170	G-10	30/48	190	G-10	12/41	52.4 J	MW-3S

Notes:

ug/L = Micrograms per liter

J = The concentration is approximate due to limitations identified during the quality assurance review.

N = Parameter did not meet all of the USEPA's defined identification criteria.

-- = Fluoride and sulfide were added to the parameter list in 2009.

[1] Blank spaces denote that the parameters were below their respective laboratory quantitation limits, the data were rejected, or the parameters were not analyzed (1986-87 Remedial Investigation only). Chromium (VI) was not analyzed in 2007.

[2] Only parameters with a detection in at least one sample between 1986/1987 through 2012 are shown.

[3] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field in the 2007 event. The data in this table have been reported accordingly.

[4] Monitoring locations installed in March 2011 were only sampled for volatile organic compounds and 1,4-Dioxane (MW-2I, H-25, N-30, P-30, V-30, W-10, W-30, W-50, X-10, X-30, Y-10, and Y-30)

[5] Between 1993 and 2012, three variations of USEPA SW-846 Method 8260B have been used for the analysis of 1,4-dioxane. From 1993 to 2008, the samples were introduced to the gas chromatogram by direct injection onto the capillary column. In 2009 and 2010, the purge-and-trap sample introduction method was used. In 2011 and 2012, the heated purge and trap sample introduction method with selected ion monitoring (SIM) was used.

TABLE 5-7

Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events[1,2]
Midco II Site
Gary, Indiana

Parameter	2007 Annual Ground Water Monitoring[3]			2005 Annual Ground Water Monitoring			2004 Annual Ground Water Monitoring			2002 Annual Ground Water Monitoring			2001 Annual Ground Water Monitoring		
	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration
Volatile Organic Compounds															
Acetone	5/41	50,000 J	MW-4D	2/41	36,000 J	MW-4D	7/40	2,700 J	T-50	8/41	9,100	T-50	10/41	19,000 J	T-50
Benzene	13/41	85	E-10	11/41	95 J	R-10	16/40	110 J	R-10	12/41	110 J	R-10	9/41	110	E-10
Bromochloromethane										1/41	0.7 J	MW-4D			
Bromodichloromethane															
Bromoform	1/41	0.17 J	N-10				1/40	2.7 J	R-50R						
Bromomethane										1/41	2 J	MW-4D			
2-Butanone	2/41	34,000 J	MW-4D	4/41	21,000 J	MW-4D	20/40	12,000 J	MW-4D	4/41	4,600 J	MW-4D	11/41	6,000 J	T-50
Carbon disulfide	8/41	2.4 J	D-10	11/41	12	D-10	22/40	27 J	E-10R	17/41	0.7 J	N-10	17/41	30 J	E-50
Carbon tetrachloride															
Chlorobenzene	3/41	5.3	R-10	2/41	0.53	MW-1	4/40	13 J	E-10R	3/41	0 6 J	MW-4D, B-10	2/41	0 9 J	MW-1, B-10
Chloroethane	2/41	27	E-10				3/40	34 J	G-10	3/41	52 J	E-10R	2/41	33 J	E-10
Chloroform	1/41	2.5	R-10												
Chloromethane	1/41	0.24 J	N-50	3/41	23 J	E-10R	4/40	0.37 J	C-30				4/41	12 J	E-10
1,2-Dibromo-3-chloropropane (DBCP)															
Dibromochloromethane															
1,2-Dibromoethane (Ethylene dibromide)															
1,2-Dichlorobenzene	3/41	0.84 J	R-10	2/41	45	MW-1	5/40	77 J	MW-1	2/41	27 J	MW-1	7/41	94	MW-1
1,3-Dichlorobenzene				1/41	0.11 J	MW-4D	2/40	26 J	E-10R	1/41	0.2 J	P-2	1/41	0.8 J	V-50
1,4-Dichlorobenzene				2/41	0.89	MW-1	3/40	30 J	E-10R	2/41	0.4 J	MW-1			
1,1-Dichloroethane	3/41	95	R-10	4/41	230 J	R-10	5/40	330	G-10	8/41	200 J	R-10	5/41	52 J	F-10
1,2-Dichloroethane							1/40	0.27 J	MW-1	4/41	2	D-10	1/41	3	G-10
1,1-Dichloroethene	1/41	0.53 J	MW-3S	4/41	0.85 J	MW-1	7/40	24 J	E-10R	2/41	0.6 J	MW-1, MW-4D	1/41	0.2 J	B-10
cis-1,2-Dichloroethene	4/41	750 J	R-10	12/41	1,600	R-10	17/40	2,800	R-10	13/41	1,100 J	R-10	8/41	1,900 J	R-10
trans-1,2-Dichloroethene	3/41	1.0 J	E-10	2/41	1.5	G-10	5/40	22 J	E-10R	3/41	4	MW-1	2/41	0.5 J	G-10
1,2-Dichloropropane	2/41	150 J	R-10	1/41	360	R-10	2/40	34 J	F-10	2/41	34 J	E-10R	4/41	61 J	F-10
cis-1,3-Dichloropropene				3/41	0.11 J	MW-3D, C-10, E-50R	1/40	0.14 J	MW-2D						
trans-1,3-Dichloropropene							1/40	0.080 J	D-30						
Ethylbenzene	7/41	3,800	R-10	12/41	15,000	F-10	19/40	13,000	R-10	12/41	12,000	R-10	10/41	17,000	R-10
2-Hexanone							3/40	1.4 J	E-50R						
4-Methyl-2-pentanone	11/41	7,900	F-30[3]	11/41	4,900	F-30	13/40	3,900 J	F-10	12/41	4,300	F-30	17/41	10,000 J	R-10
Methylene chloride	2/41	0 62 J	D-10	1/41	390 J	R-10	3/40	830	MW-4D	6/41	90 J	F-30	1/41	2 J	G-30
Styrene				2/41	20	U-10									
1,1,2,2-Tetrachloroethane				1/41	0.1 J	MW-4S	2/40	2 6	V-10						
Tetrachloroethene	4/41	43	R-10	4/41	140 J	R-10	8/40	190 J	R-10	4/41	110 J	R-10	3/41	1	G-10
Toluene	10/41	17,000	R-10	4/41	33,000	R-10	5/40	43,000	R-10	19/41	50,000	R-10	11/41	77,000	R-10
1,2,4-Trichlorobenzene													2/41	0.6 J	U-10
1,1,1-Trichloroethane	1/41	300 J	R-10	2/41	490	R-10	2/40	800 J	R-10	2/41	680 J	R-10	2/41	1600 J	R-10
1,1,2-Trichloroethane							1/40	0.19 J	F-10				1/41	0.2 J	G-10
Trichloroethene	3/41	3.7	R-10	7/41	12	MW-1	11/40	22	MW-1	6/41	250 J	MW-1	4/41	65	MW-1
Vinyl chloride	3/41	3.5	R-10	6/41	33 J	E-10R	7/40	4.7 J	F-10	6/41	3	N-10	10/41	50 J	E-10
Xylenes (Total)	8/41	12,000	R-10	15/41	42,000	F-10	10/40	39,000	R-10	17/41	36,000	R-10	10/41	49,000	R-10
1,4-Dioxane[9]															

TABLE 5-7

Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events[1,2]
Midco II Site
Gary, Indiana

Parameter	2007 Annual Ground Water Monitoring[3]			2005 Annual Ground Water Monitoring			2004 Annual Ground Water Monitoring			2002 Annual Ground Water Monitoring			2001 Annual Ground Water Monitoring		
	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration
Inorganic Analytes															
Aluminum	26/41	2,220	P-50	22/41	1,940	H-30	28/40	3,940	H-30	12/41	1,740	P-50	11/41	2,010	P-50
Antimony	16/41	9.8 J	S-10				16/40	5.4 J	V-10	12/41	18.2	Q-50			
Arsenic	37/41	117	N-50	34/41	119	MW-4D	35/40	122	MW-4D	33/41	95.7	MW-4D	37/41	89.3	S-50
Barium	41/41	7,290	MW-50	41/41	6,240	MW-50	40/40	7,520	MW-50	41/41	7,630	MW-50	41/41	7,600	MW-50
Beryllium	9/41	0.41 J	E-10	5/41	0.17 J	P-10, S-10	13/40	0.47 J	P-50	2/41	0.70 J	E-10R			
Cadmium	29/41	5.0	H-30	12/41	2.7 J	G-10	19/40	2.5 J	G-10	20/41	2.1 J	P-3	2/41	2.8 J	MW-50
Calcium	41/41	598,000	MW-3S	41/41	601,000	P-50	40/40	660,000	P-50	40/40	559,000 J	V-50	41/41	648,000	V-50
Chromium, total	26/41	28	G-30	27/41	231 J	G-30	32/40	513	H-30	41/41	219	H-30	33/41	544	Q-50
Chromium (VI)				14/41	40	MW-50, MW-3S							7/41	22	D-10
Cobalt	30/41	257	MW-4D	19/41	213	MW-4D	30/40	156	T-50	28/41	84.7	T-50	27/41	104	S-50
Copper	24/41	223	G-10	13/41	297	G-10	24/40	478	G-10	22/41	191	G-10	28/41	231	G-10
Cyanide	34/41	1,390	MW-1	35/41	355	MW-1	39/40	537	MW-1	29/41	9,500	MW-1	37/41	563	MW-1
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	38/41	47,200	N-50	37/41	44,700	U-50	38/40	46,800	N-50	41/41	73,900	N-50	39/41	77,100	N-50
Lead	9/41	5.8 J	E-10	5/41	3.2	H-30	7/40	5.7	H-30	7/41	8.1	H-30	3/41	9.5	R-10
Magnesium	41/41	741,000	D-10	41/41	388,000	D-10	40/40	481,000	D-10	40/40	603,000	D-10	41/41	613,000	D-10
Manganese	40/41	3,200	MW-4S	41/41	3,600	MW-3S	40/40	4,570	MW-3S	41/41	2,820	U-10	41/41	3,460	U-10
Mercury	1/41	0.11 J	F-30[3]				1/40	0.26	MW-4D						
Nickel	37/41	1,060	MW-4D	39/41	1,010	MW-4D	39/40	778	MW-4D	41/41	284	G-10	37/41	516	R-10
Potassium	41/41	13,000,000 J	B-30	41/41	13,500,000	B-30	40/40	14,100,000	B-30	40/40	14,200,000	B-30	41/41	12,800,000 J	B-30
Selenium	5/41	22.7	S-10	6/41	162	H-30	6/40	63.6 J	S-10	13/41	83.8	S-10	7/41	20.4	H-10
Silver	2/41	3.0 J	F-30[3]	4/41	3.1 J	MW-4D	2/40	0.97 J	F-30				3/41	1.2	MW-50, H-30, P-1
Sodium	41/41	14,300,000	B-30	41/41	12,500,000	B-30	40/40	12,500,000	B-30	41/41	13,100,000	B-30	41/41	12,700,000	B-30
Sulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	10/41	9.4 J	F-30[3]	12/41	16.3	U-50				3/41	4.2 J	D-30	2/41	6.1	F-10
Vanadium	27/41	287	S-10	24/41	64.1	D-30	39/40	256	S-10	28/41	320	S-10	17/41	53.5	S-10
Zinc	31/41	319	U-10	6/41	328	G-10	23/40	460	G-10	33/41	287	U-10	22/41	361	U-10

Notes:

ug/L = Micrograms per liter

J = The concentration is approximate due to limitations identified during the quality assurance review.

N = Parameter did not meet all of the USEPA's defined identification criteria.

-- = Fluoride and sulfide were added to the parameter list in 2009.

[1] Blank spaces denote that the parameters were below their respective laboratory quantitation limits, the data were rejected, or the parameters were not analyzed (1986-87 Remedial Investigation only). Chromium (VI) was not analyzed in 2007.

[2] Only parameters with a detection in at least one sample between 1986/1987 through 2012 are shown.

[3] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field in the 2007 event The data in this table have been reported accordingly.

[4] Monitoring locations installed in March 2011 were only sampled for volatile organic compounds and 1,4-Dioxane (MW-2I, H-25, N-30, P-30, V-30, W-10, W-30, W-50, X-10, X-30, Y-10, and Y-30).

[5] Between 1993 and 2012, three variations of USEPA SW-846 Method 8260B have been used for the analysis of 1,4-dioxane. From 1993 to 2008, the samples were introduced to the gas chromatogram by direct injection onto the capillary column. In 2009 and 2010, the purge-and-trap sample introduction method was used. In 2011 and 2012, the heated purge and trap sample introduction method with selected ion monitoring (SIM) was used

TABLE 5-7

Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events[1,2]
Midco II Site
Gary, Indiana

Parameter	2000 Annual Ground Water Monitoring			1999 Annual Ground Water Monitoring			1998 Annual Ground Water Monitoring			1997 Annual Ground Water Monitoring			1996 Annual Ground Water Monitoring			1993 Predesign Investigation			1986/1987 Remedial Investigation	
	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Highest Detected Concentration ug/L	Location of Highest Detected Concentration
Volatile Organic Compounds																				
Acetone	12/41	16,000 J	T-50	7/38	41,000 J	S-50	4/38	3,000 J	B-30	2/38	36,000 J	S-50	14/38	31,000	S-50	6/38	780 J	B-30	47,000	E-10
Benzene	12/41	75	D-10	4/38	42	C-10	5/38	75	C-10	10/38	650 J	R-10	10/38	120	E-10R	7/38	930 J	R-10		
Bromochloromethane	3/41	0.8 J	D-10																	
Bromodichloromethane							1/38	0.2 J	MW-2S											
Bromoform																				
Bromomethane										1/38	2 J	C-30								
2-Butanone	6/41	5,300 J	T-50	2/38	9,500 J	S-50	2/38	44 J	B-30	4/38	6,300 J	S-50	8/38	6,000	S-50	7/38	1,300 J	B-10	4,800 J	I-30
Carbon disulfide	2/41	0.1 J	MW-50, H-30							2/38	0.1 J	G-10, Q-10	3/38	0.2 J	Q-50					
Carbon tetrachloride										1/38	1 J	C-30								
Chlorobenzene	2/41	1	B-10	1/38	2.0 J	B-10	1/38	0.3 J	MW-2S	2/38	14 J	B-10	2/38	14 J	B-10					
Chloroethane	4/41	11 J	B-30										1/38	0.8 J	C-10					
Chloroform							2/38	1 J	B-30	1/38	1 J	C-30								
Chloromethane	4/41	0.3 J	P-2							1/38	14 J	C-30	1/38	0.9 J	G-30					
1,2-Dibromo-3-chloropropane (DBCP)	1/41	2000 J	R-10																	
Dibromochloromethane	2/41	0.8 J	D-10																	
1,2-Dibromoethane (Ethylene dibromide)																				
1,2-Dichlorobenzene	1/41	180	MW-1	2/38	120	MW-1	1/38	110	MW-1	1/38	18 J	MW-1								
1,3-Dichlorobenzene										1/38	0.3 J	MW-4D	1/38	3 J	D-30					
1,4-Dichlorobenzene	1/41	2	MW-1										1/38	0.1 J	V-50					
1,1-Dichloroethane	7/41	170 J	F-10	1/38	0.60 J	MW-4S	4/38	48 J	B-10	8/38	600 J	R-10	11/38	400 J	R-10	6/38	910	B-10	560	I-10
1,2-Dichloroethane										4/38	0.4 J	MW-4D, G-10, G-30	5/38	0.9 J	MW-2S					
1,1-Dichloroethene	1/41	1	MW-1										1/38	0.5 J	MW-1					
cis-1,2-Dichloroethene	9/41	2,100 J	R-10	3/38	100	MW-10	5/38	460 J	E-10	10/38	2,800	F-10	11/38	1,800 J	F-10	9/38	1,100 J	F-10		
trans-1,2-Dichloroethene	2/41	2	MW-1				1/38	44 J	B-10	2/38	220	B-10	4/38	2,400	E-10R	1/38	120 J	B-10	4,800	MW-1
1,2-Dichloropropane	1/41	0.2 J	MW-1	1/38	8.0	D-10	1/38	15	D-10	3/38	1,600 J	R-10	4/38	440 J	E-10R	4/38	1,900 J	R-10	100 J	B-10
cis-1,3-Dichloropropene	4/41	1 J	V-50																	
trans-1,3-Dichloropropene	2/41	0.2 J	MW-3S, U-50																	
Ethylbenzene	15/41	12,000	R-10	9/38	8,700	E-10R	10/38	17,000	R-10	10/38	20,000	R-10	11/38	11,000	R-10	11/38	23,000	R-10	22,000	E-10
2-Hexanone	1/41	1 J	MW-4D										1/38	2 J	D-30	1/38	84 J	G-30		
4-Methyl-2-pentanone	8/41	2,500	F-30	12/38	9,200 J	E-10R	9/38	2,600 J	R-50	10/38	12,000 J	R-10	12/38	3,700 J	F-10	12/38	38,000	R-10	460,000	E10
Methylene chloride	1/41	78 J	F-30							2/38	480	R-50	3/38	190	R-50R	2/38	17,000 J	R-10	26,000	E-10
Styrene							2/38	100 J	G-10				1/38	2 J	D-10	1/38	5 J	D-10		
1,1,2,2-Tetrachloroethane																				
Tetrachloroethene	2/41	0.3 J	MW-1				1/38	0.2 J	MW-2S	1/38	6	G-10	2/38	3	G-10	2/38	130 J	B-10		
Toluene	7/41	51,000	R-10	6/38	22,000	R-10	9/38	100,000	R-10	4/38	96,000	R-10	12/38	56,000	R-10	7/38	120,000 J	R-10	84,000	E-10
1,2,4-Trichlorobenzene							1/38	0.40 J	MW-2S							1/38	10	D-10		
1,1,1-Trichloroethane										2/38	1,900 J	R-10	2/38	820 J	R-10	3/38	2,700 J	R-10		
1,1,2-Trichloroethane										1/38	0.8 J	G-10	1/38	0.2 J	G-10	2/38	300	B-10		
Trichloroethene	5/41	24	MW-1	2/38	370 J	R-10	2/38	380	MW-1	6/38	1,000 J	R-10	6/38	730 J	R-10	6/38	1,800 J	E-10	240,000	MW-1
Vinyl chloride	5/41	7	MW-1	1/38	0.90 J	N-10	1/38	9 J	MW-1	10/38	950 J	F-10	12/38	380 J	F-10	4/38	170	B-10	21	I-10
Xylenes (Total)	16/41	31,000	R-10	10/38	36,000	E-10R	10/38	49,000	R-10	11/38	56,000	R-10	11/38	37,000	R-10	15/38	57,000	R-10	54,000	E-10
1,4-Dioxane[5]																3/38	2.0 J	Q-50		

TABLE 5-7

Frequency of Detection and Highest Detected Concentrations: 1986/1987 - 2012 Monitoring Events[1,2]
Midco II Site
Gary, Indiana

Parameter	2000 Annual Ground Water Monitoring			1999 Annual Ground Water Monitoring			1998 Annual Ground Water Monitoring			1997 Annual Ground Water Monitoring			1996 Annual Ground Water Monitoring			1993 Predesign Investigation			1986/1987 Remedial Investigation	
	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Frequency of Detection	Highest Detected Concentration ug/L	Location of Highest Detected Concentration	Highest Detected Concentration ug/L	Location of Highest Detected Concentration
Inorganic Analytes																				
Aluminum	10/41	1,480	P-50	6/38	6,090	P-50	16/38	4,250	P-50	19/38	20,600	R-50	10/38	4,120	P-50	15/38	7,280	P-50	55,100	D-10
Antimony				1/38	1.8 J	MW-4S				4/38	32.4	MW-50	5/38	3.8 J	D-10	1/38	33.1	U-50		
Arsenic	38/41	88.5	MW-4D	35/38	104	S-50	27/38	93.4	S-50	33/38	91.3	MW-4D	35/38	104 J	S-50	15/38	76.2	D-30	178	D-30
Barium	41/41	10,800	MW-50	38/38	10,000	MW-50	38/38	9,450	V-50	38/38	10,300 J	V-50	38/38	12,400	V-50	37/38	8,210	Q-50	1,440	K-30
Beryllium										1/38	1 0	E-50	3/38	1.6	V-50					
Cadmium	17/41	1.9	G-10	36/38	6.5	MW-50				4/38	4.3	G-30	11/38	11.0 J	Q-50					
Calcium	41/41	628,000	MW-50	38/38	716,000	P-50	38/38	748,000	P-50	38/38	659,000	P-50	38/38	999,000 J	Q-50	38/38	1,250,000	Q-50	814,000	MW-3
Chromium, total	40/41	233 J	H-30	38/38	473	G-30	38/38	595	G-30	34/38	227 J	H-30	38/38	216	H-30	7/38	105	MW-4S	1,120 J	G-10
Chromium (VI)				5/38	20	U-10, R-10, MW-3D							4/38	120 J	C-10	18/38	90.0 J	B-10		
Cobalt	34/41	150	S-50	31/38	238	S-50	20/38	218	S-50	14/38	153	S-50	28/38	141	S-50	6/38	42 5	E-10	50	MW-2
Copper	14/41	286	G-10	26/38	486	G-10	22/38	245	G-10	13/38	607	G-10	27/38	847	G-10	3/38	727	G-10	6,060 J	G-10
Cyanide	34/41	391	MW-4S	28/38	3,630	MW-1	15/38	1,160	MW-1	13/38	1,940 J	R-10	14/38	848 J	R-10	25/38	1,580	R-10	7,830 J	E-10
Fluoride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	39/41	73,700	N-50	37/38	66,300	N-50	37/38	58,600	N-50	38/38	59,600	N-50	38/38	92,700	Q-50	35/38	115,000	Q-50	82,200	MW-3
Lead				5/38	93.6	C-10	18/38	55.0	C-10	7/38	29.6	R-50	6/38	7.9	C-10	9/38	52.6 J	T-10	263 J	F-30
Magnesium	41/41	845,000	D-10	38/38	647,000	D-10	38/38	551,000	D-10	38/38	627,000 J	D-10	38/38	666,000	D-10	38/38	592,000	D-10	664,000	A-10
Manganese	41/41	6,860	V-10	38/38	3,990	R-10	38/38	2,740	U-10	38/38	1,960	U-10	38/38	4,370	V-10	36/38	1,840	V-10	8,330	MW-3
Mercury				1/38	0.05	R-50	1/38	0.11	S-10							6/38	0 69	P-50	2.81 J	MW-3
Nickel	40/41	707	R-10	38/38	1,770	R-10	34/38	1,030	R-10	29/38	1,060	R-10	38/38	546	R-10	26/38	725	R-10	16,600	B-30
Potassium	41/41	14,300,000	B-30	38/38	16,300,000	B-30	38/38	13,300,000 J	B-30	38/38	14,800,000	B-30	38/38	25,500,000	D-30	38/38	16,400,000	E-50	2,120,000	A-30
Selenium	3/41	118	S-10	16/38	66.1	S-10	8/38	16.0 J	S-10	4/38	36.8 J	S-10	3/38	6.0	H-10	5/38	31.3	S-10	212 J	G-30
Silver	1/41	0.95	T-50							1/38	1.2	E-10								
Sodium	41/41	13,100,000	B-30	38/38	14,000,000	B-30	38/38	13,700,000	MW-4D	38/38	13,000,000	B-30	38/38	13,000,000	B-30	37/38	14,900,000	E-50	15,500,000 J	L-30
Sulfide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Thallium				5/38	6.1 J	MW-4S				3/38	4.3	C-30	5/38	5.8	MW-2D	4/38	64.0 J	C-30	76 J	A-30
Vanadium	32/41	180	S-10	34/38	264	S-10	10/38	160	S-10	9/38	246	S-10	28/38	20.6	B-10	2/38	76.9	S-10	90	D-10
Zinc	9/41	436	G-10	12/38	950	G-10	18/38	294	G-10	17/38	424	G-10	14/38	375 J	G-10	26/38	338	G-10	2,100	C-30

Notes:

ug/L = Micrograms per liter

J = The concentration is approximate due to limitations identified during the quality assurance review.

N = Parameter did not meet all of the USEPA's defined identification criteria.

-- = Fluoride and sulfide were added to the parameter list in 2009.

[1] Blank spaces denote that the parameters were below their respective laboratory quantitation limits, the data were rejected, or the parameters were not analyzed (1986-87 Remedial Investigation only). Chromium (VI) was not analyzed in 2007.

[2] Only parameters with a detection in at least one sample between 1986/1987 through 2012 are shown.

[3] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field in the 2007 event. The data in this table have been reported accordingly.

[4] Monitoring locations installed in March 2011 were only sampled for volatile organic compounds and 1,4-Dioxane (MW-2I, H-25, N-30, P-30, V-30, W-10, W-30, W-50, X-10, X-30, Y-10, and Y-30).

[5] Between 1993 and 2012, three variations of USEPA SW-846 Method 8260B have been used for the analysis of 1,4-dioxane. From 1993 to 2008, the samples were introduced to the gas chromatogram by direct injection onto the capillary column. In 2009 and 2010, the purge-and-trap sample introduction method was used. In 2011 and 2012, the heated purge and trap sample introduction method with selected ion monitoring (SIM) was used.

Table 10 - 1993-2012 Volatile Organic Compound Concentrations in Monitoring Locations Samples, MIDCO II Site

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-1															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	10 J	R	R	R	R	25 U*	R	5.0 U*	4.1 U*	R	5.0 U	10 U	10 U	10 U	10 U
Benzene	2 U	0.4 J	25 U	17 U	12 U	2	5 U	1 U	0.24 J	0.17 J	0.13 U*	0.50 U	1.0 U	1.0 U	0.18 J	1.0 U
Bromochloromethane		1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 UJ	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 UJ	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 J
Bromomethane	10 U	1 U	25 U	17 U	12 U	1 U	5 UJ	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	8 J	R	R	R	120 U*	R	R	1.7 U*	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	0.1 J	6 J	17 U	12 U	1 U*	0.9 J	0.4 J	0.60	0.53	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	R	17 U	12 U	1 U	5 U	1 U	0.50 UJ	2.5 U	6.4	0.50 U	1.0 U	2.0	1.2	1.0 U
Chloroform	1 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	25 U	17 U	12 U	1 U	5 U*	1 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	2 UJ	25 U	17 U	R	1 U	R	R	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 UJ	18 J	110	120	180	94	27 J	61	45	0.44 J	1.5	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 UJ	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 UJ	25 U	17 U	12 U	2	5 U	0.4 J	1.1	0.89	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	28 J	20 J	19 J	12 U	7	20	5	6.4	9.2	4.0	0.65	0.54 J	4.8	2.8	6.1
1,2-Dichloroethane	0.6 U	1 U	25 U	17 U	12 U	1 U	5 U	0.2 J	0.27 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	0.5 J	25 U	17 U	12 U	1	5 U	0.6 J	0.21 J	0.85 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	12	15	140	170	100	13	9	87	9.6	7.0	2.8	3.8	0.31 J	1.0 U	19	7.9
trans-1,2-Dichloroethene	5 U	1	4 J	17 U	12 U	2	5 U	4	1.1 J	0.90 J	0.82	0.22 J	1.0 U	1.0 U	1.0	0.74 J
1,2-Dichloropropane	2 U	1 UJ	25 U	17 U	12 U	0.2 J	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	25 U	17 U	12 U	1	5 U	1 U	0.70 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	R	R	5 U	25 UJ	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 UJ	120 U	84 U	62 U	42 U	25 UJ	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	25 U	33 U	25 U	2 U*	10 UJ	2 U	0.48 U*	1.0 U*	0.11 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	25 U	17 U	12 U	1 UJ	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 UJ	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	0.2 J	25 U	17 U	12 U	0.3 J	0.8 J	4	0.99	0.63	0.12 J	1.9	0.58 J	1.0 U	0.33 J	0.79 J
Toluene	2 U	1 U	25 U	17 U	12 U	1 U*	5 U	1 U	0.13 U*	0.26 U*	0.30 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 UJ	25 U	17 U	12 U	1 U	5 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	20	19 J	370	380	210	24	65	230	22	12	2.4	19	0.88 J	0.27 J	18	29
Vinyl chloride	2	2	4 J	9 J	12 U	7	4 J	1	0.63 J	1.0	0.91	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	120 U	17 U	12 U	1	5 U	1 U	0.50 U	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				29	140	8.3	5.8

Monitoring Location	MW-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	4 J	R	5 U*	R	4 J	5 U*	9 U*	5.9 J	3.1 U*	3.6 U*	5.0 U	10 U	10 U	10 U	4.2 J
Benzene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.11 J	0.50 U	1.0 U	1.0 U	0.1 J	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.14 J
Bromomethane	10 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	3 J	R	R	R	R	R	5 U	R	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	0.49 J	0.12 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	R	R	1 U	R	1 U	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	0.50 U	0.16 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	1 U	0.9 J	1 U	0.2 J	1 U	1 U	0.10 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	R	R	5 U	5 UJ	5 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	5 U	5 U	5 UJ	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	1 U	2 U*	2 U	2 U*	2 UJ	0.1 U*	0.70 U*	0.10 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.2 J	0.29 U*	0.50 U	0.39 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	0.2 J	0.2 J	1 U	1 U	0.1 J	0.2 J	0.2 J	0.11 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	5 U	1 U	1 U	0.9 J	1 U	0.2 J	0.26 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	1,000 J	10,000 U							20,000 U				760	86	770	580

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-2S																MW-2I		MW-2D															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	R	5 U*	R	R	7 U*	5 U*	5 U	9.7 U*	4.6 U*	3.1 U*	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	100 UR	6 J	R	R	5 J	4 J	6 U*	R	12 U*	2.9 U*	4.9 U*	5.0 U	10 U	10 U	10 U	3.8 J
Benzene	2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 J	2 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.12 J	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.10 J
Bromomethane	10 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	R	R	R	R	5 U*	5 UJ	5 U	R	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	20 UR	R	R	R	R	R	5 UJ	5 U	2.0 U*	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	0.2 J	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 UJ	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 UJ	1 U	1 U	1 U	1 U	0.2 J	1 U*	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 UJ	1 U	2 U	1 U	1 U	1 U	1 U*	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	R	R	1 U	R	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	R	R	1 U	1 U	1 U	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	0.4 J	0.1 J	0.3 J	1 U	1 U	1 U	0.7 J	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.42 J	0.91 J	0.77 J	2 U	1 U	2 U	1 U	1 U	1 U	1 U	0.7 J	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	0.9 J	0.2 J	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.7	0.6 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.10 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	0.5 J	1 U	0.2 J	0.5 J	1 U	1 U	1 U	0.7 J	0.70	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.62 J	2.9	0.45 J	5 U	1 U	2 U	1 U	1 U	1 U	1 U	0.7 J	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.38 J	0.59 J	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.14 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.25 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	5 U	R	R	5 UJ	5 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	50 UR	5 U	10 U	R	5 U	5 U	5 UJ	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	5 U	5 U	5 U	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 UJ	10 U	5 U	5 U	5 U	5 UJ	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	1 UJ	2 U*	2 U*	2 U*	2 U	2 U	0.46 U*	0.90 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 UJ	2 U	2 U	2 U*	2 U	2 U*	2 UJ	2 U	1.0 U*	0.85 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 UJ	1 U	2 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U*	1 U	1 U	0.2 J	1 U	1 U*	1 U	1 U	0.25 U*	0.19 U*	1.0 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U*	1 U	2 U	1 U	1 U	1 U*	0.1 J	1 U	0.11 U*	0.18 U*	1.5 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		0.4 J	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	15 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	2 J	1	1	0.9 J	1 U	0.3 J	0.3 J	1 U	0.13 J	0.23 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U	3 U	1	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	1 U	1 U	1 U	1 U	1 U	0.2 J	0.5 J	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.26 J	2.8	8.0	2 U	1 U	10	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.48 J
Xylenes (total)	5 UJ	1 U	5 U	0.5 J	1 U	1 U	1 U	1 U	0.23 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 UJ	1 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.64 U*	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	3 U	10	6.9	1.4 J	6,000 U	10,000 U							20,000 U				20 U	100	62	70

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-3S																MW-3D															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	8 U*	5 U*	5 U*	R	5 U*	9 J	R	7.4 U*	6 1 U*	16 U*	5.0 U	NS	5.9 J	5.4 J	10 U	100 UR	18 U*	R	7 U*	R	5 U*	10 J	5 U	3.6 U*	2.5 U*	13 U*	5.0 U	10 U	10 U	4.9 J	4.4 J
Benzene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 033 U*	0.50 U	1.7 J	0.50 U	NS	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.051 J	0.50 U	2 5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	0.50 U	0 50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U		1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 UJ	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	2 U	1 UJ	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	0.20 J
Bromomethane	10 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	10 U	1 UJ	2 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	R	R	5 U*	1 J	R	10	R	25 U	5 0 U	NS	10 U	10 U	10 U	20 UR	32	R	R	R	R	R	5 U	7.2	R	25 U	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.091 J	0.12 J	2.5 U	0.14 J	NS	1.0 U	1 0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U*	0.6 J	0.089 J	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0 50 U	NS	1 0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	2.5 U	0 50 U	NS	1 0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	2.5 UJ	0.50 U	NS	1.0 U	1.0 U	1.0 U	10 U	1 U	2 U	1 U	1 U	1 U	1 U*	1 U	0 097 U*	0.50 U	2.5 U	0 50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	1 UJ	R	1 U	R	1 U	1 UJ	R	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	4 U	1 U	R	1 U	R	1 U	1 UJ	1 U	0 5 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1 0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2 5 U	0.50 U	NS	1 0 U	1.0 U	1 0 U	1 U	1 U	2 UJ	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 UJ	1 U	1 U	1 U	1 U*	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	NS	1 0 U	1.0 U	1 0 U	10 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1 0 U
1,3-Dichlorobenzene	5 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0 50 U	NS	1.0 U	1.0 U	1 0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0 50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 UJ	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0 50 U	2.5 U	0 50 U	NS	1.0 U	1.0 U	1 0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0 50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
1,1-Dichloroethane	6	3	1 U	1 U	1 U	0.4 J	1 U	1 U	0.29 J	0 50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	0.6 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.53 J	0.50 U	NS	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 UJ	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	0.6 J	0.9 J	1 U	1 U	0.6 J	0 4 J	0.3 J	0.2 J	0 51	0.81	2.5 U	0.13 J	NS	0.68 J	0.31 J	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	NS	1 0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	0.067 U*	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.095 U*	0.11 J	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1 0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	R	5 U	5 U	R	R	R	5 U	5 0 U	5 0 U	25 U	5.0 U	NS	10 U	10 U	10 U	50 UR	5 U	R	5 U	R	R	R	5 U	5 U	5.0 U	25 U	5 0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 UJ	5 U	5 U	5 U	5 U	5 U*	5 U	5 U	0 32 J	5 0 U	25 U	5.0 U	NS	10 U	10 U	10 U	5 UJ	5 U	R	5 U	5 U	5 U	0.9 J	5 U	5 U	5.0 U	25 U	5 0 U	10 U	10 U	10 U	0.45 J
Methylene chloride	5 U	2 U	1 U	2 U*	2 U*	2 U*	2 U	2 U	1.1 U*	2.8 U*	2.5 U	0.50 U	NS	1 0 U	1 0 U	1.0 U	5 U	2 U	2 UJ	2 U*	2 U*	2 U*	2 U	2 U	1.3 U*	2 7 U*	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1 0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0 5 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0 50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	0.5 U	1 U	2 UJ	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.044 J	0.50 U	2 5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0 50 U	2.5 U	0.50 U	1.0 U	1 0 U	1 0 U	1 0 U
Toluene	2 U*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.26 U*	0.10 U*	1.3 J	0.50 U	NS	1 0 U	1.0 U	1.0 U	2 U*	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0 84 U*	0 12 U*	0.79 J	0.50 U	1.0 U	1 0 U	1.0 U	1 0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 UJ	1 U*	1 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	NS	1 0 U	1.0 U	1.0 U	10 U	5 U		1 U	1 UJ	1 U	1 U	1 U	0 5 U	0.50 U	2.5 U	0 50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	NS	1.0 U	1 0 U	1 0 U	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0 50 U	0.50 U	2.5 U	0 50 U	NS	1.0 U	1.0 U	1 0 U	0.5 U	1 U	2 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	3 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Vinyl chloride	2 U	0.1 J	1 U	1 U	1 U	0.1 J	1 U	1 U	0.089 J	0.50 UJ	2.5 U	0.50 U	NS	1.0 U	1.0 U	1.0 U	2 U	2	2 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.076 J	0.50 U	2.5 U	1.5 U	NS	5.0 U	5.0 U	5.0 U	5 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	0.5 U	0.50 U	2.5 U	1.5 U	5.0 U	5.0 U	5 0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							20,000 U				NS	24	3 U	3 0 U	5,800 U	10,000 U				20,000 U							20 U	41	43	64

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-4S															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	14 U*	10 U*	17 J	11 J	29 J	R	13 U*	NS	9.5 U*	3.4 U*	5.0 U	5.7 J	10 U	10 U	10 U
Benzene	2 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.15 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.18 J
Bromomethane	10 U	1 UJ	2 UJ	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	4 J	5 U	R	R	R	R	R	5 U	NS	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	2 U	1 U	1 U	1 U	0.1 J	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	2 U	1 U	1 U	1 UJ	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	2 UJ	1 U	1 U	1 UJ	1 U	1 U	NS	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	2 U*	1 U	1 U	1 U	1 U*	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	1 U	R	1 UJ	R	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1 J	0.6 J	0.9 J	0.9 J	0.6 J	0.3 J	0.6 J	0.4 J	NS	0.21 J	0.20 J	0.15 J	1.0 U	1.0 U	0.2 J	0.15 J
1,2-Dichloroethane	0.6 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	R	R	R	R	R	R	5 U	NS	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 UJ	5 U	R	5 U	R	R	5 U	5 U	NS	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U	2 U	2 U	2 UJ	2 U*	4 U*	2 U	2 U	NS	0.10 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 UJ	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.10 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	3 U*	1 U	2 U	1 U	1 U	5 J	1 U*	1 U	NS	0.50 U	0.12 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 UJ	1 U	1 U	1 U*	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	2 UJ	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 UJ	1 U	10 U	1 U	1 U	1 U	1 U	1 U	NS	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							NS				20 U	20 U	3 U	3.0 U

Monitoring Location	MW-4D															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	10 U*	12 U*	R	R	680	140 U*	2,800	25,000 U*	36,000 J	50,000 J	3,500 J	580	56 J	8.6 J	15
Benzene	2 U	1 U	2 U	12 U	25 U	10 U	140 U	1 J	500 U	0.50 U	3.3 U*	0.76 J	1.0 U	10 U	1.0 U	1.0 U
Bromochloromethane		1 U	2 U	12 U	25 U			0.7 J	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	2 U	12 U	25 U	10 U	140 U		500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Bromoform	2 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	0.2 J
Bromomethane	10 U	1 UJ	2 UJ	12 U	25 U	10 U	140 U	2 J	500 UJ	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	R	R	460	140 U*	1,900	12,000 J	21,000 J	34,000 J	2,800 J	260	100 U	10 U	3.3 J
Carbon disulfide	5 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.31 J	13 U	0.54 J	1.0 U	10 U	1.0 U	0.15 J
Carbon tetrachloride	1 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	2 U	12 U	25 U	10 U	140 U	0.6 J	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Chloroethane	5 UJ	1 U	2 UJ	12 U	25 U	10 U	140 U	10 U	500 UJ	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Chloroform	1 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Chloromethane	10 UJ	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 UJ	0.70	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	1 U	R	12 U	R	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	0.3 J	12 U	25 U	10 U	140 U	10 U	500 U	0.11 J	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.11 J	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	0.4 J	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	2 U	12 U	25 U	10 U	140 U	0.6 J	500 U	0.14 J	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	1 U	2 U	12 U	25 U	10 U	140 U	0.5 J	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	2 U	12 U	25 U	10 U	140 U	0.8 J	500 UJ	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
2-Hexanone	50 UR	R	R	R	R	1 J	140 U	10 U	5,000 U	5.0 U	130 U	25 U	10 U	100 U	10 U	10 U
4-Methyl-2-pentanone	5 U	19	210 J	1,100 J	2,100 J	1,600	2,100 J	730	5,000 UJ	920 J	1,000	1,100 J	450	760	180	120
Methylene chloride	5 U*	2 U	2 U	25 U	50 U	10 U	140 U	22 J	830	2.3 U*	13 U	32 J	1.0 U	10 U	1.0 U	1.0 U
Styrene	1 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.11 J	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	2 U	12 U	25 U	10 U	140 U	0.4 J	140 J	0.14 J	13 U	2.5 U	1.0 U	3.2 J	1.0 U	1.0 U
Toluene	3 U*	1 U	2 U*	12 U	25 U	10 U	140 U	17 J	500 U	0.17 U*	3.0 U*	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		12 U	25 U	10 U	140 U	10 U	140 U*	0.15 U*	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	2 UJ	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	2 U	12 U	25 U	10 U	140 U	10 U	500 U	0.50 U	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	2 U	12 U	25 U	10 U	140 U	0.5 J	500 U	0.50 U	13 U	2.5 U	1.0 U	5.7 J	1.0 U	1.0 U
Vinyl chloride	2 U	1 U	4	12 U	25 U	10 U	140 U	10 U	500 UJ	0.50 UJ	13 U	2.5 U	1.0 U	10 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	10 U	12 U	25 U	10 U	140 U	10 U	500 U	0.23 J	13 U	7.5 U	5.0 U	50 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							20,000 U				35	880	300 J	360

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	B-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	7,100 U*	250 U	250 U*	R	R	5 U*	5 U*	5 U	3.1 U*	2.8 U*	3.1 U*	5.0 U	10	10 U	10 U	10 U
Benzene	140 U	45 J	48 J	22 J	2 U	0.6 J	1	0.4 J	0.66	0.28 J	0.19 J	0.12 J	0.17 J	1.0 U	1.0 U	0.13 J
Bromochloromethane		50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	71 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	140 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.18 J
Bromomethane	710 U	50 U	50 U	53 U	2 U	1 UJ	1 U*	1 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	1,300 J	250 U	R	R	R	R	R	5 U	1.1 U*	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	360 U	50 U	50 U	53 UJ	2 U	1 U*	1 U*	0.2 J	0.10 J	0.13 J	0.50 U	0.50 U	0.11 J	1.0 U	1.0 U	0.17 J
Carbon tetrachloride	71 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	360 U	14 J	14 J	53 U	2 J	1	0.9 J	0.6 J	0.35 J	0.18 J	0.13 J	0.12 J	1.0 U	1.0 U	0.2 J	0.17 J
Chloroethane	360 U	50 U	50 U	53 U	2 U	3	3	1 U	0.11 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	71 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	710 U	50 U	50 U	53 UJ	2 U	1 U	1 U*	1 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	290 U	50 U	R	53 U	R	R	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	140 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	71 U	50 U	50 UJ	53 U	2 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	710 U	50 U	50 U	53 U	2 J	1 U*	0.2 J	1 U	0.13 J	0.50 U	0.11 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	360 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	360 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	910	370	310	48 J	2 U	0.2 J	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.11 J	1.00 U	0.21 J
1,2-Dichloroethane	43 U	50 U	50 U	53 U	2 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	71 U	50 U	50 U	53 U	2 U	1 U	0.2 J	1 U	0.12 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	200 J	50 U	50 U	53 U	2 U	1 U	1 U	0.2 J	0.38 J	0.18 J	0.13 J	0.12 J	1.0 U	1.0 U	0.3 J	0.37 J
trans-1,2-Dichloroethene	120 J	370	220	44 J	2 U	0.2 J	0.2 J	1 U	0.17 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.3 J	0.31 J
1,2-Dichloropropane	120 J	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	71 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	71 U	50 U	50 UJ	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	990 U	990	720	510	26	4	3	0.8 J	0.50	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	3,600 UR	R	R	R	R	R	R	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5,600	250 U	R	R	10 U	R	5 U	5 U	5.0 UJ	5.0 U	1.2 J	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	360 U	100 U	50 U	100 U	4 U	2 U*	2 U	2 U	1.0 U*	0.44 U*	0.10 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	71 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	36 U	50 U	50 UJ	53 U	2 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	130 J	50 U	50 U	53 U	2 U	1 U	0.2 J	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	140 U*	12 J	50 U*	53 U	2 U	1 U*	0.2 J	0.2 J	0.17 U*	0.16 U*	2.1	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	50 U		53 U	2 U	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	360 U	50 U	50 U	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	300	50 U	50 UJ	53 U	2 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	370	50 U	50 U	53 U	2 U	0.1 J	1 U	1 U	0.11 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	170	50 U	50 U	53 U	2 U	1 U	0.09 J	1 U	0.10 J	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.17 J
Xylenes (total)	2,300	820	510	73	4	1	2	0.4 J	0.30 J	0.24 J	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 UJ							20,000 U				26	20 U	49	89

Monitoring Location	B-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	780 J	510	640 J	3,000 J	150 J	540 J	62 J	410	920 J	190 U*	25 U*	6.9 U	7.6 J	8.9 J	10 U	10 U
Benzene	2 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	5 UJ	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 J
Bromomethane	10 U	5 UJ	10 U	1 U	4 U	20 UJ	1 U*	1 U	8.3 UJ	2.1 U	2.5 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	150 J	86	R	44 J	R	130 J	15 J	73	120 J	27 J	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	5 U	10 U	1 UJ	4 U	20 UJ	1 U	0.2 J	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.28 J
Carbon tetrachloride	1 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	5 U	10 U	1 U	4 U	11 J	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	5 U	10 U	1 J	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	5 U	10 U	1 UJ	4 U	20 U	1 U*	1 U	8.3 U	2.1 U	2.5 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	5 UJ	R	1 U	R	R	1 UJ	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	5 U	10 UJ	1 U	4 U	20 UJ	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	5 UJ	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	5 UJ	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	5 UJ	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	5 U	10 U	1 U	4 U	20 UJ	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	5 U	10 UJ	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	R	R	R	R	R	R	5 U	83 U	21 U	25 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	18	21 J	9 J	R	18 U	R	1 J	5 J	83 U	5.1 J	5.9 J	4.2 J	4.1 J	4.6 J	3.6 J	3.1 J
Methylene chloride	5 U*	10 U	10 U	2 U	7 U	40 U*	2 U	2 U	12 U*	0.84 U*	0.54 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	5 U	10 UJ	1 U	4 UJ	20 UJ	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	1.8 U*	2.1 U	9.6	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	20 U	25 U		1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	5 U	10 UJ	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	5 U	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	0.9 J	10 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	5 U	50 U	1 U	4 U	20 U	1 U	1 U	8.3 U	2.1 U	2.5 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 UJ							20,000 U				20 U	20 U	3 U	6.1

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected

[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	C-10																C-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	R	12 U*	50 U*	R	R	22 U*	19 J	25 U*	5.7 U*	R	20 U	4.2 J	10 U	10 U	10 U	14 J	250 J	100 U*	87 J	8 J	R	5 U*	5 U	8.5 U*	5.9 U*	R	5.5 U	3.9 J	10 U	3.5 J	10 U
Benzene	2	24	32	75	42	16	8	11	8.6	14	0.67 U*	1.3 U	1.0 U	1.0 U	0.13 J	1.0 U	2 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.11 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U		5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	5 UJ	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	0.19 J	2 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.17 J
Bromomethane	10 U	5 UJ	2 UJ	10 U	10 U	3 U	4 U*	1 U	0.50 UJ	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	5 U	2 J	1 U	1 U	1 U	1 U*	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	R	R	R	R	R	R	R	5.9 J	1.9 J	R	3.3 J	10 U	10 U	10 U	10 U	3 J	15 J	46 J	R	R	R	R	5 U	5.9 U*	1.2 J	R	5.0 U	10 U	4.7 J	10 U	10 U
Carbon disulfide	5 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.98 J	0.68	2.5 U	0.97 J	1.0 U	1.0 U	1.0 U	0.33 J	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.26 J
Carbon tetrachloride	1 U	5 U	2 U	10 U	10 U	3 UJ	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	1 J	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	5 U	2 U	10 U	10 U	0.2 J	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	0.8 J	2 U	10 U	10 UJ	3 U	4 U	1 U	0.50 UJ	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 UJ	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	1 J	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	5 UJ	2 U	10 U	10 U	3 UJ	4 U*	1 U	0.50 UJ	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	5 U	14 J	1 U	1 U	1 U	1 U*	1 U	0.37 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 UR	R	R	10 U	R	3 U	4 UJ	R	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	4 UR	R	R	1 U	R	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	4 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	5 UJ	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	5 UJ	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	5 UJ	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	5 U	2 U	10 U	10 U	3 U	4 U	0.6 J	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 UJ	0.11 J	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	0.8 J	1 J	10 U	10 U	0.8 J	4 U	0.4 UJ	0.31 J	0.36 J	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 UJ	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	0.9 J	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.11 J	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	17	2 U	40	19	14	4	7	23	6.0	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.19 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	25 U	R	R	R	14 U	R	5 U	5.0 U	5.0 U	25 U	13 U	10 U	10 U	10 U	10 U	50 UR	25 U	R	R	R	R	R	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	25 U	R	50 U	51 J	14 U	20 U	5 U	5.0 UJ	5.0 U	25 U	13 U	10 U	10 U	10 U	10 U	3 J	25 U	R	4 J	3 J	R	2 J	3 J	3.0 J	3.8 J	5.0 U	2.1 J	2.2 J	0.81 J	10 U	10 U
Methylene chloride	5 U*	10 U	2 U	20 U	20 U	2 U*	8 U	0.6 U*	0.82 U*	3.3 U*	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U*	10 U	4 U	2 U*	2 U	2 U*	2 U	2 U	0.70 U*	2.9 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	5 U	2 U	5 J	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	5 U	2 UJ	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	5 U	4 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	5 UJ	2 U	10 U	10 U	3 U	4 U	1 U	0.34 J	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	5 U	4 U*	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	7	2 U	16	7 J	2 U*	1 J	0.7 UJ	0.98 U*	0.67 U*	2.5 U	0.25 J	1.0 U	0.20 J	0.24 J	1.0 U	2 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.63 U*	0.10 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	100 U		10 U	10 UJ	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	25 U		1 U	1 UJ	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	5 U	2 UJ	10 U	10 U	3 U	4 U	1 U	0.50 U	0.50 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	5 U	4 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	5 U	2 U	10 U	10 U	3 U	4 U	1 U	0.50 U	0.21 J	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	3 U	5 U	4 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	3 J	2 U	10 U	10 U	3 U	4 U	1 U	0.50 UJ	0.50 UJ	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	5 U	6	1 U	1 U	1 U	3	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	1 J	220	14	240	140	84	35	52	160	17	2.5 U	3.8 U	0.27 J	0.19 J	5.00 U	5.0 U	5 U	5 U	20 U	1 U	1 U	1 U	1 U	1 U	0.50 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				18 J	20 U	3.0 U	3.0 U	6,000 U	10,000 U							20,000 U				20 U	20 U	8.5	5.9

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.

[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	D-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	720 J	650	120 U*	R	R	150 J	42 U*	10 U*	9.7 U*	90 U*	27 J	130	6.4 J	10 U	10 U	4.2 J
Benzene	82	32	46	34	21	75	38	36	58	55	45	56	50	50	58	70
Bromochloromethane		10 U	10 U	8 U	3 U	0.8 J	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	8 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	17 U	10 U	10 U	8 U	3 U	10 U*	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	0.19 J
Bromomethane	83 U	10 UJ	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	1,100 J	730	120 U*	R	R	R	34 J	5 U	11 J	84 U	R	130 U	10 U	10 U	10 U	10 U
Carbon disulfide	42 U	10 U	10 U	8 UJ	3 U	10 U*	1 J	0.5 J	9.3	12	2.4 J	13 U	1.9	1.0 U	0.34 J	2.4
Carbon tetrachloride	8 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	42 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.063 J	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	42 U	10 U	R	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 UJ	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	8 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	0.3 J	0.62 J
Chloromethane	83 U	10 U	10 UJ	8 UJ	3 U	10 U	5 U*	1 U	0.50 U	15	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	33 UR	10 U	10 U	8 U	R	10 U	R	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	17 U	10 U	10 U	8 U	3 U	0.8 J	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	8 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	83 U	10 U	10 U	8 U	3 U	10 U*	5 U	1 U	0.072 J	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	42 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	42 U	10 U	10 U	8 U	3 U	10 U*	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	17 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5 U	10 U	10 U	8 U	3 U	10 U	5 U	2	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	8 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.76 J	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	42 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.041 J	2.2 J	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	42 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	18	10 J	25	15	8	10 UJ	11	12	9.0	8.4 U	2.5 U	13 U	2.7	1.0 U	2.4	1.0 U
cis-1,3-Dichloropropene	8 U	10 U	10 U	8 U	3 U	0.5 J	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	8 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	160	81	200	170	64	57	94	130	120	150	110	120	120	98	72	100
2-Hexanone	420 UR	R	R	R	R	R	25 UJ	5 U	0.93 J	84 UJ	25 U	130 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	1,500 J	970	230	280 J	100	280 J	32 J	4 J	5.0 U	84 U	25 U	130 U	1.4 J	10 U	10 U	10 U
Methylene chlorde	42 U*	20 U	10 U	17 U*	6 U	20 U*	10 UJ	0.8 U*	0.54 U*	8.2 U*	0.62 J	8.7 J	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5 J	2 J	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	4 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	17 U	10 U	10 U	8 U	3 U	0.1 J	5 U	1 U	0.050 J	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	18	4 J	12 U*	8 J	5	10 U*	6	5	7.1	9.3 U*	9.7	12 J	15	13	10	22
1,2,4-Trichlorobenzene	10	50 U		8 U	3 U	10 U*	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	0.20 J
1,1,1-Trichloroethane	42 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	4 U	10 U	10 U	8 U	3 U	10 U*	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	0.85 J	1.0 U	1.0 U	1.0 U
Trichloroethene	25 U	10 U	10 U	8 U	3 U	10 U	5 U	1 U	0.60 J	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	17 U	10 U	10 U	8 U	3 U	10 UJ	5 U	1 U	0.50 U	8.4 U	2.5 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	340	120	170	140	72	93	87	100	96	120	86	80	95	53	33	58
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	3.0 U	1.4 J

Monitoring Location	D-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	2 J	25 U	50 U*	R	R	5 U*	5 U*	R	7.6 U*	3.1 U*	23 U*	25 U	4.1 J	10 U	10 U	10 UJ
Benzene	3	7	7 J	4	2	0.9 J	0.6 J	3	2.9	1.1	17	9.8	1.9	1.7	4.2	3.0
Bromochloromethane		5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	0.14 J
Bromomethane	10 U	5 U	10 U	1 U	1 U	1 UJ	1 U	1 U	0.50 UJ	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	25 U	76 U*	R	R	R	5 UJ	5 U	R	R	R	25 U	10 U	10 U	10 U	10 UJ
Carbon disulfide	5 U	5 U	10 U	1 UJ	1 U	1 U	0.2 J	1 U	0.21 J	0.50 U	1.5 J	1.6 J	0.15 J	1.0 U	0.1 J	0.43 J
Carbon tetrachloride	1 U	5 U	10 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	5 U	10 U	1 UJ	1 U	1 U	1 U*	1 U	0.50 U	0.50 U	1.6 UJ	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 UR	5 U	R	1 U	R	R	R	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	5 U	10 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	3 J	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.059 U*	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	5 U	10 U	1 U	1 U	1 U	0.2 J	0.2 J	0.31 J	0.31 J	1.6 U	2.5 U	1.0 U	1.0 U	0.4 J	0.42 J
trans-1,2-Dichloroethene	5 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.10 U*	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	5 U	10 UJ	1 U	1 U	1 U	1 U	1 U	0.080 J	0.15 U*	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	2 J	4 J	2 J	3	1 U	1 U	1 U	1 U	0.11 J	0.50 U	51	42	5.3	0.88 J	0.48 J	1.0 U
2-Hexanone	50 UR	2 J	R	R	5 U	R	5 UJ	5 U	5.0 U	5.0 U	16 U	25 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	70	420	620 J	R	1 U*	R	5 UJ	5 U	0.67 J	5.0 U	16 U	25 U	10 U	10 U	10 U	10 U
Methylene chlorde	5 U*	10 U	10 U*	2 U*	2 U	2 U*	2 UJ	2 U	1.0 U*	0.50 UJ	1.6 U	1.4 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	5 U	10 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	5 U	10 U*	0.5 J	1 U	1 U	1 U	0.2 J	0.25 U*	0.50 U	1.5 U*	0.73 J	0.19 J	0.18 J	1.00 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	5 U	10 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	5 U	10 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	5 U	10 U	1 U	1 U	1 U	0.2 J	0.2 J	0.50 U	0.32 J	1.6 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	2 J	5 U	2 J	2	0.6 J	1 U	1 U	1 U	0.50 U	0.50 U	6.8	7.5 U	0.31 J	5.0 U	5.0 U	0.23 J
1,4-Dioxane	6,000 U	10,000 UJ							20,000 U				20 U	20 U	3 U	3.0 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified dunng the quality assurance review
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled
Blank cell indicates that the compound was not analyzed for in this sample
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	E-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	83,000 UR	R	R	R	R	400 U*	120 J	330 U	710 U*	160 U*	24 J	14 U	10 U	5.6 J	10 U	10 U
Benzene	1,700 U	120 J	32 J	500 UJ	1,700 U	51 J	110	86 J	92 J	44	85	0.28 J	1.0 U	1.0 U	1.0 U	0.22 J
Bromochloromethane		1,000 U	250 U	500 UJ	1,700 U			330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U		63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1,700 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.19 J
Bromomethane	8,300 U	1,000 UJ	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 UJ	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	17,000 UR	R	R	R	R	400 U	40 J	330 U	R	840 U	R	3.0 J	10 U	10 U	10 U	10 U
Carbon disulfide	4,200 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	27 J	25 U	2.5 U	0.44 J	0.18 J	1.0 U	1.0 U	0.13 J
Carbon tetrachloride	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	4,200 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	13 J	25 U	0.91 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	4,200 U	1,000 U	250 U	500 UJ	1,700 U	400 UJ	33 J	52 J	63 UJ	25 U	27	1.4	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	8,300 U	1,000 U	250 U	500 UJ	1,700 U	400 U	12 J	330 U	63 UJ	23 J	2.5 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	3,300 UR	R	R	500 UJ	R	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	1,700 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	830 U	1,000 U	250 UJ	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	8,300 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	16 J	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	4,200 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	26 J	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	4,200 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	30 J	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	580 J	320 J	100 J	500 UJ	1,700 U	59 J	45 J	39 J	63 U	25 U	2.5 U	0.11 J	1.0 U	1.0 U	1.0 U	0.21 J
1,2-Dichloroethane	500 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	24 J	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	4,200 U	1,000 U	410	480 J	1,700 U	520 U	480	300 J	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.52 J
trans-1,2-Dichloroethene	4,200 U	2,400	250 U	500 UJ	1,700 U	400 U	100 U	330 U	22 J	25 U	1.0 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	730 J	440 J	110 J	500 UJ	1,700 U	400 U	30 J	34 J	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	18,000	7,900	1,700	8,000 J	8,700	3,000	1,900	2,600	5,500	3,800	3,500	2.2	0.27 J	1.0 U	1.0 U	1.0 U
2-Hexanone	42,000 UR	5,000 U	R	R	R	400 U	100 U	330 U	630 U	250 U	25 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	4,200 U	3,000 J	R	2,100 J	9,200 J	1,200	690	370	630 UJ	250 U	10 J	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	4,200 U*	2,000 U*	250 U	1,000 UJ	3,300 U	400 U	100 U	330 U	43 U*	25 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	830 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	420 U	1,000 U	250 UJ	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1,700 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	36 J	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	68,000	25,000	3,700	8,900 J	21,000	5,400	3,000	4,600	200	8.0 U*	420	0.30 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	150 U	100 U		500 UJ	1,700 U	400 U	100 U	330 U	46 U*	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	4,200 U	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	420 U	1,000 U	250 UJ	500 UJ	1,700 U	400 U	100 U	330 U	63 U	25 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1,800 J	1,000 U	250 U	500 UJ	1,700 U	400 U	100 U	330 U	20 J	25 U	2.5 U	0.50 U	1.0 U	1.0 U	0.11 J	1.0 U
Vinyl chloride	1,700 U	1,000 U	45 J	500 UJ	1,700 U	400 U	50 J	330 U	63 UJ	33 J	2.5 U	0.50 U	1.0 U	1.0 U	0.49 J	1.0 U
Xylenes (total)	46,000	32,000	6,400	31,000 J	36,000	13,000	11,000	11,000	10,000	3,400	5,500	7.0	1.6 J	5.0 U	5.0 U	0.33 J
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20.0 U	3.0 U	1.9 J

Monitoring Location	E-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	500 UR	R	25 U*	10 J	9 J	R	1,600 U*	R	10 U*	5.8 U*	15 U*	29 U	10 U	8.9 J	10 U	10 U
Benzene	10 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.11 J	0.50 U	0.37 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	10 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 J
Bromomethane	50 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 UJ	0.50 U	1.3 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	100 UR	R	87 J	R	R	R	1,300 UJ	5 U	2.8 U*	R	R	5.0 U	10 U	28	10 U	10 U
Carbon disulfide	25 U	5 U	5 U	1 UJ	1 U	1 U	30 J	1 U	1.9 J	0.14 J	1.3 U	0.50 U	1.0 U	0.72 J	1.0 U	0.12 J
Carbon tetrachloride	5 U	5 U	5 U	1 UJ	1 U	1 UJ	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	25 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	25 U	5 U	5 U	1 UJ	1 U	1 UJ	250 U	1 U	0.50 UJ	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	50 UJ	5 U	5 U	1 UJ	1 U	1 U	250 U*	1 U	0.50 UJ	0.50 U	1.3 UJ	0.50 U	1.0 U	0.82 J	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	20 UR	R	R	1 UJ	R	1 U	R	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	10 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	50 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	25 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	25 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	10 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	3 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 UJ	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	25 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.36 J	0.50 U	1.3 U	0.11 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	25 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 UJ	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	10 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.11 J	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	49	16	14	10 J	7	4 J	250 U	3	1.4	0.88	0.88 J	0.70	0.44 J	0.33 J	0.28 J	1.0 U
2-Hexanone	250 UR	25 U	R	R	R	R	1,300 UJ	5 U	1.4 J	5.0 U	13 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	66	15 J	14 J	20 J	31 J	27 J	1,300 UJ	44	14 J	14	30	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	10 U*	5 U*	2 U*	4 U*	3 U*	500 UJ	13	4.3 U*	1.2 U*	0.45 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	2 U	5 U	5 UJ	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	10 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	88	15	10	5 J	3	2	250 U	1	0.46 U*	0.32 U*	5.3 U*	0.36 J	0.48 J	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	25 U		1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	25 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	2 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	15 U	5 U	5 U	1 UJ	1 U	1 U	250 U	1 U	0.50 U	0.50 U	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	10 U	5 U	13	1 UJ	1 U	1 U	250 U	1 U	0.50 UJ	0.50 UJ	1.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	150	49	38	26 J	21	12	250 U	9	4.1	3.0	2.8	2.3	1.7 J	0.70 J	0.54 J	0.22 J
1,4-Dioxane	1,000 J	10,000 U							20,000 U				20 U	20 U	12	5.5

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	F-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007[2]	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	50,000 UR	R	R	R	R	400 U*	1,100 J	250 U	13 U*	2,500 UJ	1,500 J	100 J	8.0 J	5.4 J	4.2 U*	10 U
Benzene	1,000 UJ	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	500 U	8 J	4.6	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		2,000 U	2,500 U	4,200 U	1,200 U			250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	500 U	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	500 U		0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1,000 U	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	0.17 J
Bromomethane	5,000 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	32 U*	0.50 UJ	250 U	180 UJ	13 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	920 J	R	R	R	R	400 U	500 U	250 U	7.3 U*	R	R	130 U	10 U	10 U	10 U	10 U
Carbon disulfide	2,500 U	2,000 U	2,500 U	4,200 UJ	1,200 U	400 U	500 U	250 U	8.9 J	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	0.12 J
Carbon tetrachloride	500 U	2,000 U	2,500 U	4,200 UJ	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	2,500 UJ	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	2,500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.18 J	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5,000 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 UJ	250 U	180 UJ	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	2,000 U	R	R	4,200 U	R	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	1,000 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	5,000 UJ	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	1.5	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	2,500 UJ	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	10 J	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	2,500 UJ	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	11 J	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1,000 U	220 J	2,500 U	4,200 U	1,200 U	170 J	52 J	56 J	49 J	250 U	180 U	5.9 J	1.0 U	0.14 J	0.54 J	0.32 J
1,2-Dichloroethane	300 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 UJ	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1,100 J	1,800 J	2,800	4,200 U	1,200 U	110 J	500 U	250 U	5.7	55 J	180 U	13 U	0.15 J	0.26 J	1.0	0.42 J
trans-1,2-Dichloroethene	2,500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.40 J	250 U	180 U	13 U	1.0 U	1.0 U	0.17 J	1.0 U
1,2-Dichloropropane	1,000 U	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	61 J	250 U	34 J	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.11 U*	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	500 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	13,000 J	8,700	17,000 J	12,000	7,600	2,600	9,800	5,200	310 J	15,000	3,700	490	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	25,000 UR	10,000 U	R	R	R	400 U	500 U	250 U	5.0 U	2,500 U	1,800 U	130 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2,500 U	3,700 J	R	R	7,300 J	650	180 J	250 U	3,900 J	2,500 U	1,800 U	60 J	10 U	10 U	10 U	10 U
Methylene chloride	2,500 U*	4,000 U	2,500 U*	8,300 U	2,500 U	400 U	500 U	250 U	0.34 U*	88 U*	180 U	8.6 J	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	500 UJ	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	250 U	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.50 U	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1,000 U	2,000 U	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	1.3	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	22,000 J	27,000	46,000 J	33,000	17,000	5,900	18,000	11,000	380 J	22,000	80 U*	3.5 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	20 U	50 U		4,200 U	1,200 U	400 U	500 U	250 U	0.11 U*	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	2,500 U	2,000 U	2,500 U	4,200 UJ	1,200 U	400 U	500 U	250 U	7.9	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	250 U	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.19 J	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1,500 U	2,000 UJ	2,500 U	4,200 U	1,200 U	400 U	500 U	250 U	0.79	250 U	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1,000 U	380 J	950 J	4,200 U	1,200 U	400 U	500 U	250 U	4.7 J	250 UJ	180 U	13 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	21,000 J	28,000	44,000 J	36,000	18,000	7,400	29,000	13,000	870 J	42,000	3,800	390	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							20,000 U				20 U	20 U	3.0 U	3.0 U

Monitoring Location	F-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007[2]	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	2,500 UR	R	125 U*	R	R	250 U*	100 U*	250 U	100 U*	140 U*	R	690	100 U	100 U	10 U	5.8 J
Benzene	50 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	1 U	1.0 U
Bromochloromethane		20 U	25 U	100 U	28 U			250 U	13 U	31 U	63 U	25 U	10 U	10 U	1 U	1.0 U
Bromodichloromethane	25 U	20 U	25 U	100 U	28 U	250 U	100 U		13 U	31 U	63 U	25 U	10 U	10 U	1 U	1.0 U
Bromoform	50 U	20 UJ	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	1 U	0.23 J
Bromomethane	250 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 UJ	31 U	63 UJ	25 U	10 U	10 U	40 U	1.0 U
2-Butanone	500 UR	R	125 U*	R	R	250 U	100 U	250 U	69 U*	R	R	250 U	100 U	100 U	400 U	10 U
Carbon disulfide	120 U	20 U	25 U	100 UJ	28 U	250 U	100 U	250 U	13 UJ	31 U	63 U	25 U	10 U	10 U	1 U	1.0 U
Carbon tetrachloride	25 U	20 U	25 U	100 UJ	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Chlorobenzene	120 UJ	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	1 U	1.0 U
Chloroethane	120 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 UJ	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Chloroform	25 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Chloromethane	250 U	20 U	25 U	100 UJ	28 U	250 U	100 U	250 U	13 UJ	31 U	63 UJ	25 U	10 U	10 U	40 U	1.0 U
1,2-Dibromo-3-chloropropane	100 U	R	R	R	R	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Dibromochloromethane	50 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,2-Dibromoethane	25 U	20 U	25 UJ	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,2-Dichlorobenzene	250 UJ	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,3-Dichlorobenzene	120 UJ	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,4-Dichlorobenzene	120 UJ	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,1-Dichloroethane	50 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	0.20 J
1,2-Dichloroethane	15 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,1-Dichloroethene	25 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	3.9 U*	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
cis-1,2-Dichloroethene	150 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
trans-1,2-Dichloroethene	120 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 UJ	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,2-Dichloropropane	50 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
cis-1,3-Dichloropropene	25 U	20 U	U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
trans-1,3-Dichloropropene	25 U	20 U	25 UJ	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Ethyl benzene	120 UJ	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	20 J	16 J	25 U	10 U	10 U	40 U	0.23 J
2-Hexanone	1,200 U*	100 U	R	R	R	250 U	100 U	250 U	130 U	310 U	630 U	250 U	100 U	100 U	1.9 J	1.4 J
4-Methyl-2-pentanone	1,700	1,700 J	1,800 J	2,000 J	1,900 J	2,500	3,200 J	4,300	3,700 J	4,900	7,900	3,900	1,200	1,900	780 J	400 J
Methylene chloride	120 U*	29 J	26 U*	200 U*	69 U*	78 J	100 U*	90 J	100	88 U*	54 U*	50	21	1.9 J	40 U	1.0 U
Styrene	25 UJ	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,1,2,2-Tetrachloroethane	12 U	20 U	25 UJ	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Tetrachloroethene	50 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Toluene	50 UJ	20 U	25 U	100 U	28 U	250 U	100 U	26 J	3.1 U*	27 U*	190 U*	25 U	10 U	10 U	40 U	1.0 U
1,2,4-Trichlorobenzene	10 U	25 U		100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,1,1-Trichloroethane	120 U	20 U	25 U	100 UJ	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
1,1,2-Trichloroethane	12 U	20 U	25 UJ	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	10 U	40 U	1.0 U
Trichloroethene	75 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 U	31 U	63 U	25 U	10 U	1.6 J	40 U	1.0 U
Vinyl chloride	50 U	20 U	25 U	100 U	28 U	250 U	100 U	250 U	13 UJ	31 UJ	63 U	25 U	10 U	10 U	40 U	1.0 U
Xylenes (total)	120 UJ	20 U	120 U	100 U	28 U	250 U	100 U	24 J	13 U	54	63 U	75 U	50 U	50 U	200 U	0.51 J
1,4-Dioxane	5,800 U	10,000 U							20,000 U				200 U	200 U	27	33

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	G-10																G-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	2 J	8 U*	9 U*	830 U*	R	10 U*	R	5 U	100 U*	4.2 U*	4.1 U*	5.0 U	10 U	10 U	10 U	4.3 J	100 U*	16 U*	R	10 U*	R	8 J	17 U*	R	7.4 U*	10 U*	13 U*	6.4 U	10 U	10 U	10 U	10 U
Benzene	2 U	1 U	1 U	170 U	71 U	9 J	3	0.4 J	13 U	0.50 U	0.50 U	0.50 U	0.18 J	1.0 U	1.0 U	1.0 U	2 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	0.69 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	170 U	71 U		1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U		2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	1 U	170 U	71 U	10 U	1 UJ	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	2 UJ	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.17 J
Bromomethane	10 U	1 U	1 UJ	170 U	71 U	10 U	1 U	1 U	13 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2 UJ	2 UJ	2 U	3 U	1 U	2 U*	1 U	0.50 UJ	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	R	R	10 U	5 UJ	5 U	28 J	5.0 U	4.6 J	5.0 U	10 U	10 U	10 U	10 U	20 UR	10 U	72 U*	R	R	1 J	R	5 U	1.9 U*	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	0.1 J	170 U	71 U	10 U	1 U	1 U	2.7 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	2 U	2 U	2 U	3 U	1 U	0.5 J	1 U	2.5 J	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	2 U	2 U	2 U	3 U	1 U*	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 UJ	170 UJ	71 U	5 J	1 U	1	34 J	0.50 UJ	0.50 U	1.2	19	0.77 J	1 U	1.0 U	5 U	2 U	2 UJ	2 U	3 U	1 U	2 U	1 U	0.50 UJ	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	170 U	71 U	10 U	1 UJ	1 U	13 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	0.9 J	2 U	2 UJ	3 U	1 U	2 U*	1 U	0.50 UJ	0.50 U	2.5 U	0.50 U	0.83 J	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 UR	1 U	R	170 U	R	10 U	R	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	2 UJ	R	2 U	R	1 UJ	2 UJ	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	2 UJ	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	2 UJ	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	2 UJ	2 U	2 U	3 U	1 U*	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1 J	2	1	170 U	71 U	33	11	7	330	4.4	0.50 U	1.2	16	15	0.68 J	1.0 U	2 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	8.7
1,2-Dichloroethane	0.6 U	1 U	0.4 J	170 U	71 U	10 U	3	0.7 J	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 U	2 U	0.4 J	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.12 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 UJ	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	6	3	2	170 U	71 U	14	3	2	12 J	1.4	0.50 U	0.20 J	2.8	3.3	0.31 J	1.0 U	6 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	2.0
trans-1,2-Dichloroethene	5 U	1 U	1 U	170 U	71 U	10 U	0.5 J	2	13 UJ	1.5	0.50 U	0.20 J	6.7	2.9	1.0 U	1.0 U	5 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 UJ	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.8
1,2-Dichloropropane	2 U	1 U	1 U	170 U	71 U	10 U	0.4 J	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	2.3 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	0.1 J	810	650	390	21	0.4 J	13 U	0.50 U	0.50 U	0.12 J	1.0 U	1.0 U	1.0 U	1.0 U	5 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	R	R	R	R	10 U	5 UJ	5 U	130 U	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U	84 J	R	R	R	R	5 U	R	5 U	1.2 J	5.0 UJ	25 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	830 U	R	10 U	5 UJ	5 U	130 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	1.1 J	170 J	130 J	200 J	130 J	140 J	140 J	110	110	62 J	74	29	28	13	1.4 J	1.2 J	10 U
Methylene chloride	5 U*	2 U	1 U*	330 U	140 U*	10 U	2 UJ	0.2 J	16 U*	0.92 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U*	25	38	5 U*	6 U*	2 U*	2 J	13	81	12 U*	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	100 J	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	1 U	170 U	71 U	10 U	1 U	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.8 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	13	3	6	170 U	71 U	10 U	1	2	13 U	2.8	0.22 J	0.25 J	0.18 J	0.22 J	0.39 J	1.0 U	3 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.38 J
Toluene	2 U	1 U	1 U*	170 U	71 U	10 U	1 U	1 U	13 U	0.22 U*	0.50 U	0.46 J	1.0 U	1.0 U	1.0 U	1.0 U	3 U	0.3 J	2 U*	0.5 J	3 U	1 U*	0.4 J	0.3 J	0.33 U*	0.41 U*	0.61 U*	0.47 J	0.17 J	0.17 J	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		170 U	71 U	10 U	0.1 J	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U		2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	3 J	0.5 J	3 J	170 U	71 U	10 U	0.4 J	1	13 U	0.13 J	0.50 U	0.40 J	1.0 U	1.3	1.0	1.0 U	5 U	2 U	2 UJ	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.39 J
1,1,2-Trichloroethane	0.7	0.2 J	0.8 J	170 U	71 U	10 U	0.2 J	1 U	13 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	6	4	7	170 U	71 U	2 J	5	7	7.6 J	7.2	0.25 J	0.58	1.0 U	1.3	2.1	1.0 U	3 U	2 U	2 U	2 U	3 U	1 U	2 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	8.1
Vinyl chloride	2 U	0.5 J	1 U	170 U	71 U	4 J	0.3 J	0.6 J	13 UJ	0.61	0.50 U	0.50 U	0.93 J	1.5	1.0 U	1.0 U	2 U	2 U	2 U	2 UJ	3 U	1 U	2 U	1 U	0.50 UJ	0.21 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	0.6 J	0.3 J	0.4 J	3,800	1,200	10	0.7 J	0.1 J	13 U	0.23 J	0.50 U	0.46 J	5.0 U	5.0 U	5.0 U	5.0 U	5 U	2 U	12 U	2 U	3 U	1 U*	2 U	1 U	0.33 J	0.23 J	2.5 U	0.35 J	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 UJ							20,000 U				20 U	57	3.0 U	21	5,800 U	10,000 U							20,000 U				20 U	31	12	3.0 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	H-10																H-25	
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	3 J	R	R	R	2 J	5 U*	5 U	3.5 J	4.7 U*	R	5.0 U	3.7 J	10 U	10 U	10 U	4.7 J	10 U
Benzene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.28 J	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	10 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	R	R	R	R	R	0.9 J	5 U	R	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	1 U	0.08 J	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	1 U	1 U	0.2 J	1 U*	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	R	R	1 U	R	1 U	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 UJ	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.2	0.90 J	0.56 J	1.5
1,2-Dichloroethane	0.6 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	6 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	2.2	3.1	4.2	15
trans-1,2-Dichloroethene	5 U	0.8 J	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.7 J	1.0 U	0.56 J	1.7
1,2-Dichloropropane	2 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.3 J	0.35 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	R	R	5 U	5 UJ	5 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	5 U	5 U	5 UJ	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	0.60 J	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5 UJ	2 U	1 U	2 U*	2 U*	2 U*	2 UJ	2 U	1.1 U*	1.0 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U*	0.1 J	1 U	1 U	1 U	1 U*	1 U	1 U	0.24 U*	0.22 U*	0.43 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 UJ	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.8 J	0.52 J	1.0 U	1.0 U
Vinyl chloride	2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	5 U	1 U	1 U	1	1 U	1 U	0.50 U	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							20,000 U				20 U	20 U	3 U	3.0 U	3.0 U	1.4 J

Monitoring Location	H-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	4 J	25 U*	R	R	4 J	5 U*	5 U	16 J	3.1 U*	5.4 U*	5.0 U	6.2 J	10 U	10 U	10 U
Benzene	2 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.12 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.16 J	1.0 U
Bromochloromethane		1 U	5 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	10 U	1 UJ	5 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	R	R	R	R	R	2 J	5 U	4.0 J	R	R	5.0 U	10 U	10 U	10 U	4.7 J
Carbon disulfide	5 U	1 U	5 U	1 U	1 U	0.1 J	0.1 J	0.2 J	0.83 J	0.50 U	0.50 U	0.50 U	0.13 J	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	5 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 UJ	1 U	5 U	1 U	1 U	0.2 J	1 J	1 U	0.50 UJ	0.50 U	0.50 U	0.23 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	R	R	U	R	1 U	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	5 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	1 U	5 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	5 U	1 U	1 U	0.3 J	1 U	1 U	0.11 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	5 U	R	5 U	5 UJ	5 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	R	5 U	0.7 J	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	5 U	2 U*	2 U	2 U*	2 UJ	2 U	0.76 U*	0.15 U*	0.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	5 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U*	1 U	5 U	1 U	1 U	1 U*	1 U	1 U	0.30 U*	0.50 U	0.32 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	5 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	16	5 U	1 U	1 U	1 U	1 U	1 U	0.17 J	0.50 U	0.12 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	25 U	1 U	1 U	1	1 U	1 U	0.21 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 UJ	20 U	3.0 U	2.2 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	N-10																N-30	
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	5 U*	R	5 U*	R	5 U*	14 J	R	3.9 U*	3 9 U*	R	7 7 U	10 U	10 U	3.6 J	10 U	10 U	10 U
Benzene	2 U	1 U	1 U	1 U	1 U	0 2 J	1 U	1 U	0 060 U*	0.50 U	0.24 U*	0.50 U	1 0 U	1.0 U	1 0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1 0 U	1 0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.17 J	0.50 U	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U
Bromomethane	10 U	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	0 50 U	0.50 U	0 50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	R	R	R	R	5 U	8.7	R	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	1 U	1 U*	0.7 J	0.038 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J	1.0 U
Carbon tetrachloride	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 UJ	0.15 J	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	1 U	R	1 U	R	R	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1 0 U	1.0 U	1 0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1 0 U	1.0 U	1 0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.10 J	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	0.3 J	0.6 J	0.6 J	1 U	2	1	2	1.0	2.8	0.36 J	3.9	2 2	1.9	0 83 J	0 68 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.060 J	0.50 U	0.50 U	0.11 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.085 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 0 U	1 0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.22 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	5 U	R	R	R	5 U	5.0 U	5 0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	5 U	R	2 J	5 U	5.0 U	5 0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	1 U	2 U*	2 U*	2 U*	2 U	2 U	0 38 U*	0.21 U*	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 4 U*	0.50 U	0 18 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	0.10 J	0.15 J	0.50 U	0.50 U	1.0 U	0.16 J	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1 J	0.5 J	1	1 U	0.9 J	0 9 J	0.9 J	3	0 99	0.72 J	0.50 U	0.50 U	3.6	3.0	1 0 U	1.0 U	0.16 J	1.0 U
Xylenes (total)	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.66 U*	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	3.0 U	3.0 U	3.0 U	3.0 U

Monitoring Location	N-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	5 U	5 U*	5 U*	R	5 U*	8 J	5 U	5.3 U*	7.5 J	21 U*	6.0 U	10 U	4.6 J	3.4 J	4.2 J
Benzene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	0.36 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0 20 J
Bromomethane	10 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	0.50 UJ	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	R	R	5 U*	R	5 U	1 2 U*	R	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	1 U	1 U*	0.6 J	0.50 U	0.50 U	0.12 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 UJ	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.13 J	0.50 U	0.24 J	0.50 U	0.55 J	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	1 U	R	1 U	R	R	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U*	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.59	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	5 U	R	5 U*	R	5 U	5.0 U	5.0 U	5.0 U	5 0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	5 UJ	5 U*	5 U	5 U	5.0 UJ	5.0 U	5.0 U	5.0 U	0.69 J	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	1 U*	2 U*	2 U*	2 U*	2 U	0.1 J	0 54 U*	0.12 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0 5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	0.16 U*	0.10 U*	0.15 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	1 U	5 U	1 U	1 U	1 U	1 U	0.5 J	0.50 U	1.5 U*	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	24	36

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	P-10																P-30		P-50														
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	6 J	R	R	19 J	5 U*	11 U*	R	4.4 U*	2.9 U*	2.1 U*	5.0 U	10 U	10 U	10 U	10 U	3.7 J	10 U	100 UR	R	5 U*	5 U*	R	5 U*	5 U*	5 U	5.2 U*	12 U*	6.9 U*	5.0 U	4.4 J	10 UJ	10 U	4.0 J
Benzene	2 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.037 U*	0.50 U	0.20 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.23 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		2 U	5 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Bromodichloromethane	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U	0.21 J	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	0.21 J
Bromomethane	10 U	2 U	5 U	1 U	1 U	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 UJ	1 U	1 U	1 U	1 U	1 U*	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	R	R	R	R	R	R	R	4.6 J	R	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	20 UR	R	R	R	R	R	R	5 U	7.1	5.0 U	R	5.0 U	10 U	10 UJ	10 U	10 U
Carbon disulfide	5 U	2 U	5 U	1 U	1 U	1 UJ	0.2 J	0.2 J	0.13 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U*	0.1 J	0.4 J	0.13 U*	0.50 U	0.29 J	0.50 U	0.1 J	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.038 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.033 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	2 U	5 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	2 U	5 U	1 UJ	1 U	1 U	1 J	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	R	R	1 U	R	1 UJ	1 U	R	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	R	R	1 U	R	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Dibromochloromethane	2 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	2 U	5 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	2 U	5 U	1 U	1 U	1 UJ	0.5 J	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	2 U	5 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	2 U	5 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,1-Dichloroethene	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.14 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.084 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.075 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Ethyl benzene	5 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.035 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	10 U	R	5 U	R	R	R	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	50 UR	5 U	R	R	R	R	R	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	10 U	10 UJ	10 U	10 U
4-Methyl-2-pentanone	5 U	10 U	R	5 U	5 UJ	R	4 J	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	2 J	R	5 U	5 UJ	5 U*	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 UJ	10 U	10 U
Methylene chloride	5 U*	4 U	5 UJ	2 U*	2 U*	2 U*	2 U	2 U	1.0 U*	1.6 U*	0.50 U	0.50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U*	2 U*	1 UJ	2 U*	2 U*	2 U*	2 U	2 U	0.56 U*	0.72 U*	0.50 U	0.50 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
Styrene	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	2 U	5 UJ	1 U	1 U	1 U	1 U	1 U	1.4	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 UJ	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Tetrachloroethene	2 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U*	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.58 U*	0.13 U*	0.73 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.41 U*	0.22 U*	0.13 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	10 U		1 U	1 U	1 U*	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	5 U		1 U	1 U	1 U*	1 U*	1 U	0.50 U	0.50 U	0.10 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	2 U	5 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 UJ	1.0 U	1.0 U
Trichloroethene	3 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	2 U	5 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	2 U	25 U	1 U	1 U	1 U	1 U	1 U	0.13 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.081 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	3.0 U	1.8 J	3.0 U	3.0 U	6,000 U	10,000 U							20,000 U				20 U	20 U	3.0 U	2.4 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	Q-10																Q-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	3 J	R	R	R	23 U*	5 U*	R	9.0 U*	4.1 U*	R	5.0 U	10 U	10 U	10 U	10 U	100 UR	R	R	R	R	5 U*	120 U*	5 J	4.7 U*	9.8 U*	R	5.7 U	10 U	5 5 J	10 U	4.1 J
Benzene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.039 J	0.50 U	0.12 U*	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	0 60 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U		1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	10 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	2 U	1 U	1 U	1 UJ	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	R	R	R	R	7 U*	5 UJ	5 U	1.6 U*	R	R	5.0 U	10 U	10 U	10 U	10 U	20 UR	R	R	R	R	R	63 UJ	R	5.0 U	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	0.1 J	1 U	1 U	1 U*	0.1 J	0 3 J	5.9	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	0.2 J	2 U	1 U	1 U	1 U*	2 J	0.8 UJ	1.2	0.17 J	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	0.19 J
Carbon tetrachloride	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 UJ	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	1 U	1 U	1 U	0.5 J	1 U	2	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	0.15 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 UJ	1 U	2 U	1 UJ	1 U	1 U	13 UJ	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	R	R	1 U	R	R	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	R	R	1 U	R	R	R	R	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 UJ	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0 6 U	1 U	2 U	1 U	1 U	1 UJ	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
cis-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.21 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.18 U*	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
Ethyl benzene	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.38 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.55 U*	2.5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	5 U	R	R	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	50 UR	5 U	R	5 U	R	R	63 UJ	5 U	5.0 U	5.0 U	25 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	R	5 U	5 UJ	R	5 UJ	5 U	5 0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	5 U	5 U	R	5 U	5 U	R	63 UJ	5 U	5.0 U	6.4	25 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 UJ	2 U	1 U	2 U*	2 U*	2 U*	2 UJ	2 U	1 1 U*	0.16 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U*	2 U	2 U	2 U*	2 U*	2 U*	25 UJ	2 U	0.70 U*	0 12 U*	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0 5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	2 U	1 U	1 U	1 UJ	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 18 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U*	1 U	2 U	1 U	1 U	1 U*	13 U	1 U	0 14 U*	0.69 U*	2 5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	50 U		1 U	1 UJ	1 U	13 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	2 UJ	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
Trichloroethene	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 U	1 U	2 U	1 U	1 U	1 U	13 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
Vinyl chloride	2 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	2 U	1 UJ	1 U	1 U	13 U	1 U	0.50 U	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1 0 U	1 0 U
Xylenes (total)	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	1.0 U*	0.50 U	1.5 U	5 0 U	5.0 U	5.0 U	5.0 U	5 U	1 U	10 U	1 U	1 U	1 U	13 U	1 U	0.50 U	1.5 U*	2.5 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 UJ							20,000 U				20 U	20 U	3 U	3.0 U	2,000 J	10,000 U							20,000 U				1,600	630	1,200	1,000

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	R-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100,000 UR	R	R	R	R	5,000 U	10,000 U*	1,600 J	2,200 J	2,500 UJ	6,400 J	1,700 U	240 J	9.4 J	6.8 J	10 U
Benzene	930 J	4,000 UJ	650 J	5,000 U	1,000 U	5,000 U	10,000 U	110 J	110 J	95 J	15	170 U	50 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		4,000 U	5,000 U	5,000 U	1,000 U			2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1,000 U	4,000 UJ	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U		310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Bromoform	2,000 U	4,000 UJ	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	0.21 J
Bromomethane	10,000 U	4,000 U	5,000 UJ	5,000 U	1,000 U	5,000 U	10,000 U	170 U*	310 UJ	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
2-Butanone	20,000 UR	R	R	R	R	5,000 U	10,000 U	2,500 U	R	R	R	1,700 U	500 U	10 U	10 U	10 U
Carbon disulfide	5,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	0.84 J	170 U	50 U	0.26 J	1.0 U	1.0 U
Carbon tetrachloride	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	5.3	170 U	50 U	1.0 U	1.0 U	1.0 U
Chloroethane	5,000 U	4,000 U	5,000 UJ	5,000 U	1,000 UJ	5,000 UJ	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Chloroform	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5	170 U	50 U	1.0 U	1.0 U	1.0 U
Chloromethane	10,000 U	4,000 U	5,000 UJ	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4,000 UR	R	R	5,000 UJ	R	2,000 J	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	2,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	0.84 J	170 U	50 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	510 J	400 J	600 J	5,000 U	1,000 U	5,000 U	10,000 U	200 J	310 J	230 J	95	170 U	50 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	600 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	65 U*	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	790 J	660 J	1,200 J	5,000 U	1,000 U	2,100 J	1,900 J	1,100 J	2,800	1,600	750 J	200	50 U	1.0 J	2.1	1.0 U
trans-1,2-Dichloroethene	5,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	0.65 J	170 U	50 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1,900 J	4,000 UJ	1,600 J	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	360	150 J	170 U	50 U	1.0 U	0.2 J	1.0 U
cis-1,3-Dichloropropene	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	23,000	11,000	20,000	17,000	2,800	12,000	17,000	12,000	13,000	9,500	3,800	1,600	1,400	6.1	5.9	1.0 U
2-Hexanone	50,000 UR	20,000 U	R	R	R	5,000 U	10,000 U	2,500 U	3,100 U	2,500 U	25 U	1,700 U	500 U	10 U	10 U	10 U
4-Methyl-2-pentanone	38,000	20,000 UJ	12,000 J	25,000 U	R	5,000 U*	10,000 J	2,500 U	770 J	1,100 J	25	1,700 U	500 U	0.77 J	10 U	10 U
Methylene chloride	17,000 J	8,000 U*	5,000 U*	10,000 UJ	2,000 U	5,000 U	10,000 U	2,500 U	590 U*	390 J	2.5 U	49 J	50 U	1.0 U	1.0 U	1.0 U
Styrene	1,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	500 U	4,000 UJ	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	110 J	190 J	140 J	43	170 U	8.3 J	1.0 U	1.0 U	1.0 U
Toluene	120,000 J	56,000	96,000	100,000	22,000	51,000	77,000	50,000	43,000	33,000	17,000	5,300	50 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	150 U	200 U		5,000 UJ	1,000 UJ	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	5.2 U	1.0 U	1.0 U
1,1,1-Trichloroethane	2,700 J	820 J	1,900 J	5,000 U	1,000 U	5,000 U	1,600 J	680 J	700	490	300 J	80 J	50 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	500 U	4,000 UJ	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 U	2.5 U	170 U	50 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1,400 J	730 J	1,000 J	5,000 U	370 J	5000 U	10,000 U	2,500 U	310 U	250 U	3.7	170 U	50 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2,000 U	4,000 U	5,000 U	5,000 U	1,000 U	5,000 U	10,000 U	2,500 U	310 U	250 UJ	3.5	170 U	50 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	57,000	37,000	56,000	49,000	7,000	31,000	49,000	36,000	39,000	28,000	12,000	4,700	7,900	2.2 J	57	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				1,000 U	20 U	3 U	3.0 U

Monitoring Location	R-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	2,500 UR	R	R	R	R	480 U*	600 U*	140 UJ	410 J	180 U*	R	5.0 U	6.8 J	10 U	5.5 J	10 U
Benzene	50 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U	250 U	4.4 J	41 J	2.2 J	4.4	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		25 U	50 U	42 UJ	7 U	25 U		250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	25 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U		13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U	250 U	2.7 J	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U*
Bromomethane	250 U	25 U	50 UJ	42 UJ	7 U	25 U	100 U	64 U*	13 UJ	42 U	2.5 U	0.50 U	1.0 U	12	1.0 U	0.29 J
2-Butanone	500 UR	R	R	R	R	180 U*	660	250 U	R	R	R	5.0 U	14	10 U	10 U	10 U
Carbon disulfide	120 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	26 J	42 U	2.5 U	0.16 J	1.7	1.0 U	0.38 J	0.26 U*
Carbon tetrachloride	25 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	120 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	120 U	25 U	50 UJ	42 UJ	7 UJ	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	25 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	250 UJ	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 UJ	42 U	2.5 U	0.50 U	1.0 U	13	2.0	0.52 J
1,2-Dibromo-3-chloropropane	100 UR	R	R	42 UJ	R	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	25 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	250 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	120 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	120 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	50 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.8 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	15 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 UJ	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	25 U	25 U	50 U	42 UJ	7 U	25 UJ	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	120 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	120 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	50 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	2.9	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	25 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	25 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	22 J	10 J	12 J	42 UJ	7 U	25 U	100 U	9 UJ	3 J	44	0.9 U*	0.93 J	1.0 U	1.0 U	1.0 U	0.19 J
2-Hexanone	1,200 UR	120 U	R	R	R	R	100 U	250 U	130 UJ	420 U	25 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	2,600	1,400 J	5,300 J	2,600 J	330 J	2,100	950 J	1,300	990 J	4,800	450	130 J	10 U	10 U	10 U	10 U
Methylene chloride	440 J	190	480	110 U*	13 U	50 U*	100 U	15 UJ	16 U*	16 U*	0.5 U*	0.50 U	1.0 U	0.24 J	1.0 U	1.0 U
Styrene	25 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	12 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	50 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	160	34	50 U*	42 UJ	7 U	25 U*	100 U	30 J	4.9 U*	59	1.8 J	0.68 J	1.0 U	0.69 J	1.0 U	0.72 J
1,2,4-Trichlorobenzene	50 U	25 U		42 UJ	7 UJ	25 U	100 U	250 U	13 U	42 U	2.5 U	1.3 U	1.0 U	5.3 U	1.0 U	1.0 U
1,1,1-Trichloroethane	120 U	25 U	50 UJ	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	12 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	75 U	25 UJ	50 U	42 UJ	7 U	25 U	100 U	13 J	13 U	42 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50 U	25 U	50 U	42 UJ	7 U	25 U	100 U	250 U	13 U	42 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	47 J	26	28 J	42 UJ	7 U	5 J	100 U	30 J	7.2 U*	130	1.6 J	2.7 J	5.0 U	5.0 U	5.0 U	0.72 J
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	3.0 U	3.4

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	S-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	28 J	19 U*	8 U*	12 U*	R	10 UJ	5 J	5 U	4.7 U*	4.2 U*	5.0 U	5.0 U	4.9 J	10 U	10 U	10 U
Benzene	30	0.8 J	0.3 J	1 U	1 U	10 U	0.7 J	0.4 J	0.48 J	0.50 U	0.16 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 UJ	1 U		1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.052 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	10 U	1 U	1 U	1 U	1 U	10 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	R	R	10 U	R	5 U	4.3 J	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	0.1 J	1 U	1 U	1 UJ	10 U	1 U*	1 U	0.050 J	0.50 U	0.28 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	2 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	R	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 UJ	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	1 U	1 U	10 U	1 UJ	1 U	0.15 U*	0.50 U	0.50 U	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 UR	1 U	1 U	1 U	R	10 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	3 J	0.2 J	1 U	1 U	1 U	10 U	1 U	1 U	0.039 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.093 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	10 J	0.4 J	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	R	R	5 U	R	10 U	R	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U	2 U	1 U	2 U*	2 U*	10 U	2 U	2 U	0.98 U*	1.9 U*	0.50 U	0.50 U	1.0 U	1.0 U	10.0 U	10 U
4-Methyl-2-pentanone	250	31	8	18	33	10 U*	5 J	11	2.8 J	5.0 U	3.8 J	5.0 U	2.0 J	0.4 J	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	15	0.2 J	1 U	1 U	1 U	10 U	1 U	1 U	0.31 U*	0.12 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	50 U	NA	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	0.2 J	1 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	34	0.5 J	5 U	1 U	1 U	10 U	1 U	1 U	0.50 U	0.50 U	0.50 U	1.50 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 U	20 U	3.0 U	3.0 U

Monitoring Location	S-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	31,000	36,000 J	9 U*	41,000 J	25 U*	37 J	9 U*	5.4 U*	5.8 U*	2.9 U*	5.1 U	10 U	6.0 J	10.0 U	10 U
Benzene	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.27 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	10 U	250 U	620 U	1 U	330 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	6,000	6,300 J	R	9,500 J	59 J	3 J	5 U	4.2 J	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	250 U	620 U	1 U	330 UJ	1 U	0.5 J	1 U	0.086 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	250 U	R	1 UJ	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	250 U	620 U	1 U	330 U	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 UR	250 U	620 U	1 U	R	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	10 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	250 U	620 U	1 U	330 U	1 UJ	1 U	1 U	0.091 J	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.088 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	1,200 U	R	5 U	R	R	R	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	500 U	620 U	2 U*	670 U*	2 U*	2 U	2 U	1.2 U*	1.9 U*	0.50 U	0.50 U	1.0 U	1.0 U	10 U	10 U
4-Methyl-2-pentanone	5 U	1,200 U	3,100 U	5 U	1,700	5 U*	9 J	3 J	1.0 J	5.0 U	5.0 U	5.0 U	10 U	10 U	1.0 U	1.0 U
Styrene	1 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U	250 U	620 U	1 U	330 U	1 U*	1 U	1 U	0.70 U*	0.14 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	150 U		1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2 U	250 U	620 U	1 U	330 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5 U	250 U	3,100 U	1 U	330 U	1 U	1 U	1 U	0.072 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 UJ							20,000 U				520	20 U	3.0 U	3.0 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.

[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	T-10																T-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	200 UR	6 U*	5 U*	R	R	8 U*	5 U*	5 U	6 2 U*	8.0 U*	32 U*	5.9 U	7.9 J	10 U	4.0 J	10 U	100 UR	5 U	5 U*	11 U*	82 J	16,000 J	19,000 J	9,100	2,700 J	11 U*	5.5 U*	5.0 U	7.4 J	7.2 J	4.0 J	10 U
Benzene	52 J	3	12	11	4	11	11	4	0.67 U*	0.61	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	0.75 J	2 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U		1 U	1 U	1 U	1 U	1 U		1,000 U	0 50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ		0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	4 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	0.063 U*	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.17 J	2 U	1 UJ	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.053 U*	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	20 U	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 UJ	1 U	1 U	1 U	1 UJ	1,000 UJ	1,000 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	40 UR	5 U	R	R	R	R	2 J	5 U	2.6 J	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U	3 J	5 U	R	R	73 J	5,300 J	6,000 J	3,100	440	5.0 U	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	0.1 J	1 U	1 U	1 U	1 U*	1 U*	0.1 J	0.081 U*	0.56	2.5 U	0.50 U	0.26 J	1.0 U	1.0 U	1.1	5 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.084 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.1
Carbon tetrachloride	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	10 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.078 U*	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	10 U	1 U	R	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 UJ	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	2 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	20 U	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.075 U*	0.50 U	2 5 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	8 U	1 U	1 U	1 U	R	R	R	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	1 UJ	R	1 U	R	R	1,000 UJ	250 U*	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 UJ	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	5 U	1 UJ	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	5 U	1 UJ	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	4 U	0.1 J	0.2 J	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0 50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	0.6 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2 5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	4.2 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	2 J	0.7 J	1 J	1	0.6 J	0.7 J	0.7 J	0.3 J	0.55	0.89	2.5 U	0.24 J	0.15 J	1.0	0.41 J	0.72 J	5 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	10 U	0.1 J	1 U	1 U	1 U	1 U*	1 U*	0 1 J	0.081 U*	0.56	2 5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.084 U*	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
1,2-Dichloropropane	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U	2 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.088 U*	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.073 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	2 J	1 U	1 U	1 U	1 U	0.7 J	0.9 J	2	0.028 J	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.49 J	5 U	1 U	1 U	1 U	1 U	1 U	660 J	1,000 U	0.039 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	100 UR	5 U	R	5 U	R	R	5 UJ	5 U	5.0 U	5.0 UJ	25 U	5.0 U	10 U	10 U	10 U	10 U	50 UR	R	R	5 U	R	R	5,000 UJ	1,000 U	5 0 U	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	10 U	2 U	1 U	2 U*	2 U*	2 U*	2 UJ	0.3 U*	0.41 U*	0.87 U*	2.5 U	0.50 U	1.0 U	1.0 U	10 U	10 J	5 U*	2 U	1 UJ	2 U*	2 U*	2 U*	1,000 U*	1,000 U	0 64 U*	0.85 U*	0.50 U	0.50 U	1.0 U	1.0 U	10 U	0 45 J
4-Methyl-2-pentanone	5 J	5 U	5 U	5 U	5 U	R	5 UJ	5 U	5.0 U	1.2 J	25 U	5.0 U	10 U	0 50 J	1.0 U	1.0 U	5 U	5 U	R	5 U	5 U	5 U*	1,000 UJ	1,000 U	87	95	48	27	10	10 U	1 0 U	1.0 U
Styrene	2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 UJ	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5 U*	1 U	1 U	1 U	1 U	3	0.8 J	2	0.43 U*	0.21 U*	0.50 U*	0.50 U	1.0 U	1.0 U	0.18 J	0.19 J	3 U*	1 U	1 U	1 U	1 U	1 U*	1,000 UJ	1,000 U	0.46 U*	0.20 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	5 U		1 U	1 U	1 U	1,000 U*	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 UJ	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	6 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	0.057 J	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	3 J	0.4 J	1	1 U	1 U	0 8 J	0.7 J	0.2 J	0.13 J	0.50 U	2.5 U	0.50 U	1.0 U	0.49 J	1.0 U	0.19 J	2 U	1 U	1 U	1 U	1 U	1 U	1,000 UJ	1,000 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	4 J	1 U	5 U	1 U	1 U	3	0.9 J	18	0.50 U	0.50 U	2.5 U	1.50 U	5.0 U	5 0 U	5.0 U	0.43 J	1 J	1 U	5 U	1 U	1 U	1 U	2,700 J	1,000 U	0.24 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							20,000 U				20 U	20 U	3.0 U	3.0 U	6,000 U	10,000 U							20,000 U				20 U	20 U	15	13

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.

[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	U-10																U-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	100 UR	6 U*	R	5 U*	R	5 U*	29 U*	R	8.2 U*	3.5 U*	6.9 U*	7.5 U	7.5 J	4.5 J	4.6 J	10 U	100 UR	4 J	5 U*	5 U*	R	5 U*	R	5 U	8.0 U*	4.3 U*	6 8 U*	5.0 U	3.5 J	10 U	10 U	10 U
Benzene	2	0.9 J	0.5 J	1 U	1 U	3	2 J	12	2.6	1 2	0.19 J	0.50 U	1.0 U	1.0 U	1.0 U	0.13 J	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.036 J	0.50 U	0.21 U*	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
Bromochloromethane		1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U		1 U	1 U	1 UJ	1 U	0.1 J	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U
Bromoform	2 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.16 J	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.063 U*	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	0.15 J
Bromomethane	10 U	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	20 UR	5 U	R	12 J	R	R	R	5 U	4.0 J	R	R	1.6 J	10 U	10 U	10 U	10 U	20 UR	R	2 J	R	R	R	R	5 U	8.2	R	5.0 U	5 0 U	10 U	10 U	10 U	10 U
Carbon disulfide	5 U	1 U	1 U	1 U	1 U	1 U	2 J	1 U	0.18 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0 46 J	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.20 U*	0.15 J	0.93	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	0.50 UJ	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
Chlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Chlorodibromomethane	2 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5 U	1 U	R	1 UJ	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	R	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0 50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	10 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.092 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U*	1 U	1 U	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	4 U	1 U	1 U	1 U	R	R	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	R	1 U	1 U	R	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
1,2-Dichlorobenzene	10 U	1 U	1 U	1 U	1 U	1 U	0.2 J	0.2 J	0.50 U	0.50 U	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
1,3-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
1,4-Dichlorobenzene	5 U	1 U	1 U	1 U	1 U	1 U	1 UJ	0.1 J	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
1,1-Dichloroethane	2 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	0.6 U	0 J	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	6 U	0.7 J	0.2 J	1 U	1 U	0.3 J	1 UJ	0.4 J	0 37 J	0.45 J	0.50 U	0.13 J	1.0 U	1.0 U	0.21 J	0.55 J	6 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5 U	1 U	1 U	1 U	1 U	1 U	2 J	1 U	0.18 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.20 U*	0.15 J	0.93	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	2 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0 074 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.085 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	0.7 J	1 U	1 U	1 U	1 U	0.6 J	20 J	13	4.7	5.5	0 40 U*	3.0	1.2	2.4	0 75 J	0.75 J	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50 UR	5 U	R	5 U	R	R	R	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	50 UR	5 U	R	5 U	R	5 U*	R	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	5 U*	2 U	1 U	2 U*	2 U*	2 U*	2 UJ	2 U	1 2 U*	1.7 U*	0.50 U	0.50 U	1.0 U	1.0 U	10 U	10 U	5 U*	2 U	1 U	2 U*	2 U*	2 U*	2 U	2 U	1.5 U*	1.9 U*	0.50 U	0.50 U	1.0 U	1.0 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U*	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	0.77 J	10 U	1.0 U	1.0 U	5 U	5 U	5 U	5 U	5 U	5 U*	5 U	5 U	0.42 J	5.0 U	5.0 U	5.0 U	0.61 J	10 U	1.0 U	1.0 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0 50 U	20	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U
Tetrachloroethene	2 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.11 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	2 U*	1 U	1 U	1 U	1 U	6	7 J	5	1.3 U*	4.6	0.38 U*	14	1.2	1.7	0.29 J	0 19 J	2 U*	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	1.2	0.13 U*	0.14 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	5 U		1 U	1 UJ	1 U	0.6 J	1 U	0.50 U	0.50 U	0 50 U	0.50 U	1.0 U	1.0 U	1.0 U	1 0 U	10 U	5 U		1 U	1 UJ	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0 50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0 50 U	0.50 U	0.50 U	1.0 U	1 0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.5 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0 5 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	0.052 J	0.27 J	0.50 U	0.50 U	1 0 U	0.2 J	1.0 U	1.0 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
Vinyl chloride	2 U	0.4 J	0 2 J	1 U	1 U	1 U	1 UJ	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1 0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1 0 U	1.0 U
Xylenes (total)	2 J	1 U	5 U	1 U	1 U	2	28 J	13	3.2	21	1.6	25	9.0	21	3.8 J	2 3 J	5 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	5,800 U	10,000 U							20,000 U				20 U	20 U	3.0 U	3 0 U	5,800 U	10,000 U							20,000 U				20 U	24 U	67	55

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	V-10																V-30		V-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2011	2012	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	170 UR	7 J	25 U*	5 U*	R	5 U*	130 U*	R	6.9 U*	7.1 U*	R	5.0 U	7.5 J	10 U	10 U	10 U	10 U	3.3 J	100 UR	6 J	5 U*	R	R	6 U*	5 U*	5 U	4.4 U*	3.5 U*	15 U*	5.0 U	3.3 J	10 U	10 U	4.1 J
Benzene	3 U	0.9 J	2 J	1 U	2 U	0.3 J	13 UJ	1 U*	0.061 U*	0.36 J	0.26 U*	0.50 U	1.0 U	1.0 U	0.62 J	0.20 J	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 J	1 U	1 U	0.036 U*	0.50 UJ	0.86 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane		1 U	5 U	1 U	2 U	1 UJ	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	2 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	3 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.085 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.29 U*	1.0 U	0.21 J	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.25 J
Bromomethane	17 U	1 UJ	5 U	1 U	2 U	1 U	13 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	33 UR	3 J	R	R	R	5 U*	R	5 U	8.1	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	20 UR	R	R	R	R	R	R	5 U	7.2	R	25 U	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	8 U	1 U	5 U	1 U	2 U	1 UJ	1 J	0.3 J	0.32 U*	0.50 U	0.39 J	0.50 U	0.16 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 J	0.3 J	0.10 J	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	2 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	8 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	8 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	2 U	1 U	5 U	1 U	2 U	1 UJ	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	17 U	1 U	5 U	1 U	2 U	1 U	13 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4	10 UJ	1 U	1 U	1 UJ	1 U	1 UJ	4 J	1 U	0.053 J	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	7 U	R	R	1 U	R	1 UJ	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4 U	R	R	1 U	R	1 UJ	5 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Dibromochloromethane	3 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	2 U	1 U	5 UJ	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	17 U	1 U	5 U	1 U	2 U	1 UJ	2 J	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1 U	1 U	1 U	1 U	1 UJ	0.7 J	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	8 U	1 U	5 U	1 U	2 U	1 UJ	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	0.8 J	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	8 U	1 U	5 U	1 U	2 U	1 UJ	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	0.1 J	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	3 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	0.25 J	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 U	0.2 J	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	2 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	8 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 J	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	8 U	1 U	5 U	1 U	2 U	1 UJ	1 J	0.3 J	0.32 U*	0.50 U	0.39 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 J	0.3 J	0.10 J	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	3 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	2 U	1 U	5 U	1 U	2 U	0.2 J	13 UJ	1 U	0.071 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.083 U*	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	2 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	12 J	1	42	1 U	10	0.7 J	13 UJ	4	0.10 J	0.14 J	0.50 U	0.50 U	1.0 U	1.0 U	0.30 J	0.17 J	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.14 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	84 UR	5 U	R	R	R	R	R	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	50 UR	5 U	5 U	5 U	5 U	R	R	5 UJ	5 U	0.26 U*	5.0 U	25 U	5.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone	8 U	5 U	R	5 U	10 U	5 U*	63 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U	R	34 J	5 U	5.0 U	5.0 U	25 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	8 U*	2 U	5 UJ	2 U*	4 U*	2 U*	25 UJ	2 U	0.38 U*	0.99 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U*	2 U	1 U	2 U*	2 U*	2 U*	2 UJ	2 U	0.28 U*	0.26 U*	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	2 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.8 U	1 U	5 UJ	1 U	2 U	1 U	13 UJ	1 U	2.6	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	3 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	3 U	0.6 J	5 U*	1 U	2 U	1 U*	13 UJ	0.5 J	1.2 U*	0.36 U*	0.15 U*	0.50 U	1.0 U	1.0 U	0.20 J	1.0 U	1.0 U	1.0 U	2 U	1 U	1 U	1 U	1 U	1 U*	1 U	1 U	0.59 U*	0.11 U*	0.61 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	10 U	10 U		1 U	2 U	1 UJ	13 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	30 U	10 U		1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	8 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.8 U	1 U	5 UJ	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.5 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.13 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.50 UJ	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	3 U	1 U	5 U	1 U	2 U	1 U	13 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	2 UJ	1 U	1 U	1 UJ	1 U	1 UJ	0.09 J	1 U	0.50 U	0.11 U*	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	12	1.2 J	48	1 U	4	0.5 J	13 UJ	2	0.17 U*	0.59	0.50 U	1.5 U	5.0 U	5.0 U	0.48 J	0.32 J	5.0 U	5.0 U	5 U	1 U	5 U	1 U	1 U	1 UJ	1 U	1 U	0.50 U	0.42 J	2.5 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	6,000 U	10,000 U							20,000 U				20 UJ	20 U	3.0 U	100	3.0 U	2.6 J	6,000 U	10,000 U							20,000 U		-		20 U	20 U	110	100 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	W-10		W-30		W-50		X-10		X-30		Y-10		Y-30	
Collection Date	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	10 U	10 U	10 U	200 UJ	10 U	10 UJ	10 U	10 U	4.5 J	10 U	10 U	10 U	200 U	10 U
Benzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.8	1.0 U	20 U	1.0 U
Bromochloromethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	0.21 J	1.0 U	0.16 U*	20 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
2-Butanone	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U
Carbon disulfide	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Carbon tetrachloride	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	330	1.7	2,600	47
Chloroform	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Chloromethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Dibromochloromethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,2-Dibromoethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,1-Dichloroethane	0.46 J	1.0 U	1.0 U	20 U	1.0 U	1.0 U	40	1.7	45	6.8	74	30	20 U	2.2
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.8	1.0 U	20 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.70 J	1.0 U	20 U	1.0 U
cis-1,2-Dichloroethene	32	7.7	1.0 U	33 J	1.0 U	1.0 U	210	4.7	58	19	56	8.6	20 U	0.1 J
trans-1,2-Dichloroethene	8.7	0.94 J	1.0 U	20 U	1.0 U	1.0 U	19	0.44 J	5.6	1.5	32	2.3	20 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0	0.79 J	3.3	2.0	0.36 J	1.0 U	20 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Ethyl benzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
2-Hexanone	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U
Methylene chloride	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	0.52 J
Styrene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Tetrachloroethene	0.70 J	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,2,4-Trichlorobenzene	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U
Trichloroethene	39	8.2	0.37 J	20 U	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	1.0 U	0.39 J	0.56 J	20 U	1.0 U
Vinyl chloride	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U	17	1.0 U	20 U	1.0 U
Xylenes (total)	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U
1,4-Dioxane	3.4	540	4.5	720	340	130	3.3	6.7	4.6 J	4.5	3.0 U	3.2	970	2.2 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are eitl the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The d

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	P-1											P-2										
Collection Date	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	8 J	R	4 J	5.2 U*	2.8 U*	2.3 U*	5.0 U	10 U	10 U	10 U	10 UJ	4 J	5 U*	5 U	4.9 U*	2.2 U*	6.0 U*	5.0 U	10 U	10 U	10 U	10 U
Benzene	1 U	1 U	1 U	0.039 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.11 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	R	5 UJ	5 U	5.2	R	R	5.0 U	10 U	10 U	10 U	10 U	2 J	5 UJ	5 U	4.6 U*	R	R	5.0 U	10 U	10 U	10 U	10 U
Carbon disulfide	1 U	1 U	1 U	0.049 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.1 J	0.1 J	0.32 J	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	1 U	1 U*	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.3 J	1 U*	1 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1 U	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 UJ	R	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	0.2 J	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	0.049 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	0.1 J	0.1 J	0.32 J	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	0.084 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	1 U	1 U	1 U	0.50 U	0.54 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1	0.50 U	0.33 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	5 U	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	5 U	5 UJ	5 U	5.0 U	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	5 U	5 UJ	2 J	5.0 U	5.0 U	5.0 U	5.0 U	0.42 J	10 U	10 U	10 U	5 U	5 UJ	5 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	10 U	10 U	10 U	10 U
Methylene chloride	2 U*	2 UJ	2 U	0.44 U*	0.15 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	2 U*	2 UJ	2 U	0.59 U*	0.12 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1 U*	1 U	0.2 J	1.6 U*	0.50 U	0.50 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1 U*	1 U	1	0.83 U*	0.50 UJ	0.11 U*	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.55 J	1 U	1 U	1 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	1 U	1 U	0.3 J	0.50 U	1.5 U*	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	1 U	1 U	5	0.50 U	0.90 U*	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane				20,000 U				74	240	81	130				20,000 U				20 U	20 U	3.3	3.0 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	P-3											P-4				P-5			
Collection Date	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	1,100 U*	R	360	5.7 U*	4.8 U*	7.6 U*	5.3 U	4.2 J	3.6 J	10 U	10 UJ	3.6 J	10 U	10 U	10 U	4.0 J	4.4 J	3.9 J	10 U
Benzene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	62	54	140	92
Bromochloromethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50 U	1 U	1 U	0.072 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	0.19 J
Bromomethane	50 U	1 UJ	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	250 U*	58 J	37	5.0 U	R	R	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	50 U	0.07 J	0.4 J	0.094 U*	0.12 J	0.50 U	0.50 U	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J
Carbon tetrachloride	50 U	1 U	1 U	0.50 UJ	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.17 J
Chloroethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	50 U	1 UJ	1 U	0.095 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	50 U	R	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.6 J	0.51 J
1,3-Dichlorobenzene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1.0 U	3.8	2.7
1,1-Dichloroethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	50 UJ	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	50 U	1 U	1 U	0.046 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.4 J	1.0 U
trans-1,2-Dichloroethene	50 U	0.07 J	0.4 J	0.094 U*	0.12 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	50 U	1 U	1 U	0.081 U*	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	50 U	1 U	1 U	0.032 J	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10	8.7	52	22
2-Hexanone	R	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	250 U	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5.0 U	0.51 J	0.46 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene chloride	100 U*	2 UJ	2 U	1.2 U*	1.6 U*	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U
1,1,2,2-Tetrachloroethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	50 U	1 U*	0.2 J	0.47 U*	0.13 U*	0.47 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.45 J	0.50 J	1.2	1.0
1,2,4-Trichlorobenzene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	1.00 U	1.0 U	1.0 U
Trichloroethene	50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	50 U	1 U	1 U	0.50 U	0.50 UJ	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	50 U	1 U	1 U	0.089 U*	0.50 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	7.2	5.9	46	13
1,4-Dioxane				20,000 U				20 U	20 U	3.0 U	2.2 J	20 U	18 J	3.0 U	18	20 U	20 U	3 U	3.0 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	EW-1									EW-2									EW-3								
Collection Date	2002	2004	2005	2007	2008	2009	2010	2011	2012	2002	2004	2005	2007	2008	2009	2010	2011	2012	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	16	22 J	20 U*	9.0 U*	55 J	6.5 J	2.9 J	10 U	10 U	250 U	110 J	130 UJ	5.3 U*	62 J	10 U	10 U	10 U	10 U	500 U	130 J	160 UJ	33 U*	61 J	10 U	10 U	10 U	5.5 J
Benzene	0.8 J	0.48 J	0.52 J	0.60 U*	0.93 J	1.0 U	1.0 U	1.0 U	1.0 U	21 J	33	22	10	8.8	7.0	5.4	1.0 U	1.0 U	100 U	5.3 J	16 U	3.6 U*	2.4	1.9	1.5	1.0	1.6
Bromochloromethane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.19 J	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	0.11 J
Bromomethane	3 U	0.96 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 UJ	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 UJ	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	13 U	9.6 U	21 U	R	5.0 U	10 U	10 U	10 U	10 U	250 U	R	R	R	5.0 U	10 U	17	10 U	10 U	500 U	R	R	R	2.2 J	10 U	10 U	10 U	10 U
Carbon disulfide	3 U	0.96 U	2.1 U	0.25 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 UJ	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.13 J	1.0 U	1.0 U	0.20 J	1.0 U
Dibromochloromethane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	0.33 J	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	28	19	21	34	73	59	27	1.0 U	1.0 U	50 U	13 U	13 U	2.2	0.87	1.0 U	0.50 J	1.0 U	1.0 U	220	160	180	54	76	39	35	1.0 U	1.0 U
Chloroform	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	3 U	0.96 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 UJ	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 UJ	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3 U	0.50 U	2.1 U	0.13 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	10	5.0	6.2	7.2	8.8	3.3	2.1	0.87 J	3.0	69	65	53	53	40	40	41	39	3.5	250	200	170	81	82	50	54	15	4.0
1,2-Dichloroethane	3 U	1.4	2.1 U	1.3	1.2	1.0 U	1.0 U	1.0 U	0.30 J	50 U	13 UJ	13 U	2.9	0.50 U	1.1	1.0 U	1.0 U	1.0 U	100 U	16 U	4.7 J	6.3 U	2.2	1.0 U	1.0 U	0.90 J	1.0 U
1,1-Dichloroethene	3	2.2	3.4	3.8	3.1	1.0 U	1.0 U	1.0 U	1.0 U	50 U	4.0 U*	3.6 J	1.1	0.78	0.72 J	0.69 J	1.0 U	1.0 U	300	77	48	25	19	7.1	3.6	1.0 U	1.0 U
cis-1,2-Dichloroethene	29	30	36	21	26	7.9	2.0	0.57 J	2.6	580	520	340	260	190	160	140	150	9.5	250	240	200	170	180	87	55	1.8	1.3
trans-1,2-Dichloroethene	15	26	30	25	20	1.8	0.26 J	1.0 U	1.0 U	50 U	25	20	18	13	14	14	16	1.5	100 U	12 J	14 J	36	68	38	16	4.3	3.3
1,2-Dichloropropane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.35 J	0.40 J	0.39 J	0.30 J	0.28 J	100 U	16 U	19	6.3 U	3.4	2.2	2.1	3.3	1.3
cis-1,3-Dichloropropene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	6	0.96 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	8 J	13 U	2.5 J	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	61 J	32	16 U	4.4 U*	7.7	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	13 U	5.0 UJ	21 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	250 U	130 UJ	130 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	500 U	160 U	160 U	63 U	5.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	13 U	1.0 J	21 U	5.0 U	5.0 U	0.93 J	10 U	10 U	10 U	250 U	130 UJ	130 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	500 U	160 U	160 U	63 U	24	10 U	10 U	10 U	10 U
Methylene chloride	0.4 J	0.58 U*	3.4 U*	0.79 J	2.2 J	1.0 U	1.0 U	1.0 U	1.0 U	100 U	23 U*	3.3 U*	0.50 U	3.6 J	1.0 U	1.0 U	1.0 U	1.0 U	23 J	34 U*	17 U*	2.2 J	4.1	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	2 J	0.49 J	0.94 J	0.59	0.41 J	0.24 J	0.44 J	0.20 J	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	0.13 J	1.0 U	94 J	19	14 J	6.3 U	0.89	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	18	0.25 U*	0.92 U*	0.65 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	11 U*	3.7 U*	3.5 J	0.41 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1,300	590	3.3 U*	25	14	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	16 U	16 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	4	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	420	120	140	7.0	4.1	1.0 U	0.55 J	0.28 J	1.0 U
1,1,2-Trichloroethane	3 U	0.50 U	2.1 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	13 U	13 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	8.4 J	15 J	2.4 J	1.9	1.0 U	0.28 J	1.0 U	1.0 U
Trichloroethene	4	6.9	12	20	23	6.5	4.5	0.25 J	1.0 U	50 U	2.9 J	13 U	0.82	0.76	1.0 U	0.40 J	2.2	0.60 J	59 J	13 J	12 J	6.3 U	1.1	1.0 U	0.80 J	0.45 J	1.0 U
Vinyl chloride	17	25	13	21	38	1.1	0.55 J	1.0 U	1.0 U	57	7.4 J	11 J	23	46	58	42	1.0 U	1.0 U	130	40	58	49	83	9.1	6.3	0.84 J	0.78 J
Xylenes (total)	19	0.96 U	2.1 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	11 U*	13 U	13 U	0.50 U	1.5 U	5.0 U	5.0 U	5.0 U	5.0 U	220	100	20	6.3 U	8.4	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane		20,000 U				76	130	3.0 U	3.0 U		20,000 U				20 U	110	2.4 J	9.9		20,000 U				20 U	50	37	36

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

TABLE 5-8

1993 - 2012 Volatile Organic Compound Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	EW-4									EW-5	EW-6									EW-7							
Collection Date	2002	2004	2005	2007	2008	2009	2010	2011	2012	2002	2002	2004	2005	2007	2008	2009	2010	2011	2012	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	69 J	35 J	13 J	14 U*	5.0 U	10 U	3.6 J	10 U	10 U	11	1,600	1,200 J	440 J	100 J	13	10 U	2.7 J	10 U	4.0 J	5,800 J	500 J	5,200 J	3,500	2,100	680	10 U	5.4 J
Benzene	10 J	4.9	6.8	5.9	0.73	1.0 U	1.0 U	0.43 J	5.1	7.0	23 J	19	11	11	0.66	0.24 J	1.0 U	0.14 J	1.0 U	100 U	4.9 J	0.91 J	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	25 U	2.5 U	0.43 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U	100 U	0.15 J	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	0.17 U*
Bromomethane	25 U	2.5 UJ	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 UJ	0.50 U	6.3 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	100 UJ	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	130 U	R	2.2 J	R	5.0 U	10 U	10 U	10 U	10 U	2.0 J	500 U	290 J	190 J	66 J	2.2 J	10 U	10 U	10 U	10 U	2,400 J	250	3,300 J	2,000	770	110	10 U	10 U
Carbon disulfide	25 U	2.5 U	0.27 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 J	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	0.46 J	13	1.0 U
Carbon tetrachloride	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	120	49	55	25	11	2.4	1.7	1.0 U	1.0 U	3.0	100 U	3.4 J	4.1	10	0.42 J	1.0 U	1.0 U	1.0 U	1.0 U	100 U	15 J	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.5 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	0.56 J	1.00 U	1.0 U	1.0 U
Chloromethane	25 U	2.5 U	0.50 U	2.5 U	0.10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 UJ	0.50 U	6.3 UJ	0.50 U	0.39 J	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	25 U	2.5 U	0.11 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	25 U	2.5 U	0.12 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.12 J	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	60	28	23	17	18	13	17	9.0	1.0	18	46 J	8.7	5.5	6.3 U	0.15 J	1.0 U	1.0 U	1.0 U	1.0 U	100 U	19	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	25 U	2.5 U	1.1 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0 J	3.7	1.7	2.5 U	0.50 U	1.0 U	0.24 J	1.0 U	1.0 U	0.20 J	44 J	0.27 J	0.24 J	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	22 U*	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	11 U*	4.3	2.6	1.4 J	1.2	1.8	1.0 U	3.4	1.7	1.0	58 U*	20	11	6.3 U	0.14 J	1.0 U	1.0 U	0.20 J	1.0 U	100 U	4.6 J	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	8 J	5.1	5.1	4.3	3.6	0.68 J	0.68 J	0.48 J	0.44 J	1.0	100 U	0.34 J	0.27 J	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	4.0 J	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	0.23 J	1.0 U	1.0 U	100 U	13	7.0	6.3 U	0.18 J	1.0 U	0.21 J	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethyl benzene	160	25	11	6.2	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	800	1,900	390	160	0.27 J	1.0 U	1.0 U	0.81 J	0.27 J	100 U	22	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	130 U	25 U	5.0 U	25 U	5.0 U	10 U	10 U	10 U	10 U	5.0 U	500 U	5.0 U	5.0 U	63 U	5.0 U	10 U	10 U	10 U	10 U	1,000 U	130 UJ	25 U	310 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	61 J	32	8.0	11 J	3.30 J	0.78 J	1.1 J	10 U	10 U	23	500 U	420 J	160 J	140	24	7.3 J	1.2 J	10 U	10 U	1,000 U	130 U	100	310 U	49	44	10 U	10 U
Methylene chloride	7 J	3.8 U*	2.1 U*	0.93 J	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U*	200 U	0.76 U*	17 J	6.3 U	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U	140 U*	14 U*	0.70 U*	18 J	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	25 U	2.5 U	0.14 J	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.30 J	17 J	5.6	0.60	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	330	14	11	1.2 U*	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	9.0	1,400	2,500	750 J	160	0.15 J	1.0 U	1.0 U	1.0 U	1.0 U	22 U*	44	1.2 U*	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	25 U	2.5 U	2.5 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	25 U	1.6 J	0.71	0.86 J	0.91	0.67 J	4.8	0.17 J	1.0 U	0.20 J	47 J	1.7	0.31 J	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	25 U	2.5 U	0.50 U	2.5 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	0.50 U	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	25 U	1.4 J	1.1	0.87 J	0.87	1.0 U	1.0 J	1.1	0.42 J	1.0 U	100 U	0.37 J	0.50 U	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	25 U	1.9 J	2.3 J	1.1 J	0.50 U	1.0 U	0.28 J	1.0 U	0.56 J	2.0	100 U	2.8 J	3.3	6.3 U	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	100 U	13 U	2.5 U	31 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	460	110	50	75	1.5 U	5.0 U	5.0 U	5.0 U	0.23 J	13	2,500	5,100	1,000	410	1.5	5.0 U	5.0 U	2.6 J	5.0 U	100 U	72	2.5 U	94 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane		20,000 U				20 U	71	26	15			20,000 U				20 U	20 U	3.0 U	3.0 U	20,000 U				30	84	3.0 U	3.0 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank cell indicates that the compound was not analyzed for in this sample.
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

Table 11 - 1993-2012 Inorganic Analyte Concentrations in Monitoring Locations Samples, MIDCO II Site

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-1															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	95.9 U*	58.4 U*	34.2 U*	23.3 U	8.9 U	37.0 U	39 1 U	21.8 U*	20.1 U	11.9 U	11 1 U	39.7 U	200 U	200 U	78 2 U	78 2 U
Antimony	30.0 U	2.0 U	23.0 U	5.4 U*	4.4 U*	2.1 U	1.6 U	3.0 J	1.6 U	3.8 U	4.6 J	3.5 U	4.0 J	10 U	3.2	2.7
Arsenic	3.0 U	8.3	2.0 U	3 2 U	4.7 J	15.6	8.1	5.0 U	8 3	3.0 U	3.0 J	3.2 U	5.5 J	10 U	3 9 U	3.9 U
Barium	26.5	115	103	68 0	64.6	54.8	52.4	63.9	36.2	35.6 J	49.9	81.8 J	28	37	66.5 U	162 J
Beryllium	1.0 U	1.0 U	1.0 U	0 10 U	0.15 U*	0.20 U	0.40 U	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	1.3	0.20 U	0.30 U	4.0 U	0.30 U	0.40 U	0.52 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	71,000	131,000 J	149,000	110,000	140,000	103,000	134,000	152,000	91,400	139,000	167,000	232,000	120,000	170,000	151,000	268,000
Chromium, total	12.3 U*	4.9	5.6	5.5	2.8	2.1	2.7 U*	5.1 J	2.8 J	122 J	5.6 J	4.3 J	5.9	5.0 U	87.6	3.8 U
Chromium (VI)	10 UJ	10 U	10 U	100 U	1,000 U	1,000 U	100 U					10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1 0 U	3 0 U	0.97 U*	0.57	1.0	0.6	1.4 J	2.0 J	5.5 J	3.2 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4.0 U	1.0 U	4.0 U	3.4 U*	3.9 U*	1.2 U*	1.8 U*	3.6 U*	1.3 J	0.90 U	8.7 J	7.6 J	9.6	6.4	12.4	8.6
Cyanide	447	336	1,930 J	1,160	3,630	103 J	563	9,500	537	355	1,390	211	3,600	920	1,390	1,290
Fluoride													3,700	890	1,740	1,350
Iron	1,560	3,710	639	433	1,460 J	2,800	2,060	2,910	2,080	2,010	166 J	12.6 U	1,300	270	395	69 4 U
Lead	4.4 J	1.0 U	1.0 UJ	2.8 U*	1.0 U	1 3 U	0.9 U	2.0 U	1.7 U	1.2 U	1.0 U	1 5 U	3.7 J	10 U	3.6 U	3.6 U
Magnesium	14,300	34,200	35,000	24,400	36,000 J	23,500	44,800	40,900	36,900	30,200	60,300	96,100	40,000	51,000	60,000	133,000
Manganese	584	938	324	292	454	851	1,100	267	399	442	574	185	25 U	14 J	152	52.7
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0 20 U	0.036 U	0.14 J
Nickel	27.2 J	7.8	24.5	34.2	7.1 J	5.5	17.2	22.7 J	88.7	228	39.4 J	19.6 J	18 J	41	52.5	52.1
Potassium	4,150	24,700	29,300	20,700 J	28,300	49,100 J	21,600 J	20,900	22,700	24,100 J	11,300	20,900 J	12,000	8,900	7,250	52,600
Selenium	3.0 U	2.0 U	R	3 4 U*	1.6 UJ	2.2 U	2 3 U	5 2	3 4 J	2.0 U*	2.7 U	11.1	3.7 J	27 J	3.6 J	8.1 J
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	1.4 J	0 040 J	0.008 U
Sodium	3,950	16,800	18,900	16,600 J	21,600	25,800	19,800	22,400	24,200	21,100	40,100	53,900	16,000	14,000	30,000	97,400
Sulfide		1,000 J	1,000 U	1,000 U	200 U	200 U	500 U	700	400 J	400 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 U	R	4 1 U	2.1 U	3.2 U	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3 0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	4.0 U	1.0 U	4.0 U	0.70 U*	0.40 U	1.4	0.3 U	10.0 U	0.82 J	1.0 J	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	5 0 U	7 2 U*	7.3 U*	0.50 UJ	0.40 UJ	0.80 U	1 UJ	10.0 U	4.4 J	2.3 U	12.4	2.8 J	20 U	20 U	10 2 U	12.2 J

Monitoring Location	MW-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	566	1,280 J	1,490	326	659 J	426	48.5 U*	46 8 U*	27.7 U	859	432	449	810	540	796	598
Antimony	30.0 U	2.0 U	32.4	1.9 U	3.1 U*	2.1 U	1.6 U	2.7 J	1.9 U	1.7 U	2.1 U	3.5 U	10 U	10 U	3.3 U	0.65 U
Arsenic	3.0 U	56.0	48.0	44.6 J	51.9 J	57.2	51.5	55.6	44.9	51.9	58.6	57.4	45	50	52.5	46.5
Barium	5,020	7,780	6,330	7,530	10,000	10,800	7,600	7,630	7,520	6,240	7,290	6,770 J	5,900	4,600	4,920	3,430
Beryllium	1.0 U	1.2	1 0 U	0.10 U	0.11 U*	0.20 U	0.40 UJ	2.0 U	0.30 U	0.73 U*	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	5.5 J	3.0 U	0.30 UJ	6.5	1.6 J	2.8 J	0.56 J	0.40 U	0.20 U	4.0	0.9 U	2.0 U	2.0 U	3.1 J	1.8 U
Calcium	409,000	585,000 J	631,000	532,000	614,000	628,000	450,000	504,000	402,000	397,000	491,000	498,000	490,000	470,000	439,000	390,000
Chromium, total	14.1 U*	87.4 J	114	51.2	96 9	161	44.4 J	0.76 J	0.80 U	1.7 J	0.30 U	2.8 J	5.0 U	5.0 U	3.8 U	3 8 U
Chromium (VI)	10 R	10 U	10 U	100 U	1,000 U	1,000 U	100 U	R	10 U	40		10 U	10 U	14	10 U	10 U
Cobalt	9.0 U	5.1	3.0 UJ	0.84 U*	1.9 J	1.4	3.3 J	10.0 U	0.70 U	3.7 J	9.6 J	4.1 U	25 U	25 U	11 7 J	7 3 U
Copper	4 0 U	6.4 J	11.4	2.9 U*	8.6 U*	2.6 U*	13.0 U*	2.1 U*	1.3 U	1.1 J	0.60 U	0.86 U	4.7 J	5.0 U	0.91 U	0.91 U
Cyanide	5.0 U	10.0 U	10.0 UJ	10.0 U	6.7	4.1 J	7.9 J	7.3 U*	5.9 J	2.8 UJ	1.2 U	2.2 J	8.4 J	10 U	4 2 J	**
Fluoride													290	470	65.6 U	6.6 U
Iron	36,100	48,400	51,800	43,500	49,300 J	52,800	41,900	40,500	33,600	35,500	42,600 J	44,000	41,000	38,000	35,200	28,800
Lead	2.0 UJ	3.6 J	20.5 J	3.5 U*	1 0 UJ	1.3 UJ	0.9 UJ	2.0 U	1.3 U	1.4 U	1 U	1.5 U	2.0 J	10 U	4 0 J	3.6 U
Magnesium	92,800	150,000	185,000	119,000	146,000 J	158,000	125,000	125,000	112,000	102,000	130,000	145,000	160,000	160,000	134,000	122,000
Manganese	258	434	926	276	346	341	252 J	237	210	226	268	343	230	280	278	196
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0 081 J
Nickel	22.2 J	92.5	84.9 J	28.2	39.3 J	41.9	32.7 J	0.84 J	0.83 J	10.6 J	4.5 J	8.1 J	40 U	40 U	5.8 J	5.7 J
Potassium	2,650,000	2,250,000	2,760,000	3,170,000 J	3,260,000	3,250,000 J	3,560,000	3,210,000	3,620,000	2,150,000	3,560,000	38,401,000 J	4,000,000	3,600,000	3,240,000	472,000
Selenium	3.0 U	2.0 UJ	R	3.2 U	1.6 U	2.2 UJ	2.3 U	5.0 U	2.4 U	81 2	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0 60 U	1.2	5.0 U	0.51 J	0 70 U	1.2 U	0.51 U	0.49 J	1.0 J	1.0 U	0.20 U
Sodium	4,140,000	4,170,000	4,550,000	5,370,000 J	5,320,000	4,920,000	5,640,000	4,670,000	5,610,000	5,690,000	5,950,000	5,480,000	6,600,000	6,400,000	5,200,000	3,800,000
Sulfide		6,900 J	1,000 U	1,000 U	200 U	200 U	500 U	500 U	600	600 U*	1,000 U	1,000 U	30 J	80 U	30 U	30 U
Thallium	3.0 UJ	5.5 J	R	4.1 U	2.1 U	3.2 UJ	3.5 U	3.9 J	3.2 U	2 8 U	8.5 J	13.5	3 0 U	3.0 U	1.0 U	0.375 U
Tin	26.0 U															
Vanadium	4.0 U	4.7 J	4.0 UJ	1.3 U*	3.9 J	3.1 J	3.2	10.0 U	0.74 J	2.7 U*	0.50 U	0.52 U	50 U	50 U	6.5 U	6 5 U
Zinc	33.2 J	78.3 J	56.2	1.3 J	6.6 J	4.1 U*	4.4 J	4.5 J	1.5 U	0.50 U	2.4 J	1.2 J	6.9 J	13 J	11.3 J	10 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample The results shown are either the highest positive result or the lowest detection limit Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-2S															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	198 U*	67.5 U*	23 U	23.3 U	13.1 U*	37.0 U	39.1 U	71.2 U*	20 1 U	11.9 U	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	2.4 U*	1.4 U*	2 1 U	1.6 U	2.2 U	1.6 U	3.8 U	2.5 J	3.5 U	10 U	10 U	1.6 J	1.4 J
Arsenic	5.6 U*	5.4	4 7	3.2 U	1 4 U	2.8	2.1 U	2.0 U	3.4 U	3.0 U	2.8 U	3.2 U	.10 U	10 U	3.9 U	3.9 U
Barium	54.0	40.0	26	25.7	39 4	69.1	47.4	63.3	75.8	28.9 J	26.8	34.8 J	15 J	19 J	66.5 U	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0 10 U	0.10 U	0.20 U	0.40 U	0.20 U	0 20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	3.0 U	0.30 UJ	1.5	0.20 U	0.30 U	0.82 J	0 30 U	0.40 U	0.40 U	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	124,000	98,800 J	86,100	90,100	148,000	282,000	195,000	273,000 J	328,000	174,000	122,000	147,000	73,000	98,000	116,000	203,000
Chromium, total	27.3 U*	39.2	6.3	23.1	33.6	14.0	5.2	65.8	11.9	1.2 UJ	1.5 J	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	100 U	10 U	10 U	1,000 U	1,000 U	10 U	10 U	10 U	10 U		4.9 J	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.0 U	.3.0 U	0.60	2.1	2.3	2 7 U*	4.1 J	7.0 J	2.2 J	0.90 U	4.1 U	25 U	25 U	7 3 U	7.3 U
Copper	46.0	2.3	4.0 U	0.99	7.5 U*	2.4 U*	6.6	6.9 J	3.5 J	4.8 J	7.8 J	7.1 J	5.4	4.0 J	7.4	4.9 J
Cyanide	24.2	15 2	18.4 J	19.0	77.3	139 J	292	51.0	39.0	165	4.7 J	21.9	3.0 J	6.2 J	17	47.6
Fluoride													1,600	1,600	2,150	1,040
Iron	5,740	2,370	3,580	2,140	935 J	1,910	998	1,770	1,330	27.3 U	10.0 UJ	12.6 U	29 J	100 U	69.4 U	69 4 U
Lead	2.2 J	1.0 U	1.0 UJ	1.4 U	1.0 U	1.3 UJ	0.9 U	1.2 J	1.7 U	1.2 U	1.0 U	1.5 U	3.3 J	10 U	3.6 U	3.6 U
Magnesium	75,400	53,700	17,100	15,800	15,300 J	17,800	17,400	37,200	77,000	24,700	26,900	35,400	18,000	22,000	43,500	67,000
Manganese	617	366	380	261	234	636	729	747	785	198	2.4 J	111	110	970	61.3	175
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.16 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.050 J	0 11 J
Nickel	19.7	21.5	7.0 U	16.0	25.7 J	12.7	8.7	37 5 J	11.1 J	7.5 J	6.3 J	4.2 U	40 U	11 J	6.9 J	6.9 J
Potassium	8,150	6,540	3,640	2,100 J	3,160	3,680 J	4,450 J	4,510 J	4,900 J	2,460 J	3,340 J	1,980 J	1,900 J	1,800 J	1,700 J	5,600
Selenium	3.0 UJ	2.0 U	R	3.2 UJ	6 6 J	2.4 U*	2.6	3.4 J	3.3 U	1.7 U	3.3 J	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.54 U	5.0 U	1.2 J	0 040 U	0.008 U
Sodium	10,000	7,730	5,420	4,680	4,960	4,800	7,200	8,830 J	21,900	5,500	19,800	13,600	4,700 J	3,900 J	7,320	22,200
Sulfide		R	1,000 U	1,000 U	200 U	200 U	500 U	500 U	500 U	600 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	2.2 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.055 J
Tin	26.0 U															
Vanadium	4.0 U	1.0 U	4.0 U	0.58 U*	0.45	0.88 J	0.66 U*	0.63 J	1.0 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	28.4	7.5 U*	7.5 U*	0.50 UJ	0.40 UJ	0.80 UJ	6.9 J	46 2	2 4 U	3 1 J	4.8 J	3.8 U	58	20 U	10.2 U	10.2 U

Monitoring Location	MW-2D															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	1,920	332 J	330.0 J	200 U*	78.1 U*	69.6	39 1 U	412	140 J	52 4 U*	51.3 J	39 7 U	150 J	5,000 U	78 2 U	78.2 U
Antimony	30.0 U	2 0 U	23.0 U	1.9 U	1.4 U*	2.1 U	1 6 U	2.2 U	2.1 J	3.8 U	2.1 U	3 5 U	10 U	10 U	3.3 U	0.26 U
Arsenic	3.0 U	51 8	34 0	50.0 J	59.7 J	62.8	52 5	48.7	46.6	41.9	38.1	42.4	47	100 J	54.4	65.9
Barium	6,270	5,860	4,600 J	5,180	5,000	4,670	4,510	2,220	3,240	3,130 J	435	295 J	230	500 U	202	198 J
Beryllium	1.0 U	1.0 U	1.0 UJ	0.10 U	0.10 U	0.20 U	0 40 U	0.20 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	100 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	2.2	0.63 J	1.0 U*	1.1 J	0 58 J	0.40 U	1.4 J	0.89 U	2.0 U	50 U	1.8 U	1.8 U
Calcium	176,000	204,000 J	181,000 J	221,000	247,000	282,000	277,000	257,000 J	237,000	265,000	223,000	218,000	370,000	510,000	606,000	526,000
Chromium, total	11.3 U*	8.6	5.4 J	8.6	6.3	2.6 J	3.4 J	7.2 J	2.8 J	4.1 J	0.30 U	10 U	5.0 U	130 U	3.8 U	3 8 U
Chromium (VI)	20 J	100 U	10 U	10 U	1,000 U	1,000 U	10 U	R	R	20		4.2 J	10 U	10 U	10 U	10 U
Cobalt	9.6	12.2	12.0 J	13.3	13.3	10.7	10.2	6.3 J	2.3 J	1.1 U	6.0 J	4.1 U	25 U	630 U	7.3 U	7.3 U
Copper	7.2 U*	4.0	4.0 U	2.9 U*	12.0	0.60 U	8.0 J	1.0 U	0.70 U	0.90 U	0.81 J	0.82 U	2.6 J	130 U	0.91 U	0.91 U
Cyanide	5.0 U	10.0 U	10.0 UJ	10.0 U	4.7 U	2.0 J	16.2	77.9	19.8	12.6	33.6	20.8	29	39	20	**
Fluoride													1,200	1,400	279	6.6 U
Iron	11,500	10,600	9,980 J	13,300	16,600 J	22,400	21,700	19,000	15,900	16,200	10,900 J	12,700	18,000	23,000	25,300	23,400
Lead	2.0 UJ	1.0 U	R	2.6 U*	1.0 U	1.3 UJ	0.90 U	1.1 U	1.7 U	1.2 U	1.0 U	1.5 U	2.1 J	250 U	3.6 U	3.6 U
Magnesium	49,000	50,400	48,500 J	57,800	60,200 J	69,700	78,100	71,500	89,000	103,000	95,600	89,300	210,000	260,000	247,000	202,000
Manganese	161	113	90 J	104	114	133	130 J	110	78.7	82.3	69.1	61.8	81	630 U	114	97.7
Mercury	0.20 U	0 20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0 20 U*	0.10 U	0 10 U	0 10 U	0.10 U	0 20 U	0.20 U	0 036 U	0.075 J
Nickel	17.4 J	52.5	14.7 J	35.5	32 J	22.4	14.1 J	10 6 J	3.8 J	6.6 J	20.7 J	1.5 U	40 U	1000 U	3.4 U	3.4 U
Potassium	2,480,000	2,320,000	2,210,000	2,170,000 J	2,690,000	2,450,000 J	2,480,000 J	2,200,000 J	1,980,000	2,240,000 J	1,600,000	1,850,000 J	1,500,000	1,300,000	1,120,000	1,200,000
Selenium	3.0 U	2.0 U	R	3 2 U	1.6	2.2 UJ	2.3 U	2.1 U	3.3 U	1.7 U	2.7 U	4 4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5 8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0 87 U	5 0 U	130 U	1.0 U	0.080 U
Sodium	3,170,000	3,040,000	2,800,000	3,090,000 J	3,520,000	3,210,000	3,350,000	2,900,000 J	2,690,000	2,840,000	1,990,000	1,590,000	1,200,000	1,100,000	1,100,000	1,180,000
Sulfide		4,700 J	1,780	1,600	200 U	200 U	500 U	640	200 J	800 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	5.8	R	4.1 U	2.1 U	3.2 UJ	3.5 UJ	2.2 U	4.0 U	5.0 J	2.9 U	3.8 U	3.0 U	3 0 U	1 0 U	0.15 U
Tin	26.0 U															
Vanadium	4.0 U	1.1	4.0 UJ	0.71 U*	1.1	0.94 J	1.1 U*	0.68 J	0.81 J	1 0 U	0.50 U	0.52 U	50 U	1,300 U	6.5 U	6.5 U
Zinc	25.0	75.7	7.2	0.50 UJ	5.3 J	0.80 UJ	7.2 J	4.1 J	2.4 U	2.3 U	1.8 J	0.78 UJ	6.4 J	500 U	17.5 J	10.2 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	MW-3S															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	975	89.9 U*	68 U*	23.3 U	8.9 U	37.0 U	49.8 U*	26.5 U*	20.5 J	14.2 U*	11.1 U	39.7 U	NS	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	2.1 U*	2.1 U*	2.1 U	1.6 U	2.9 J	2.7 J	3.8 U	2.6 J	3.5 U	NS	10 U	0.657 J	0.40 J
Arsenic	17.7 U*	15.9 J	4.9	3.2 U	9.3 J	19.0	13.2	10.8	24.1	5.9	4.3 J	4.6 J	NS	12	12	11.2
Barium	62.5 J	37.8	20.1 J	31.6	38.7	63.4	60.2	66.1	89.3	59.6	15.7 J	27.7 J	NS	35	66.5 U	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.20 U	0.41 J	0.10 U	0.20 U	0.18 U	NS	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	4.8 J	0.21 J	0.35 U*	0.48 J	0.73 J	1.1 J	0.82 J	0.89 U	NS	2.0 U	1.8 U	1.8 U
Calcium	465,000	402,000	513,000 J	585,000	535,000	390,000	490,000	475,000 J	369,000	422,000	598,000	596,000	NS	350,000	637,000	423,000
Chromium, total	54.5	22.6	45.8 J	12.0	41.0	35.1	28.9 J	37.0	5.8 J	1.2 U	0.30 U	10 U	NS	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	100 UJ	10 U	1,000 U	10 UJ	1,000 U	R	1,000 UJ	10 UJ	40		10 U	NS	10 U	42	10 U
Cobalt	9.0 U	2.6	3.0 UJ	4.6 J	7.8	3.5	4.6 J	3.0 J	1.9 J	6.0 J	7.1 J	4.1 U	NS	25 U	7.33 U	7.3 U
Copper	6.2 U*	19.4	12.7	4.6 J	4.4 J	6.0 J	6.6 J	7.0 J	0.70 U	0.90 U	3.5 J	0.62 U	NS	5.0 U	2.2 J	2.7 J
Cyanide	71.3	99.5 J	48.8 J	29.3	72.9	55.6 J	91.3	87.5	25.5	35.3	53.5	22.8	NS	13	126	34.7
Fluoride													NS	630	409	272
Iron	11,000	10,700	2,880	13,700	11,400	18,900	17,500	11,100	44,200	38,600	1,940	10,300	NS	25,000	28,500	26,100
Lead	2.0 UJ	2.0 U*	1.0 UJ	3.2	1.0 U	1.3 UJ	0.9 U	1.1 U	1.7 U	1.2 U	1.0 U	1.8 U	NS	10 U	3.6 U	3.6 U
Magnesium	57,800	55,200	49,600	51,500	98,600	161,000	139,000	129,000	158,000	202,000	56,900	148,000	NS	140,000	167,000	91,000
Manganese	1,540	1,370	261 J	915	2,230	2,020	2,420	1,360	4,570	3,600	1,250	2,200	NS	2,200	2,000	1,770
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.15 U*	0.10 U	0.10 U	0.10 U	0.10 U	NS	0.2 U	0.036 U	0.077 J
Nickel	33.5 J	15.9	23.8 J	16.4	31.2	23.9	21.9 J	29.3 J	8.7 J	7.4 J	14.9 J	13 J	NS	40 U	5.3 J	3.4 U
Potassium	4,870	4,200	2,040	2,860 J	9,600 J	14,000 J	12,100 J	12,700 J	10,900 J	9,400	454 J	1,790 J	NS	5,900	4,780 J	6,470
Selenium	3.0 UJ	2.0 UJ	R	3.2 UJ	2.1 J	2.2 UJ	2.3 UJ	3.8 J	3.3 UJ	1.8 J	2.7 U	4.4 U	NS	3.2 J	3.7 J	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	1.1 U	NS	1.3 J	0.122 J	0.172 J
Sodium	14,300	6,990	8,770	7,210	14,200	17,200	12,800	13,800 J	8,090	12,800	5,380 J	12,800	NS	9,100	18,200	10,600
Sulfide		1,500	1,000 U	1,000 U	200 U	200 U	500 U	500 U	400 J	1,200 U*	1,000 U	1,000 U	NS	100	120	160
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	2.2 U	4.0 U	13.5 U*	2.9 U	3.8 U	NS	3.0 U	0.080 U	0.015 U
Tin	26.0 U												NS			
Vanadium	4.0 U	1.6 J	4.0 UJ	2.2 U*	1.2 J	1.8 J	1.4 U*	1.1 J	1.4 J	1.0 U	0.59 J	0.52 U	NS	50 U	6.5 U	6.5 U
Zinc	29.5 J	35.3 J	108.0	68.1 J	31.6 J	13.4 U*	13.0 J	30.9	5.8 J	9.1 U*	32.8 J	52.4 J	NS	10 J	20.3 J	11.4 J

Monitoring Location	MW-3D															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	1,150	457 U*	26 U*	56.5 U*	8.9 U	37.0 U	39.1 U	19.6 U	1,370	27.7 J	33.4 J	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	3.7 U*	1.0 U	2.1 U	1.6 U	2.2 U	1.6 U	3.8 U	2.1 U	3.5 U	10 U	10 U	3.3 U	0.26 U
Arsenic	3.0 U	54.8 J	48.0	51.2	60.5	54.7	63.6	52.8	80.9	61.4	85.7	72.6	74	71	74.5	76.1
Barium	5,480	4,510	4,520	4,400	2,940	2,270	2,470	1,990	687	804	954	687 J	970	410	332	390
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.20 U	0.38 J	0.10 U	0.24 J	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.6 J	3.0 U	0.30 UJ	2.4 J	0.55	0.99 U*	0.40 U	0.86 J	0.87 J	3.7 J	0.89 U	2.0 U	2.0 U	1.8 U	2.0 J
Calcium	332,000	281,000	279,000	274,000	259,000	225,000	243,000	236,000 J	281,000	364,000	505,000	447,000	490,000	470,000	486,000	421,000
Chromium, total	9.3 U*	45.9	9.6	5.7 J	9.7	42.2 J	21.1 J	15.7	44.7	4.3 J	1.1 J	50 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 J	100 UJ	10 U	1,000 U	20 J	1,000 U	R	R	10 UJ	30 J		14	10 U	10 U	11	10 U
Cobalt	9.0 U	2.6	3.0 UJ	1.1 J	0.88 J	0.87	0.92 U*	0.70 U	4.0 J	6.9 J	20.7	19.6	17 J	21 J	23.9	23.7
Copper	13.2 U*	4.4 J	4.0 U	0.71 J	0.57 J	0.60 U	5.6 J	1.0 U	7.4 J	0.90 U	0.72 J	0.62 U	2.1 J	5.0 U	0.91 U	0.91 U
Cyanide	6.9	10.0 UJ	10.0 UJ	10.0 U	4.7 U	1.3 J	0.9 UJ	2.5 J	14.6	24.7	18.4	29.1	51	41	38.5	29.7
Fluoride													1,500	450	6.6 U	6.6 U
Iron	27,100	23,900	24,100	23,200	21,800	16,500	23,800	18,700	27,900	28,500	41,100	44,300	47,000	46,000	42,400	41,600
Lead	2.0 UJ	1.2 U*	1.0 UJ	1.6	1.0 UJ	1.3 U	0.9 U	1.1 U	3.2	1.2 U	1.0 U	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	95,200	82,200	84,500	79,800	69,900	74,500	84,200	83,400	91,200	129,000	168,000	194,000	210,000	220,000	182,000	166,000
Manganese	302	172	143	135	114	83.0	124.0 J	95.0	116	118	146	223	250	220	215	176
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.15 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.053 J
Nickel	18.2 J	51.3	7.0 UJ	7.5	9.0 J	15.7	20.0 J	16.8 J	35.2 J	16.0 J	7.5 J	15.9 J	15 J	34 J	32.8	30.7
Potassium	2,550,000	2,700,000	2,870,000	2,790,000 J	3,540,000 J	2,980,000 J	3,320,000 J	3,500,000 J	3,040,000 J	3,800,000	3,110,000 J	2,540,000 J	2,000,000	1,800,000	1,590,000	1,970,000
Selenium	3.0 U	2.0 UJ	R	3.2 UJ	1.6 U	2.2 U	2.3 UJ	2.1 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	0.79 J	5.0 U	1.0 U	0.080 U
Sodium	3,230,000	3,350,000	3,640,000	3,700,000	4,350,000	3,370,000	4,070,000	4,110,000 J	3,600,000	4,610,000	4,140,000 J	3,460,000	2,900,000	2,500,000	2,390,000	2,630,000
Sulfide		3,900	1,000 U	1,000 U	200 U	200 U	500 U	640	1,400	800 U*	1,000 U	600 J	110	59 J	30 U	50 J
Thallium	3.0 UJ	5.2 U*	R	4.1 U	2.1 U	3.2 U	3.5 U	2.2 U	4.0 U	10.8 U*	8.6 J	12.7	3.0 U	3.0 U	1.0 U	0.15 U
Tin	26.0 U															
Vanadium	4.0 U	3.3 J	4.0 UJ	1.7 U*	1.0 J	0.87	0.84 U*	0.40 U	1.2 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	23.2 J	25.7 J	4.0 U*	3.8 J	2.6 U*	1.7 U*	6.1 J	2.3 J	12.1	3.0 U*	0.60 UJ	0.78 U	20 U	5.0 J	10.2 U	17.2 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location:	MW-4S															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	367 U*	103 U*	147	21 0 U	8.9 U	37.0 U	39.1 U	119 U*	NS	51 4 U*	11 1 U	39.7 U	200 U	200 U	78.2 U	78 2 U
Antimony	30.0 U	2.0 U	1.0 U	2.8 U*	1.8 J	2.1 U	1.6 U	10 U	NS	1.7 U	2.1 U	3.5 U	10 U	10 U	0.78 J	1.1 J
Arsenic	6.6 U*	6.1 J	3.1	3.2 U	8.2 J	7.9 J	13.1	11.1	NS	3.6 J	3.2 J	4.6 J	7.0 J	10 U	3.9 U	3.9 U
Barium	78.4 J	53.8	61.8	55.4	57.5	46.6	42.6	29 3	NS	197 J	74.7	94.9	62	85	66.5 U	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0.17 U*	0 10 U	0 20 U	0.40 UJ	2.0 U	NS	0 61 U*	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	1.0 U	0.30 UJ	1.9 J	0 31 U*	0.55 U*	0 68 J	NS	0.20 U	0 56 J	0 89 U	2.0 U	0.66 J	1.8 U	1.8 U
Calcium	269,000	223,000	265,000	254,000	309,000	380,000	374,000	331,000	NS	386,000	474,000	387,000	280,000	360,000	205,000	390,000
Chromium, total	105	113	29 J	11 9 J	11.7	23.3	1.2 U*	25	NS	0.60 U	0.30 U	10 U	5.0 U	5.0 U	3 8 U	3.8 U
Chromium (VI)	10	100 U	10 U	100 U	100 U	1,000 U	100 U		NS	NA		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1 7	1.0 U	0.50 UJ	0 80 J	12.1	0.30 U	0.93 J	NS	0.75 J	3.7 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	7.2 U*	7.7	1.0 U	1.4	4.3 U*	8.1	2.1 U*	11.9 J	NS	0.50 U	1.2 J	2.0 J	4.3 J	5.0 U	2.9 J	3.3 J
Cyanide	63.1	92 6 J	50.5 J	31.1	57.6	391	99.2	55.5	NS	93.5	126 J	55.9	42	8.0 J	35.6	66.2
Fluoride									NS				720	480	1,050	723
Iron	21,300	16,700	11,800	19,600	34,700 J	10,700 J	19,500	12,400	NS	5,550	765 J	2,260	1,100	600	1,350	225
Lead	2.3 J	1 0 U*	1.0 UJ	2.6	1.0 UJ	1.3 UJ	0.9 U	2.0 U	NS	1.4 U	1.0 U	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	104,000	104,000	87,200	63,800	103,000 J	364,000	162,000	92,100	NS	63,400	91,000	58,700	42,000	61,000	29,300	59,600
Manganese	1,440	1,090	863	846	1,340	1,930	368	373	NS	1,140	3,200	1,090	180	180	1,320	1,650
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0 10 U	0.10 U	0.20 U	NS	0.10 U	0.10 U	0 10 U	0.20 U	0.20 U	0.036 U	0.147 J
Nickel	55.2 J	63.2	16.0	8.9	10.3 J	43	10.4 J	16.9 J	NS	0.97 J	3.4 J	3.5 J	40 U	40 U	5.6 J	7.6 J
Potassium	30,100	19,500	17,800 J	11,200 J	9,940	9,320	8.670 J	5,790	NS	18,000	16,200 J	15,400 J	15,000	16,000	8,970	13,000
Selenium	4.0	2.0 U	2.0 UJ	5.5 J	6.1 J	18 8 J	2.3 U	5.0 U	NS	3.0 U	2.7 U	4.4 U	6.1 J	5.5 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0.40 U	0 60 U	0.70 U	5.0 U	NS	0.70 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.008 U
Sodium	25,500	19,000	21,000 J	13,500	22,500	86,800	40,800	23,400	NS	14,700	60,500	62,500	43,000	30,000	25,900	32,100
Sulfide		2,500	1,000 U	1,000 U	200 J	200 U	500 U	500 U	NS	1,000 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3 0 U	3.0 UJ	4 1 U	6.1 J	3.2 UJ	3.5 U	10.0 U	NS	2.8 U	5.5 J	3.8 U	3.0 U	0.19 J	0.087 J	0.074 J
Tin	26.0 U								NS							
Vanadium	4 0 U	2 4	1.0 UJ	1 0 U*	0.83 J	0.40 U	0.62 U*	0.97 J	NS	1 1 U*	0.50 U	0 52 U	50 U	50 U	6.5 U	6.5 U
Zinc	17.6 J	19 1 U*	10.1 U*	0.50 UJ	0.40 UJ	0.80 U	1.0 UJ	16.0	NS	0.50 U	13.0	10.6	43	92	16.9 J	58.7

Monitoring Location:	MW-4D															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	744	155 U*	48	65.8	8.9 U	37.0 U	39.1 U	174 J	53.4 J	247	64.3 J	39.7 U	290	10,000 U	78.2 U	78 2 U
Antimony	30.0 U	2.0 U	1.0 U	3.8 U*	2.7 U*	4.3 U*	1.6 U	10.0 U	1.6 U	8.2 U*	3.8 J	3.5 U	5.9 J	2.2 J	6.5 U	0.80 J
Arsenic	37.9 J	79.8 J	91.3	72.6	85.8 J	88.5	80.0	95.7	122	119	116	87 9	81	240 J	116	99.2
Barium	1,050	1,000	1,210	1,220	1,970	4,340	3,110	3,600	6,250	2,340	1,020	1,100 J	950	930 J	1,020	652
Beryllium	1.0 U	1.0 U	1.0 U	0.14 U*	0.18 U*	0.20 U	0.40 UJ	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	5.0 U	3.2	1.0 U	0.30 UJ	2.4	1.0 U*	1.1 U*	0.58 J	0.73 J	0.40 U	2.9 J	0.89 U	1.7 J	100 U	1.8 J	4.4 J
Calcium	255,000	208,000	234,000	197,000	224,000	240,000	247,000	276,000	89,400	108,000	65,200	89,400	250,000	120,000 J	131,000	104,000
Chromium, total	20.8 U*	38.0	1.0 U	33.2	87 1	129	90.6 J	74.6	2.3 J	44.9	4.3 J	50 U	5.0 U	250 U	3.8 U	3.8 U
Chromium (VI)	10	100 UJ	10 U	100 U	100 U	1,000 U	100 U					10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	5.4	10.2	17.6	19.6	34.3	39.7	44.4	151	213	257	103	48	1,300 U	74.4	79.1
Copper	11.9 U*	1.6	1.0 U	0.70 U	3.6 U*	0.6 U	4.4 J	17.0 J	0.70 U	2.4 U*	1.6 J	1.5 U	5.0 J	250 U	0.91 U	0.91 U
Cyanide	5.0 U	10.0 UJ	10.0 UJ	10.0 U	9.9	14.0	19.2	13.7	51.4	62.9	56.5 J	16 5	14 J	14	8.5 J	128
Fluoride													760	1,200	490 J	6.6 U
Iron	14,700	11,900	14,000	11,200	12,000 J	16,000	17,300	18,600	14,800	4,010	1,870 J	3,050	15,000	4,700 J	4,960	2,300
Lead	20.0 UR	1.0 U	1.0 UJ	1.4 U	1 0 U	1.3 U	0.9 UJ	2.0 U	1.7 U	1.2 U	1 U	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	101,000	60,500	73,500	65,800	75,400 J	94,200	114,000	134,000	65,100	57,700	36,400	39,600	98,000	250,000 U	50,100	37,000
Manganese	237	102	137	94.5	91 5	130	141 J	139	39.1 J	33.6 J	22.9 J	37 9 J	540	1300 U	48.9	33.8
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.11 U*	0.26	0 10 U	0.10 U	0.11 J	0.071 J	0.20 U	0.042 J	0.036 U
Nickel	14.8	30 9	17.9	44.5	71 7 J	159	219	275	778	1,010	1,060	350	190	2,000 U	306	254
Potassium	6,110,000	6,910,000	7,140,000 J	11,800,000 J	7,580,000	7,060,000	6,390,000	5,520,000	5,020,000	7,670,000	6,230,000 J	5,440,000 J	3,700,000	3,700,000	4,390,000	3,370,000
Selenium	30.0 UJ	2 0 U	2.0 UJ	3.2 UJ	1.6 U	2.2 U	2.3 U	3 2 J	3.3 U	1.7 U	3.9 J	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0 40 U	0.60 U	0.70 U	5.0 U	0.80 U	3.1 J	1.2 U	0.51 U	1.0 J	5.0 U	2.0 U	0.16 U
Sodium	6,540,000	7,130,000	7,880,000 J	13,700,000	8,500,000	7,160,000	7,330,000	6,300,000	6,020,000	8,240,000	7,020,000	5,060,000	3,900,000	4,100,000	4,970,000	3,560,000
Sulfide		6,700	1,000 U	1,000 U	200 U	200 U	500 U	1,440	1,200	3,200	2,800	2,200	1,100 J	115	240	190 J
Thallium	60.0 UJ	4.5 U*	3.1 J	4.1 U	2.1 U	3.2 U	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	2.0 U	0 30 U
Tin	26.0															
Vanadium	4.0 U	1.2	1.0 UJ	1.0 U*	1.4	1.5	1.8	0.90 J	4.7 J	11.1	16.5	4.2 J	50 U	2,500 U	6.5 U	6.5 U
Zinc	43.9 J	8.3 U*	7.2 U*	1.6 J	0.40 UJ	28.80	1.0 UJ	11.7	4.4 J	6.2 U*	4.9 J	1.1 U	7.0 J	1,000 U	10.2 U	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	B-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	89.4 U*	103 U*	86 U*	73 6	63.7 U*	37.0 U	43.8 U*	53.4 U*	20.1 U	24.9 U*	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2 0 U	23.0 U	1.9 U	1.3 U*	2.1 U	1.6 U	1.6 UJ	1.6 U	3.8 U	2.1 UJ	3.5 U	10 U	10 U	0.15 J	0.11 J
Arsenic	74.0 J	15 9 J	18.0	4.6	4.3 J	2.3 U	2.2	4.2 UJ	21.7	33.9	29.1 J	48.5	44	30	27.2	21.2
Barium	51.6	22 7	26.3 J	10.7	8.7	13.9	9.2	9.8 J	9.3 J	16.5 J	14.4 J	40.5	40	47	78.7 J	66 5 U
Beryllium	1.0 U	1.0 U	1.0 UJ	0.20 U*	0.10 U	0.31 U*	0 40 U	0.20 U	0.20 U	0.14 U*	0.20 U	0.18 U	4.0 U	4.0 U	1 4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	0.26	0.20 U	0.30 U	0.30 U	0.30 U	0.40 U	0.40 U	1.7 J	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	182,000	88,800	95,400 J	46,100	49,000	135,000	87,700	95,000	77,100	135,000	88,400 J	171,000	150,000	120,000	171,000	208,000
Chromium, total	9.5 U*	4.6	20.2 J	6.8	24.3	18.8	12.1	22.0	11 6	2.2 J	0.30 UJ	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	90 J	20	10 U	100 U	1,000 U	1,000 U	R					10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	4.2	3.0 UJ	0.50 U	0.73	0 50 U	0.39 U*	0.60 U	0.60 U	1.1 U	0.90 U	6.9 J	25 U	25 U	7 3 U	7.3 U
Copper	4.0 U	1.0 U	4.0 U	4.6	41 5	0.60 U	2.4	2.3 J	1.5 J	0.90 U	0.60 U	0.66 U	5.0 U	5.0 U	0.91 U	0 91 U
Cyanide	5.2	11.3 J	10.0 UJ	72.6	57.7	45.3	4.6 J	5.3 U*	5 8 J	8.0 J	1 2 U	15.4	19	32	2.5 U	35.8
Fluoride													1,500	1,300	1,240	996
Iron	50.7 U*	30.5	129.0 J	142	308 J	46.6 U*	75.5 U*	384	470	616	1070 J	3,850	3,000	3,400	2 230	1,880
Lead	2.0 UR	1.0 U	R	1 5	5.5	1.3 U	0.9 U	1.3 U	1 7 U	1.2 U	1.0 UJ	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	95,900	72,800	105,000 J	35,100	51,200 J	90,400	56,800	59,100	59,000	54,000	41,700 J	56,700	55,000	52,000	56 800	75,700
Manganese	98.0	63.2	77.4 J	41.6	54.1	93.7	102	163	511	636	570 J	1,220	670	650	704	671
Mercury	0.20 U	0.20 U	0 20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.11 U*	0 10 U	0.10 U	0.10 U	0.10 U	0 20 U	0.20 U	0.036 U	0.060 J
Nickel	13.0 U	16.8	18.9 J	3.7	12 7 J	10.4	6.2	10.8 J	4.9 J	2.0 J	1.1 J	0.82 J	40 U	40 U	3.4 U	3.4 U
Potassium	316,000	265,000	299,000	136,000 J	112,000	108,000	59,000 J	53,100	28,400	37,800	38,600 J	40,000 J	45,000	49,000	70,400	50,800
Selenium	3 0 UJ	2 0 U	R	3.2 UJ	1.6 UJ	2.2 UJ	2.3 U	2.2 U	5.0	1.7 U	2.7 UJ	4.4 U	5.5 J	3.2 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0 40 U	0.60 U	0.70 U	0.70 UJ	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	0.50 J	0 040 U	0.008 U
Sodium	274,000	220,000	249,000	122,000	68,500	63,000	33,800	26,500	16,800	34,500	498,000	42,000	50,000	34,000	55,300	55,800
Sulfide		11,200	1,060	1,800	3,500	200 U	1,000	1,640	1,000	1,000 U*	600 J	1,000 U	60 J	110	30 U	110
Thallium	30.0 UJ	3 0 U	R	4 1 U	2.1 U	3.2 UJ	3.5 U	3 3 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3 0 U	0.056 J	0.015 U
Tin	26.0 U															
Vanadium	12.0 U*	20 6	24 3 J	25.7	6.5	2.4	4.1	3.4 J	4.3 J	2.5 J	2.2 J	1.8 U	50 U	50 U	6.5 U	6.5 U
Zinc	9.4 U*	2.0 U*	4.3	4.0 J	70.7	0 80 UJ	1 0 UJ	1.4 UJ	2.4 U	2.3 U	0.60 U	1.4 U	20 U	20 U	10.2 U	10.2 U

Monitoring Location	B-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	126 U*	2,210	192 J	1,140	8.9 U	83.1	1,800	667	155 J	240	170 J	39.7 U	210	200 U	162 J	78.2 U
Antimony	30.0 U	2.0 U	230.0 U	5.0 U*	2.3 U*	2.1 U	2.1 U*	1.6 UJ	1.9 U	3.8 U	8.5 J	3.5 U	10 U	10 U	6.5 U	0.95 J
Arsenic	35.0 J	55.7 J	20.0 UJ	44.4	58.4 J	61 6	51.2	59.1 J	52.9	53.4	59.7 J	48.7	44	500 U	49.7	45.5
Barium	659	824	640 J	1,150	1,220	1,090	989	1,130	913	1,000	1,270 J	1,330	1,500	1,500	2,170	1,430
Beryllium	1.0 U	1 0 U	1.0 UJ	0.12 U*	0.10 U	0 24 U*	0.40 U	0.20 U	0.30 U	0.10 U	0.20 U	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	30.0 U	0.30 U	0.91	0 71	0.49 U*	0.42 J	0.40 U	0.40 U	4.5	1.8 J	2.0 U	100 U	4.2 J	1.8 U
Calcium	15,400	19,100	14,600 J	21,000	18,500	19,000	15,100	19,000	16,900	27,400	29,900 J	23,600	31,000	250,000 U	50,400	39,000
Chromium, total	19.4 U*	18.5	9.1 J	61.2	28.6	82.7	23.3	26.8	0 80 U	4 9 J	4.1 J	50 U	5.0 U	250 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	10 U	10 U	100 U	1,000 U	1,000 U	R					7.9 J	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.2	3.0 UJ	1.4	1.30	3.6	1.6 U*	1.2 J	0.70 U	1.2 J	17	8.7 J	25 U	1,300 U	19.9 J	7.3 U
Copper	6.8 U*	6.3	4.7	0.70	18.1	9.7	11.8	5 4 J	1.3 U	0.90 U	0.60 U	0.62 U	2.1 J	5.0 U	0.91 U	0.91 U
Cyanide	6.0	10.0 UJ	10.0 UJ	10.0 U	8.0	4.7	2.6 J	5.7 U*	4.3 J	7.2 J	7.2 J	6.8 J	4.8 J	8.5 J	2.5 U	7.0 J
Fluoride													100 U	11,000	65.6 U	6 6 U
Iron	329	168	177 J	394	273 J	458	514	359	29.1 U	372	193 J	12.6 U	200	5,000 U	102 J	102 J
Lead	40.0 UR	1.0 U	5.0 UJ	1 4 UJ	1.0 U	1.3 U	0.9 U	1.3 U	1.3 U	1.2 U	1.0 UJ	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	13,000	17,600	15,300 J	24,200	19,800 J	22,900	18,600	25,000	21,200	36,300	43,300 J	37,000	120,000	78,000 J	86,100	58,900
Manganese	13.2 U*	12.9	6 4 J	16.2	12 8	16.3	14.4	16.2 J	8.6 J	21.1 J	19.7 J	12.6 J	14 J	1,300 U	32.8	24.7
Mercury	0.20 U	0.20 U	0 20 U	0 10 U	0.05 UJ	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.053 J	0.20 U	0.036 U	0.076 J
Nickel	13.0 U	14.7	7.0 UJ	22.5	18.0 J	38.3	17.7	22.5 J	2.3 J	6.6 J	6.4 J	2.6 J	40 U	2,000 U	3.4 U	11 0
Potassium	15,100,000	14,400,000	14,800,000	13,300,000 J	16,300,000	14,300,000	12,800,000 J	14,200,000	14,100,000	13,500,000	13,000,000 J	7,240,000 J	12,000,000	12,000,000	12,200,000	12,000,000
Selenium	30.0 UJ	2.0 U	R	3.2 UJ	2.0 J	2 2 UJ	2.3 U	2.2 U	2.4 U	1.7 U	2.7 UJ	4.4 U	10 U	300 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	50.0 U	5.8 U	0.40 U	0.50 U	0.70 UJ	0.70 UJ	0.40 U	2.0 J	2.0 J	0.50 U	5.0 U	5.0 U	2.0 U	0.20 U
Sodium	13,300,000	13,000,000	13,000,000	12,400,000	14,000,000	13,100,000	12,700,000	13,100,000	12,500,000	12,500,000	14,300,000	7,100,000	13,000,000	15,000,000	13,700,000	12,000,000
Sulfide		5,700	2,700	1,800	200	200 U	500 U	1,800	800	2,200	1,800	1,400	70 J	120	130	130
Thallium	150 UJ	3.8 U*	R	4.1 U	2.1 U	3.2 UJ	3.5 U	3.3 U	3.2 U	2.9 U	5.6 J	3.8 U	3.0 U	3.0 U	2.0 U	0.38 U
Tin	26.0 U															
Vanadium	5.1 U*	3.0	4 0 UJ	1.6 U*	1.6	3.1	2.6 U*	1.7 J	1.1 J	2.4 J	3.9 J	1.2 U	50 U	2,500 U	6.5 U	6.5 U
Zinc	28.2	16 4 U*	8.4	2.6 J	31.7 J	22.8 J	11 7 J	10.1 J	11.5	11.7 U*	4.2 J	1.5 U	7.0 J	2,000 U	10.2 U	10 2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	C-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	117 U*	21.0 U	48.3	34.4 U*	41.6 U*	37.0 U	39.1 U	54.5 U*	20.1 U	20.5 U*	39.4 J	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	1.0 U	1.9 U	1.0 U	2.1 U	1.6 U	1.6 UJ	1.6 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.22 J	0.337 J
Arsenic	27.4	28.9	17.4	37.6 J	41.2	38.8	48.9	45.0 J	19.3	13.2	8.7	4.5 U	7.9 J	5.2 J	4.3 J	6.8 J
Barium	317	393	384	336	208 J	774	626	243	141	87.5	77.2	79.1 J	110	43	84.0 J	87.7 J
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.30 U*	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	1.0 U	0.30 UJ	2.4	0.23 U*	0.30 U	0.30 U	0.30 U	0.40 U	0.40 U	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	199,000	196,000 J	193,000	188,000	228,000	190,000	252,000	161,000	178,000	212,000	144,000	225,000	390,000	170,000	216,000	317,000
Chromium, total	6.0 U	24.0	5.5	7.6	13.1	4.7	4.6 J	5.8 J	4.6 J	1.2 U	0.40 J	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10	120 J	100 U	10 U	10 U	1,000 U	12					10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	8.7	5.1	3.3 U*	0.40 U	0.50 U	0.30 U	0.60 U	0.60 U	1.1 U	0.90 U	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4.0 U	2.9	11.1	4.6 U*	8.8	0.61 U*	4.2 J	0.70 U	0.79 J	0.90 U	0.60 U	1.3 U	5.0 U	5.0 U	8.5	0.91 U
Cyanide	46.9	39.5 J	11.2 J	22.7	14.2	10.1 U*	12.3 J	14.9	17.2	7.4 J	4.1 J	17.4	6.8 J	10 U	7.7 J	5.2 J
Fluoride													880	1,100	533	440
Iron	4,210	5,380	10,700	14,900	11,400 J	10,300	14,700	6,110	5840	2,390	354 J	1,000	1,500	370	1,060	1,740
Lead	2.0 UJ	7.9	1.0 UJ	55.2	93.6	1.3 U	1.6 U*	5.2	2.6	1.2 U	1.0 U	1.5 U	5.8 J	10 U	6.0 J	3.6 U
Magnesium	87,300	128,000	144,000	101,000	59,800	48,100	79,800	72,500	85,100	49,500	49,500	61,900	120,000	54,000	63,700	64,200
Manganese	208	346	396	351	889	1,200	1,670	948	883	791	343	717	1,900	110	477	549
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.089 J
Nickel	34.2	40.3	18.9	21.1	10.0	4.4	4.8 J	4.8 J	3.2 J	1.8 J	2.0 J	2.8 U	40 U	40 U	3.4 U	3.6 J
Potassium	26,500	34,500	34,500 J	22,000 J	11,900 J	128,000	128,000 J	83,100	62,100	26,200	40,100 J	24,800 J	35,000	24,000	31,100	28,700
Selenium	3.0 UJ	2.0 U	2.0 U	3.2 U	3.1 U*	2.7 U*	2.3 UJ	2.2 U	3.3 U	1.7 U	2.7 U	4.4 U	7.8 J	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.70 UJ	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.008 U
Sodium	35,300	37,500	46,600 J	48,000 J	18,400	121,000	64,700	59,200	39,900	27,000	21,200	39,700	45,000	20,000	34,100	31,100
Sulfide		4,000	1,380	1,400	200 U	200 U	500 U	1,300	1,200	10,400	2,000	31,400	110 J	5,700	170	18,000
Thallium	3.0 UJ	3.0 U	3.0 U	4.1 U	2.1 U*	3.2 U	3.5 U	3.3 U	4.0 U	3.7 U*	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	4.0 U	5.3	4.5	11.7	9.6	3.3	3.2 U*	3.7 J	2.8 J	2.3 J	4.6 J	3.8 J	50 U	50 U	6.5 U	7.2 J
Zinc	5.0 U	10.3 U*	7.7 U*	0.50 UJ	5.0 J	0.80 U	1.0 UJ	1.4 UJ	2.4 U	4.8 U*	1.6 J	0.78 U	20 U	10 J	99.3	10.2 U

Monitoring Location	C-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	213 U*	985	2,430	2,020 J	883	70.0 U*	382	213	574	511	134 J	73.9 J	1,100	95 J	264	190 J
Antimony	30.0 U	2.2	1.0 U	1.9 U	1.4 U*	2.1 U	1.6 U	3.5 J	3.0 J	3.8 U	2.1 U	3.5 U	10 U	10 U	3.3 U	0.65 U
Arsenic	45.6	79.4	69.8	57.2 J	50.1	58.9	58.5	69.0 J	65.7	59.2	62.8	60.6	56	500 U	66.1	55.3
Barium	387	441	462	420	450 J	517	520	601	757	900	736	543 J	340	320	398	412
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.22 U*	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	1.0 U	0.30 U	1.2	0.52 U*	0.58 U*	0.30 U	0.78 J	0.40 U	2.7 J	0.89 U	2.0 U	2.0 U	2.5 J	1.8 U
Calcium	19,700	29,100 J	52,300	19,100	19,200	24,300	28,800	35,700	80,100	113,000	118,000	106,000	110,000	160,000 J	153,000	147,000
Chromium, total	23.6 U*	109	148.0	156 J	58.5	163	75.9	151	230	55.2	0.30 U	50 U	3.4 J	5.0 U	3.8 U	3.8 U
Chromium (VI)	10	100 UJ	10 U	10 U	10 U	1,000 U	10 U					10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	3.3	5.5	2.8 U*	2.7	8.1	18.8	35.8	5.0 J	1.8 J	11.2	4.1 U	25 U	25 U	12.5 J	7.3 U
Copper	19.5 U*	11.0	91.4 J	7.3	8.2	17.7	17.6	9.6 J	2.9 J	3.4 U*	0.60 U	0.62 U	2.2 J	5.0 U	0.91 U	0.91 U
Cyanide	10.0 U	10.0 UJ	10.0 UJ	10.0 U	4.8	7.6 U*	3.8 J	10 1	7.9 J	5.2 J	4.6 J	1.9 J	10 U	9.0 J	2.5 U	2.5 U
Fluoride													420	1,000	76.0 J	6.6 U
Iron	843	1,720	4,470	2,470 J	1,440 J	1,150	1,520	1,170	2,900	4,750	1,980 J	1,990	2,400	2,300 J	2,820	5,370
Lead	4.37	1.0 U	1.0 UJ	1.4 U	1.0 UJ	1.3 U	0.9 U	1.3 U	1.7 U	1.2 U	1.0 U	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	7,200	11,200	23,300	10,400	14,800	23,700	26,500	36,700	43,700	59,500	60,400	62,600	67,000 J	100,000 J	96,100	84,900
Manganese	15 U*	53.9	157.0 J	51.4	42.5	34.3	45.9	39.6 J	90.4	58.1	27.7 J	29.3 J	32	37	43.6	67.2
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 U	0.10 U	0.10 U	0.16 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.153 J
Nickel	13.0 U	57.2	82.8	94.0	48.0	86.3	60.0	116	109	111	8.3 J	15.8 J	40 U	2,000 U	9.6 J	11.3
Potassium	13,500,000	13,800,000	12,200,000 J	12,800,000 J	13,200,000 J	10,900,000	11,000,000 J	11,000,000	10,800,000	8,670,000	7,400,000 J	5,500,000 J	3,700,000	3,400,000	3,890,000	3,310,000
Selenium	3.0 UJ	2.0 U*	2.0 U	3.2 U	2.0 U*	2.2 U	2.3 U	2.2 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.9 J	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.70 UJ	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	1.0 U	0.2 U
Sodium	11,900,000	12,300,000	11,500,000 J	12,100,000 J	12,200,000	9,710,000	11,400,000	10,200,000	11,000,000	8,160,000	7,860,000	5,410,000	4,200,000	3,700,000	3,760,000	3,500,000
Sulfide		15,400	3,020	1,600	200 U	200 U	500 U	3,400	1,200	1,400 U*	1,200	1,000	30 U	100	90 J	70 J
Thallium	64 J	4.2 J	4.3	4.1 U	2.9 U*	3.2 U	3.5 U	3.3 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	1.0 U	0.38 U
Tin	26.0 U															
Vanadium	4.0 U	3.6 J	5.8	1.7 U*	1.3 U*	1.1	2.9 U*	2.3 J	3.4 J	1.0 J	0.50 U	0.97 J	50 U	50 U	6.5 U	6.5 U
Zinc	16.6	43.9	21.7 U*	10.4 J	12.6 J	14.4	21.1 J	3.1 J	9.6 J	15.1 U*	2.6 J	0.96 U	7.1 J	20 U	10.2 U	10.7 J

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6)
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	D-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	811	344 U*	1,710 J	106	383 J	622	91.4	512	252	30.6 J	192 J	39.7 U	200 U	200 U	447	225
Antimony	30.0 U	3.8 J	23.0 U	6.7 U*	2.0 U*	2.5 U*	1.6 U	10.0 U	1.6 U	4.2 U*	3.9 J	3.5 U	10 U	10 U	1.5 J	0.47 J
Arsenic	3.0 U	29.3 J	2.7 J	3.2 U	7.2 J	11.3	6.1	5.0 U	3.4 U	3.0 U	5.7	4.2 U	14	5.4 J	3.9 U	5.1 J
Barium	31.4 J	52.9	42 J	34.7	42.5	77.1	38.1	35.0	32.1	21.6	42.1	35.1 J	28	33	66.5 U	66.5 U
Beryllium	1.0 U	1.0 U	1.0 UJ	0.20 U*	0.25 U*	0.39 U*	0.40 UJ	2.0 U	0.20 U	0.10 U	0.26 J	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	3.0 U	0.30 UJ	0.24 J	0.20 U	0.60 U*	4.0 U	0.30 U	0.40 U	1.6 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	121,000	98,900	67,600 J	51,500	51,300	60,300	35,400	35,200	38,500	46,800	74,900	64,200	76,000	69,000	72,100	66,300
Chromium, total	9.6 U*	35.2	10.0 J	12.0 J	20.6	41.0	33.8 J	16.3	30.7	6.3 J	2.6 J	1.7 J	5.0 U	5.0 U	4.4 J	4.0 J
Chromium (VI)	10 R	10 U	10 U	100 U	1,000 U	1,000 U	22					10 U	39	10 U	10 U	50 U
Cobalt	9.0 U	1.0 U	3.0 UJ	0.50 UJ	0.50 J	1.7 J	0.6 J	10.0 U	0.72 J	1.1 U	6.1 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	16.1 U*	21.7	31.3	7.8	27.1	44.4	41.1 J	20.6 J	16.3 J	3.7 U*	12.2 J	6.1 U	9.8	15	29.3	23.7
Cyanide	10.0 U	13.2 J	10.0 UJ	19.1	5.9	25.8	14.6	14.6	2.7 J	4.6 J	58.1	8.0 J	10 U	10 U	2.5 U	2.5 U
Fluoride													12,000	12,000	8,800	8.2 U*
Iron	99.1 U*	185	202 J	153	246 J	490	250	189	384	27.3 U	179 J	345	25 J	29 J	69 U	220
Lead	2.0 UJ	1.6 U*	1.0 UJ	1.4 U	2.6 J	1.3 UJ	0.9 U	2.0 U	2.4	1.2 U	1.0 U	1.9 J	10 U	10 U	3.6 U	3.6 U
Magnesium	592,000	666,000	627,000 J	551,000	647,000 J	845,000	613,000	603,000	481,000	388,000	741,000	773,000	670,000	660,000	694,000	690,000
Manganese	200	274	424 0 J	343	443	632	388	438	458	429	960	947	720	670	907	673
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.037 J
Nickel	13.0 U	19.7	7.0 UJ	6.0	19.7 J	31.9	21.1 J	10.0 J	13.9 J	3.7 J	2.6 J	2.4 U	40 U	40 U	3.4 U	3.4 U
Potassium	3,270,000	2,400,000	919,000	510,000 J	837,000	1,500,000	618,000 J	433,000	471,000	187,000	386,000	440,000 J	320,000	420,000	453,000	488,000
Selenium	3.0 UJ	2.0 UJ	R	3.2 UJ	1.6 UJ	2.2 UJ	2.3 U	5.0 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.20 U	0.063 J
Sodium	2,040,000	1,670,000	554,000	363,000	595,000	1,130,000	477,000	270,000	310,000	112,000	258,000	304,000	210,000	380,000	302,000	341,000
Sulfide		271,000	1,240	96,000	26,100	37,200	78,000	46,000	66,000	17,000	29,600	13,200	120,000	112,000	130,000	102,000
Thallium	3.0 UJ	3.2 U*	R	4.1 U	2.1 U	3.2 UJ	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.20 U	0.075 U
Tin	26.0 U															
Vanadium	7.6 U*	5.1 J	4.0 UJ	2.5 J	2.9 J	5.2 J	3.3	1.7 J	3.1 J	1.1 J	4.5 J	3.8 J	50 U	50 U	6.5 U	11.8 J
Zinc	15.3 J	28.0 J	41.3	0.50 UJ	0.40 UJ	0.80 UJ	23.2 J	5.6 J	2.4 U	2.3 U	0.60 U	0.78 U	79	6.1 J	43.4	13.7 J

Monitoring Location	D-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	948	526 J	914 J	285	119 U*	79.7	53.9	483	715	123 J	71.3 J	290	200 U	85 J	118 J	299
Antimony	30.0 U	2.0 U	23.0 U	3.4 U*	1.6 U*	2.1 U	1.6 U	10.0 U	1.6 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.26 U	0.12 J
Arsenic	76.2	56.8 J	51.6	64.0	74.3 J	78.4	68.4	71.3	65.8	63.4	27.0	46.6	69	63	50.7	61.6
Barium	327	337	460.0 J	345	396	255	226	403	179	103	83.5	109 J	160	140	183 J	153 J
Beryllium	1.0 U	1.0 U	1.0 UJ	0.19 U*	0.12 U*	0.30 U*	0.40 UJ	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	3.0 U	0.30 U	0.20 U	0.20 U	0.30 U	4.0 U	0.30 U	0.40 U	1.2 J	0.94 J	2.0 U	2.0 U	1.8 J	1.8 U
Calcium	43,700	22,800	28,700 J	14,200	10,700	10,500	11,300	144,000	59,100	21,200	36,900	50,800	58,000	67,000	78,100	66,600
Chromium, total	36.0 U*	14.1	15.3 J	11.9	6.7	11.5	29.1 J	75.8	25.1	15.3	2.8 J	21	5.0 U	3.5 J	3.8 U	7.6 J
Chromium (VI)	10	10 U	10 U	100 U	1,000 U	1,000 U	10 U	20 U	R	20		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.2	3.0 UJ	0.60	0.72	1.0	1.0 J	2.7 J	1.9 J	1.1 U	4.6 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4.0 U	1.8	4.0 U	2.8	9.6 U*	0.60 U	10.5 J	7.0 J	4.0 J	1.0 U*	3.2 J	15.1 J	6.5	11	14.4	37.2
Cyanide	10.0 U	10.0 UJ	10 UJ	10.0 U	4.7 U	2.9	3.2	1.7 U*	3.7 J	5.2 J	1.2 U	1.9 U	10 U	10 U	2.5 U	6.4 J
Fluoride													6,300	7,600	6,450	2,500
Iron	2,530	1,360	2,240 J	1,030 J	1,070 J	1,000	1,450	4,550	2930	1,060	205 J	1,570	1,200	2,000	446	2,300
Lead	17.6 J	1.0 U	1.5 J	1.4 U	1.0 U	1.3 U	0.90 U	1.5 J	2.4	1.2 U	1.0 U	1.8 J	10 U	10 U	3.6 U	3.6 U
Magnesium	53,600	41,300	69,000 J	52,800	206,000 J	176,000	292,000	245,000	102,000	46,100	551,000	461,000	460,000	490,000	593,000	552,000
Manganese	143	78.4	91 J	34.0	16.6	8.0	21.5 J	303	108	14.0 J	543	471	250	130	381	318
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.1 U	0.20 U	0.20 U	0.061 J	0.063 J
Nickel	24.3	11.8	12.6 J	7.6	5.2 J	6.3	12.9 J	42.6 J	12.7 J	5.4 J	2.7 J	12.5 J	40 U	40 U	3.4 U	3.8 J
Potassium	3,290,000	25,500,000	2,280,000	1,900,000 J	2,110,000	1,610,000	1,560,000 J	1,750,000	1,350,000	1,120,000	442,000	490,000 J	410,000	350,000	365,000	318,000
Selenium	3.0 U	2.0 U	R	4.4 J	1.6 U	2.2 UJ	2.3 U	5.0 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	0.48 J	0.080 U	0.016 U
Sodium	2,560,000	1,900,000	1,660,000	1,500,000	1,460,000	1,110,000	1,220,000	1,360,000	865,000	670,000	255,000	270,000	350,000	210,000	321,000	294,000
Sulfide		7,700	5,920	2,400	300	200 U	500 U	1,280	1,200	2,800	9,600	7,400	94,000	6,900	9,000 J	2,300
Thallium	3.0 UJ	5.5 U*	R	4.1 U	2.1 U	3.2 UJ	3.5 U	4.2 J	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.080 U	0.030 U
Tin	26.0 U															
Vanadium	9.5 U*	16.7	9.5 J	40.0	17.2	27.9	14.9	7.2 J	18.8	64.1	9.7 J	10.5	50 U	50 U	10.3 J	11.1 J
Zinc	17.6	20.1 J	13.2	2.6 J	0.40 UJ	0.80 UJ	1 UJ	13.8	7.7 J	5.6 U*	0.60 U	8.4 J	16 J	47 J	39.8	128

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	E-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	571	128 U*	138.0	64.6	135 U*	78.6 U*	151	94.3 U*	41.2 J	46.9 J	165 J	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	1.0 U	2.2 U*	1.7 U*	2.3 U*	1.6 U	2.1 J	1.6 U	3.8 U	2.1 UJ	3.5 U	10 U	10 U	1.9 J	0.86 J
Arsenic	20.1	13.7	7.7	3.2 U	17.0 J	48.7	45.7	60.2	47.0	31.3	60.7 J	12.2 U	9.5 J	9.9 J	3.9 U	18.2
Barium	39.4	57.9	60.8	48.7	85.9	103	75.9	56.6	29.4	51.6	114 J	171 J	69	58	68.5 U	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0.24 U*	0.14 U*	0.20 U	0.40 U	0.70 J	0.20 U	0.10 U	0.41 J	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	1.0 U	0.30 UJ	0.91	0.20 U	0.49 U*	0.85 J	0.30 U	0.40 U	2.1 J	0.89 U	1.4 J	2.6	1.8 U	1.8 U
Calcium	51,800	99,100 J	67,100	81,600	94,100	107,000	73,600	62,900	31,500	72,100	152,000 J	242,000	300,000	190,000	105,000	183,000
Chromium, total	6.0 U	7.0 J	2.8 J	3.1	5.5	3.6	7.2	12.2	2.4 J	2.1 J	26.2 J	10 U	5.0 U	5.0 U	10.5	3.8 U
Chromium (VI)	10	10 U	100 U	100 U	100 U	1,000 U	10 U					10 U	10 U	10 U	10 U	10 U
Cobalt	42.5	14.7	19.7	14.1	8.5	24.7	11.0	7.1 J	5.4 J	10.0 J	16.8	4.7 J	12 J	21 J	7.3 U	24.0
Copper	97	31.6	52.2	3.2	13.7	7.3	35.3	158	2.8 U*	5.2 J	20.0 J	3.9 U	87	74	36.6	14.1
Cyanide	1,320	109 J	827.0 J	756	46.5	30.2	24.9	119	43.7	47.7	49.2	14.8	53	140	81.6	**
Fluoride													4,300	5,900	6,360	8,410
Iron	1,130	694	691	508	1,880 J	564	1,690	3,960	318	869	1360 J	9,110	570	490	69 U	4,480
Lead	7.6	3.7 J	2.8 U*	2.5	1.9	1.3 U	0.9 U	1.9 J	1.7 U	1.2 U	5.8 J	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	154,000	436,000	333,000	185,000	237,000 J	219,000	187,000	269,000	179,000	199,000	503,000 J	285,000	280,000	400,000	64,200	171,000
Manganese	135	538	633	430	602	427	240	154	137	234	468 J	1,040	200	600	16	497
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.11 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.037 J
Nickel	498	27.8	14.7	3.6	25.2 J	36.7	34.3	37.3 J	12.2 J	31.6 J	24.2 J	118	45	52	4.5 J	25.6
Potassium	131,000	111,000	54,000 J	17,500 J	126,000	173,000	148,000	145,000	92,300	92,500	147,000 J	164,000 J	180,000	160,000	6,090	39,300
Selenium	5.1	5.0 J	3.7 J	3.2 UJ	2.1 J	4.2 U*	3.2	4.0 J	3.3 U	1.8 J	2.7 J	4.4 U	7.4 J	10 U	3.5 UJ	3.5 U
Silver	5.0 UJ	1.0 U	1.2	5.8 U	0.40 U	0.60 U	0.70 U	5.00 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	1.2 J	0.040 U	0.038 J
Sodium	153,000	117,000	69,000 J	22,500	188,000	144,000	162,000	122,000	118,000	69,400	1,650,000	151,000	130,000	150,000	18,600	63,900
Sulfide		8,000	2,640	2,400	1,500	200	1,800	5,800	2,000 U*	2,600	3,200	1,000 U	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 UJ	3.0 UJ	4.1 U	2.1 U	3.2 U	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	6.0 U*	12.1 J	7.8 J	1.6 U*	13.6	8.1	17.1	7.1 J	8.2 J	3.7 J	4.5 J	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	93.7	13.4 U*	10.8 U*	0.50 UJ	0.40 UJ	0.80 U	4.9 J	10.3	2.4 U	2.3 U	0.60 U	15	33	27	10.2 U	12.7 J

Monitoring Location	E-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	50.0 U	28.0 U*	172	142	9.3 U*	90.1 U*	39.1 U	263	421	202	11.1 U	39.7 U	55 J	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	1.2	3.5 U*	1.0 U	2.2 U*	1.6 U	10.0 U	1.6 U	3.8 U	2.1 UJ	3.5 U	5.3 J	10 U	3.3 U	1.0 U
Arsenic	3.0 U	67.2	64.9	44.7	57.9 J	58.6	53.0	65.6	56.7	51.4	56.0 J	31.5	7.4 J	4.9 J	3.9 U	3.9 U
Barium	1,290	1,120	1,030	990	1,000	922	1,000	1,240	1,240	556	536 J	460	220	290	295	214
Beryllium	1.0 U	1.0 U	1.0	0.13 U*	0.10 U	0.20 U	0.40 U	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	1.0 U	0.30 UJ	1.1	0.49 U*	0.47 U*	0.34 J	0.30 U	0.40 U	2.0 J	0.90 U	2.0 U	50 U	1.8 U	3.98 J
Calcium	73,900	95,900 J	82,700	79,600	79,500	64,900	63,700	86,200	87,200	17,900	12,800 J	37,700	420,000	850,000	848,000	641,000
Chromium, total	6.3 U*	23.6	30.6	33.1	164	20.1	32.7	17.8	42.3	49.9	0.30 UJ	10 U	5.0 U	2.6 J	3.8 U	3.8 U
Chromium (VI)	10	10 U	100 U	100 U	100 U	1,000 U	10 U	10 U	R	R		6.5 J	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.1	1.9	0.71	1.3	0.82	1.6	1.1 J	2.3 J	1.1 U	9.1 J	4.1 U	23 J	630 U	23.6	31.7
Copper	5.5 U*	1.0 U	1.0 U	0.70 UJ	1.3 U*	0.60 U	0.90 U	1.9 U*	3.1 J	0.90 U	0.60 U	0.62 U	8.0	4.0 J	1.4 J	0.91 U
Cyanide	10.0 U	10.0 UJ	10.0 UJ	10.0 U	4.7 U	3.6 U*	2.5	3.5 U*	1.9 J	1.7 J	4.1 J	77.6 *	3.4 J	22	12.7	68.6
Fluoride													2,600	1,500	397 J	6.6 U
Iron	2,160	2,380	1,890	1,750	1,860 J	1,210	1,150	1,700	1570	656	17.9 J	12.6 U	2,600	350	69.4 U	69.4 U
Lead	2.0 UJ	1.0 U	1.0 UJ	1.4 U	1.0 U	1.3 U	0.9 U	2.0 U	1.7 U	1.2 U	1.2 J	1.5 U	10 U	250 U	3.6 U	3.6 U
Magnesium	79,500	101,000	103,000	101,000	92,900 J	87,600	94,200	135,000	188,000	33,100	14,800 J	40,100	330,000	370,000	355,000	296,000
Manganese	54.4	40.1	37.1	32.9	34.7	25.3	28.2	27.9 J	27.8 J	10.8 J	6.8 J	14.2 J	2,600	5,400	5,150	3,670
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.036 U
Nickel	13.0 U	25.3	32.6	26.9	44.6 J	18.9	35.3	22.8 J	38.9 J	23.0 J	2.8 J	10.2 J	35 J	1000 U	35.3	32.0
Potassium	16,400,000	8,930,000	8,960,000 J	7,980,000 J	8,660,000	8,350,000	7,500,000 J	6,960,000	5,620,000	7,930,000	6,110,000 J	5,460,000 J	3,600,000	4,800,000	5,140,000	4,040,000
Selenium	3.0 U	2.0 U	2.0 U	3.6 J	1.6 UJ	3.2 U*	2.3 U	5.0 U	3.3 U	1.7 U	2.7 UJ	4.4 U	10 U	10 U	4.0 J	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	2.9 J	1.0 U	0.32 U
Sodium	14,900,000	7,860,000	8,310,000 J	7,020,000	7,570,000	6,750,000	7,060,000	5,540,000	4,280,000	6,029,000	5,980,000	3,940,000	2,900,000	4,600,000	4,020,000	3,070,000
Sulfide		8,000	1,000 U	1,000 U	200 U	200 U	500 U	1,800	800	2,400	1,400	1,000 U	30 J	800 U	30 U	30 U
Thallium	49.3 J	3.0 U	4.3	4.1 U	2.1 U	3.2 U	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	0.33 J	1.2 J	1.1 J	1.1 J
Tin	26.0 U															
Vanadium	4.0 U	1.0 U	1.0 U	0.65 U*	0.82	0.59	1.2 U*	0.72 J	1.7 J	1.3 J	2.0 J	0.50 U	50 U	50 U	6.5 U	6.5 U
Zinc	5.0 U	5.6 U*	12.3 U*	0.50 UJ	0.40 UJ	0.80 U	1.0 UJ	10.0 U	2.4 U	5.6 U*	0.86 J	1.5 U	11 J	500 U	15 J	20.2 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	F-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007 [2]	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	110 U*	33.3 U*	107 U*	21.0 U	12.2 U*	37.0 U	39.1 U	63.2 U*	20.1 U	11.9 U	31.1 J	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	5.1 U*	1.0 U*	2.1 U	1.6 U	1.6 UJ	1.6 U	3.8 U	2.2 J	3.5 U	10 U	10 U	0.165 J	0.459 J
Arsenic	30.0 UJ	23.2	25.0	8.8	6.4 J	2.7 J	6.9	4.4 J	4.6 J	3.0 U	6.6 J	3.2 U	10 U	7.4 J	4.7 J	3.9 U
Barium	116	92.6	108 J	109	179	130	95.5	86.8	92.4	111	44.8 J	136 J	47	90	104 J	158 J
Beryllium	1.0 U	1.0 U	1.0 UJ	0.22 U*	0.10 U	0.20 U	0.40 U	0.27 U*	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.1	0.30 UJ	1.8 J	0.44 U*	0.51 U*	0.30 U	0.48 J	0.40 U	0.98 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	137,000	159,000 J	103,000 J	153,000	260,000	267,000	162,000	165,000	209,000	225,000	90,900 J	231,000	200,000	130,000	135,000	285,000
Chromium, total	10.7 U*	5.0	9.7 J	4.9	12.3	13.1	10.8	10.9	7.3 J	1.2 U	1.1 J	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10	100 UJ	10 U	100 U	10	1,000 U	10 U	R	R	20		10 U	10 U	10 U	10 U	10 U
Cobalt	19.7	9.4	12.7 J	6.7	8.2	5.2	1.9	0.99 J	7.8 J	1.1 U	4.9 J	4.1 U	25 U	25 U	7.3 U	15.7 J
Copper	4.4 U*	2.2	4.0 U	1.1	8.4 U*	2.0 U*	3.6	1.6 J	10.9 J	0.90 U	1.0 J	0.62 U	11	6.1	4.2 J	2.8 J
Cyanide	212	52.6 J	17.3 J	13.4	8.5	52.7	49.8	43.1	47.7	229	517	63.4	45	62	35.2	30.8
Fluoride													2,400 U	1,600	1,490	590
Iron	10,200	17,100	17,100 J	32,100	19,400 J	12,800	19,400	13,800	13,200	15,900	422 J	4,230	670	1,900	9,840	982
Lead	2.0 UR	1.0 U	R	3.7	1.0 UJ	1.3 UJ	0.9 U	1.3 U	1.7 U	1.2 U	1.0 UJ	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	142,000	118,000	136,000 J	110 000	155,000 J	119,000	71,600	66,700	53,700	61,800	31,500 J	74,100	85,000	57,000	44,800	91,200
Manganese	834	1210	1,100 J	738	939	867	838	428	641	482	280 J	1,250	780	330	726	1120
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.12 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.047 J	0.036 U
Nickel	64.1	23.9	33.9 J	24.0	35.5 J	21.3	20.0	10.5 J	8.9 J	6.2 J	2.5 J	1.3 U	45	29 J	11.9	41.0
Potassium	76,700	35,700	49,900	36,100 J	48,700	31,800	24,000	22,300	14,100	15,100	7,950 J	8,220 J	40,000	10,000	7,960	20,800
Selenium	30.0 UJ	2.0 U	R	3.4 J	2.2 J	2.2 U	4	2.2 U	3.3 U	1.7 U	2.7 UJ	4.4 U	4.8 J	6.8 J	3.5 U	5.6 J
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.70 UJ	0.80 U	1.4 U	1.2 U	0.60 U	1.0 J	5.0 U	0.040 U	0.019 J
Sodium	59,600	24,900	34,900	30,200	45,100	29,800	15,800	16,000	8,250	7,850	535,000	45,100	28,000	17,000	13,300	40,000
Sulfide		574,000	1,000 U	1,000	300	200 U	500 U	1,140	400 J	400 U*	7,000	600 J	60	80 U	30 U	30 U
Thallium	30.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	6.1	3.3 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	0.27 J	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	11.7 U*	6.2	11.7 J	4.0	4.0 J	2.7 J	1.6	1.4 J	2.8 J	1.0 J	2.2 J	0.56 U	50 U	50 U	6.5 U	6.5 U
Zinc	5.3 U*	5.3 U*	6.2	0.50 UJ	0.40 UJ	0.80 U	1.0 UJ	1.4 UJ	6.7 J	2.3 U	3.9 J	0.78 UJ	20 U	7.5 J	10.2 U	17.8 J

Monitoring Location	F-30															
Collection Date	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007 [2]	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	123 U*	575 J	50.6	8.9 UJ	37.0 U	39.1 U	64.4 U*	20.1 U	128 J	224	118 J	240	10,000 U	78.2 U	78.2 U
Antimony	2.0 U	230.0 U	5.5 U*	1.0 U*	2.1 U	10.5 U*	1.6 UJ	1.6 U	5.1 U*	8.7 J	3.5 U	10	0.87 J	13.0 U	1.3 U
Arsenic	49.8	20.0 J	32.7	37.6 J	35.4	30.4	40.6 J	38.5	55.3	47.8 J	31.1	83	500 U	29.0	31.2
Barium	579	399 J	585	657	665	677	624	499	619	791 J	795 J	830	780 J	729	549
Beryllium	1.0 U	1.0 UJ	0.11 U*	0.10 U	0.20 U	0.40 U	0.27 U*	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	1.0 U	3.0 U	0.30 UJ	0.78	0.33 U*	1.90 U*	0.38 J	0.39 J	0.40 U	4.8	0.89 U	2.0 U	100 U	3.3 J	4.8 J
Calcium	44,800 J	53,900 J	39,400	53,000	46,400	48,500	38,900	28,900	26,800	23,500 J	24,300	37,000	250,000	101,000	46,500
Chromium, total	32.2	108.0 J	65.5	70.5	171	132	2.8 J	9.4 J	29.4	7.4 J	50 U	5.0 U	250 U	4.9 J	26.5
Chromium (VI)	100 UJ	10 U	100 U	10 U	1,000 U	10 U					10 U	10 U	10 U	10 U	10 U
Cobalt	2.6	3.0 UJ	2.5	4.20	7.0	5.8	3.8 J	4.7 J	4.1 J	22.1	4.8 J	18 J	1,300 U	20.8	24.4
Copper	1.0 U	22.1	0.70 UJ	1.2 U*	1.4 U*	57.3	0.70 U	0.70 U	0.90 U	5.7 J	6.6 J	21	250 U	4.2 J	4.5 J
Cyanide	11.6 J	10.0 UJ	10.0 U	8.8	10.8 U*	10.0 J	7.6 U*	11.0	22.1	20.6	21.6	130	22	31.7	8.5 J
Fluoride												100 U	15,000	440 J	6.6 U
Iron	696	3,410 J	481	558 J	616	704	286	293	575	470 J	549	350	5,000 U	69 U	434
Lead	1.0 U	5.0 UJ	1.4 U	1.0 U	1.3 U	7.1	1.3 U	1.7 U	1.2 U	1.6 J	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	39,200	47,400 J	43,200	53,300 J	51,200	53,000	36,500	22,200	20,200	19,900 J	22,200	40,000	64,000 J	52,700	40,200
Manganese	18.0	112 J	12.6	16.7	15.5	27	7.3 J	10.6 J	19.9 J	14.1 J	11.3 J	15 J	1,300 U	39.6	41.3
Mercury	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.10 U*	0.10 U	0.10 U	0.11 J	0.10 U	0.20 U	0.20 U	0.048 J	0.036 U
Nickel	33.9	53.9 J	26.6	35.3 J	56.7	73.5	19.6 J	24.7 J	53.1	28.1 J	17.3 J	57	2,000 U	30.6	25.0
Potassium	13,600,000	9,610,000	10,900,000 J	11,500,000	11,000,000	10,800,000	11,900,000	11,000,000	12,600,000	10,900,000 J	11,900,000 J	12,000,000	11,000,000	8,730,000	9,780,000
Selenium	2.0 U	R	4.7 J	1.6 UJ	2.2 U	3.4	2.2 U	3.3 U	1.7 U	2.7 UJ	4.4 U	10 U	500 U	3.5 U	3.5 U
Silver	1.0 U	50.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.70 UJ	0.97 J	1.9 J	3.0 J	0.50 U	1.3 J	250 U	4.0 U	0.40 U
Sodium	12,700,000	903,000	10,600,000	11,800,000	10,200,000	11,600,000	11,500,000	10,500,000	11,700,000	11,000,000	10,500,000	11,000,000	12,000,000	9,430,000	8,430,000
Sulfide	11	2,100	1,800	200 U	200 U	500	1,900	1,800	2,400	2,000	2,200	300	800 U	30 U	380 J
Thallium	4.5	R	4.1 U	2.1 U	3.2 U	3.5 U	3.3 U	4.0 U	4.4 U*	9.4 J	3.8 U	3.0 U	3.0 U	4.0 U	0.75 U
Tin															
Vanadium	1.4	4.0 UJ	1.7 U*	0.68	1.5	1.1	1.1 J	2.8 J	2.8 J	5.0 J	0.9 U	50 U	2,500 U	6.5 U	6.5 U
Zinc	8.2 U*	16.9	0.50 UJ	0.40 UJ	3.2	112	1.4 UJ	10.4	8.3 U*	7.6 J	5.3 J	6.1 J	1,000 U	10.2 U	32.4

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	G-10													
Collection Date	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	65 U*	40.3 U*	8.9 U	37.0 U	39.1 U	42.5 U*	20.1 U	11.9 U	11.1 U	39.7 U	200 U	200 U	78.2 UJ	78.2 U
Antimony	23.0 U	1.9 U	1.0 U	2.1 U	1.6 U	10 U	1.6 U	3.8 U	4.8 J	3.5 U	7.0 J	10 U	5.8	5.1
Arsenic	2.0 U	3.2 U	2.3 J	3.0	2.1	5.0 U	3.4 U	3.0 U	2.8 U	3.2 U	4.5 J	4.7 J	3.9 UJ	3.9 U
Barium	44 J	44.7	76.9	50.8	44.3	46.0	63.4	61.7 J	68.6	90.4	82	100	94.4 J	66.5 U
Beryllium	1.0 UJ	0.10 U	0.10 U	0.20 U	0.40 U	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	4.0	0.49 U*	5.30 J	1.9	2.0 U*	1.3 J	2.5 J	2.7 J	0.80 J	0.89 U	2.3	3.0	1.8 U	2.4 J
Calcium	103,000 J	149,000	258,000	213,000	164,000	167,000	166,000	116,000	133,000	195,000	160,000	190,000	229,000	188,000
Chromium, total	64 J	14.4	25.4	14.3	14.6 U*	22.9	7.9 J	2.4 J	20.8	9.1 J	5.0 U	3.5 J	135.0	4.2 J
Chromium (VI)	30 U	100 U	100 U	1.000 U	10 U					6.9 J	10 U	10 U	120	10 U
Cobalt	5.7 J	12.0	36.2	21.0	16.3	9.7 J	6.3 J	4.7 J	7.4 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	607	245	486	286	231	191	478	297	223	231	430	420	311	543
Cyanide	14.0	18.7	7.5	16.1 J	3.4	3.3 U*	2.1 J	0.80 U	6.8 J	3.8 J	3.2 J	4.7 J	7.5 J	9.8 J
Fluoride											1,400	1,700	722	1,830
Iron	292 J	12,400	21,700 J	23,800	12,000	11,100	7,560	27.3 U	10.0 UJ	12.6 U	56 J	100 U	69.4 U	69.4 U
Lead	2.1 J	5.5 U*	1.0 UJ	1.3 U	0.90 U	2.0 U	1.7 U	1.2 U	1.0 U	1.5 U	2.1 J	10 U	3.6 U	3.6 U
Magnesium	17,000 J	27,600	42,300 J	32,500	36,100	32,500	48,800	29,100	51,000	73,600	70,000	77,000	66,000	57,900
Manganese	187 J	591	1,760	2,550	1,580	1,050	914	594	0.10 U	22.3 J	230	290	218	683
Mercury	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.10 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.040 J	0.105 J
Nickel	312.0 J	296	660 J	499	392	284	225	198	26.8 J	38.7 J	93	120	67.2	142
Potassium	7,060	3,860 J	8,300	6,590 J	5,240 J	5,930	6,690	6,010 J	5,630 J	5,260 J	8,100	19,000	19,000	14,000
Selenium	R	4.3 U*	1.8 J	2.2 U	2.3 U	5.0 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	4.8 J
Silver	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.75 U	5.0 U	1.5 J	0.056 J	0.055 J
Sodium	3,750	6,850 J	9,500	8,270	6,970	6,990	8,920	2,800 J	48,700	72,700	47,000	59,000	75,800 J	57,200
Sulfide	1,000 U	1,000 U	200 U	200 U	500 U	500 U	500 U	200 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U
Thallium	R	4.1 U	3.8 J	3.2 U	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.071 J	0.073 J
Tin														
Vanadium	4.0 UJ	0.62 U*	0.90 J	1.2	1.4 U*	10.0 U	0.49 J	1.0 U	0.50 U	0.55 U	50 U	50 U	6.5 U	6.5 U
Zinc	424.0	294	950	436	312	245	460	328	41.2	46.4	190	170	74	242

Monitoring Location	G-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	826	1,790	3,450 J	95.5 U*	85.6 U*	45.0	216 U*	275	20.1 U	1,000	610	363	830	430	870	457
Antimony	30.0 U	2.0 U	230.0 U	5.4 U*	1.5 U*	2.1 U	1.6 U	3.1 J	1.6 U	3.8 U	2.6 J	3.5 U	10 U	10 U	6.5 U	0.65 U
Arsenic	30.0 UJ	41.8 J	20.0 UJ	32.0 J	36.7 J	40.5	34.2	43.2	43.5	54.3	46.1	38.4	42	44	45.8	43.5
Barium	497	538	493 J	602	633	699	611	669	672	741 J	993	1,540	1,800	1,600	1,770	1,590
Beryllium	1.0 U	1.0 U	1.0 UJ	0.10 U	0.10 U	0.20 U	0.40 U	0.58 J	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	4.3	0.30 UJ	1.10	0.20 U	0.31 U*	0.58 J	0.30 U	0.41 J	3.0 J	0.90 U	2.0 U	2.0 U	2.3 J	2.1 J
Calcium	84,700	112,000	160,000 J	85,500	91,800	104,000	81,300	99,300	81,500	83,200	102,000	124,000	150,000	150,000	149,000	133,000
Chromium, total	77.6	125 J	190.0 J	595	473	138	320	164	4.2 J	231 J	28.0	25 J	7.0	7.1	28.3	13.4
Chromium (VI)	10	10 U	10 U	100 U	100 U	1.000 U	10 U	20 U	R	R		6.4 J	10 U	10 U	10 U	10 U
Cobalt	9.0 U	4.0	5.2 J	3.3 U*	2.7	2.8	2.5 U*	3.9 J	1.9 J	4.2 J	13.2	6.5 J	25 U	25 U	11.4 J	10.2 J
Copper	12.8 U*	14.7	18.8	3.6 U*	2.6 U*	0.60 U	1.5	5.7 J	0.70 U	8.2 J	2.8 J	0.62 U	5.8	4.7 J	4.9 J	0.91 U
Cyanide	7.0	10.0 UJ	10.0 UJ	10.0 U	6.0	4.4 J	3.1 J	5.5 U*	7.2 J	8.2 J	13.8 J	6.5 J	8.0 J	13	8.0 J	11.8
Fluoride													100 U	10,000	32.8 U	6.6 U
Iron	3,330	5,150	11,100 J	2,010	2,120 J	1,910	2,010	2,410	1,210	4,640	2,960 J	3,580	3,300	4,000	4,640	3,950
Lead	40.0 UR	3.2 U*	5.0 UJ	1.4 U	1.0 UJ	1.3 U	0.90 U	2.0 U	1.7 U	1.7 J	1.0 U	1.5 U	3.3 J	10 U	3.6 U	3.6 U
Magnesium	41,800	48,000	82,800 J	62,900	68,600 J	96,800	84,200	105,000	83,700	80,600	100,000	145,000	280,000	180,000	176,000	157,000
Manganese	98.1	218	419 J	33.6	43.6	37.6	53	72.5	31.5 J	105	76.5	125	86	110	122	104
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.13 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.091 J	0.20 U	0.036 U	0.151 J
Nickel	34.2	49.0	74.9 J	131	100 J	48.2	53.2	85.0	6.6 J	200	32.9 J	20.9 J	40 U	16 J	22.9	16.5
Potassium	9,500,000	9,030,000	9,560,000	8,750,000 J	9,470,000	8,350,000 J	8,820,000 J	9,100,000	8,910,000	8,570,000	7,280,000 J	8,780,000 J	8,000,000	7,800,000	7,960,000	7,460,000
Selenium	30.0 UJ	2.0 U	R	3.2 U	1.6 UJ	2.2 U	2.3 U	2.5 J	4.1 J	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	50.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.92 U	5.0 U	0.84 J	2.0 U	0.2 U
Sodium	8,760,000	8,730,000	9,670,000	9,580,000 J	9,940,000	8,520,000	9,450,000	7,960,000	8,100,000	7,630,000	7,290,000	8,260,000	8,300,000	9,100,000	7,460,000	7,290,000
Sulfide		7,800 J	1,000 U	1,000 U	200 U	200 U	500 U	540	800	2,200 U*	1,200	1,000	110 J	95	60 J	30 U
Thallium	60.0 UJ	5.5 U*	R	4.1 U	2.1 U	3.2 U	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	2.0 U	0.38 U
Tin	26.0 U															
Vanadium	4.0 U	5.1	8.6 J	0.53 U*	0.63	0.42	1.8 U*	1.8 J	1.5 J	2.8 J	1.9 J	1.8 U	50 U	50 U	6.5 U	6.5 U
Zinc	64.2	50.0 J	38.6	0.50 UJ	0.40 UJ	0.80 UJ	1 UJ	3.9 J	2.4 U	8.0 J	4.4 J	1.3 U	5.3 J	9.5 J	10.3 J	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	H-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	107 U*	62 7 U*	52 U*	23.3 U	10.0 U*	37.0 U	39.1 U	44.7 U*	27.7 U	11.9 U	189 J	55.6 J	200 U	200 U	78.2 U	78.2 U
Antimony	30 0 U	2.0 U	23.0 U	1.9 U*	2.2 U*	2.1 U	1.6 U	2.2 U	1.9 U	3.8 U	4.6 J	6.5 J	3.7 J	3.0 J	3.2	2.8 J
Arsenic	13.0 U*	15.9	3.7	3 2 U	2.1	4.1	2 1 U	2.0 U	2 5 U	3.0 U	4.5 J	3.2 U	4 4 J	10 U	3.9 U	3.9 U
Barium	16.4 U*	40.1	11 J	19.1	22.8	37.4	37.6	45.0	21.2	22.6 J	5.7 J	8.2 J	12 J	13 J	66.5 U	147 J
Beryllium	1.0 U	1.0 U	1.0 UJ	0.10 U	0.10 U	0.20 U	0.40 U	0 20 U	0.30 U	0.10 U	0.20 U	0.54 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0 30 UJ	0 54	0.20 U	0.36 U*	0.40 U	0.40 U	0.40 U	0.40 U	0 89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	55,500	65,100 J	55,100 J	83,500	65,900	74,300	72,800	68,700 J	49,000	55,000	31,800	79,600	69,000	82,000	108,000	345,000
Chromium, total	10.6 U*	4.7	6 J	13.1	8.4	5.5	16.9	42.6	11 3	1.2 UJ	10.2	8.6 J	4.9 J	2 3 J	8.6 J	3.8 U
Chromium (VI)	10	10 U	10 U	10 U	10 UJ	1,000 U	100 U	10 U	10 U	10 U		9.2 J	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.0 U	3.0 UJ	0.50 U	0.40 U	0.53	0.36	0 81 J	0.70 U	1 1 U	0.90 U	7.1 J	25 U	25 U	7.3 U	7.3 U
Copper	4.4 U*	2.8	4.0 U	5.9 U*	4.9	3.3 U*	10.6	8.8 J	7.1 J	2.6 J	19.5 J	3.3 U	5.0	3.8 J	13.3	8.8
Cyanide	5.0 U	10.0 U	10.0 U	10.0 U	4.7 U	1.8 J	2.1	4.7 J	1.1 J	2.3 J	1.7 J	1.9 U	10 U	10 U	2.8 J	2.5 U
Fluoride													2,300	3,100	3,500	1,700
Iron	230	1,600	60 J	57.5 U*	47.6 U*	711	104 U*	266	29.1 U	27.3 U	211 J	12.6 U	29 J	100 U	69.4 U	69.4 U
Lead	2.4 J	1.0 U	R	2.0 U*	1.0 U	1.3 U	0.9 U	1.1 U	1.3 U	1.2 U	1.0 U	1 5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	24,600	39,200	51,500 J	85,300	71,200	98,700	120,000	143,000	195,000	228,000	9,270	37,700	32,000	51,000	128,000	219,000
Manganese	208	601	13 J	126	89.0	367.0	383	699	75.6	25.6 J	58.2	0.50 J	22 J	25 U	3.5 J	11.4
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.16 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.062 J	0.036 U
Nickel	13.0 U	4.3	7 UJ	4.5	8.4	8.7	19.3	58.1	10.4 J	3.5 J	13.1 J	9.2 U	40 U	40 U	4.9 J	74.5
Potassium	7,520	13,700	6,480	7,440 J	8,300 J	10,500 J	13,300 J	12,200 J	7,130	9,160 J	3,020 J	2,630 J	3,500 J	4,200 J	9,230	161,000
Selenium	3.8 J	6.0	4.2 J	16 U*	17.4	19.2	20.4 J	65 2	46.5	63.6	2.7 U	4.4 J	3.4 J	24 J	23.7	15.5
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	1.3 J	0.040 U	0.040 U
Sodium	7,100	9,770	11,600	13,200 J	18,200	22,300	32,100	22,900 J	24,400	24,100	4,670 J	6,380	4,100 J	6,200	23,600	211,000
Sulfide		1,000 U	1,000 U	1,000 U	200 U	200 U	500 U	500 U	500 U	400 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 U	3.5 U	2 2 U	3.2 U	2.9 U	2 9 U	3.8 U	3.0 U	3.0 U	0 040 U	0.167 J
Tin	26.0 U															
Vanadium	4 0 U	1.0 U	4.0 UJ	0 40 U	0.40 U	0 40 U	0.30 U	0.40 U	0 47 J	1 0 U	9.8 J	5.1 J	50 U	50 U	6.5 U	6.5 U
Zinc	5 0 U	4.7 U*	3.5	0.50 UJ	0.40 UJ	0 80 U	9.3 J	5.0 J	4.9 J	2 3 U	5.7 J	0.78 U	5.8 J	20 U	10.2 U	10.2 U

Monitoring Location	H-30															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	696	1,900	1,200 J	291	562 J	740	837 J	1,730	3,940	1,940	882	922	1,700	1,300	2,020	891
Antimony	30.0 U	2.0 U	230.0 U	2.1 U*	1.0 U	2.1 U	1.6 U	2.2 U	1 9 U	1.7 U	2.1 U	3.5 U	10 U	10 U	3 3 U	0.31 J
Arsenic	3.0 U	39.5	20.0 U	23 5	31.5 J	38.8	33 9	36.6	38.0	39.9	46.0	35.4	38	40	37.1	24.2
Barium	2,010	2,250	1,750 J	2260	1,800	1,920	2,250	1,860	1,490	1,530	1,560	1,520 J	1,400	1,100	1330	631
Beryllium	1.0 U	1 0 U	1 0 UJ	0.10 U	0.10 U	0.20 U	0.40 U	0.20 U	0.30 U	0.63 U*	0.20 U	0.18 U	4.0 U	4.0 U	1 4 U	1 4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	2.1	0.53	0 51 U*	0.40 U	0 42 J	0.20 U	5.0	1.1 J	2.0 U	2.0 U	2.4 J	2.0 J
Calcium	150,000	178,000 J	140,000 J	187,000	183,000	211,000	222,000	341,000 J	317,000	359,000	402,000	430,000	500,000	490,000	511,000	282,000
Chromium, total	89.1	216	227 J	75	119	233 J	260 J	219	513	8.0 J	1.6 J	7 6 J	11	4.2 J	3.8 U	3.8 U
Chromium (VI)	10 UJ	10 U	10 U	10 U	100 U	1,000 U	100 U	R	10 U	10 J		10 U	10 U	10 U	10 UJ	10 U
Cobalt	9 0 U	5.6	3 0 UJ	0.92	2.3	4 1	4.2	7.8 J	6.8 J	4.0 J	13.3	6 7 J	25 U	25 U	10.8 J	8.1 J
Copper	5 4 U*	8.3	9.5	0.70 U	5.2 U*	3.6 U*	2.0 U*	8.0 J	16.5 J	4.6 J	0.69 J	2.6 U	7.8	2.5 J	1.1 J	4.3 J
Cyanide	5.0 U	10.0 U	10 0 UJ	10.0 U	4.7 U	1 1 J	1.2	2.3 J	1.6 J	2.8 UJ	1.2 U	4.7 J	10 U	2.8 J	2.5 U	2.5 U
Fluoride													1,700 J	1,600	1,810 J	76.7
Iron	5,100	7,460	6,300 J	4,790	5,240 J	7,360	7,150	13,800	14,500	11,900	9,650 J	9,560	14,000	14,000	14,300	7,220
Lead	2.0 UJ	1.0 U	10.0 UJ	1.4 U	1.0 U	1.3 U	0.9 U	8.1	5.7	3.2	1.1 J	3.2	10 U	10 U	3.6 U	3.6 U
Magnesium	71,100	74,500	64,400 J	72,500	59,700 J	89,500	98,800	133,000	126,000	133,000	142,000	144,000	190,000	180,000	165,000	84,300
Manganese	120	206	145 J	62.9	107	139	170	650	337	215	128	158	190	190	198	114
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0 05 UJ	0.10 U	0.10 U	0 18 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.036 U
Nickel	48.4 J	110	82.7 J	42.2	78.4 J	85.5	68.4	125	163 J	24.8 J	10.1 J	14.8 J	40 U	13 J	5.71 J	5.64 J
Potassium	7,460,000	7,860,000	6,840,000	6,960,000 J	7,280,000	7,250,000 J	6,860,000 J	7,400,000 J	6,570,000	5,860,000	6,470,000	6,010,000 J	6,100,000	6,100,000	5,880,000	1,920,000
Selenium	3.0 U	2.0 U	R	3 2 UJ	1.6 U	2.2 U	2 3 U	2.1 U	2 4 U	162	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	50.0 U	5.8 U	0.40 U	0.60 U	1.20	0 50 U	0.40 U	0.70 U	1.2 U	0.51 U	5.0 U	1.0 J	1 0 U	0.080 U
Sodium	8,110,000	8,230,000	7,060,000	7,670,000	8,160,000	7,540,000	8,130,000	9,050,000 J	7,000,000	7,160,000	7,060,000	6,340,000	7,000,000	7,300,000	6,250,000	3,010,000
Sulfide		2,500	1,000 U	1,000 U	200 U	200 U	500 U	720	800	600 U*	1,000 U	600 J	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.3	3.2 U	3.5 U	5 2 U*	3 2 U	2.8 U	2.9 U	4.2 J	3.0 U	3.0 U	1.0 U	0.15 U
Tin	26.0 U															
Vanadium	4.0 U	6 4	4.0 UJ	0.59 U*	1.7	2.6	4.2	5.5 J	8.3 J	5.5 J	1.0 J	1.1 J	50 U	50 U	6.5 U	6 5 U
Zinc	16.1	40 2	14.4	0.50 UJ	3.8 J	4.5 U*	3.6 J	40.7	36.3	0 50 U	32.7	34 4	41	20	17.6 J	63.3

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified dunng the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	N-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	122 U*	70.1 U*	23 U	23.3 U	8.9 U	37.0 U	39.1 U	35.4 U*	71.6 J	11.9 U	11.1 U	39.7 U	150 J	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	1.9 U	1.0 U	2.1 U	1.6 U	2.2 U	2.9 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0.13 U	0.045 J
Arsenic	3.0 U	11.9 J	14.1	11.0	14.5	13.1	22.9	22.0	21.6	25.3	30.8	24.9	34	25	25.1	19.8
Barium	131	97.1	174	220	193	170	226	225	132	142	159	166 J	120	110	166 J	116 J
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.20 U	0.29 J	0.12 U*	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	1.0	0.20 U	1.00 U*	0.42 J	0.40 J	0.40 U	0.47 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	128,000	142,000	130,000	134,000	172,000	138,000	184,000	179,000 J	160,000	197,000	237,000	171,000	140,000	140,000	165,000	119,000
Chromium, total	6.0 U	1.2	4.0 U	2.3	1.5	2.9	1.4	2.3 J	1.0 U	1.2 U	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	100 U	100 U	1,000 U	100 U	1,000 U	R	1,000 UJ	10 UJ	20 J		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.5	3.0 U	0.50 U	1.6	1.6	0.77 U*	0.78 J	0.66 J	1.1 U	1.3 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4.0 U	10.6	4.0 U	3.0	2.6	0.69	2.8	1.0 U	3.1 J	0.90 U	0.60 U	0.62 U	5.0 U	5.0 U	0.91 U	0.91 U
Cyanide	6.5	10.0 UJ	10.0 U	10.0 U	8.1	1.1	0.90 UJ	4.0 J	2.5 J	2.5 J	1.2 U	1.9 U	10 U	10 U	2.5 U	12.3
Fluoride													760	480	377	286
Iron	4,990	7,620	7,010	10,200	14,100	10,800	18,100	14,600	14,400	21,900	22,600	17,300	14,000	12,000	13,100	11,200
Lead	2.0 UJ	1.0 U	1.0 UJ	1.9	1.0 U	1.3 U	0.90 U	1.1 U	1.7 U	1.2 U	1.0 U	1.5 U	3.0 J	10 U	3.6 U	3.6 U
Magnesium	74,800	63,400	124,000	107,000	114,000	134,000	196,000	158,000	140,000	92,200	157,000	128,000	130,000	85,000	97,100	67,900
Manganese	268	663	480	368	392	287	409	291	332	358	694	451	390	350	329	215
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.14 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.059 J	0.20 U	0.036 U	0.147 J
Nickel	13.0 U	2.5	7.0 U	2.3 U*	2.8	3.4	2.0	2.6 J	3.1 J	0.85 J	0.80 U	1.2 U	40 U	40 U	3.4 U	3.4 U
Potassium	20,300	14,400	23,000	18,600 J	21,200 J	25,700	32,700 J	32,100 J	17,800 J	20,100	18,000 J	19,000 J	13,000	12,000	19,700	13,200
Selenium	3.0 U	2.0 U	R	3.2 UJ	4.3 J	2.2 UJ	2.3 U	2.7 J	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	3.9 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	0.88 J	5.0 U	0.040 U	0.008 U
Sodium	32,500	22,000	25,300	22,000	16,400	12,800	18,000	13,300 J	7,750	8,300	12,000 J	8,590	7,500	4,400 J	10,200	6,560
Sulfide		5,100	1,000 U	1,000 U	200 U	200 U	500 U	760	1,000	200 U*	1,000 U	4,600	30 U	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	2.2 U	4.0 U	5.5 J	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	4.0 U	1.0 U	4.0 U	0.43 U*	0.40 U	0.42 U*	0.52 U*	0.40 U	0.78 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	5.0 U	7.9 U*	6.5 U*	0.50 UJ	0.40 UJ	0.80 UJ	1.0 UJ	7.3 J	2.4 U	2.3 U	0.60 UJ	0.78 U	8.2 J	20 U	10.2 U	10.2 U

Monitoring Location	N-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	1,880	1,110 J	803.0 J	204	33.5 U*	37.0 U	71.9 U*	19.6 U	34.8 J	103 U*	198 J	822	940	850	3,030	2,220
Antimony	31.7 U*	2.0 U	23.0 U	3.2 U*	1.8 U*	2.1 U	1.6 U	2.2 U	2.3 J	3.8 U	2.1 U	3.5 U	10 U	10 U	2.6 U	0.26 U
Arsenic	3.0 U	61.2 J	56.0	59.1	78.7	79.4	75.9	72.7	76.0	52.7	117	89.8	73	500 U	73.4	75.4
Barium	1990	4280	3,270	2,780	2,550	2,300	2,180	1,820	947	593	371	321 J	280	260	381	357
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.29 U*	0.40 U	0.20 U	0.20 U	0.10 U	0.20 J	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	2.6 J	3.0 U	0.30 UJ	3.2 J	1.3 J	2.6 J	1.4 J	2.3 J	0.71 J	2.2 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	642,000	388,000	400,000	373,000	448,000	512,000	560,000	533,000 J	495,000	425,000	483,000	480,000	470,000	560,000	634,000	601,000
Chromium, total	33.2 U*	56.2 J	84.3 J	19.1	53.7	76.2	126 J	1.3 J	13.4	2.2 J	2.4 J	2.2 J	4.3 J	2.8 J	4.4 J	5.2 J
Chromium (VI)	10 R	100 U	100 U	10 U	100 U	1,000 U	R					10 U	10 UJ	10 U	10 U	10 U
Cobalt	9.0 U	3.2	3.0 UJ	0.50 UJ	0.40 U	0.50 U	0.30 U	0.70 U	1.2 J	1.1 U	5.9 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	5.9 U*	7.6 J	4.0 U	0.70 U	1.2 J	0.60 U	6.8 J	1.0 U	1.7 J	0.90 U	1.6 J	2.5 U	4.2 J	5.0 U	1.9 J	3.8 J
Cyanide	5.0 U	10.0 UJ	10.0 UJ	10.0 U	6.3	1.7	0.90 UJ	5.6 J	19.7	44.2	50.2	46.4	36	34	27.0	39.2
Fluoride													940	1,100	65.6 U	6.6 U
Iron	55,200	52,600	59,600	58,600	66,300	73,700	77,100	73,900	46,800	30,600	47,200	30,900	29,000	32,000	38,700	39,100 J
Lead	2.0 UJ	2.3 U*	6.3 J	5.5	1.0 UJ	1.3 UJ	0.90 U	1.1 U	1.7 U	1.2 U	1.1 J	2.5	10 U	10 U	3.6 U	6.5 J
Magnesium	190,000	120,000	133,000	119,000	106,000	114,000	136,000	141,000	154,000	136,000	158,000	168,000	170,000	200,000 J	216,000	194,000
Manganese	410	399	365	322	345	392	425	395	237	201	154	180	140	170	205	218
Mercury	0.32	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.15 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.057 J	0.20 U	0.036 U	0.054 U*
Nickel	26.6 J	58.0	32.1 J	31.3	13.1	17.4	59.8 J	14.3 J	16.9 J	66.7	16.2 J	17.9 J	11 J	2000 U	13.0	19.8
Potassium	28,000	804,000	1,030,000	1,330,000 J	2,270,000 J	2,430,000	2,420,000 J	2,340,000 J	1,610,000	1,470,000	880,000 J	681,000 J	600,000	560,000	660,000	815,000
Selenium	3.0 U	37.0 U	R	3.2 UJ	1.7 J	2.2 UJ	2.3 UJ	2.1 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 UJ
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	1.0 J	5.0 U	0.80 U	0.080 U
Sodium	1,800,000	1,890,000	2,210,000	2,600,000	3,520,000	3,520,000	3,800,000	3,890,000 J	2,960,000	2,500,000	1,670,000 J	1,230,000	1,300,000	1,200,000	1,670,000	1,700,000
Sulfide		3,900 J	1,000 U	1,000 U	200 U	200 U	500 U	760	200 J	200 U*	1,000 U	1,200	30 J	80 U	30 U	40 J
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	2.9 U*	4.0 U	10.3	4.8 J	8.6 J	3.0 U	3.0 U	0.80 U	0.15 U
Tin	26.0 U															
Vanadium	4.0 U	6.2 J	4.0 UJ	2.0 U*	1.9 J	2.2 U*	1.3 U*	0.40 U	1.2 J	1.0 U	0.50 U	1.2 J	50 U	50 U	6.5 U	6.5 U
Zinc	29.5 J	49.4 J	33.6 J	2.7 J	3.7 U*	6.6 J	4.2 J	2.7 J	2.4 U	2.6 U*	0.60 UJ	1.7 U	10 J	1000 U	10.2 U	12.3 J

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	P-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	531	21 0 U	52 U*	23.3 U	8.9 U	37 0 U	39.1 U	22.4 U*	37.5 J	16.2 J	11 1 U	39.7 U	200 U	200 U	78 U	78 U
Antimony	30.0 U	2.0 U	23.0 U	2.7 U*	1.2 U*	2.1 U	1.6 U	2.2 U	2.0 J	3 8 U	2 1 U	3.5 U	10 U	10 U	0.130 U	0.029 J
Arsenic	3.0 UJ	9.9	11 7	4.8	6.8 J	5.6	5.8	2.0 U	5.3	3.4 J	3 5 J	4.2 U	6 0 J	4.9 J	3 9 U	3.9 U
Barium	110	105	126	62 9	79.6	58.4	122	124	62.8	229	176	167	110	160	67.6 J	151 J
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.26 U*	0.40 UJ	0.20 U	0.24 J	0 17 J	0.20 U	0.18 U	4.0 U	4.0 U	1 4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	2.20 J	0.20 U	0.30 U	0 40 U	0.30 U	0.40 U	0 40 U	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	*187,000*	*275,000 J*	*403,000*	*321,000*	*264,000*	*233,000*	*373,000*	*304,000 J*	*205,000*	*255,000*	*189,000*	*264,000*	*220,000*	*320,000*	*157,000*	*292,000*
Chromium, total	70.8	7.6 J	6.3	12.1	31 5	20.0	12.4 U*	9.1 J	10 8	1 2 U	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	10 U	100 U	10 U	100 U	1,000 U	100 U					10 U	10 UJ	10 U	10 U	10 U
Cobalt	9.0 U	1.0 U	3.0 UJ	0.50 UJ	0.40 U	0.50 U	0.30 U	0.70 U	0.60 U	1.1 U	0.90 U	4.10 U	25 U	25 U	7.3 U	7.3 U
Copper	6.7 U*	1.0 UJ	4.0 U	1.6 J	2 5 J	0 60 U	1.4 U*	1.0 U	1.1 J	0 90 U	0.60 U	0.62 U	2.0 J	5.0 U	0.91 U	0.91 U
Cyanide	9.0	10.0 UJ	10 0 UJ	10.0 U	4.7 U	0.90 U	0.90 U	1.3 J	0.60 U	0.80 U	1.2 U	1.9 U	10 U	10 U	2.5 U	2.5 U
Fluoride													670	890	701	2,080
Iron	7,010	7,470	9,460	7,310	4,430	3,210	5,940	5,060	3,900	3,990	4,990	14,300 J	4,200	7,000	3,890	8,080
Lead	2.0 UJ	1.0 U	1.0 UJ	2.2	1.0 UJ	1.3 U	0 9 U	1.1 U	1.7 U	1.2 U	1 0 U	1.5 U	4 2 J	10 U	3.6 U	3.6 U
Magnesium	28,700	33,300	63,200	18,200	14,900	14,900	26,600	24,300	23,500	31,300	25,700	40,900	23,000	24,000	16,400	34,600
Manganese	1,100	1,520	1,880	1,170	980	943	1,800	1,620	1,030	1,200	969	2,450	1,200	2,100	814	1,580
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.16 U*	0.10 U	0.10 U	0.10 U	0.10 U	0 20 U	0.20 U	0.036 U	**
Nickel	51.6 J	4.3	7.0 UJ	5.8 U*	13.3	9.9	5.6 U*	4.7 J	6.3 J	0.80 U	0 80 U	1.5 U	40 U	40 U	3.4 U	3.4 U
Potassium	8,170	9,810	10,300	3,440 J	3,800 J	3,500	3,500 J	3,970 J	1,990 J	2,720 J	1,940 J	2,570 J	2,600 J	3,500 J	3,610 J	4,830 J
Selenium	3.0 UJ	2 0 UJ	R	3.2 UJ	1.9 J	2.2 UJ	2 3 U	2.1 U	3.3 UJ	1.7 U	2.7 U	4 4 U	10 U	3.0 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	0.43 J	0.82 J	0.040 U	0.008 U
Sodium	17,700	19,000	18,100	17,800	17,900	23,200	19,000	13,400 J	12,500	14,300	9,530 J	15,500	15,000	21,000	11,700	12,200
Sulfide		2,600	1,000 U	1,000 U	200 U	200 U	500 U	500 U	800	200 U*	1,000 U	1,000 U	40 J	80 U	30 U	30 U
Thallium	*3.0 UJ*	*3.0 UJ*	*R*	*4 1 U*	*2.1 U*	*3.2 UJ*	*3.5 U*	*2.2 U*	*4.0 U*	*2.9 U*	*3.2 J*	*3.8 U*	*3.0 U*	*3.0 U*	*0.040 U*	*0.015 U*
Tin	26.0 U															
Vanadium	4.0 U	1.0 U	4.0 UJ	0.92 U*	0.64 J	0.92 U*	0.30 U	0.40 U	0.93 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	39.0	3.3 U*	4.3 U*	0.50 UJ	0.40 UJ	0.80 UJ	1.0 UJ	3.2 J	3.4 J	2.3 U	1 9 J	29.1	33	20 U	10.2 U	10.2 U

Monitoring Location	P-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	7,280	4,120	2,070	4,250	6,090	1,480	2,010	1,740	423	1,600	2,220	4,450	2,200	3,000	1,500	1,070
Antimony	30.0 U	2.0 U	23.0 U	3.3 U*	1.9 U*	2.1 U	1 6 U	6.2 J	2.8 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0.26 U	0.13 U
Arsenic	3.0 U	74.6	79.4	70.4	78 8	73.1	68 2	70.0	76.7	73.7	69.6	78.3	76	71	64.4	60.0
Barium	131	280	272	321	329	274	278	315	311	353 J	244	227	150	170	186 J	182 J
Beryllium	1 0 U	1.0 U	1.0 U	0.14 U*	0.31 U*	0.32 U*	0.40 UJ	0 21 U*	0.47 J	0.10 U	0.21 J	0 39 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.9 J	3.0 U	0.30 UJ	6.1	0.50 J	1 1 U*	0.71 J	0.93 J	0 50 J	1.30 J	0 89 U	0 62 J	2 0 U	1.8 U	1.8 U
Calcium	*399,000*	*641,000 J*	*659,000*	*748,000*	*716,000*	*258,000*	*614,000*		*660,000*	*601,000*	*437,000*	*422,000*	*350,000*	*350,000*	*377,000*	*383,000*
Chromium, total	72.8	78.2	51 4	47 3	79.3	55.5	64.8 J	50.2	70.4	4.8 J	3.7 J	5 6 J	3.3 J	4.8 J	3.8 U	3.8 U
Chromium (VI)	10 R	30	100 U	10 U	100 U	1,000 U	100 U	20 U	10 UJ	10 U		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	4.5	3.0 UJ	3.5 U*	6.0	2 0	1.5 J	0.89 J	1.9 J	1.1 U	5.0 J	4 8 J	25 U	25 U	7.3 U	7.3 U
Copper	14.2 U*	8 6 J	5.2	7.6	11.9	3.4 J	6.0 U*	9.8 J	2 5 J	4.4 J	3.1 J	6.0 J	5.0	4.2 J	0 91 U	1.21 J
Cyanide	5.0 U	10.0 UJ	10.0 UJ	10.0 U	4.7 U	0 90 U	1.8	3 8 J	9.4 J	22.7	18.7	18.1	12	9.3 J	9.3 J	11.5
Fluoride													15 J	560	6.6 U	9.2 J
Iron	27,800	37,900	39,100	43,500	45,300	35,200	35,800	36,100	35,400	37,100	27,500	30,300	21,000	24,000	22,900	22,000
Lead	5.2 J	6.0 J	12.2 J	10.3 J	4 3 J	1.3 UJ	0.90 U	1.1 U	1.7 U	2.3	2.5	4.6	7.5 J	10 U	4.1 J	3.6 U
Magnesium	207,000	330,000	324,000	333,000	312,000	289,000	294,000		261,000	201,000	154,000	151,000	130,000	130,000	132,000	127,000
Manganese	255	312	427	319	390	225	223 J	194	226	170	168	244	140	170	161	140
Mercury	0.69	0.20 U	0.20 U	0.10 U	0 05 UJ	0.10 U	0.10 U	0.14 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	**
Nickel	50.5 J	51.7	57.9 J	33.6	56 8	29.8	39 2 J	39.4 J	41.2 J	5.2 J	7.9 J	13.6 J	40 U	10 J	3 4 U	3.4 U
Potassium	8,340	10,800	8,420	15,700 J	15,400 J	12,900	14,100 J		10,300 J	46,000 J	86,500 J	110,000	120,000	110,000	104,000	98,000
Selenium	3.0 U	2.0 UJ	R	3.7 U*	3.4 J	2.2 UJ	2.3 U	2.1 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 U	1.0 U	5.0 U	5.8 U	0 40 U	0 60 U	0.70 U	0 50 U	0.80 U	1.4 U	1.2 U	0.51 U	0.46 J	1.2 J	0.080 U	0.040 U
Sodium	128,000	573,000	537,000	544,000 J	534,000	417,000	477,000	767,000 J	989,000	991,000	562,000 J	548,000	510,000	570,000	514,000	2,390,000
Sulfide		2,200	1,000 U	1,000 U	200 U	200 U	500 U	500 U	200 J	600 U*	1,000 U	1,000 U	70 J	39 J	50 J	60 J
Thallium	*3.0 UJ*	*3.0 UJ*	*R*	*4.1 U*	*4.5 J*	*3.2 UJ*	*3.5 U*	*2.2 U*	*4.0 U*	*10.5*	*2.9 U*	*3.8 U*	*3.0 U*	*3.0 U*	*0.080 U*	*0.075 U*
Tin	26.0 U															
Vanadium	10.3 J	11 9 J	4.0 UJ	10.3 J	15.4	5.1 J	4 3	3.9 J	2 5 J	3 4 J	4.6 J	8.6 J	50 U	50 U	6.5 U	6.5 U
Zinc	49.8 J	33.8	28.7 J	13.0 J	16.0 U*	0 80 UJ	1.0 UJ	6.7 J	2 4 U	2.3 U	7.2 J	16.2	13 J	100 U	10.2 U	10.2 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified dunng the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field dunng the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	Q-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004[3]	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	138 U*	60.2 U*	23 U	55.1 U*	23.1 U*	37.0 U	39.1 U	33.3 U*	20.1 U	11.9 U	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	1.9 U	1.0 U	2.1 U	1.6 U	11.7	1.6 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.13 U	0.029 J
Arsenic	4.5 U*	3.0 U	3.6	3.2 U	1.4 U	2.3 U	2.1 U	5.3	3.4 U	20.4	2.8 U	3.2 U	10 U	10 U	3.9 U	3.9 U
Barium	98.1	149	135	126	129	167	178	194	170	781	146	187 J	120	120	76.7 J	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	1.1	1.1	0.53 U*	4.0 U	0.93 J	0.40 U	0.40 U	0.89 U	1.3 J	2.0 U	1.8 U	1.8 U
Calcium	82,300	115,000 J	95,800	89,900	110,000	162,000	142,000	161,000	170,000	260,000	158,000	224,000	140,000	120,000	95,000	92,300
Chromium, total	23 1 U*	26.2	32.7	42.8	39.5	24.8	22.5	25.3	14.6	1.2 U	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	10 U	100 U	10 U	10 U	1.000 U	100 U	10 U	R	10 U		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.0 U	3.0 U	0.50 U	0.48	0.50 U	0.37	10.0 U	0.78 J	1.1 U	0.90 U	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4.0 U	1.0 U	4.0 U	5.2	2.3	0.60 U	6.4 U*	2.4 U*	4.6 J	0.90 U	0.60 U	0.62 U	5.0 U	5.0 U	0.91 U	0.91 U
Cyanide	5.9	10.0 U	10.0 U	10.0 U	5.4	2.8	3.9	3.8 U*	4.5 J	3.5 J	1.3 J	1.9 U	2.9 J	3.0 J	2.5 U	2.5 U
Fluoride													1,600	1,500	1,690	879
Iron	1,740	1,900	2,020	1,970	2,390	2,300	2,990	5,700	3,850	11,800	5,840 J	4,560	3,800	2,500	1,800	286
Lead	2.0 UJ	1.0 U	1.0 UJ	1.4 U	1.0 UJ	1.3 U	0.90 U	2.0 U	1.7 U	1.2 U	1.0 U	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	12,200	15,200	14,300	13,000	16,400	24,500	21,600	25,400	28,400	69,500	23,700	28,800	23,000	21,000	17,400	17,200
Manganese	190	255	256	235	369	448	435	613	625	435	728	1,340	430	410	412	204
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.063 J	**
Nickel	16.8 J	14.4	13.0	21.1	18.8	13.0	12.1	11.4 J	9.0 J	2.5 J	0.80 U	1.3 U	40 U	40 U	3.4 U	3.4 U
Potassium	6,700	9,030	7,450	7,590 J	8,040 J	13,500	13,200 J	11,600	8,090	179,000	7,000 J	9,880 J	5,800	7,000	4,320 J	3,100 J
Selenium	3.0 U	2.0 U	R	3.2 UJ	1.6 U	2.2 UJ	2.3 U	5.0 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.62 U	5.0 U	0.67 J	0.040 U	0.008 U
Sodium	102,000	255,000	284,000	217,000	208,000	218,000	274,000	282,000	178,000	305,000	134,000	106,000	160,000	410,000	194,000	181,000
Sulfide		2,200	1,000 U	1,000 U	200 U	200 U	500 U	500 U	200 J	600 U*	1,000 U	1,000 U	30 J	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	*4.0 U*	*1.0 U*	*4.0 U*	*1.3 U**	*0.75*	*0.45 U**	*0.46 U**	*10.0 U*	*1.2 J*	*1.0 U*	*0.76 J*	*0.52 U*	*50 U*	*50 U*	*6.5 U*	*6.5 U*
Zinc	5.0 U	9.0 U*	6.1 U*	0.50 UJ	0.40 UJ	0.80 UJ	1.0 UJ	10.0 U	12.2	2.3 U	3.0 J	0.80 UJ	5.9 J	20 U	10.2 U	10.2 U

Monitoring Location	Q-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004[3]	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	750	149 U*	105 U*	108 U*	102 U*	37.0 U	39.1 U	116 U*	20.1 U	295	1,330	2,000	2,000	1,700	1,000	1,840
Antimony	30.0 U	2.0 U	23.0 U	5.4 U*	1.8 U*	2.1 U	1.6 U	18.2	1.6 U	3.8 U	2.1 U	3.5 U	10 U	10 U	1.3 U	0.84 J
Arsenic	3.0 U	69.0	46.5	51.3	60.6	68.8	58.8	67.0	54.0	50.8	58.7	56.2	63	63	63.2	61.3
Barium	8,210	7,280	4,770	4,310	4,720	4,940	4,470	4,150	3,330	3,480	3,020	1,800 J	2,100	1,800	2,100	2,170
Beryllium	1.0 U	1.0 U	1.0 U	0.13 U*	0.12 U*	0.35 U*	0.40 UJ	2.0 U	0.20 U	0.10 U	0.30 J	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	11.0 J	3.0 U	0.30 UJ	3.8 J	1.1 J	1.4 U*	4.0 U	0.61 J	0.40 U	1.9 J	0.89 U	2.0 U	2.0 U	1.8 J	1.8 U
Calcium	1,250,000	999,000 J	477,000	336,000	429,000	515,000	372,000	364,000	253,000	222,000	171,000	91,600	100,000	99,000	94,900	95,800
Chromium, total	26.9 U*	97.9	49.1	38.7	118	175	544	81.0	51.9	2.2 J	3.8 J	7.0 J	7.0	4.1 J	3.8 U	3.8 U
Chromium (VI)	10 R	10 U	100 U	10 U	10 U	1.000 U	12	R	R	10 U		10 U	10 U	10 U	10 U	10 U
Cobalt	13.9	19.0	36.8	51.5	21.0	19.9	17.3	15.6	10.4	6.3 J	13.5	4.1 U	20 J	32	38.2	35.3
Copper	9.8 U*	7.5 J	4.0 U	0.70 U	1.1 J	0.74 J	12.8 J	4.7 J	1.0 J	0.90 U	1.7 J	2.6 U	3.4 J	3.6 J	0.91 U	2.2 J
Cyanide	5.5	28.5 J	10 UJ	16.6	17.6	8.0	10.3	12.0	8.4 J	6.4 J	6.2 J	13.3	38	61	43.7	57.9
Fluoride													9,600	11,000	10.7 J	9,600
Iron	115,000	92,700	58,300	37,000	38,300	40,000	31,200	26,800	13,800	13,600	15,900 J	8,470	14,000	9,000	8,260	8,130
Lead	40.0 UJ	1.3 J	1.0 UJ	2.5	1.0 UJ	1.3 UJ	0.90 U	2.0 U	1.7 U	1.2 U	2.0 J	2.2 U	2.0 J	10 U	3.6 U	3.6 U
Magnesium	226,000	186,000	123,000	83,300	92,800	107,000	88,100	81,600	61,200	65,300	58,200	30,700	39,000 J	42,000	41,900	40,700
Manganese	757	712	356	222	219	212	177 J	146	95.8	115	109	110	120	110	96.9	115
Mercury	0.36	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.10 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.047 J	**
Nickel	20.0	73.2	29 J	63.6	55.7	57.5	116	78.3	83.2	47.6 J	42.6 J	33.5 J	32 J	49	39.4	38.6
Potassium	1,680,000	2,760,000	2,750,000	2,560,000 J	3,020,000 J	2,890,000	2,460,000 J	2,390,000	2,480,000	2,540,000	2,070,000 J	1,520,000 J	1,800,000	69,000	1,960,000	1,560,000
Selenium	3.0 U	2.0 UJ	R	3.2 UJ	1.6 U	2.2 UJ	2.3 U	5.0 U	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	1.1 J	0.40 U	0.080 U
Sodium	3,290,000	4,310,000	4,320,000	4,220,000	4,600,000	4,140,000	4,050,000	3,560,000	4,180,000	4,080,000	3,580,000	2,160,000	2,800,000	100,000	2,840,000	2,610,000
Sulfide		1,800	2,620	1,000 U	200 U	200 U	500 U	500 U	600	2,000 U*	2,000	2,200	100	53 J	90 J	120
Thallium	60.0 UJ	3.0 UJ	R	4.1 U	2.1 U	3.2 UJ	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.40 U	0.15 U
Tin	26.0 U															
Vanadium	*4.0 U*	*1.0 U*	*4.0 UJ*	*1.8 U**	*1.6 J*	*2.3 J*	*3.1*	*10.0 U*	*1.4 J*	*1.0 U*	*2.7 J*	*4.3 J*	*50 U*	*50 U*	*6.5 U*	*6.5 U*
Zinc	22.1 J	18.6 U*	5.4 U*	0.50 UJ	1.9 U*	2.6 J	1.0 UJ	4.5 J	2.4 U	4.1 U*	9.1 J	11.5 J	19 J	20 U	10.2 U	10.2 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	R-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	179 U*	139 U*	109	36.4	74.1 U*	37.0 U	67.6	114 U*	31.7 J	51.4 J	14.1 J	39.7 U	200 U	2,000 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	1.4	5.0 U*	1.0 U	2.1 U	1.6 U	1.8 J	1.9 U	4.4 U*	2.5 J	4.7 J	10 U	1.1 J	2.8 J	0.51 J
Arsenic	26.7	22.7	19.6	11.9	21.1	22.7 J	19.0	14.5 J	10.5	9.1	21.3	6.5	16	44 J	11.7	3.9 U
Barium	167	272	287	215	160 J	125	161	113	54.6	44.8	23.6	207	110	110 J	84.4 J	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0.18 U*	0.13 U*	0.20 U	0.40 UJ	0.28 U*	0.30 U	0.10 U	0.20 U	0.18 U	4.0 U	40 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	1.0 U	0.30 UJ	3.2 J	0.52 U*	1.4 U*	0.30 U	0.40 U	0.52 J	0.40 U	0.89 U	2.0 U	20 U	1.8 U	1.8 U
Calcium	424,000	317,000 J	339,000	285,000	401,000	115,000	418,000	161,000	188,000	133,000	178,000	456,000	270,000	200,000	113,000	665,000
Chromium, total	9.1 U*	12.8 J	10.5 J	5.1 J	8.1 J	10.9	7.2 J	5.8 J	14.0	2.5 J	0.55 J	20	5.0 U	50 U	3.8 U	3.8 U
Chromium (VI)	10 R	100 UJ	100 U	100 U	20	1,000 U	10 J	R	10 U	20		10 U	10 U	10 U	10 U	10 U
Cobalt	25.9	20.2	33.3	22.3	29.9	17.6	14.5	5.2 J	2.6 J	3.6 J	0.90 U	18.5	25 U	250 U	7.3 U	27.0
Copper	5.5 U*	8.0 J	1.0 U	1.6	7.5 J	3.7	11.7 J	4.5 J	2.8 J	2.0 U*	4.8 J	25.9 J	3.0 J	50 U	14.9	0.91 U
Cyanide	1,580	848 J	1,940 J	377	331	16.4	57.6	29.8	21.0 J	8.6 J	19.5 J	90.2 J	26	21	18.9	23.5
Fluoride													1,900	2,100	375 J	495
Iron	27,300	28,200	33,100	25,000	29,700 J	13,900	45,600	22,100	23,200	31,500	1,430 J	9,720	22,000	28,000	8,110	2,310
Lead	2.0 UJ	2.3 J	2.3 U*	3.8	1.0 UJ	1.3 UJ	9.5 J	3.3	1.3 J	1.5 J	3.3	2.4 U	5.9 J	100 U	3.6 U	3.6 U
Magnesium	82,500	62,500	72,100	73,300	106,000	285,000	141,000	95,900	87,500	76,400	47,500	226,000	140,000	73,000	57,300	149,000
Manganese	1,610	1,800	1,710	1,360	3,990	778	1,980	638	575	480	630	1,760	2,200	1,500	238	1,020
Mercury	0.34	0.20 U	0.20 U	0.10 U	0.05 U	0.10 U	0.10 U	0.13 U*	0.10 U	0.10 U	0.10 U	0.40	0.20 U	0.20 U	0.075 J	0.036 U
Nickel	725	546	1,060	1,030	1,770	707	516	57.5	18.6 J	15.2 J	4.5 J	55.4	47	400 U	66.5	96.4
Potassium	46,200	103,000	137,000 J	75,200 J	50,600 J	69,400	103,000	120,000	78,400	73,600	23,000 J	432,000 J	150,000	300,000	154,000	193,000
Selenium	3.0 UJ	2.0 UJ	3.0 J	6.8 J	3.2 U*	3.5 U*	4.9	2.9 J	2.4 U	1.7 U	2.7 U	4.4 U	6.3 J	74 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.70 UJ	0.40 U	1.4 U	1.2 U	0.64 U	5.0 U	11 J	0.080 U	0.032 U
Sodium	27,300	17,100	25,700 J	22,100	29,300	141,000	58,000	48,000	27,900	34,500	70,900	666,000	100,000	190,000	97,400	55,800
Sulfide		4,900	1,000 U	1,000 U	200 U	200 U	500 U	590	1,200	800 U*	3,200	600 J	200	420	30 U	30 U
Thallium	3.0 UJ	3.0 UJ	3.0 UJ	4.1 U	3.5 U*	3.2 UJ	3.5 U	3.3 U	3.2 U	9.8 U*	2.9 U	3.8 U	3.0 U	3.0 U	0.080 U	0.189 J
Tin	26.0 U															
Vanadium	4.0 U	3.9 J	1.0 UJ	4.4 J	4.1 J	9.1 J	4.6	6.9 J	3.3 J	2.9 J	5.9 J	2.2 U	14 J	500 U	6.5 U	6.5 U
Zinc	29.2 J	23.3 U*	36.5 U*	11.5 J	34.4 J	0.80 U	1.2 J	5.9 J	5.4 J	6.5 U*	8.1 J	44.7	4.7 J	200 U	59.2	22.2 J

Monitoring Location	R-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	228 U*	625	20,600	2,000	1910	563	447	706	62.8 J	523	782	64 J	170 J	10,000 U	78 U	78 U
Antimony	30.0 U	2.0 U	1.0 U	3.9 U*	1.8 U*	2.1 U	1.6 U	1.6 UJ	1.9 U	3.8 U	2.1 U	3.5 U	10 U	0.68 J	6.5 U	1.3 U
Arsenic	3.0 U	18.2	25.3	15.7	19.1	21.6	20.6	23.9 J	19.8	19.1	20.9	3.4 J	8.3 J	500 U	3.9 U	6.5 J
Barium	321	369	433	410	464 J	428	477	495	562	512	340	178	380	390 J	495	402
Beryllium	1.0 U	1.0 U	1.0 U	0.21 U*	0.1 U	0.20 U	0.40 U	0.33 U*	0.30 U	0.10 U	0.20 U	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	1.5	0.30 U	0.47 U*	0.20 U	0.42 U*	0.31 J	0.40 U	0.40 U	1.20 J	0.89 U	1.2 J	100 U	1.8 U	6.6
Calcium	19,200	68,400 J	67,800	20,100	19,800	10,500	9,840	11,300	5,870	7,530	8,270	16,900	1,300,000	1,000,000	479,000	1,500,000
Chromium, total	6.0 U	29.2	124	87.5	57.9	28.8	38	64.3	1.0 J	6.6 J	2.4 J	1.7 J	4.7 J	250 U	4.7 J	207
Chromium (VI)	10	100 UJ	100 U	100 U	10 U	1,000 U	100 U	10 U	10 U	20		9.2 J	10 U	190	92 U*	110
Cobalt	9.0 U	2.0	6.9	2.9	2.1	2.5	3.4	8.9 J	0.83 J	1.9 J	6.2 J	4.1 U	8.1 J	1,300 U	25.1	41.8
Copper	10.5 U*	17.5	50.8	7.4	7.8	1.0 U*	2.1	12.0 J	2.8 J	18.1 J	12.8 J	13.5 J	11	250 U	17.1	41.1
Cyanide	22.4	21.4 J	14.4 J	10.0 U	10.5	10.3 J	10.3 J	14.8	24.3 J	62.6	59.6 J	7.8 J	16	77	82.1	127 J
Fluoride													3,100	100 U	2,360	6.6 U
Iron	783	1,490	10,700	2,410	1,980 J	818	717	1,100	168	1,260	1,780 J	616	390	5,000 U	69.4 U	1,840
Lead	2.0 UJ	1.0 U	29.6	1.4 U	1 UJ	1.3 U	0.9 U	1.3 U	1.3 U	2.4	1.5 J	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	11,400	14,300	19,600	9,660	13,200	6,750	6,190	6,110	1,850 J	1,290 J	2,030 J	7,320	140,000	80,000 J	73,800	114,000
Manganese	38.7	57.8	307.0	72.6	65.9	23.8	23.4	35.7 J	5.9 J	21.1 J	35.4 J	57	1,900	1,100 J	555	2,650
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05	0.10 U	0.10 U	0.11 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.057 J	0.20 U	0.066 J	0.085 U*
Nickel	25.2	31.2	76.4	54.1	36.9	19.8	32.5	69.1	7.2 J	17.3 J	13.6 J	22.7 J	170	2000 U	61.2	**
Potassium	11,400,000	14,000,000	12,200,000 J	11,400,000 J	12,200,000 J	10,800,000 J	9,120,000	7,860,000	6,850,000	4,240,000	2,930,000 J	1,330,000 J	5,000,000	4,900,000	7,060,000	7,550,000
Selenium	3.0 UJ	2.5	2.0 U	3.2 UJ	1.6 UJ	2.2 U	2.3 U	2.2 U	2.4 U	2.7 J	2.7 U	4.4 U	10 U	350 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	1.0 U	5.8 U	0.52 U*	0.60 U	0.70 U	0.70 UJ	0.40 U	2.0 J	1.2 U	0.51 J	5.0 U	27 J	2.0 U	0.40 U
Sodium	10,500,000	12,700,000	11,200,000 J	10,100,000	11,200,000	9,490,000	8,810,000	6,920,000	5,690,000	3,470,000	2,450,000	790,000	4,200,000	4,300,000	6,570,000	6,220,000
Sulfide		13,400	2,340	2,000	200 U	200 U	500 U	2,860	1,600	2,800	1,400	800 J	30	1,600 U	30 U	30 U
Thallium	24.5 J	3.0 J	3.0 U	4.1 U	6.6 U*	3.2 U	3.5 U	3.9 J	3.2 U	2.9 U	2.9 U	5.0 U	2.1 J	3.0	5.9 J	6.3 J
Tin	26.0 U															
Vanadium	4.0 U	3.9 J	19.8	5.3	4.0	3.4	3.8	5.1 J	5.3 J	11.7	8.1 J	0.52 U	50 U	2,500 U	6.5 U	6.5 U
Zinc	10.3	39.7	123.0	13.1 J	16.4 J	4.1 U*	2 J	7.6 J	2.6 J	10.0 U*	9.8 J	4.4 U	5.2 J	1,000 U	11.2 J	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	S-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	234 U*	118 U*	240	156 U*	143 U*	87 0 U*	60.4 U*	154 U*	156 J	23.4 J	325	210	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	1.9 U	1 0 U*	2.1 U	1.6 U	2.2 U	2.1 J	3.8 U	9 8 J	10.7	10 U	10 U	5.7	1.2 J
Arsenic	37.4	18.7 J	34	25 6	23.8	8.4 J	23.5	22.0	20.5	18 6	19.4	25.6	24	250 U	6.4 J	10.3
Barium	54.5	20.6	17	18.0 J	22.0	24.4	24.5	18.5 J	21.2	46.3	10 7 J	8.0 J	18 J	32	66 5 U	66.5 U
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.20 U	0.45 J	0.17 J	0.20 U	0.18 U	4.0 U	100 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.0 U	3.0 U	0.30 UJ	3.0 J	0 20 U	0.30 U	0.40 U	0.30 U	0.40 U	0.40 U	0.89 U	2.0 U	2.0 U	1 8 U	1.8 U
Calcium	223,000	156,000	252,000	253,000	317,000	263,000	177,000	275,000 J	254,000	190,000	199,000	147,000	160,000	200,000	140,000	160,000
Chromium, total	6.8 U*	4.3	11.0	8.5 J	90.7	127	129	99.4	69.9	1 3 J	5 6 J	12	5 0 U	130 U	3.8 U	3.8 U
Chromium (VI)	10	10 U	10 U	1,000 U	10 UJ	1,000 U	R	R	10 UJ	R		14	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.0 U	3 UJ	0.50 UJ	0.40 U	1.0	1.2 U*	0.95 J	0.60 U	1.1 U	0.90 U	4.1 U	25 U	25 U	7 3 U	7.3 U
Copper	4.0 U	3.9	4 0 U	0.70 U	1.6 J	1.6 U*	15.9	1.0 U	0 70 U	0.90 U	0.60 U	0.62 U	1.9 J	5.0 U	0.91 U	0.91 U
Cyanide	10.0 U	10.0 UJ	10 0 UJ	10.0 U	9.0	11.8 U*	5.2 J	7.4 J	10 0 J	17.3	2.1 J	10.6	3.0 J	11	2.5 U	10.2
Fluoride													170	610	97.1	197
Iron	535	89.9	71	83.4	213	170 U*	458	300	169	4,790	10.0 UJ	12.6 U	83 J	5,200	69.4 U	69.4 U
Lead	2.0 UJ	1.0 U	1 0 UJ	1.4 U	1 0 U	1.3 UJ	0.90 U	1.1 U	1 7 U	1.2 U	1.0 U	1.5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	56,300	14,900	4,480	3,880	3,680	7,940	12,700	4,720 J	7,030	36,700	3,170 J	4,361 J	5,500	130,000 U	7,150	13,700
Manganese	152	40.5	10 5 J	19 5	10.8	21.0 J	128	23.2 J	93.4	940	1.2 J	0.18 U	44	730	48.8	125
Mercury	0.20 U	0.20 U	0.20 U	0.11	0.05 UJ	0.10 U	0.10 U	0.16 U*	0.10 U	0 10 U	0.10 U	0.1 U	0.20 U	0.20 U	0.036 U	0.169 J
Nickel	13 0 U	3.8	7 UJ	4.5 U*	26.4	27.5	52.3	23.9 J	18.0 J	2.7 J	0.81 J	4.33 U	40 U	40 U	3.4 U	3.4 U
Potassium	27,300	21,300	17,200	21,000 J	42,100 J	47,100	53,400 J	30,100 J	36,300 J	28,600	17,900 J	8,070	18,000	130,000 U	10,700	14,800
Selenium	31 3	2.0 U	36.8 J	15.9 J	66.1	118	6.1	83.8	63.6 J	2 3 U*	22.7	37.6	10 U	250 U	10.1	9.7 J
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	0.88 J	0.040 U	0 011 J
Sodium	47,900	34,500	16,000	22,800	64,600	62,600	41,100	29,100 J	31,800	6,750	13,900	7,090	9,000	130,000 U	7,420	10,600
Sulfide		2,000	1,000 U	1,000 U	200 U	200 U	500 U	500 U	200 J	400 U*	1,000 U	1,000 U	30 U	80 U	30 U	60 J
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	2.2 U	4.0 U	2 9 U	2.9 U	3.8 U	3 0 U	0.080 J	0.28 J	0.44 J
Tin	26.0 U															
Vanadium	76.9	14.9	246	160	264	180	53.5	320	256	27 4	287	295	68	51	126	150
Zinc	12.1	13.5 U*	7 6 U*	0.50 UJ	0.40 UJ	0 80 U	1.0 UJ	2 4 J	3.9 J	7.0 U*	3 2 J	9.5 J	20 U	20 U	10 2 U	10.2 U

Monitoring Location	S-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	59.2 U*	324 U*	23.0 U	222	8.9 UJ	37.0 U	118 U*	1.020	59.3 J	11.9 U	21 9 J	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	3.7 J	23.0 U	2.3 U*	3.0 U*	3.3 U*	1 6 U	10.0 U	2.7 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0 65 U	0.26 U
Arsenic	59.5 J	104 J	75.5	93.4	104	88.2	89.3	92.9	92.3	77.9	76.1	72.8	69	81	50.6	69.0
Barium	1,870	5,370	3,530	3,490	2,940	3,370	3,150	1,950	489	326	167	130 J	150	110	146 J	170 J
Beryllium	1.0 U	1.2	1.0 U	0 10 U	0.10 U	0.20 U	0.40 U	2.0 U	0.41 J	0.10 U	0.23 J	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 UJ	1.8	3.0 U	0.30 UJ	1.1	0.50	0.82 U*	4.0 U	0.30 U	0.40 U	1.3 J	0.89 U	2.0 U	2.0 U	1.8 U	2.2 J
Calcium	189,000	128,000	78,500	73,000	83,800	115,000	163,000	166,000	168,000	174,000	92,300	63,100	84,000	97,000	108,000	122,000
Chromium, total	9.3 U*	18.6	4.0 U	9.7	50.7	13.6	20 9	58.5	1.0 U	4.2 J	0.90 J	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	10 U	1,000 U	1,000 U	10 UJ	1,000 U	16 J					10 U	10 U	10 U	10 U	10 U
Cobalt	35.6	141	153.0	218	238	150	104	21.2	1.7 J	1.1 U	5.5 J	4.1 U	25 U	25 U	7.3 U	9.5 J
Copper	4.0 U	1.0 U	4.0 U	0.70 UJ	0 30 U	0.60 U	2.7	8.7 J	0.70 U	0.90 U	0.60 U	0.62 U	5 0 U	5.0 U	0.91 U	0.91 U
Cyanide	11.4	24.2 J	10.0 UJ	20.4	24.8	8.8 J	8.0 J	8.7 U*	3.6 J	3.6 J	17.6 J	15.3	3 3 J	10 U	2.5 U	2 5 U
Fluoride														430	420	6.6 U
Iron	22,000	10,300	7,270	6,320	7,560	4,330	9,200	11,000	8,100	9,400	3,720 J	2,620	3,000	4,400	3,020	4,600
Lead	2.0 U	1.0 U	5.0 UJ	1.4 U	1.0 U	1.3 U	0.90 U	2.0 U	1.7 U	1.2 U	1.0 U	1.5 U	2.3 J	10 U	3.6 U	3 6 U
Magnesium	39,400	29,900	27,700	27,400	27,300	37,100	39,800	42,800	54,600	77,000	36,700	28,300	48,000	53,000	55,400	62,100
Manganese	125	42.8	26	25.2	31.4	21.4	45.1	63.6	44.4 J	40.4 J	21.5 J	19.4 J	29	42	63 2	56 1
Mercury	0.2 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0 10 U	0.11 J	0.20 U	0.036 U	0 036 U
Nickel	13 0 U	156	188	310	246	44.8	117	55.3	4.7 J	10.9 J	6.4 J	6.1 J	40 U	40 U	3 4 U	4.8 J
Potassium	10,000,000	9,820,000	9,930,000	9,960,000 J	10,400,000 J	9,330,000 J	7,690,000 J	7,110,000	5,790,000 J	4,920,000	2,700,000 J	648,000 J	1,400,000	1,100,000	1,310,000	1,220,000
Selenium	3.0 UJ	2.0 U	R	3.5 J	3 0 J	2.2 U	2.3 U	5 0 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5 0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	1.7 J	0 20 U	0.080 U
Sodium	10,000,000	9,580,000	10,300,000	10,100,000	10,600,000	9,000,000	8,460,000	6,900,000	5,680,000	5,010,000	2,780,000	1,650,000	1,200,000	970,000	1,080,000	1,380,000
Sulfide		9,800	7,820	1,000 U	200 U	200 U	2,000	5,790	1,200	400 U*	1,000 U	1,000	30 UJ	40 J	30 U	30 U
Thallium	39.7 J	6.3 U*	R	4.1 U	2.1 U	3.2 U	3 5 U	10.0 U	4.0 U	2.9 U	2 9 U	3.8 U	3.0 U	3.0 U	0.20 U	0.15 U
Tin	26.0 U						1.4 U*									
Vanadium	4.0 U	2.1	4.0 U	1.5 U*	1.7	0.83	1 4 U*	0.97 J	0.71 J	1.0 U	0.66 J	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	9.3	11.9 U*	7.6 U*	2.6 J	2 7 U*	0.80 U	7.3 J	9.7 J	3.4 J	2.3 U	1.5 J	1.3 U	20 U	20 U	10.2 U	10 2 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.

[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.

[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	T-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	1,530	93.1 U*	30.4 U*	33.3 U*	18.1 U*	38.2	50.9 U*	30.9 U*	25.0 J	12.8 U*	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	26.4	2.6 U*	1.0 U	2.1 U	1.6 U	10.0 U	2.1 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0.25 J	0.19 J
Arsenic	28.4 J	8.5 J	17.3	12.4	13.8	20.3	23.4	15.4	11.1	8.9	33.9	23.2	14	500 U	23.6	40.4
Barium	127	70.5	73	72.2	111	121	144	110	114	98.5 J	198	73.4 J	72	86	109 J	98.1 J
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.27 U*	0.40 U	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	2.0 J	0.20 U	0.32 U*	4.0 U	0.30 U	0.40 U	0.40 U	0.89 U	2.0 U	100 U	1.8 U	1.8 U
Calcium	254,000	222,000	269,000	226,000	272,000	162,000	154,000	157,000	220,000	208,000	289,000	152,000	160,000	220,000 J	230,000	186,000
Chromium, total	98.1	36.3	14.0	11.9	6.7	23.1	9	6.9 J	2.4 J	1.2 UJ	0.49 J	10 U	5.0 U	250 U	3.8 U	3.8 U
Chromium (VI)	10 UJ	100 UJ	10 U	1,000 U	100 U	1,000 U	R	R	10 UJ	10		10 U	10 U	10 U	10 U	100 U
Cobalt	9.0 U	1.0 U	3.0 UJ	1.4	0.40 U	0.55	0.30 U	10.0 U	0.60 U	1.1 U	0.90 U	4.1 U	25 U	1,300 U	7.3 U	7.3 U
Copper	19.9 U*	1.5	4.0 U	6.2	3.4 J	1.7	1.6	2.0 U*	0.70 U	1.5 J	0.83 J	1.1 U	5.0 U	5.0 U	2.4 J	0.91 U
Cyanide	46.4	31.1 J	22.6 J	10.0 U	27.2	1.0	11.7 J	15.7	0.88 J	19.8	12.6 J	4.9 J	5.5 J	7.3 J	6.2 J	5.1 J
Fluoride													560	1,100	396	345
Iron	16,200	9,880	14,600	13,700	12,300	13,600	15,800	11,400	16,000	9,910	23,900 J	15,200	11,000	14,000	12,200	17,200
Lead	52.6 J	1.0 U	1.0 UJ	2.9	1.0 UJ	1.3 U	0.9 U	2.0 U	1.7 U	1.2 U	1.0 U	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	67,300	53,800	64,200	55,800	59,500	137,000	126,000	89,500	61,500	47,300	88,500	27,500	23,000	250,000 U	44,400	47,700
Manganese	985	745	917	789	760	569	486	249	806	939	2,380	954	1,000	1,200 J	873	548
Mercury	0.47	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.12 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.069 J
Nickel	51.1	19.2	10.8 J	29.8	6.8 J	13.8	5.9	5.7 J	4.3 J	3.1 J	3.0 J	2.1 U	40 U	2000 U	8.0 J	3.4 U
Potassium	12,000	14,200	10,900	8,420 J	12,500 J	27,100	35,900 J	29,500	13,100 J	14,900 J	19,600 J	6,680 J	5,400	250,000 U	6,050	10,800
Selenium	3.0 UJ	2.0 U	R	3.2 UJ	1.6 U	2.2 UJ	2.3 U	5.0 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	500 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.008 U
Sodium	33,900	20,500	23,100	15,800	31,100	32,800	39,800	44,100	23,900	29,900	23,600	14,400	12,000	250,000 U	19,200	29,400
Sulfide		2,000	1,000 U	1,000 U	200	200 U	500 U	2,840	800	1,600 U*	1,000 U	800 J	30 U	650	800 J	900 J
Thallium	3.0 UJ	3.0 U	R	4.1 U	2.1 U	3.2 UJ	3.5 U	10.0 U	4.0 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	11.9 U*	3.3	4.0 UJ	5.7	5.3 J	4.0	5.6	5.1 J	5.6 J	5.2 J	5.8 J	2.4 U	50 U	50 U	8.1 J	10.5 J
Zinc	89.4 J	7.2 U*	7.3 U*	4.0 J	0.90 U*	0.80 UJ	1.30 J	6.8 J	6.7 J	12.5	3.1 U*	5.9 J	10 J	1,000 U	20.9 J	10.2 U

Monitoring Location	T-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	270 U*	85.1 U*	63.9 U*	68.9 U*	8.9 UJ	37.0 U	39.1 U	102 U*	275	486	20.8 J	39.7 U	80 J	190 J	132 J	78.2 U
Antimony	30.0 U	2.3 J	23.0 U	4.4 U*	1.8 U*	2.1 U	1.6 U	10.0 U	2.9 J	3.8 U	2.3 J	3.5 U	3.8 J	10 U	3.3 U	0.65 U
Arsenic	42.6 J	65.0 J	46.0	50.7	66.0	67.0	59.0	63.6	62.7	61.0	65.8	54.8	56	500 U	47.9	47.7
Barium	758	763	833	4,510	4,040	4,630	4,500	5,470	5,680	4,350 J	1,440	1,090	710	390	423	328
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.41 U*	0.40 U	2.0 U	0.29 J	0.10 U	0.26 J	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	5.0 U	3.7 J	3.0 U	0.30 UJ	3.7 J	1.2 J	1.8 U*	0.54 J	1.2 J	0.88 J	2.6 J	1.2 J	2.0 U	100 U	1.8 U	1.8 U
Calcium	471,000	354,000	319,000	363,000	396,000	404,000	377,000	425,000	399,000	302,000	299,000	229,000	170,000	130,000 J	121,000	88,600
Chromium, total	16.0 U*	33.7	42.8	16.5	46.6	32.1	53.6 J	19.5	16.9	41.3 J	0.30 U	10 U	5.0 U	250 U	3.8 U	3.8 U
Chromium (VI)	10 R	100 UJ	1,000 U	1,000 U	100 U	1,000 U	13 J	R	10 UJ	10 U		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.3	3.0 UJ	6.3 J	21.3	58.6	90.8	84.7	156	113	22.3	7.2 J	25 U	1,300 U	8.4 J	7.3 U
Copper	4.4 U*	1.0 UJ	4.0 U	0.70 U	0.46	0.60 U	2.0 J	2.3 U*	0.70 U	5.9 J	0.60 U	0.62 U	6.3	5.0 U	2.1 J	0.91 U
Cyanide	19.6	10.0 UJ	10.0 UJ	10.0 U	4.7 U	17.5	24.7	38.4	61.2	52.0	61.4 J	32.2 J	9.9 J	6.3 J	2.5 U	2.5 U
Fluoride													620	190	32.8 U	6.6 U
Iron	45,900	48,400	42,100	48,000	48,300	52,000	45,500	43,700	30,400	26,300	19,400 J	15,600	13,000	8,000	7,610.0	5,890
Lead	20.0 UR	1.0 U	5.0 UJ	5.1	1.0 UJ	1.3 UJ	0.90 U	2.0 U	1.7 U	1.2 U	1.0 U	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	118,000	81,400	77,200	84,600	89,500	97,800	94,100	99,900	102,000	79,600	74,100	56,700	49,000	250,000 U	35,100	26,300
Manganese	375	303	233	289	273	290	258	236	150	105	96.8	80.1	67	1,300 U	50.6	36.3
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.11 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.054 J
Nickel	13.0 U	27.7	8.5 J	25.8	80.0	144	216	164	138	133	20.2 J	4.3 J	40 U	2,000 U	3.4 U	3.4 U
Potassium	3,560,000	4,650,000	4,560,000	4,050,000 J	4,920,000 J	4,570,000	3,750,000 J	3,500,000	4,380,000 J	5,480,000	4,400,000 J	3,370,000 J	2,800,000	2,100,000	1,940,000	1,700,000
Selenium	3.0 UJ	37.0 U	R	3.2 UJ	1.6 U	2.2 UJ	2.3 UJ	5.0 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	160 J	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.95	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	1.0 U	0.20 U
Sodium	4,770,000	5,520,000	5,380,000	4,920,000	5,920,000	5,280,000	4,800,000	4,150,000	5,490,000	6,140,000	5,040,000	3,520,000	3,100,000	2,100,000	2,140,000	1,790,000
Sulfide		4,600	1,000 U	1,000 U	200 U	200 U	500 U	1,200	800	600 U*	1,000	600 J	50 J	40 J	60 J	50 J
Thallium	30.0 UJ	4.3 U*	R	4.1 U	2.1 U	3.2 UJ	3.5 U	10.0 U	4.0 U	13.4	4.6 J	5.3 U	3.0 U	3.0 U	1.0 U	0.38 U
Tin	30.8															
Vanadium	4.0 U	3.1 J	4.3 UJ	2.2 U*	1.50 J	2.4 J	1.1 U*	10.0 U	1.2 J	1.6 J	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	13.9 U*	9.4 U*	7.3 U*	3.0 J	4.8 U*	4.0 J	6.2 J	4.2 J	14.7	6.1 J	2.8 J	0.78 U	5.9 J	1,000 U	10.2 U	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were swifched in the field during the 2007 event. The data in this table have been reported accordingly
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	U-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	197 U	92.1 U*	23.0 U	29.0 U*	8.9 U	37.0 U	58.6 U*	35.8 U*	40.5 J	11.9 U	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	30.0 U	2.0 U	23.0 U	1.9 U	1.1 U*	2.1 U*	1.6 U	2.2 U	2.3 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0.13 U	0.10 J
Arsenic	19.5	12.6 J	13.3	3.2 U	9.8 J	26.1	26.8	29.0	33.8	37.4	20.0	17.9	29	250 U	13.2	33.8
Barium	69.4 J	72.1	55	69.8	69.7	61.7	89.5	83.9	62.0	65.1	66.6	64.6 J	69	45	66.5 U	67.6 J
Beryllium	1.0 U	1.0 U	1.0 U	0.10 U	0.10 U	0.20 U	0.40 U	0.20 U	0.31 J	0.10 J	0.20 U	0.18 U	4.0 U	100 U	1.4 U	1.4 U
Cadmium	5.0 U	1.0 U	3.0 U	0.30 UJ	3.1 J	0.26 J	1.0 U*	0.40 U	0.30 U	0.58 J	0.67 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	305,000	371,000	380,000	456,000	478,000	331,000	458,000	405,000 J	256,000	278,000	494,000	384,000	470,000	310,000	420,000	321,000
Chromium, total	11.1 U	5.3 J	7.6	6.1 J	2.0 J	4.3 J	6.3 J	3.3 J	1.7 J	1.2 U	1.9 J	10 U	5.0 U	61 J	3.8 U	3.8 U
Chromium (VI)	10 UJ	100 UJ	1,000 U	1,000 U	20 J	1,000 U	R	R	10 UJ	10		10 U	13	10 U	10 U	10 U
Cobalt	9.0 U	1.5	3.0 UJ	0.50 UJ	.5.2	3.1	5.5	0.70 U	1.1 J	1.1 U	1.0 J	4.1 U	25 U	630 U	7.3 U	7.3 U
Copper	4.0 U	1.6 J	4.0 U	1.7 J	1.7 J	1.6 J	18.3 J	1.5 J	0.88 J	1.5 J	3.9 J	1.4 U	1.8 J	5.0 U	0.91 U	0.91 U
Cyanide	62.7	24.0 J	10.0 UJ	10.0 U	8.3	9.9	5.0 J	7.9 J	29.4	37.0	6.3 J	10.1	10 U	17	2.5 U	8.5 J
Fluoride													560	640	473	351
Iron	14,000	29,900	22,100	38,600	48,900	39,400	52,900	37,500	22,300	19,900	29,700 J	17,900	20,000	13,000	11,800	16,300
Lead	2.0 UJ	1.0 U	1.0 UJ	4.9	1.0 UJ	1.3 UJ	1.2 U*	1.1 U	1.7 U	1.2 U	1.0 U	1.5 U	10 U	250 U	3.6 U	3.6 U
Magnesium	111,000	104,000	56,600	67,700	83,700	42,500	91,600	61,000	41,200	43,200	58,500	45,100	40,000	41,000 J	45,200	53,600
Manganese	1740	3250	1960	2740	3,270	2,820	3,460	2,820	844	1,010	1,490	2,750	1,900	1,300	1,390	1,300
Mercury	0.20 U	0.20 U	0.20 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.16 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.066 J	0.101 J
Nickel	13.7 J	25.3	27.4 J	17.7	129	80.8	185	50.5	15.1 J	26.4 J	5.0 J	3.6 U	10 J	1,000 U	3.4 U	3.4 U
Potassium	11,200	8,480	4,260	5,220 J	7,840 J	7,440	7,770 J	6,920 J	4,260 J	4,120 J	4,180 J	3,340 J	3,800 J	130,000 U	2,900 J	3,290 J
Selenium	3.5	2.0 UJ	R	3.2 UJ	4.1 J	2.2 UJ	2.3 UJ	4.4 J	3.3 UJ	1.7 U	2.7 U	4.4 U	3.2 J	250 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5.0 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.021 J
Sodium	13,100	10,700	10,500	9,750	9,800	10,100	8,100	6,920 J	5,820	6,030	6,010	4,530 J	2,500 J	130,000 U	5,130	5,320
Sulfide		1,900	1,000 U	1,000 U	200 U	200 U	500 U	760	800	200 U*	1,000 U	1,000 U	100	80 U	300	130
Thallium	3.0 UJ	3.0 U	R	4.1 U	5.8 J	3.2 UJ	5.6	2.2 U	4.0 U	6.2 J	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	4.0 U	2.8 J	4.0 UJ	3.5 U*	2.5 J	2.3 J	2.6 U*	1.2 J	1.4 J	1.7 J	2.9 J	0.54 J	50 U	50 U	6.5 U	6.5 U
Zinc	12.9 J	19.6 J	25.0 U*	7.0 J	117	26.2 J	361	287	64.4	301	319	1.3 U	52	5.2 J	10.2 U	11 J

Monitoring Location	U-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	94.6 U*	51.7 U*	24.1 U*	41.9 U*	8.9 U	37.0 U	39.1 U	19.6 U	76.2 J	11.9 U	15.1 J	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	33.1	2.0 U	23 U	2.7 U*	1.8 U*	3.1 U*	1.6 U	2.2 U	2.7 J	3.8 U	2.1 U	3.5 U	10 U	10 U	3.3 U	0.26 U
Arsenic	44.0 J	57.8	44	39.4	60.8	63.5	56.9	59.2	65.9	53.6	64.1	61.2	70	250 J	60.9	68.2
Barium	519	1,110	840	603	772	640	607	586	493	640	542	533 J	1100	560	501	445
Beryllium	1.0 U	1.0 U	1 U	0.10 U	0.15 U*	0.29 U*	0.40 U	0.20 U	0.20 U	0.10 U	0.26 J	0.18 U	4.0 U	200 U	1.4 U	1.4 U
Cadmium	5.0 U	2.5 J	3 U	0.30 UJ	4.2 J	0.75 J	1.4 U*	0.73 J	1.4 J	0.86 J	2.5 J	0.89 U	2.0 U	100 U	1.8 U	1.8 U
Calcium	454,000	432,000 J	423,000	429,000	493,000 J	518,000	495,000	484,000 J	552,000	585,000	542,000	488,000	460,000	470,000	443,000	385,000
Chromium, total	6.7 U*	1.7 J	4.3	7.1 J	4.4 J	6.9	4.7 J	2.1 J	1.0 U	4.1 J	3.4 J	3.0 J	5.0 U	250 U	3.8 U	3.8 U
Chromium (VI)	10 R	100 UJ	1,000 U	1,000 U	10 UJ	1,000 U	R	R	10 UJ	30 J		10 U	10 U	10 U	10 U	10 U
Cobalt	9.0 U	1.0 U	3 UJ	0.50 UJ	0.40 U	0.50 U	0.30 U	0.70 U	0.60 U	1.1 U	6.2 J	8.9 J	14 J	1,300 U	19.3 J	17.5 J
Copper	4.4 U*	1.0 UJ	4 U	0.94 J	0.58 J	0.60 U	2.6 J	1.0 U	1.0 J	0.90 U	0.60 U	0.62 U	2.7 J	5.0 U	0.91 U	0.91 U
Cyanide	57.4	43.1 J	20.7 J	26.6	32.2	21.7	18.0	23.3	29.0	32.5	25.1	51.1	32	49	50.4	
Fluoride													570	1,500	32.8 U	6.6 U
Iron	33,600	31,800	30,600	30,200	37,800	42,900	41,100	43,700	43,600	44,700	40,100	36,300	32,000	32,000	31,000	28,600
Lead	20.0 UR	1.0 U	1.4 J	2.8	1.0 UJ	1.3 UJ	0.90 U	1.1 U	1.7 U	1.2 U	1.0 U	1.5 U	10 U	500 U	3.6 U	3.6 U
Magnesium	158,000	138,000	128,000	139,000	150,000	197,000	196,000	194,000	176,000	187,000	181,000	183,000	190,000	190,000 J	190,000	171,000
Manganese	364	279	234	264	251	286	262	264	257	239	214	180	150	1,300 U	155	123
Mercury	0.20 U	0.20 U	0.2 U	0.10 U	0.05 UJ	0.10 U	0.10 U	0.17 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.036 U	0.083 J
Nickel	13.0 U	11.7	9.6 J	9.8	5.2 J	4.3 J	10.2 J	5.2 J	4.1 J	3.1 J	0.87 J	2.3 U	40 U	2,000 U	32.2	36.0
Potassium	1,180,000	1,250,000	1,380,000	751,000 J	1,600,000 J	1,520,000	1,610,000 J	1,800,000 J	1,360,000 J	1,650,000	2,470,000 J	1,140,000 J	1,100,000	990,000	1,190,000	1,330,000
Selenium	3.0 UJ	2.0 UJ	R	3.2 UJ	1.6 U	2.2 UJ	2.3 UJ	2.1 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	500 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5 U	5.8 U	0.40 U	0.60 U	0.70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	0.60 J	5.0 U	1.0 U	0.08 U
Sodium	1,880,000	1,860,000	2,010,000	1,310,000	2,180,000	1,920,000	2,150,000	2,260,000 J	2,000,000	2,600,000	4,480,000 J	1,930,000	2,000,000	1,700,000	2,110,000	2,110,000
Sulfide		2,200	1,000 U	1,000 U	200 U	200 U	500 U	640	1,200	600 U*	1,000 U	1,000	100 J	180	260	150
Thallium	30.0 UJ	3.0 UJ	R	4.1 U	2.1 U	3.2 UJ	3.5 U	4.6 U*	4.0 U	16.3	4.5 J	7.4 J	3.0 U	3.0 U	1.0 U	0.15 U
Tin	26.0 U															
Vanadium	4.0 U	1.0 U	4 UJ	0.99 U*	0.85 J	1.5 U*	0.83 U*	0.40 U	0.95 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	11.3 U*	5.8 U*	7.1 U*	0.50 UJ	0.40 UJ	0.80 UJ	1.0 UJ	2.9 J	2.4 U	2.3 U	0.60 UJ	0.78 U	20 U	1,000 U	10.2 U	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled
Blank = The analyte was not analyzed for in this sample
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	V-10															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	215 U*	78.0 U*	23 U	90.9 U*	9.5 U*	37.0 U	39 1 U	79.7 U*	70.9 J	15.7 U*	29.8 J	39.7 U	200 U	200 U	78.2 UJ	78.2 U
Antimony	30.0 U	2.0 U	23 U	1.9 U	1.8 U*	2.1 U	1 6 U	2.2 U	5.4 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0.58 J	0.20 U*
Arsenic	3.0 U	3.0 U	2.4 J	3 2 U	1.4 U	2.3 U	2.1 U	2.0 U	5.1	3.0 U	2.8 U	3.2 U	10 U	10 U	3.9 UJ	3 9 U
Barium	62.7 J	66.0	40.3	72.5	28.2	60.3	74.9	43.8	59.9	88.9 J	27.2	11.5 J	24	23	91.5 J	127 J
Beryllium	1.0 U	1.0 U	1 U	0.10 U	0.10 U*	0.36 U*	0 40 UJ	0 20 U*	0.42 J	0.10 U	0.20 U	0.18 U	4.0 U	4 0 U	1.4 U	1 4 U
Cadmium	5.0 U	1.0 U	3 U	0.30 UJ	1.3	0 20 U	0.61 U*	0.40 U	0 52 J	0.40 U	0 40 U	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	401,000	455,000 J	236,000	420,000	151,000	462,000	414,000	147,000 J	159,000	298,000	96,400	60,600	91,000	95,000	221,000	298,000
Chromium, total	24.3 U*	8.6 J	13.7	8.8 J	11.3	9.4	8.6 U*	13.5	9.6 J	2.2 J	3 1 J	9.9 J	4 2 J	3.0 J	27 9	3.8 U
Chromium (VI)	10 UJ	10 U	100 U	10 U	10 U	1,000 U	100 U			NA		4 8 J	10 U	19	10 U	10 U
Cobalt	9.0 U	1.0 U	3 UJ	0.50 U	0.95	0.74	0.30 U	0.70 U	1.9 J	1.1 U	0.90 U	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4 0 U	1 0 UJ	4 U	7.0 J	2.4	0.69	3.2 U*	1.3 J	2.6 J	0 90 U	0.60 U	2.1 U	1.8 J	5.0 U	0.91 U	0.91 U
Cyanide	7.2	10.0 U	10 U	10.0 U	4.7 U	1.8	1.7	1.4 J	2.4 J	0.80 U	1.40 J	1.9 U	10 U	10 U	2.5 U	2.5 U
Fluoride													490 J	730	327	982
Iron	2,590	4,590	1,750	3,270	1,640	7,630	17,700	11,800	25,400	18,600	2,130	61 U	1,200	1,700	5,950	2,580
Lead	2.0 UJ	1.0 U	1 UJ	3.5 U*	1.0 UJ	1.3 UJ	0.90 U	1.4 J	1.7 U	1.2 U	1.0 U	1.5 U	3.8 J	10 U	3.6 U	3.6 U
Magnesium	90,500	90,400	53,800	63,500	28,000	103,000	65,000	35,200	21,500	62,200	12,100	5,850	15,000	15,000	45,300	68,500
Manganese	1,840	4,370	1,230	894	2,280	6,860	2,700	1,180	2,170	3,160	1,050	84 0	1,700	1,100	3,600	2,200
Mercury	0.20 U	0 20 U	0.2 U	0.10 U	0.05 UJ	0.10 U	0 10 U	0.15 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.10 J	0.20 U	0.036 U	
Nickel	18.6 J	5.8	10 J	9.3	7.9	10.4 J	4 5 U*	6.9 J	7.8 J	1.0 J	0.82 J	3.8 U	40 U	40 U	6 0 J	3.4 U
Potassium	4,840	5,100	2,860	8,130 J	3,100 J	6,220	5,320 J	2,920 J	2,730 J	3,380 J	1,180 J	986 J	2,000 J	2,100 J	2,670 J	4,180 J
Selenium	3.0 U	2 0 UJ	R	3.2 U	1 6 U	2.2 UJ	2.3 U	2.9 J	4.5 J	1 7 U*	2 7 U	4.4 U	10 U	10 U	3.5 U	3 5 U
Silver	5.0 UJ	1.0 U	5 U	5.8 U	0.40 U	0.60 U	0 70 U	0.50 U	0.80 U	1.4 U	1.2 U	0.51 U	5 0 U	1.4 J	0.040 U	0.008 U
Sodium	18,200	34,700	109,000	77,700 J	39,000	47,500	25,100	12,500 J	59,000	52,700	30,200 J	63,200	54,000	26,000	34,400 J	78,900
Sulfide		2,600	1,000 U	1,000 U	200 U	200 U	500 U	520	600	800 U*	1,000 U	1,000 U	70 J	56 J	30 U	110
Thallium	3.0 UJ	3.0 UJ	R	4.1 UJ	2.1 U	3.2 UJ	4.5 U*	2.2 U	4.0 U	4.5 J	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin	26.0 U															
Vanadium	4.0 U	1.0 J	4 UJ	0.92 U*	1.5	1.7 U*	2.5	3.6 J	9.6 J	2.9 J	3.1 J	1.1 U	50 U	50 U	6 5 U	6.5 U
Zinc	5 0 U	3.9 U*	15 U*	1.9 J	5.7 U*	0 80 UJ	1.2 J	3.3 J	8.7 J	2.3 U	3.0 J	2.4 U	20 U	20 U	10.2 U	10.2 U

Monitoring Location	V-50															
Collection Date	1993	1996	1997	1998	1999	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	102 U*	54.6 U*	61.9 U*	53.4 U*	8.9 U	37.0 U	39 1 U	19.6 U	137 J	38.5 U*	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U
Antimony	66.3 U*	2.6	23 U	3.0 U*	1.8 U*	2.2 U*	1 6 U	2.2 U	3 0 J	3.8 U	2.2 J	3.5 U	10 U	10 U	0.26 U	0.13 U
Arsenic	3.0 UJ	67.8	76.5	53 5	61 0	66.2	65.9	63.9	64.4	65.1	76.0	77.3	78	64	66.3	67.6
Barium	4,220	12,400	10,300 J	9,450	7,660	6,510	4,990	3,840	761	532 J	453	460	200	240	381	410
Beryllium	1 0 U	1.6	1 UJ	0.10 U	0.10 U	0.32 U*	0 40 UJ	0.20 U	0 41 J	0.10 U	0.20 U	0.18 U	4 0 U	4.0 U	1.4 U	1.4 U
Cadmium	5.0 U	5 0 J	3 U	0.30 UJ	5.50	0.71 J	2.0 U*	0.78 J	0.88 J	0.41 J	0.82 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	829,000	558,000 J	611,000 J	701,000	664,000	615,000	648,000	559,000 J	487,000	600,000	505,000	476,000	480,000	400,000	492,000	561,000
Chromium, total	6 0 U	4.8 J	4 UJ	4.4 J	2.5 J	3.4 J	2 2 J	1.6 J	35.3	36.3 J	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	20 J	10 U	100 U	10 U	12	1,000 U	17 J	R	10 UJ	30 J		10 U	10 U	10 U	10 U	100 U
Cobalt	9 0 U	10.1	6.1 J	9 7 J	8.5	14.1	43.1	36.4	3.7 J	1.1 U	2.9 J	4.1 U	25 U	25 U	7.3 U	7.3 U
Copper	4.0 U	1.0 UJ	4 U	0.70 U	0.78 J	0.60 U	1.2 U*	1.0 U	0 70 U	1.1 J	0.69 J	0.72 J	3.7 J	5.0 U	0.91 U	0.91 U
Cyanide	5.0 U	28.6 J	33.9 J	15.7	34.2	29.6	66.0	51.3	6 4 J	2.8 J	1.2 U	2.1 J	10 U	2.9 J	2.5 U	2.5 U
Fluoride													360	390	6.6 U	1,950
Iron	52,600	55,100	54,200 J	53,500	53,300	57,600	55,800	49,800	35,300	33,200	20,900	18,800 J	17,000	16,000	20,400	23,500
Lead	2.0 UJ	1.0 U	R	4.1	1.0 UJ	1.3 UJ	0 90 U	1.1 U	1.7 U	1.2 U	1.0 U	1.5 U	3.9 J	10 U	3.6 U	3.6 U
Magnesium	266,000	169,000	188,000 J	188,000	187,000	196,000	203,000	195,000	163,000	168,000	142,000	138,000	150,000	120,000	144,000	161,000
Manganese	321	348	292 J	290	275	297	292	273	184	162	109	120	90	88	128	127
Mercury	0.40	0.20 U	0.2 U	0.10 U	0.05 UJ	0.10 U	0 10 U	0.15 U*	0 10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.053 J	0.091 J
Nickel	13.0 U	62.6	7 UJ	5 8 U*	3.1 J	3.6 J	5.0 J	3.5 J	9.3 J	27.5 J	1.2 J	4.8 J	40 U	40 U	3.4 U	3.4 U
Potassium	20,300	420,000	328,000	323,000 J	256,000 J	203,000	117,000	75,200 J	18,700 J	15,700 J	14,600 J	15,600	18,000	17,000	15,800	14,300
Selenium	3.0 UJ	2.0 UJ	R	3.2 UJ	1.6 U	2.2 UJ	2.3 U	2.1 U	3 3 UJ	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	5.0 UJ	1.0 U	5 U	5.8 U	0.40 U	0.60 U	0 70 U	0.50 U	0 80 U	1 4 U	1.2 U	0.51 U	5.0 U	0.65 J	0.080 U	0.040 U
Sodium	1,650,000	1,970,000	1,770,000	1,850,000	1,700,000	1,400,000	1,410,000	1,390,000 J	1,010,000	661,000	411,000 J	374,000	270,000	440,000	455,000	425,000
Sulfide		1,900	1,000 U	1,000 U	200 U	200 U	500 U	500 U	1,200	800 U*	1,000 U	1,000 U	30 J	80 U	30 U	30 U
Thallium	3.0 UJ	3.0 UJ	R	4.1 U	2.1 U	3.2 UJ	3.5 U	2.2 U	4.0 U	7.8 J	3.9 J	3.8 U	3.0 U	3.0 U	0.080 U	0.075 U
Tin	26.0 U															
Vanadium	4 0 U	1.2 J	4 UJ	1.6 U*	1.0 J	1.1 U*	0.30 U	0.40 U	1.1 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	8.7 J	8.3 U*	4.1	0.50 UJ	0.40 UJ	0.80 UJ	1.0 UJ	2 0 J	2.4 U	2.3 U	0.60 UJ	0.78 U	6.5 J	20 U	10.2 U	10.2 U

Notes:

ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).

[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	P-1											P-2									
Collection Date	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	37.0 U	629	172 U*	41.4 J	30.8 J	11.1 U	39.7 U	200 U	200 U	153 J	78.2 U	129	74.4 U*	446	382	25.8 J	39.7 U	370	620	78.2 U	1,060
Antimony	2.1 U	2.7 U*	1.6 UJ	1.6 J	3.8 U	2.1 U	3.5 U	10 U	10 U	0.135 J	0.159 J	1.6 U	3.2 J	1.6 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.76 J	0.15 J
Arsenic	64.9	42.0	35.5 J	58.5	4.7 J	11.7	5.5	21 U*	46	44.8	64.4	22.4	21.8	36.3	11.7	20.9	15.3	26	34	3.9 U	29.1
Barium	462	391	336	396	115	155	198	230	250	274	271	142	132	124	115	151	99.3	110	120	87.3 J	175 J
Beryllium	0.20 U	0.40 U	0.22 U*	0.23 J	0.16 J	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U	0.40 U	2.0 U	0.20 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	0.20 U	0.54 U*	0.30 U	0.30 U	0.40 U	0.40 U	0.89 U	0.91 J	2.0 U	1.8 U	1.8 U	0.46 U*	4.0 U	0.30 U	0.40 U	0.40 U	2.0 J	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	236,000	223,000	247,000	213,000	193,000	147,000	202,000	210,000	210,000	213,000	227,000	242,000	295,000	263,000	249,000	222,000	154,000	230,000	210,000	183,000	295,000
Chromium, total	0.60	3.3 U*	1.1 J	1.0 U	1.2 U	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U	1.1 U*	0.65 J	1.0 U	1.2 U	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)	1,000 U	10 U					10 U	10 U	10 U	10 U	10 U	100 U					10 U	10 U	10 U	10 U	10 U
Cobalt	0.53	1.6	0.60 U	0.60 U	1.1 U	0.90 U	4.1 U	25 U	25 U	7.3 U	7.3 U	1.4	1.6 J	1.2 J	1.4 J	1.5 J	7.1 J	25 U	25 U	7.3 U	7.3 U
Copper	0.60 U	3.5 U*	0.70 U	0.70 U	0.90 U	0.60 U	0.62 U	5.0 U	5.0 U	0.91 U	0.91 U	1.7 U*	3.4 U*	1.5 U*	0.90 U	0.60 U	2.7 U	5.0 U	2.4 J	3.3 J	3.0 J
Cyanide	4.4 J	4.1	4.1 U*	6.3 J	0.80 U	1.80 J	1.9 UJ	7.0 J	4.9 J	2.5 U	2.77 J	4.6	3.6 U*	7.0 J	7.3 J	3.6 J	3.0 J	5.0 J	4.5 J	2.5 U	6.4 J
Fluoride								870	1,000	614	1260							1,700	1,600	1,360	657
Iron	10,800	11,900	11,900	9,180	10,600	7,000 J	10,900	11,000	9,600	10,100	8,710	8,370	7,850	12,800	8,320	6,340 J	1,340	7,500	10,000	638	11,900
Lead	1.3 U	0.94	1.3 U	1.7 U	1.2 U	1.0 U	1.5 U	4.1 U*	10 U	3.6 U	3.6 U	0.90 U	2.0 U	2.2	1.2 U	1.0 U	1.5 U	1.9 J	10 U	3.6 U	3.7 J
Magnesium	58,500	56,900	53,200	55,300	25,600	27,000	32,600	44,000	43,000	38,400	49,100	50,800	56,400	66,800	66,600	57,000	23,500	72,000	62,000	26,800	107,000
Manganese	463	579	871	586	1,700	795	747	850	540	519	319	570	1,330	556	611	565	164	520	340	217	363
Mercury	0.10 U	0.10 U	0.11 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.081 J	0.20 U	0.036 U	**	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.052 J	0.036 U
Nickel	1.8 U*	4.4 U*	0.85 J	0.78 J	0.80 U	0.80 U	0.76 U	40 U	40 U	3.4 U	3.4 U	2.7 U*	1.8 J	0.70 U	2.8 J	1.0 J	1.7 J	40 U	40 U	4.0 J	4.1 J
Potassium	14,700 J	17,800 J	15,100	11,200 J	7,200	13,800 J	7,230 J	16,000	16,000	19,800	22,700	66,800 J	67,600	79,700	70,100	37,600 J	3,550 J	40,000	34,000	8,140	50,400
Selenium	2.2 U	2.3 U	2.2 U	3.3 UJ	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 UJ	2.3 U	2.9 J	3.3 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	0.60 U	1.2	0.70 UJ	0.80 U	1.4 U	1.2 U	0.62 U	5.0 U	1.2 J	0.048 J	0.008 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	1.0 J	0.040 U	0.008 U
Sodium	158,000	121,000	102,000	139,000	44,900	77,900	70,800	110,000	130,000	219,000	247,000	192,000	213,000	303,000	253,000	149,000	15,600	200,000	140,000	39,600	195,000
Sulfide	200 U	500 U	500 U	1,400	200 U*	1,000 U	1,000 U	30 U	80 U	30 U	30 U	500 U	500 U	500 U	600 U*	1,000 U	1,000 U	30 U	70 J	30 U	100 J
Thallium	3.2 U	3.5 U	3.3 U	4.0 U	3.1 J	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U	3.5 U	10.0 U	4.0 U	3.0 J	2.9 U	3.8 U	3.0 U	3.0 U	0.040 U	0.015 U
Tin																					
Vanadium	1.7	3.0	1.7 J	0.95 J	1.0 U	1.5 J	0.77 U	50 U	50 U	6.5 U	6.5 U	0.83 U*	0.90 J	2.3 U*	1.4 J	0.77 J	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	0.80 UJ	30.5 J	1.4 UJ	11.5	2.8 U*	3.1 J	0.78 U	20 U	20 U	80.8	47	1.0 UJ	2.7 J	3.5 U*	6.6 U*	2.5 J	2.7 U	13 J	61	13.7 J	17.5 J

Notes:

ug/L = Micrograms per liter
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U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
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[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	P-3											P-4				P-5			
Collection Date	2000	2001	2002	2004	2005	2007	2008	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	37.0 U	39.1 U	69.5 U*	49.5 J	17.1 J	11.1 U	39.7 U	200 U	200 U	78.2 U	78.2 U	200 U	200 U	78.2 U	78.2 U	200 U	340	98.7 J	78.2 U
Antimony	2.1 U	1.6 U	2.1 J	1.6 U	3.8 U	3.1 J	3.5 U	10 U	10 U	0.47 J	0.065 J	10 U	10 U	0.130 U	0.134 J	10 U	4.0 J	0.650 U	0.203 J
Arsenic	54.7	24.6	34.9	32.1	6.3	15.6	4.4 J	33	26	9.7 J	11.2	13 U*	150 J	40.2	36.9	38	50	4.7 J	15.2
Barium	5,360	903	1,810	1,520	111	395	71.7 J	480	490	214	117 J	76	150	81.8 J	120 J	180	130	146 J	121 J
Beryllium	0.20 U	0.40 UJ	2.0 U	0.38 J	0.15 J	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U	4.0 U	100 U	1.4 U	1.4 U	4.0 U	20 U	1.4 U*	1.4 U
Cadmium	1.2 J	1.0 U*	2.1 J	0.90 J	0.43 J	0.88 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U	2.0 U	50 U	1.8 U	1.8 U	2.0 U	50 U	1.8 U	1.8 U
Calcium	485,000	319,000	322,000	339,000	217,000	232,000	167,000	300,000	330,000	200,000	164,000	200,000	280,000	195,000	243,000	71,000	61,000	43,800	36,700
Chromium, total	0.89 J	0.70 U	0.74 J	1.0 U	1.2 U	0.30 U	10 U	5.0 U	5.0 U	3.8 U	3.8 U	5.0 U	130 U	3.8 U	3.8 U	2.4 J	25 U	3.8 U	3.8 U
Chromium (VI)	1.000 U	100 U					7.0 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt	33.3	20.1	40.2	20.8	1.1 U	5.7 J	4.1 U	25 U	25 U	7.3 U	7.3 U	25 U	630 U	7.3 U	7.3 U	25 U	130 U	7.3 U	7.3 U
Copper	0.60 U	1.0 U*	2.8 U*	0.70 U	0.90 U	0.60 U	0.95 U	2.0 J	5.0 U	0.91 U	0.91 U	1.8 U*	5.0 U	0.91 U	0.91 U	2.5 J	4.4 J	2.1 J	1.7 J
Cyanide	33.2 J	47.1	42.8	41.0	30.0	11.1	9.0 J	18	14	7.8 J	5.8 J	10 U	11	2.5 U	6.4 J	10 U	3.5 J	2.5 U	2.5 U
Fluoride								970	1,200	195	258	1,100	1,000	920	1,630	6,400	5,800	7,180	8.2 J
Iron	42,100	27,600	27,500	24,900	9,550	10,500 J	4,280	17,000	23,000	8,540	6,470	11,000	34,000	18,900	16,200	1,900	9,700	1,740	1,560
Lead	1.3 UJ	0.90 U	2.0 U	1.7 U	1.2 U	1.0 U	1.9 U	10 U	4.2 J	3.6 U	3.6 U	10 U	250 U	3.6 U	3.6 U	10 U	50 U	3.6 U	3.6 U
Magnesium	194,000	157,000	149,000	128,000	58,600	60,500	44,000	97,000	97,000 J	55,200	44,100	66,000	120,000 J	59,100	99,600	200,000	220,000	397,000	221,000
Manganese	401	476	396	381	477	213	208	290	360	190	242	710	690	693	603	160	230	420	233
Mercury	0.10 U	0.10 U	0.20 U	0.10 U	0.10 U	0.10 U	0.10 U	0.088 J	0.20 U	0.036 U	0.036 U	0.070 J	0.20 U	0.036 U	**	0.074 J	0.20 U	0.036 U	0.061 J
Nickel	18.0	38.4 J	78.1	69.0	0.91 J	7.9 J	0.76 U	40 U	40 U	3.4 U	3.4 U	40 U	1,000 U	3.4 U	3.4 U	40 U	200 U	3.4 U	3.4 U
Potassium	2,770,000 J	1,210,000 J	1,710,000	1,910,000 J	22,000	873,000	20,700 J	1,300,000	1,500,000	325,000	120,000	13,000	100,000 J	9,710	59,000	720,000	860,000	735,000	914,000
Selenium	2.2 UJ	2.3 U	5.0 U	3.3 UJ	1.7 U	3.0 J	4.4 U	10 U	10 U	4.6 J	3.5 U	10 U	110 J	3.5 UJ	3.5 U	10 U	50 U	3.5 U	3.5 U
Silver	0.60 U	0.70 U	5.0 U	0.80 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.080 U	0.008 U	5.0 U	5.0 U	0.040 U	0.008 U	5.0 U	5.0 U	0.20 U	0.04 U
Sodium	3,860,000	1,840,000	2,220,000	2,780,000	43,100	1,140,000	46,500	1,800,000	2,100,000	461,000	170,000	24,000	490,000	19,600	361,000	610,000	1,000,000	688,000	760,000
Sulfide	200 U	500 U	800	1,000	200 U*	1,000 U	1,000 U	90 J	90 J	110	140	30 U	100 J	30 U	30 U	590 J	2,900	800 J	600 J
Thallium	3.2 UJ	3.5 U	10.0 U	4.0 U	4.5 J	2.9 U	3.8 U	3.0 U	3.0 U	0.080 U	0.015 U	3.0 U	3.0 U	0.040 U	0.015 U	3.0 U	3.0 U	0.20 U	0.08 U
Tin																			
Vanadium	1.5 J	0.77 U*	0.57 J	1.4 J	1.2 J	0.62 J	0.66 U	50 U	50 U	6.5 U	6.5 U	50 U	50 U	6.5 U	6.5 U	50 U	50 U	6.5 U	8.0 J
Zinc	0.80 UJ	1.0 UJ	1.8 J	2.4 U	4.5 U*	1.6 J	2.6 U	20 U	5.3 J	10.2 U	10.2 U	20 U	500 U	10.2 U	10.2 U	5.3 J	500 U	10.2 U	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6).
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample. The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	EW-1									EW-2								
Collection Date	2002	2004	2005	2007	2008	2009	2010	2011	2012	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	84 3 U*	36.6 J	11.9 U	11 1 U	39.7 U	200 U	200 U	78.2 U	78 2 U	310	27 7 U	11.9 U	11.1 U	39.7 U	200 U	200 U	78 2 U	78 2 U
Antimony	1 6 UJ	1.9 U	3.8 U	2.1 U	3 5 U	10 U	10 U	0 52 J	0 50 J	1.6 UJ	1 9 U	3.8 U	2.1 U	3.5 U	10 U	10 U	1 6 J	0 30 J
Arsenic	33.8 J	22.2	17 5	28.9	53.1	22	10	3.9 U	3.9 U	27.5 J	16 3	17.7	20.7	17.9	21	16	6.0 J	3.9 U
Barium	593	823	763	524	734	430	230	66.5 U	66.5 U	425	349	411	381	394	320	340	110 J	251
Beryllium	0.25 U*	0 30 U	0.10 U	0 20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U	0.25 U*	0.30 U	0 10 U	0.20 U	0 18 U	4 0 U	4.0 U	1 4 U	1.4 U
Cadmium	0.30 U	0.40 U	0.40 U	0.43 J	0 89 U	2.0 U	2.0 U	1.8 U	1.8 U	0.30 U	0.40 U	0.40 U	0.73 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	129,000	242,000	255,000	260,000	276,000	260,000	260,000	210,000	235,000	96,500	79,900	90,700	92,900	96,500	90,000	84,000	115,000	707,000
Chromium, total	2.1 J	0 80 U	1.2 U	0.30 U	10 U	5.0 U	5.0 U	3 8 U	3.8 U	2.5 J	1 1 J	1.2 U	0 51 J	10 U	3.5 J	5.0 U	3.8 U	3.8 U
Chromium (VI)					10 U	10 U		10 U	10 U					4.3 J	10 U		10 U	10 U
Cobalt	5.2 J	1.3 J	1.1 U	1.7 J	4.1 U	25 U	25 U	7.3 U	7.3 U	4.1 J	1.7 J	1.2 J	3.5 J	4.1 U	25 U	25 U	7.3 U	7 3 U
Copper	3.9 J	1.3 U	0.90 U	0.76 J	1.0 J	1.6 J	5.0 U	1.8 J	2.9 J	8.7 J	5 8 J	17.2 J	3.8 J	4.2 J	12	3.6 J	60.7	5 3
Cyanide	13.3	20.0 J	35.8	39.4	23.8	12	98	69.9	90.9	8.0 U*	5.4 J	6.3 J	17.7	22.6	17	14	13.1	**
Fluoride						1,200	1,400	1,000	703						6,700	9,300	6,790	6 6 U
Iron	6,270	11,900	11,500	28,700 J	58,700 J	9,700	3,300	1,990	145 J	3,130	1,270	886	1,870 J	645 J	1,500	590	845	69 U
Lead	1.3 U	1.3 U	1.2 U	1.0 U	1.6 J	3.1 J	10 U	3.6 U	3.6 U	1.3 U	1.3 U	1.2 U	1.0 U	1 5 U	10 U	10 U	3.6 U	3.6 U
Magnesium	103,000	61,500	67,900	69,500	78,300	74,000	66,000	53,500	76,900	105,000	105,000	118,000	112,000	123,000	110,000	110,000	194,000	187,000
Manganese	262	420	422	623	552	540	380	2540	2300	220	148	136	134	134	140	100	259	459
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0 20 U	0.059 J	0 036 U	0.036 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 J	0.20 U	0.20 U	0.036 U	0.130 J
Nickel	31 0 J	2 4 J	2.1 J	1.4 J	3.4 U	40 U	40 U	.116	17.7	21 4 J	3.4 J	3 2 J	3.2 J	3.2 U	40 U	40 U	11.0	7.6 J
Potassium	1,350,000	171,000	174,000	119,000	188,000	210,000	140,000	10,900	16,100	1,160,000	876,000	909,000	649,000	684,000	550,000	730,000	55,400	1,460,000
Selenium	2.2 U	2.4 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U	3.6 J	4.9 J	2 9 U*	2.7 U	6.7	10 U	10 U	17.3	13.5
Silver	0.70 UJ	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.008 U	0.70 UJ	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0 080 U
Sodium	1,270,000	285,000	292,000	238,000	357,000	370,000	270,000	23,100	38,900	1,040,000	730,000	808,000	672,000	676,000	610,000	790,000	71,900	1,630,000
Sulfide	720	600	400 U*	1,000 U	1,000 U	30 U		30 U	30 U	700	400 J	1,000 U*	1,000 U	1,000 U	30 U		30 U	30 U
Thallium	3.3 U	3.2 U	2.9 U	2.9 U	3.8 U	3.0 U	0.16 J	0.131 J	0 208 J	3.3 U	3.2 U	2.9 U	2.9 U	3.8 U	3.0 U	3.0 U	0.049 J	0.874 J
Tin																		
Vanadium	4.6 J	0.78 J	1.0 U	0.50 U	0.52 U	50 U	50 U	6.5 U	6.5 U	4.6 J	2.0 J	1.7 J	1.1 J	0.99 J	50 U	50 U	6.5 U	6.5 U
Zinc	1.4 UJ	5.3 J	2 3 U	2.1 J	0.78 U	7.1 J	5.5 J	10.2 U	10.2 U	1.4 UJ	1.7 J	7.0 U*	0 60 U	0.78 U	20 U	20 U	10.2 U	10.2 U

Notes:

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[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	EW-3									EW-4								
Collection Date	2002	2004	2005	2007	2008	2009	2010	2011	2012	2002	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	78.0 U*	62.8 J	12.2 U*	11.1 U	39.7 U	200 U	74 J	78.2 U	78.2 U	238	27.7 U	18.9 J	11.1 U	39.7 U	200 U	2,000 U	78.2 U	78.2 U
Antimony	1.6 UJ	1.9 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.41 J	0.28 J	1.6 UJ	1.9 U	3.8 U	2.1 U	3.5 U	16	10 U	0.47 J	0.75 J
Arsenic	39.4 J	26.1	19.2	18.1	16.7	16	50 U	9.7 J	8.9 J	64.5 J	28.3	73.2	39.2	20.9	15	100 U	20.4	15.1
Barium	439	467	442	524	568	370	280	174 J	166 J	797	476	753	587	610	350	290	131 J	82.5 J
Beryllium	0.27 U*	0.30 U	0.10 U	0.20 U	0.35 J	4.0 U	4.0 U	1.4 U	1.4 U	0.31 U*	0.30 U	0.10 U	0.20 U	0.32 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	0.30 U	0.40 U	0.40 U	1.0 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U	0.30 U	0.40 U	0.40 U	1.5 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	166,000	118,000	115,000	148,000	133,000	150,000	160,000	119,000	125,000	92,900	118,000	57,600	83,000	99,700	170,000	220,000	162,000	69,200
Chromium, total	1.5 J	0.80 U	1.4 J	0.85 J	2.2 J	5.0 U	5.0 U	3.8 U	3.8 U	3.6 J	0.80 U	2.8 J	0.54 J	1.8 J	5.0 U	5.0 U	3.8 U	3.8 U
Chromium (VI)					10 U	10 U		10 U	10 U					5.7 J	10 U		13	10 U
Cobalt	1.5 J	2.6 J	2.1 J	9.5 J	7.2 J	6.4 J	9.2 J	8.1 J	7.3 U	7.5 J	2.7 J	3.4 J	9.3 J	9 J	25 U	25 U	34.9	16.8 J
Copper	6.5 J	1.3 U	1.9 J	0.60 U	0.62 U	3.7 J	6.5	30.0	4.5 J	1.3 J	1.3 J	2.3 J	1.4 J	1.3 J	9.5	50 U	29.3	38.5
Cyanide	15.4	32.3 J	28.8	25.4	16.7	18	13	13.1	5.2 J	7.9 U*	32.2 J	7.4 J	3.6 J	33.3	8.0 J	6.2 J	16.3	**
Fluoride						4,200	4,400	6,470	3,180						4,100	4,300	7,430	7,290
Iron	11,700	4,500	3,170	2,800 J	2,200 J	1,500	2,600	53,400	43,600 J	6,970	4,680	5,810 J	6,090 J	1,410 J	1,400	290	44,700	7,680
Lead	1.3 U	1.3 U	1.2 U	1.0 U	1.5 U	2.1 J	10 U	4.0 J	3.6 U	1.3 U	1.3 U	1.3 J	1.0 U	1.5 U	10 U	10 U	4.2 J	3.6 U
Magnesium	148,000	100,000	104,000	158,000	161,000	160,000	160,000	132,000	125,000	146,000	101,000	135,000	169,000	185,000	300,000	250,000	402,000	534,000
Manganese	340	229	268	548	348	460	620	530	455	82.6	228	39.7 J	217	296	400	430	2,050	485
Mercury	0.12 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.065 J	0.167 U*	0.11 U*	0.10 U	0.10 U	0.10 U	0.10 U	0.20 U	0.20 U	0.068 J	0.112 J
Nickel	10.2 J	9.1 J	8.1 J	10.9 J	11	40 U	15 J	72.4	36.0	26.8 J	9.5 J	17.2 J	22.0 J	37.8 J	140	48	142	106
Potassium	1,250,000	1,230,000	1,090,000	1,160,000	1,140,000	740,000	820,000	76,200	119,000	2,500,000	1,240,000	2,670,000	2,200,000	2,610,000	1,500,000	1,700,000	299,000	176,000
Selenium	2.2 U	2.4 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 UJ	2.2 U	2.4 U	2.0 J	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	0.70 UJ	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	25 U	0.040 U	0.008 U	0.70 UJ	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.080 U	0.015 U
Sodium	1,210,000	1,170,000	1,040,000	1,230,000	1,100,000	750,000	880,000	88,400	102,000	2,230,000	1,190,000	2,270,000	1,960,000	2,160,000	1,300,000	1,600,000	303,000	200,000
Sulfide	960	800	800 U*	1,000 U	1,000 U	80 U		30 U	30 U	1,610	800	600 U*	1,000 U	1,000 U	30 UJ		30 U	30 U
Thallium	3.3 U	3.2 U	2.9 U	2.9 U	3.8 U	3.0 U	0.12 J	0.040 U	0.015 U	3.3 U	3.2 U	2.9 U	2.9 U	3.8 U	0.39 J	0.69 J	0.080 U	0.030 U
Tin																		
Vanadium	3.7 J	3.4 J	2.8 J	1.5 J	1.4 J	50 U	50 U	6.5 U	6.5 U	10.1	3.9 J	9.2 J	1.2 J	0.52 U	50 U	50 U	6.5 U	6.5 U
Zinc	1.4 UJ	1.5 U	2.3 U	0.60 U	0.78 U	20 U	5.4 J	10.2 U	10.2 U	1.4 UJ	2.7 J	2.3 UJ	0.60 U	0.78 U	6.5 J	20 U	16.5 J	20.8 J

Notes:

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U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review
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[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

TABLE 5-9

1993 - 2012 Inorganic Analyte Concentrations in Monitoring Location Samples[1]
Midco II Site
Gary, Indiana

Monitoring Location	EW-5	EW-6									EW-7							
Collection Date	2002	2002	2004	2005	2007	2008	2009	2010	2011	2012	2004	2005	2007	2008	2009	2010	2011	2012
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	68.9 U*	76.6 U*	50.7 J	162 J	11.1 U	39.7 U	200 U	1,000 U	78.2 U	78.2 U	27.7 U	138 J	11.1 U	39.7 U	44 J	1,000 U	78.2 U	78.2 U
Antimony	1.8 J	1.6 UJ	1.9 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.48 J	0.23 J	1.9 U	3.8 U	2.1 U	3.5 U	10 U	10 U	0.406 J	0.518 J
Arsenic	32.7 J	40.9 J	49.2	20.2	22.8	18.0	16	13	7.3 J	3.9 U	16.2	52.8	23.7	24	26	30	34.1	33.3
Barium	352	479	322	215	245	249	170	100	206	105 J	1,280	756	741	939	590	450	112 J	75.4 J
Beryllium	0.20 U	0.26 U*	0.30 U	0.10 U	0.20 U	0.18 U	4.0 U	4.0 U	1.4 U	1.4 U	0.30 U	0.10 U	0.20 U	0.20 U	4.0 U	4.0 U	1.4 U	1.4 U
Cadmium	0.30 U	0.30 U	0.40 U	0.40 U	0.95 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U	0.40 U	0.40 U	1.0 J	0.89 U	2.0 U	2.0 U	1.8 U	1.8 U
Calcium	21,200	111,000	93,000	105,000	133,000	244,000	350,000	230,000	240,000	262,000	248,000	86,500	239,000	236,000	280,000	270,000	256,000	255,000
Chromium, total	3.0 J	3.0 J	3.3 J	1.3 J	0.34 J	2.2 J	5.0 U	5.0 U	7.1 J	3.8 U	0.80 U	2.1 J	0.30 U	1.8 J	5.0 U	5.0 U	34.9	9.3 J
Chromium (VI)					-	5.7 J	10 U		10 U	10 U				7.0 J	10 U		10 U	10 U
Cobalt	1.1 J	7.2 J	6.8 J	4.2 J	6.2 J	8.5 J	8.4 J	10 J	26.2	43.3	16.6	5.3 J	30.4	40.3	27	42 J	15.0 J	11 J
Copper	1.8 J	3.9 J	4.0 J	2.3 J	0.60 U	1.7 J	6.2	25 U	5.6	0.91 U	1.3 U	1.7 J	0.60 U	0.62 U	2.8 J	25 U	3.0 J	0.91 U
Cyanide	28.0	15.1	14.2 J	24.3	54.7	7.4 J	6.6 J	9.0 J	4.2 J	2.8 J	49.2 J	12.3 J	33.8	23.2	14	7.1 J	2.5 U	32.0
Fluoride							1,200	1,600	496	854					1,600	2,200	688	555
Iron	239	6,600	52,700	2,150	7,590 J	7,530 J	200	100 U	22,300	12,100	11,600	3,630	8,020 J	5,270 J	2,800	5,100	42,400	73,500
Lead	1.3 U	1.3 U	3.7	1.2 U	1.0 U	1.5 U	10 U	10 U	3.6 U	3.6 U	1.3 U	1.2 U	1.0 U	1.5 U	2.0 J	10 U	3.9 J	5.5 J
Magnesium	107,000	112,000	41,700	47,700	52,100	71,400	89,000	75,000	75,200	73,100	74,900	123,000	72,900	78,400	86,000	88,000	76,000	77,600
Manganese	20.3 J	235	377	236	261	1,350	710	110	6,400	13,200	500	111	524	606	540	530	4,570	4,660
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.10 U	0.20 U	0.20 U	0.060 J	0.103 J	0.10 U	0.10 U	0.10 U	0.10 U	0.080 J	0.20 U	0.059 J	0.075 J
Nickel	3.3 J	44.6 J	43.6 J	23.5 J	10.2 J	1,320	740	320	163	221	57.8 J	21.9 J	86.9	149	90	140	13.2	6.0 J
Potassium	3,060,000	2,050,000	1,920,000	1,580,000	1,200,000	1,210,000	940,000	770,000	140,000	117,000	514,000	2,450,000	1,010,000	1,370,000	960,000	900,000	46,900	26,400
Selenium	2.2 U	2.2 U	2.4 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U	2.4 U	1.7 U	2.7 U	4.4 U	10 U	10 U	3.5 U	3.5 U
Silver	0.70 UJ	0.70 UJ	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.008 U	0.40 U	1.4 U	1.2 U	0.51 U	5.0 U	5.0 U	0.040 U	0.008 U
Sodium	2,550,000	1,870,000	1,660,000	1,390,000	1,150,000	1,080,000	960,000	440,000	83,100	74,300	642,000	2,100,000	1,190,000	1,400,000	1,100,000	1,300,000	61,900	40,400
Sulfide	2,350	1,800	26,400	1,000 U*	1,600	2,800	30 U		30 U	30 U	1,400	1,200 U*	1,400	2,800	150		30 U	40 J
Thallium	3.3 U	3.3 U	3.2 U	2.9 U	2.9 U	3.8 U	3.0 U	0.22 J	0.068 J	0.109 J	3.2 U	2.9 U	2.9 U	4.2 J	3.0 U	3.0 U	0.040 U	0.015 U
Tin																		
Vanadium	11.6	7.5 J	12.4	3.9 J	3.4 J	0.56 J	50 U	50 U	6.5 U	6.5 U	1.3 J	7.9 J	0.99 J	0.63 J	50 U	50 U	18.5 J	12.6 J
Zinc	1.4 UJ	12.2 J	135	36.8	2.9 J	6.3 J	4.7 J	5.7 J	13.4 J	10.2 U	1.5 U	32.1	1.7 J	0.78 U	20 U	5.6 J	10.2 U	10.2 U

Notes:
ug/L = Micrograms per liter
J = The concentration is approximate.
U = The compound was analyzed for but not detected at or above the associated sample quantitation limit.
U* = The compound should be considered "not detected" due to limitations identified during the quality assurance review.
UJ = The compound was analyzed for but not detected at or above the associated sample quantitation limit. The quantitation limit is estimated based on a bias identified during the quality assurance review.
R = The results were considered unusable during the quality assurance review.
NS = This well was not sampled.
Blank = The analyte was not analyzed for in this sample.
** = Anomalous data as compared to historical trends (see Table 5-6)
[1] Values shown may be the highest detected between the investigative sample and its duplicate, reanalysis, or dilution sample The results shown are either the highest positive result or the lowest detection limit. Higher estimated positive results were disregarded if accurate positive results were detected.
[2] Based on historical concentrations, ENVIRON believes that the sample labels for F-10 and F-30 were switched in the field during the 2007 event. The data in this table have been reported accordingly.
[3] Based on historical concentrations, ENVIRON believes that the sample labels for Q-10 and Q-50 were switched in the field during the 2004 event. The data in this table have been reported accordingly.

APPENDIX D – Newspaper Ad

PostTribune
Publication Date: 12/20/2013
Ad Number: 701395-01
Insertion Number:
Size: 2x5.00
Color Type: B&W
Client Name:
Advertiser: EPA COMMUNITY INVOLVEMENT
Section/Page/Zone: Main/032/
Description: MIDCO I & MIDCO II Superfund Sites

This E-Sheet(r) is provided as conclusive evidence that the ad appeared in the Post Tribune on the date & page indicated. You may not create derivative works, or in any way exploit or repurpose any content.

Real Estate Misc. Lake County | Real Estate Misc. Lake County | Real Estate Misc. Lake County | Real Estate Misc. Lake County | Real Estate Misc. Lake County

Post-Tribune

www.post-trib.com

HOME MORTGAGE RATES

Information is provided by the individual lending institutions. Rates may change without notice. Call individual lending institutions for more info.

LENDER	*LOAN RATE	LOAN TYPE	% DOWN	TERM	APR	POINTS	LAST UPDATED	ADD'L INFO & PROGRAMS
Lake Mortgage Co.	3.375%	5/1 ARM	5% - 10%	15 - 30yr	3.46%	0.500	12/09/13	FHA 85% CASH-OUT
219-769-5941	3.625%	FIXED	5% - 10%	15yr	3.78%	0.250	12/09/13	*Credit score
www.lakemortgage.com/	4.625%	FIXED	5% - 10%	30 yr	4.72%	0.250	12/09/13	restrictions may apply
	4.250%	FHA/VA	3.5% / 0	30 yr	4.34%	1.000	12/09/13	
Insight Mortgage	3.75%	FHA/VA	3.5	30yrs	3.875	0	11/19/13	FHA Minimum
219-793-9999	4.25%	F	5	30yrs	4.375	0	11/19/13	580 Fico Score

LOAN TYPES: B-balloon payment. F-conventional Fix-rate. NR-no fee mortgage (60,000 minimum). A-adjustable rate (1st term given, adjustment factors which vary from place to place will determine the actual long-term cost). J-jumbo. C-convertible rate. M-modified rate. FHA-Federal Housing Admin. Insured. BW-bi-weekly (payments every two weeks). Max. loan size & loan processing fees vary. GPM-graduated payment mortgage. ME-rate fixed for initial 7 yrs. then converts to 1 yr. A.R.M. for remaining term. *-No origination fee (other listings may or may not include origination fee). #-Preapproval available for purchases. BK2-bankruptcy 2 yrs. F/2-1 2-1 temporary buy down. NIV-no income verification. R*-rate fixed for initial 10 yrs then resets for remaining term. T-Broker Fee. Other plans available, contact lenders for details. Rates can change prior to closing unless guaranteed in writing.

To include your home mortgage rates in this column call...
Michael Schwartz 630-978-8477

Public Notices | Public Notices

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EPA Reviewing MIDCO I & MIDCO II Superfund Sites

Gary, Indiana

U.S. Environmental Protection Agency, in consultation with Indiana Department of Environmental Management, is reviewing the MIDCO I and MIDCO II Superfund sites to ensure the cleanup continues to protect people and the environment. The Superfund law requires reviews at least every five years at sites where the cleanup is complete but waste remains managed on-site.

EPA will evaluate site documents, results of periodic inspections and ground-water testing. Should we find any areas of potential concern, we will work with the companies responsible for the cleanup to fix them. EPA will issue a report on the five-year reviews by December 31.

This is the fifth five-year review for these sites.

Information on the MIDCO I and MIDCO II sites can be found on the web at www.epa.gov/region5/superfund or:

Gary Public Library
Indiana Room
200 W. Fifth Ave.
Gary, Ind. 46402

U.S. Environmental Protection Agency, Region 5
Records Center, seventh floor
77 W. Jackson Blvd.
Chicago, Ill. 60604

EPA encourages public comment. Written comments should be postmarked no later than December 27, 2013.

Pablo Valentin
Remedial Project Manager
Superfund Division (SR-6J)
EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
312-353-2886
valentin.pablo@epa.gov

Janet Pope
Community Involvement Coordinator
Superfund Division (SI-7J)
EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
312-353-0628
pope.janet@epa.gov

Or call toll-free, 800-621-8431, weekdays 8:30 a.m. to 4:30 p.m.

Public Hearings | Public Hearings

LEGAL NOTICE OF PUBLIC HEARING

Notice is hereby given that the Plan Commission of the Town of St. John, Lake County, Indiana, will hold a public hearing in the Municipal Building of the Town of St. John, 10955 West 93rd Avenue, St. John, Indiana, at 7:00 p.m. on Wednesday, January 8, 2014 to approve or to deny the petition of Sublime Development, LLC involving property commonly known as, Willow Ridge Phase 3, 9280 W. 93rd Ave, St. John, Indiana, 46373, which is legally described as follows:

A parcel of land in the Southwest 1/4 of the Southwest 1/4 of Section 27, Township 35 North, Range 9 West of the 2nd Principal Meridian, Lake County, Indiana, more particularly described as follows: Commencing at the Southwest corner of said Section 27 and running thence East along the South line of said Section 27 a distance of 768.18 feet to the point of beginning; thence continuing East along the South line of said Section 27, a distance of 100 feet; thence North, making an interior angle of 88 degrees 44 minutes 00 seconds a distance of 247.86 feet; thence West and parallel to the South line of said Section 27, a distance of 100.0 feet; thence South and parallel to the East line of said parcel, a distance of 247.86 feet to the point of beginning, EXCEPT the South 30 feet for public road thereof.

The subject of the petition is as follows:

A change in zoning of the property described above from the current zone designation of R-1 to a zoning designation of R-2. This petition is in preparation for completion of Willow Ridge, Phase 3, with upscale, large, single family dwellings to be built on site (see exhibit attached).

The geographic area involved in the petition is within the town limits of the Town of St. John.

Anyone interested in the petition, or the proposed rezoning, will be heard at the time and place aforesaid. All information concerning such petition/application is on file in the Building & Planning Department of the Town of St. John, 10955 West 93rd Avenue, St. John, Indiana for public examination. Written remonstrance(s) are encouraged to be filed before the meeting in the Building & Planning Department, but oral remonstrance(s) will also be heard at the meeting. The hearing may be continued from time to time as may be found necessary.

Tom Ryan
President,
St. John Plan Commission
12/27/13 #699517 HSPAXLP

LEGAL

- Adoption
- Assumed Name
- Auction- Real Estate
- Bid Notice
- Divorce
- Foreclosures
- Foundation Notices
- Judicial Sales
- Mechanics Liens
- Name Change
- Probate
- Public Hearings
- Public Notices
- Storage - Legal
- Take Notices

Mechanics Liens

The following will be sold 2010 Chrysler 1C3CC4F-B9AN137354 be sold 9AM 1/4/14 @2305 Hamstrom Rd for $3735. 12/20/13 #703366 HSPAXLP

The following will be sold for charges: 2600 COLORADO ST LAKE STATION At 1/7/2014 @ 12:00 PM 2002 PON 1G2WP12KX2F-198228 $4,234.40; 4335 CALUMET AVE HAMMOND At 1/7/2014 @ 10:00 AM 1996 CHE 3GNFK16R7TG140179 $2,450.00; 1226 BEACON ST EAST CHICAGO At 1/6/2014 @ 12:00 PM 2001 OLD 1G3GR64H4142-63822 $252.00; 908 150TH ST HAMMOND At 1/6/2014 @ 01:00 PM 2000 NIS 1N4DL01D3YC121163 $1,600.00 12/20/13 #701300 HSPAXLP

Public Notices | Public Notices

Invitation to Quote
Disposal of Real Property
1215 E. Elm Street
Griffith, Indiana

The Town of Griffith, Indiana will receive sealed quotes for the disposal of one (1) dwelling structure and other accessory structures located at the above addresses until 2:00 P.M. (local time) on the 21st day of January, 2014, at the office of the Clerk-Treasurer, Town of Griffith, 111 N. Broad Street, Griffith, Indiana 46319. Said quotes will be publicly opened and read aloud during the Griffith Town Council meeting on January 21, 2014 at 7:00 P.M. Any quotes received later than the above time will be returned unopened.

Description: This project consists of furnishing of all equipment, labor and materials for the disposal of one (1) dwelling structure and any other structures, including foundations, asphalt, concrete and the disposal of all debris from the site located at 1215 E. Elm Street, Griffith, IN 46319 legally described as THE NORTH 113 FEET OF THE EAST HALF OF THE EAST HALF OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTEROF SECTION 35, TOWNSHIP 36 NORTH, RANGE 9 WEST OF THE 2ND PRINCIPAL MERIDIAN, EXCEPT THE WEST 160 FEET THEREOF, IN THE TOWN OF GRIFFITH, IN LAKE COUNTY, INDIANA with parcel number 45-07-35-427-012.000-006, all in accordance with applicable law. The project includes filling and leveling the excavations with clean imported sand, capped with a four (4") inches of topsoil, graded to match the existing surface immediately adjacent to said property, and blanket grass seeded.

Project Documents and Specifications may be obtained ONLY at the Office of the Clerk Treasurer, Town of Griffith, 111 N. Broad Street, Griffith, Indiana, 46319.

BONDS: A performance bond and payment bond each in the amount of 100 percent of the contract price will be required.

No contractor or person may withdraw his or her proposal within a period of 60 days following the date set for receiving quotes. The Town Council reserves the right to retain any and all quotes for a period of not more than 60 days, and said quotes shall remain in full force and effect during said time. The Council further reserves the right to waive any informality, and to award the contract to any Contractor or person, all to the advantage of the Town of Griffith, or to reject all quotes. Quotes shall be submitted on the quote sheet attached to the specifications.

The successful Contractor or person and his or her subcontractors shall all be licensed contractors with the Town of Griffith as per the Griffith Municipal Code.

A MANDATORY Pre-quote Conference and Building Inspection will be held at the Griffith Town Hall, Lower level, 111 N. Broad Street, Griffith, Indiana on Monday, December 30, 2013 at 1:30 P.M., (local time), for all interested contractors or persons.

Copies of any environmental assessments the Town may have will be available for review at the pre-quote conference.

Griffith Town Council
Glen Gaby, President 12/20/13 #703989 HSPAXLP

CITY OF HOBART
LEGAL NOTICE
Plan Commission Petition Number 14-03

A petition for subdivision, in conformance with Chapter 153 of the Hobart Municipal code, commonly know as the "Subdivision Regulations of the City of Hobart, Indiana" has been filed by: **McDonald's Real Estate Company, 4320 Winfield Road, Suite 400, Warrenville, IL 60555 (Owner/Petitioner), Austgen Kuiper & Associates, P.C., 130 N. Main Street, Crown Point, IN 46307 (Agent)** Notice is hereby given that on THURSDAY, JANUARY 2, 2014 at 7:00 p.m., in the Council Chambers, 414 Main Street, Hobart, Indiana; the Hobart Plan Commission will conduct a public hearing on the petition. A petition for a I-lot Re-Subdivision, **(McDonald's East Ridge Road Hobart First Resubdivision)** consisting of approx. **1.13 acres**, is proposed to be located **on the SW corner of Ridge Road & State Road 51**, zoned **B-3** and legally described as follows:

Lots 1 and 2 in McDonald's East Ridge Road Hobart Addition

Anyone interested in the Petition may appear in person or by agent at the public hearing. Written objections filed with the Plan Commission Secretary before the hearing will be considered. The hearing may be continued from time to time as may be necessary. All information concerning such petition is on file in the City Engineer's Office, 414 Main Street, Hobart, Indiana, for public examination.

Jason Spain, Secretary,
Hobart Plan Conunission
12/20/13 #703616
HSPAXLP

SAY IT IN THE POST-TRIBUNE CLASSIFIEDS, CALL 219-648-3200 TO PLACE YOUR AD

Public Hearings

NOTICE OF PUBLIC HEARING

Notice is hereby given that the Town of Highland, Board of Zoning Appeals, will be conducting a Public Hearing for the North Central Veterinary Emergency Center on the 22nd day of January, 2014 at 6:30 p.m. at the Highland Town Hall, 3333 Ridge Road, Highland, Indiana. A request will be heard for Board of Zoning action to approve a Variance of Use from Ordinance No. 18.40.030 to allow a veterinary hospital to operate in an existing building within a B-2, Central Business District Zoning classification. The Petitioner for the requested action is Tony Peuquet of Chester, Inc. Architects, 555 Eastport Centre Drive, Valparaiso, Indiana 46383. The subject parcel is located at 2427 Ridge Road, Highland, Indiana. Legal Description: Lot 2 in Park Addition to Highland, As Per Plat Thereof, Recorded In Plat Book 28, Page 22 in the Office of the Recorder of Lake County, Indiana, Excepting that part deeded to the state of Indiana by warranty deed recorded July12, 2001 as document No. 2001 054884. 12/20/13 #703374 HSPAXLP

SAY IT IN THE POST-TRIBUNE CLASSIFIEDS, CALL 219-648-3200 TO PLACE YOUR AD

APPENDIX E – Site Inspection Checklist

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION	
Site name: Midco II	**Date of inspection:** 11/07/2013
Location and Region:	**EPA ID:**
Agency, office, or company leading the five-year review:	**Weather/temperature:** 45°F Sunny

Remedy Includes: (Check all that apply)

- Landfill cover/containment
- Access controls
- Institutional controls
- Groundwater pump and treatment
- Surface water collection and treatment
- Other _____
- Monitored natural attenuation
- Groundwater containment
- Vertical barrier walls

Attachments: Inspection team roster attached Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** Tat Ebihara (Name) Project Manager (Title) 11/07/13 (Date)
   Interviewed at site at office by phone Phone no. _____
   Problems, suggestions; Report attached _____

2. **O&M staff** Barbara Coughlin (Name) Senior Manager (Title) 11/07/13 (Date)
   Interviewed at site at office by phone Phone no. _____
   Problems, suggestions; Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency IDEM
Contact Stephanie Andrews (Name) Project Manager (Title) 11/07/13 (Date) 317-234-0358 (Phone no.)
Problems; suggestions; Report attached _____

Agency _____
Contact _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems; suggestions; Report attached _____

Agency _____
Contact _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems; suggestions; Report attached _____

Agency _____
Contact _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)
Problems; suggestions; Report attached _____

4. **Other interviews** (optional) Report attached.

N/A

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1.	**O&M Documents**			
	O&M manual	Readily available ✓	Up to date	N/A
	As-built drawings	Readily available ✓	Up to date	N/A
	Maintenance logs	Readily available ✓	Up to date	N/A
	Remarks			
2.	**Site-Specific Health and Safety Plan**	Readily available ✓	Up to date	N/A
	Contingency plan/emergency response plan	Readily available ✓	Up to date	N/A
	Remarks			
3.	**O&M and OSHA Training Records**	Readily available ✓	Up to date	N/A
	Remarks			
4.	**Permits and Service Agreements**			
	Air discharge permit	Readily available	Up to date	N/A
	Effluent discharge	Readily available	Up to date	N/A
	Waste disposal, POTW	Readily available	Up to date	N/A
	Other permits	Readily available	Up to date	N/A
	Remarks Injection Well maintained no current connection to MidCo I			
5.	**Gas Generation Records**	Readily available	Up to date	N/A
	Remarks			
6.	**Settlement Monument Records**	Readily available	Up to date	N/A
	Remarks			
7.	**Groundwater Monitoring Records**	Readily available	Up to date	N/A
	Remarks			
8.	**Leachate Extraction Records**	Readily available	Up to date	N/A
	Remarks			
9.	**Discharge Compliance Records**			
	Air	Readily available	Up to date	N/A
	Water (effluent)	Readily available	Up to date	N/A
	Remarks			
10.	**Daily Access/Security Logs**	Readily available	Up to date	N/A
	Remarks			

IV. O&M COSTS

1. **O&M Organization**
   State in-house — Contractor for State
   PRP in-house — Contractor for PRP
   Federal Facility in-house — Contractor for Federal Facility
   Other _____

2. **O&M Cost Records**
   Readily available — Up to date
   Funding mechanism/agreement in place
   Original O&M cost estimate estimates — Breakdown attached

   Total annual cost by year for review period if available

   From _____ To _____ _____ Breakdown attached
   Date — Date — Total cost
   From _____ To _____ _____ Breakdown attached
   Date — Date — Total cost
   From _____ To _____ _____ Breakdown attached
   Date — Date — Total cost
   From _____ To _____ _____ Breakdown attached
   Date — Date — Total cost
   From _____ To _____ _____ Breakdown attached
   Date — Date — Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**
   Describe costs and reasons: _____

V. ACCESS AND INSTITUTIONAL CONTROLS — Applicable — N/A

A. Fencing

1. **Fencing damaged** — Location shown on site map — Gates secured — N/A
   Remarks _____

B. Other Access Restrictions

1. **Signs and other security measures** — Location shown on site map — N/A
   Remarks Site Sign

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented	Yes	No	N/A
Site conditions imply ICs not being fully enforced	Yes	No	N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____
Frequency _____
Responsible party/agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.

Reporting is up-to-date	Yes	No	N/A
Reports are verified by the lead agency	Yes	No	N/A
Specific requirements in deed or decision documents have been met	Yes	No	N/A
Violations have been reported	Yes	No	N/A

Other problems or suggestions: Report attached

ICs under evaluation
remedy implementation

2. **Adequacy** ICs are adequate ICs are inadequate N/A
Remarks _____

D. General

1. **Vandalism/trespassing** Location shown on site map No vandalism evident
Remarks _____

2. **Land use changes on site** N/A
Remarks _____

3. **Land use changes off site** N/A
Remarks _____

VI. GENERAL SITE CONDITIONS

A. Roads Applicable N/A

1. **Roads damaged** Location shown on site map Roads adequate N/A
Remarks _____

B. Other Site Conditions

Remarks

VII. LANDFILL COVERS Applicable N/A

A. Landfill Surface

1. **Settlement** (Low spots) Location shown on site map Settlement not evident
Areal extent Depth
Remarks interim cover

2. **Cracks** Location shown on site map Cracking not evident
Lengths Widths Depths
Remarks N/A

3. **Erosion** Location shown on site map Erosion not evident
Areal extent Depth
Remarks N/A

4. **Holes** Location shown on site map Holes not evident
Areal extent Depth
Remarks N/A

5. **Vegetative Cover** Grass Cover properly established No signs of stress
Trees/Shrubs (indicate size and locations on a diagram)
Remarks N/A

6. **Alternative Cover (armored rock, concrete, etc.)** N/A
Remarks N/A

7. **Bulges** Location shown on site map Bulges not evident
Areal extent Height
Remarks N/A

8. **Wet Areas/Water Damage** Wet areas/water damage not evident
   Wet areas Location shown on site map Areal extent_____
   Ponding Location shown on site map Areal extent_____
   Seeps Location shown on site map Areal extent_____
   Soft subgrade Location shown on site map Areal extent_____
   Remarks_____

9. **Slope Instability** Slides Location shown on site map No evidence of slope instability
   Areal extent_____
   Remarks N/A

B. Benches Applicable N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** Location shown on site map N/A or okay
   Remarks_____

2. **Bench Breached** Location shown on site map N/A or okay
   Remarks_____

3. **Bench Overtopped** Location shown on site map N/A or okay
   Remarks_____

C. Letdown Channels Applicable N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** Location shown on site map No evidence of settlement
   Areal extent_____ Depth_____
   Remarks_____

2. **Material Degradation** Location shown on site map No evidence of degradation
   Material type_____ Areal extent_____
   Remarks_____

3. **Erosion** Location shown on site map No evidence of erosion
   Areal extent_____ Depth_____
   Remarks_____

4. **Undercutting** Location shown on site map No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ No obstructions
Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type N/A
No evidence of excessive growth
Vegetation in channels does not obstruct flow
Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations Applicable N/A

1. **Gas Vents** Active Passive
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance
N/A
Remarks_____

2. **Gas Monitoring Probes**
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

3. **Monitoring Wells** (within surface area of landfill)
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

4. **Leachate Extraction Wells**
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

5. **Settlement Monuments** Located Routinely surveyed N/A
Remarks_____

E. Gas Collection and Treatment Applicable N/A

1. **Gas Treatment Facilities**
   Flaring Thermal destruction Collection for reuse
   Good condition Needs Maintenance
   Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
   Good condition Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   Good condition Needs Maintenance N/A
   Remarks_____

F. Cover Drainage Layer Applicable N/A

1. **Outlet Pipes Inspected** Functioning N/A
   Remarks_____

2. **Outlet Rock Inspected** Functioning N/A
   Remarks_____

G. Detention/Sedimentation Ponds Applicable N/A

1. **Siltation** Areal extent_____ Depth_____ N/A
   Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   Erosion not evident
   Remarks_____

3. **Outlet Works** Functioning N/A
   Remarks_____

4. **Dam** Functioning N/A
   Remarks_____

H. Retaining Walls Applicable N/A

1. **Deformations** Location shown on site map Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** Location shown on site map Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge Applicable N/A

1. **Siltation** Location shown on site map Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** Location shown on site map N/A
   Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** Location shown on site map Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** Functioning N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS Applicable N/A

1. **Settlement** Location shown on site map Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   Performance not monitored
   Frequency_____ Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES	Applicable	N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines (Applicable) N/A

1. **Pumps, Wellhead Plumbing, and Electrical**
   Good condition All required wells properly operating Needs Maintenance N/A
   Remarks GW remedy beyond RE evaluated for MNA

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   Good condition Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   Readily available Good condition Requires upgrade Needs to be provided
   Remarks

B. Surface Water Collection Structures, Pumps, and Pipelines Applicable (N/A)

1. **Collection Structures, Pumps, and Electrical**
   Good condition Needs Maintenance
   Remarks

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   Good condition Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   Readily available Good condition Requires upgrade Needs to be provided
   Remarks

C. Treatment System (Applicable) N/A

1. **Treatment Train** (Check components that apply)
   Metals removal — Oil/water separation — Bioremediation
   Air stripping — Carbon adsorbers
   Filters_____
   Additive (*e.g.*, chelation agent, flocculent)_____
   Others_____
   Good condition — Needs Maintenance
   Sampling ports properly marked and functional
   Sampling/maintenance log displayed and up to date
   Equipment properly identified
   Quantity of groundwater treated annually_____
   Quantity of surface water treated annually_____
   Remarks Currently Shut down to pilot test MNA

2. **Electrical Enclosures and Panels** (properly rated and functional)
   N/A — Good condition — Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   N/A — Good condition — Proper secondary containment — Needs Maintenance
   Remarks_____

4. **Discharge Structure and Appurtenances**
   N/A — Good condition — Needs Maintenance
   Remarks injection wells.

5. **Treatment Building(s)**
   N/A — Good condition (esp. roof and doorways) — Needs repair
   Chemicals and equipment properly stored
   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   Properly secured/locked — Functioning — Routinely sampled — Good condition
   All required wells located — Needs Maintenance — N/A
   Remarks_____

D. Monitoring Data

1. Monitoring Data
   Is routinely submitted on time — Is of acceptable quality

2. Monitoring data suggests:
   Groundwater plume is effectively contained — Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
   Properly secured/locked Functioning Routinely sampled Good condition
   All required wells located Needs Maintenance N/A
   Remarks Being evaluated

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

N/A

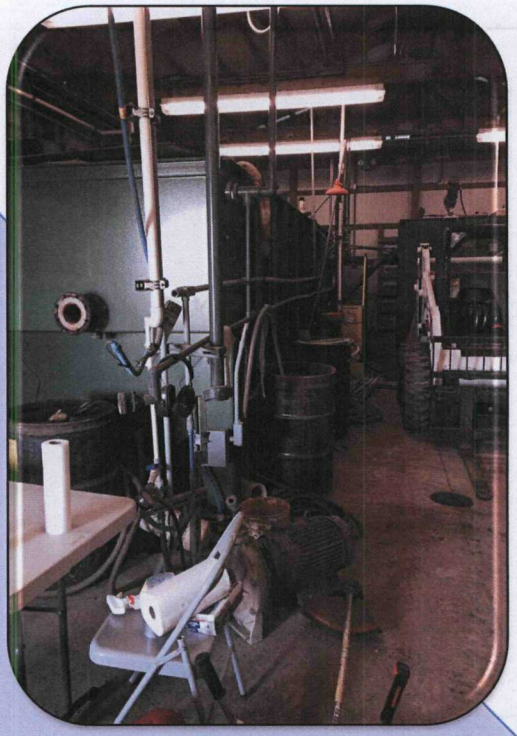
B. Adequacy of O&M

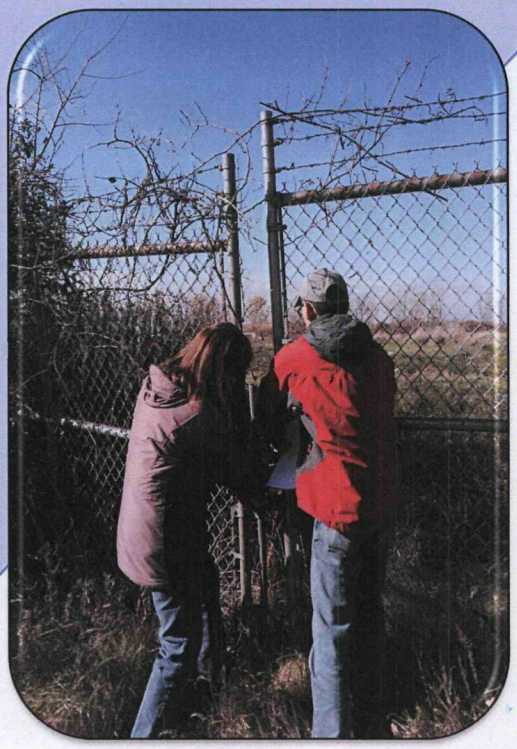
Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

N/A

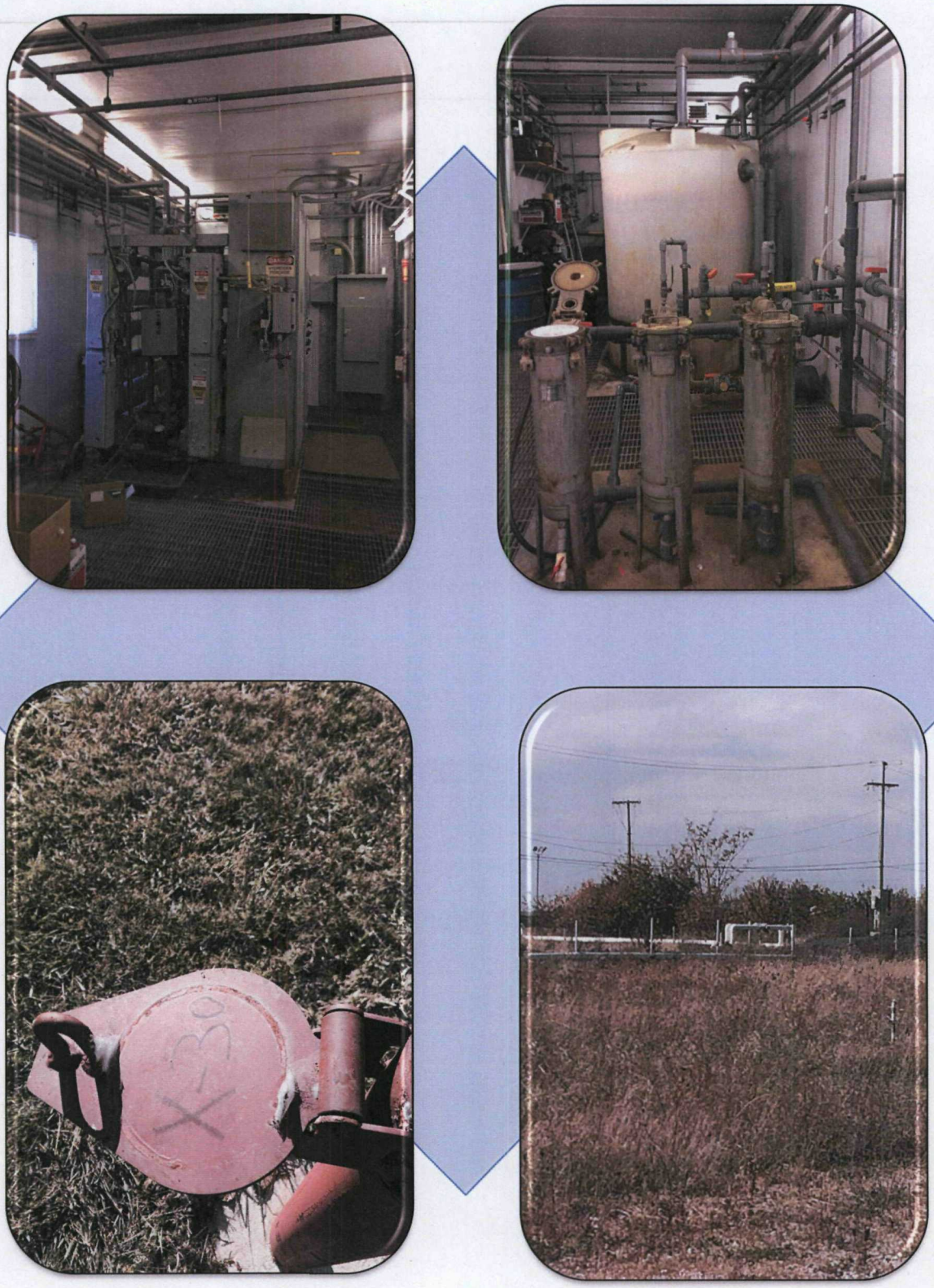
C.	**Early Indicators of Potential Remedy Problems**
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. N/A
D.	**Opportunities for Optimization**
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. N/A

APPENDIX F – Photographs Documenting Site Conditions





Pictures from upper left hand corner clockwise: MIDCO II Sign, MIDCO II groundwater pump and treat system equipment, MIDCO II southern gate perimeter fence, MIDCO II perimeter fence signage



Pictures from upper left hand corner clockwise: MIDCO II groundwater pump and treat system equipment, MIDCO II groundwater pump and treat equalization tank, MIDCO II SVE system, MIDCO II monitoring well X-30

Pictures from upper left hand corner clockwise: MIDCO II SVE system, MIDCO II SVE system equipment housing, MIDCO II overlooking concrete piles at adjacent property, MIDCO II SVE system

APPENDIX G – City of Gary Ordinance

September 27, 2007

ENVIRON

EPA Region 5 Records Ctr.
290044

October 5, 2007

Richard E. Boice
USEPA Region 5
77 West Jackson Boulevard
Mail Code: SR-6J
Chicago, IL 60604-3507

Re: Gary Ground Water Ordinance

Dear Mr. Boice:

Please find enclosed a certified copy of the above-referenced ordinance. If you have any questions, contact me directly.

Sincerely,

ENVIRON International Corporation

Barbara R. Coughlin, Ph.D.
Senior Manager

BRC:rms

Enclosure

cc: Michael Berman – USEPA Region 5
Stephanie Andrews – IDEM
Michael Murphy – Rust-Oleum Corporation
Natalie Walsh – Walsh Law Offices
Bruce White – Karaganis, White & Magel, Ltd.
William Bow – LFR Inc.

UNITED STATES OF AMERICA

Certificate

STATE OF INDIANA. COUNTY OF LAKE, *ss:*

I, **SUZETTE RAGGS**, Clerk of the City Court of the City of Gary, Lake County, Indiana hereby certify that the attached and foregoing is a full, true, complete and correct copy of COUNCIL PENDING ORDINANCE 2006-56/7930 ENTITLED, "AMENDED GROUND WATER ORDINANCE RESTRICTING USAGE." SPONSORED BY: MAYOR RUDOLPH CLAY, CITY OF GARY AND THE GARY COMMON COUNCIL

the original of which is now on file in the office of the Clerk of the City Court of the City of Gary, Lake County, Indiana.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City Court of the City of Gary, Lake County, Indiana, this 27th day of September, 20 07

SUZETTE RAGGS
Clerk of the City Court of
the City of Gary, Lake County, Indiana

By Kenreather Allen
Deputy

COUNCIL PENDING ORDINANCE 2006-56

ORDINANCE NO. 7930

AS AMENDED July 03, 2006
CERTIFICATION DATE _____
CERTIFIED BY _____

FAVORABLY _____
UNFAVORABLY _____

Amended Title of Ordinance Only

AMENDED GROUND WATER ORDINANCE RESTRICTING USAGE

WHEREAS, it has been generally recommended by the Indiana Department of Environmental Management, pursuant to the rules established for the remediation of, and protection from, contamination from ground water pollutants that the use of water from the wells should be restricted; and

WHEREAS, to protect public health by limiting exposure to and consumption of potentially contaminated ground water, an overall extension of the City of Gary's piped water system is proposed as the optimal method for displacing and substituting ground water; and

WHEREAS, it has been determined and found by the City of Gary that it is in the power and best interest of the City and the public that it serves to adopt regulations and restrictions on the use of water from the ground water wells; and

WHEREAS, because ground water drawn from a shallow unconsolidated aquifer is prone to contamination from releases occurring from spills, or other operations;

NOW, THEREFORE, BE IT ORDAINED by the Common Council of the City of Gary, Indiana, as follows:

Section 1. DEFINITIONS

(a) The definitions and terms contemplated by this Ordinance include, but are not limited, to those contained in IC 25-39-2, 312 IAC 12-1, and 312 IAC 13-1 and apply throughout this Ordinance. Unless the context specifically indicates otherwise, the meaning of terms used in this Ordinance shall be as follows:

Ground Water: is any water in natural state below the surface of the ground.

Aquifer: A geological formation, group of formations or part of a formation composed of rock, sand or gravel capable of storing and yielding ground water to wells and springs.

Shallow Unconfined Aquifer: An aquifer in which the permeable media (sand and gravel) starts at the land surface or immediately below the soil profile.

Deeper Confined Aquifer: An aquifer in which the permeable media (sand and gravel) occurs at depth and is located between low permeability media which restricts movement of water vertically in or out of the aquifer.

Drinking Water Standards: The National Primary Drinking Water Regulations are standards established by United States Environmental Protection Agency (USEPA) to control the level of contaminants in the nation's drinking water. These standards are part of the Safe Drinking Water Act.

Contamination: An impairment of water quality by chemicals, biologic organisms, radionuclides, or other extraneous matter whether or not it affects the potential or intended beneficial use of water.

Release: Any unplanned or improper discharge, leak, or spill of a potential contaminant including a hazardous material.

Person: shall mean any individual, firm, corporation or partnership.

Potable Water: is any water used for human consumption, including but not limited to water used for drinking, bathing, washing dishes, preparing foods and watering gardens in which produce intended for human consumption.

Non-Potable Water: is any water used for watering the lawns, washing vehicles and property and does not include the watering of vegetable gardens.

Piped Water Supply: means one or more sources of water, including facilities for conveyance thereof, those serving a municipality or those operating as a public utility under the rules of the Indiana Public Service Commission.

Well: is any excavation, whether drilled, bored, driven, jetted, or dug for the purpose of obtaining water from the ground or returning water to the ground or for the purpose of testing the quantity or quality of such water.

Well Driller: is any individual, partnership, firm or corporation that produces, or contracts to construct a well

Section 2. No New Potable Water Supply Wells:

(a) No Person shall drill a well intended to be used as a source of potable water.

Section 3. Existing Potable Water Supply Wells:

(a) If piped water is available, property owners must disconnect from their private wells and connect to the City's piped water supply system within one year of this ordinance.

(b) In specific instances, cases, or situations wherein compliance with Section 2 (a) is not possible, feasible or impracticable, any and all existing potable water, where drawn from the ground, must be drawn solely from a source located in the deeper confined aquifer and not from a shallow unconsolidated aquifer;

(c) All existing potable wells must be registered with the Building Department of the City of Gary.

(d) All existing potable wells shall be tested and meet the drinking water standards to be operated for potable use.

(e) No Person shall co-mingle well water with water supplied through the piped water supply system.

Section 4. Non-Potable Water Supply Wells:

(a) No person shall drill a well intended as a source of water for any non-potable use without having first registering with the Building Department of the City of Gary.

(b) All wells shall be drilled and/or abandoned by licensed well drillers as per the requirements of the Indiana Department of Natural Resources.

(c) That any other ordinance or portion of any ordinance in conflict with the provisions of this Ordinance is hereby repealed and/or superseded solely to the extent of such conflict.

~~(d)~~ That this Ordinance shall be in full force and effect commencing 90 days from the date of passage, approval and publication in the manner as provided by law.

Section 5. Administrative Enforcement

(a) The provisions of this Ordinance are binding upon and effective within City of Gary;

(b) The City of Gary Board of Health is hereby empowered to enforce the provisions of this Ordinance.

PASSED and **ADOPTED**, by the Common Council of the City of Gary, Indiana, this day of July 3, 2006.

PRESIDING OFFICER

ATTEST:

CITY CLERK

Presented by me to the Mayor for his approval and signature this 5th **day of** July, **2002.**

CITY CLERK

APPROVED and **SIGNED** by me this 10th day of July, 2006.

MAYOR, CITY OF GARY, INDIANA

PREPARED BY: CITY OF GARY LAW DEPARTMENT (HLC/gs)

SPONSORED BY: Mayor Rudolph Clay, Marilyn D. Krusas, Councilwoman 1st District, Shirley Stanford, Councilman 2nd District, Mary Brown, Councilwoman 3rd District, Caroly D. Rogers, Councilwoman 4th District, Jerome Prince, Councilman 5th District, Ronier Scott, Councilman 6th District, Roy Pratt, Councilman-at-Large, Charles "Chuck" Hughes, Councilman-at-Large, Kyle W. Allen, Sr., Councilman-at-Large

COMMITTEE ASSIGNMENT Finance Reported-out/Date 6/20/06

1st Reading/Date 6/20/06 Committee Hearing/Date 6/27/06

2nd Reading/Date 6/20/06 Public Hearing/Date 7/3/06

3rd Reading/Date 7/3/06 Final Reading/Date —

Passed/Date 7/3/06 Defeated/Date — Deferred/Date —

Tabled/Date — Override/Date — Adopted/Date —

Publication/Date — Community Hearing/Date —

Veto — Pocket Veto — Adopted —