East Plant Area TSCA Vault (Revision 1) Annual Report Calendar Year 2023

GM Bedford Casting Operations
105 GM Drive
Bedford, Indiana
EPA ID# IND0060036099

General Motors, LLC

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Contents

Table index

Figure index

Appendices

Terms and Acronyms

ALR	action leakage rate
AMSL	above mean sea level
AOC	Administrative Order on Consent
Approvals	U.S. EPA and IDEM PCB Risk-Based Disposal Approvals
BCO	Bedford Casting Operations
CA	Corrective Action
CFR	Code of Federal Regulations
CMP	Corrective Measures Proposal
CRA	Conestoga-Rovers & Associates
EI	Environmental Indicator
EQ tank	equalization tank
Facility	GM Bedford Casting Operations Facility in Bedford, Indiana
ft.	foot/feet
GM	General Motors LLC
gpad	gallons/acre/day
GUS	gravel underdrain system
GWTP	Groundwater Treatment Plant
HASP	Health and Safety Plan
IDEM	Indiana Department of Environmental Management
IM	Interim Measure
LCS	leachate collection system
LDS	leak detection system
mag meter	magnetic flow meter
mg/L	milligram per liter
NPDES	National Pollutant Discharge Elimination System
PCB	Polychlorinated biphenyl
PCP	Post-Closure Plan
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
Report	East Plant Area Vault Annual Monitoring Report Covering the Calendar Year of 2023
SCADA	supervisory control and data acquisition
SSC	Site Source Control
TSCA	Toxic Substance Control Act
ug/L	micrograms per liter
U.S. EPA	United States Environmental Protection Agency
Vault	East Plant Area TSCA landfill vault

1. Introduction

This Annual Monitoring Report (Report) summarizes data from the calendar year 2023 for post-closure monitoring activities for the Toxic Substances Control Act (TSCA) landfill vault (Vault), located in the East Plant Area of the General Motors LLC (GM) Bedford Casting Operations (BCO) Facility (Facility), in Lawrence County, Bedford, Indiana. This Report has been prepared by GHD on behalf of GM in accordance with the Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent effective August 14, 2014 (United States Environmental Protection Agency [U.S. EPA] Docket No. RCRA-05-2014-0011), and the East Plant Area Vault Post-Closure Plan (PCP) (Conestoga-Rovers & Associates [CRA], February 3, 2012; as amended by Revision 1, August 25, 2016). The Vault was constructed as part of the RCRA Corrective Action (CA) activities at the Facility. U.S. EPA and Indiana Department of Environmental Management (IDEM) agency approvals (Approvals) for the Vault were effective October 18, 2006, and were issued pursuant to 40 Code of Federal Regulations (CFR) § 761.61 (c) for the risk-based disposal of polychlorinated biphenyl (PCB) contaminated waste in the Vault. The Vault was constructed as a component of the East Plant Area Interim Measure (IM) during RCRA CA activities initiated under the Performance Based CA Agreement (effective March 20, 2001, and amended October 1, 2002, March 29, 2007, and May 9, 2008). A RCRA administrative order between U.S. EPA and GM was executed on August 4, 2014 (Administrative Order on Consent (AOC) EPA Docket No. RCRA-05-2014-0011) and replaces the Performance-Based CA Agreement, which has been terminated.

Final closure of the Vault occurred on March 27, 2012. The PCP was submitted to U.S. EPA on February 3, 2012 and amended on August 25, 2016, outlining the post-closure monitoring of the Vault which includes documentation of the quantity of liquid collected from the leachate collection system (LCS), leak detection system (LDS), and gravel underdrain system (GUS); the water elevations in these systems; analytical results from samples collected from these systems; and effluent quantity/quality from the on-site groundwater treatment plant (GWTP). The PCP prescribes a reduced frequency of record keeping procedures to occur, at a minimum, once per month. Additional post-closure monitoring required by the PCP includes annual inspections of the Vault cover system. Consistent with the PCP and the RCRA AOC, the next annual report covering post-closure monitoring data for the 2024 calendar year will be submitted to U.S. EPA on or before July 15, 2025.

Daily operation and maintenance activities associated with the GWTP, LCS, LDS, GUS, and wet wells are conducted by Treatment Technologies under the direction of GM.

1.1 Purpose and Organization of Report

This Report summarizes the 2023 Vault monitoring requirements set out in the PCP and the Approvals by U.S. EPA and IDEM. This Report is organized as follows:

Section 2.0 – Summary of Record Keeping Log

This section provides a summary of the quantity of liquid collected in 2023 from the LCS and LDS sumps and discharged from these systems to the GWTP for treatment; along with water elevations in the GUS, over the primary liner (LCS), and over the secondary liner (LDS).

Section 3.0 – Analytical Results

This section provides analytical results for 2023 from the monitoring of the LCS, LDS, and combined effluent from the GWTP, and groundwater monitoring wells near the Vault.

Section 4.0 – Leachate and Leak Detection Water Disposal

This section provides details related to the volume, PCB concentration, and disposal for leachate and leak detection water with a PCB concentration equal to or greater than (≥) 1 part per million (ppm), if any.

Section 5.0 – Summary and Review of Water Elevations

This section provides a summary and review of the water elevations and depth over the primary liner (LCS), the secondary liner (LDS), and in the GUS.

Section 6.0 – Issues Encountered and Rectification Actions

This section identifies issues and/or problems encountered related to the Vault (i.e., performance of monitoring systems, analytical results, physical characteristics, etc.) and actions taken to rectify them.

Section 7.0 – Spill Cleanup Reports

This section identifies any PCB spill cleanups as established in accordance with the site Health and Safety Plan (HASP).

Section 8.0 – Financial Assurance

This section discusses financial assurance for the Vault.

Section 9.0 – References

This section presents references cited in this Report.

2. Summary of Record Keeping Log

The following information was recorded, as required by the PCP:

1. The quantity of liquid collected from the LCS.
2. The quantity of liquid collected from the LDS.
3. The quantity of liquid collected from the GUS.
4. The elevation of liquid over the primary liner, the secondary liner, and in the GUS
5. The amount of water (liquid) discharged from the LCS, LDS, and GUS to the GWTP, and the respective PCB concentration.
6. The Vault inspection logs and maintenance activities.

2.1 Summary of LCS, LDS, and GUS Sump Monitoring Logs

In 2023, automated daily water level readings, measured by transducers, were collected from the GUS and LCS sumps. Data was recorded and stored in the GWTP though the supervisory control and data acquisition (SCADA) system. Water levels in the LDS and LCS systems were manually measured using a water level tape and recorded on a weekly basis. Summaries of the sump monitoring logs for the LCS, LDS, and GUS including the quantity of liquid pumped from each of the Vault collection systems are presented in Tables 2.1, 2.2, and 2.3, respectively. In 2023, field data for the LCS, LDS, and GUS were directly entered into an electronic form (see Tables 2.1, 2.2, and 2.3). Water pumped from the LCS and LDS is treated and managed in compliance with the National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. IN0064424) for the site.

Table 2.4 presents a summary of the water elevations to allow for direct comparison between the various layers of the Vault liner system (listed in order from top to bottom: LCS, lowest point of the primary liner system, LDS, lowest point of the secondary liner system, and GUS). Table 2.5 presents a summary of the monthly maximum water elevation in each of the sumps.

2.2 Summary of Water Treated in the Groundwater Treatment Plant

Water removed from the Vault sumps is directed to the GWTP, which treats PCB impacted water removed from the Vault Sumps and the Site Source Control (SSC) wet wells (including wet wells #1 through #5). Approximately 35,801 gallons of water were removed from the LCS and 425.7 gallons from the LDS during 2023. There was no water removed from the GUS during the reporting period. The GWTP discharge at Outfall 004 is sampled monthly under NPDES Permit No. IN0064424. Data collected during the 2023 calendar year were reported in accordance with the NPDES permit.

The volume of water discharged from the GWTP is recorded daily. A summary of the total monthly volume and daily average of treated water in the GWTP for 2023 is provided in Table 2.6.

2.3 Summary of the Vault Inspection Log and Maintenance Activities

Maintenance and inspection activities were performed at the Vault during the 2023 calendar year.

GHD completed inspection of the Vault Cover System on a semi-annual basis, concurrent with inspection of the West Plant Area and East Plant Area Cover Systems. These inspections were completed on May 23, 2023, and November 20, 2023. The findings of these inspections were previously reported in the semi-annual progress reports (GM 2023, GM 2024). The inspection forms are provided in Appendix A. There were no significant findings posing a risk to the integrity of the Vault cover system.

The volume of water extracted from the LCS is recorded by a magnetic flow meter (mag meter) located along the forcemain at the LCS sump that records only the volume pump from the LCS. The volume of war extracted from the LDS is manually recorded by a separate in-line paddlewheel flow meter. The mag meter calibration is conducted biennially. The calibration of the mag meter was last conducted on August 29, 2022. The next calibration will be conducted in the 2024 calendar year. There are no calibration requirements for the paddlewheel flow meter. However, the operator routinely inspects the paddlewheel for debris, wear and tear. Batteries are replaced when necessary.

3. Analytical Results

Sampling methods and analytical procedures were performed in compliance with 40 CFR Part 136, as amended in 41 FR 52779 on December 1, 1976.

3.1 Groundwater Monitoring Analytical Results

Groundwater sampling specific to the Vault is conducted at locations 9-4 and CH-20. Sampling at these locations is coordinated with the semi-annual Environmental Indicator (EI) CA750 monitoring program. Groundwater monitoring (static water levels and/or sampling) locations under the EI CA750 in the vicinity of the Vault are shown on Figure 3.1.

Static groundwater levels, measured quarterly, are consistent with historical elevations. There is no evidence of a release from the Vault to the groundwater table based on unusual changes in water elevations in the LCS, LDS, and GUS sumps (Table 2.4) or based on static groundwater levels in the vicinity of the Vault.

Locations 9-4 and CH-20 are downgradient of the Vault. Groundwater results for 9-4 showed PCB concentrations of 0.33 ug/L (May 2023) and 0.34 ug/L (December 2023). PCBs were not detected in CH-20 groundwater in either event.

The 2023 groundwater sampling events were conducted May 22 -25 and November 13-16. Results were previously reported in the EI CA750 sampling summary memoranda (GHD 2023, GHD 2024) and are summarized in Table 3.1

and Figure 3.2 for the May event and Table 3.2 and Figure 3.3 for the November event. These results are consistent with historical results.

3.2 Leachate and Leak Detection Water Monitoring Analytical Results

The PCP requires water from the LCS and LDS to be sampled at least monthly for PCBs, contingent on the presence of sufficient water to collect a sample. Treatment Technologies collected samples from both the LCS and LDS monthly.

During the calendar year 2023, monthly samples were collected form the LCS. Samples were analyzed for PCBs and VOCs. PCB concentrations ranged from 0.16 to 0.83 ug/L. VOC concentrations were below detection limits. Monthly sample collection was attempted from the LDS. Samples were not collected in April and December due to insufficient volume. PCB concentrations ranged from non-detect to 0.16 ug/L. Results for samples collected at the LCS and LDS are consistent with past results following completion on the Vault cover liner installation. Analytical results are presented in Table 3.3.

3.3 GUS Analytical Results

There was no sampling completed at the GUS in 2023. The GUS sump is no longer available as a sampling or extraction point due to obstructions and inoperable pumps within the sump.

3.4 Water Treatment Facility Analytical Results

Water removed from the LCS and LDS are directed via permanent forcemain to the GWTP's equalization tank. The Vault water is combined with groundwater from the Site Source Control (SSC) Wet Wells #1 through #3 and the two trench collection systems, Wet Wells #4 and #5, prior to treatment and discharge under NPDES Permit No. IN0064424.

The GWTP was sampled monthly in accordance with the NPDES permit. Effluent results for total PCBs were non detect during the reporting year. Analytical results for 2023 monthly Outfall 004 discharge sampling events are presented in Table 3.4.

4. Leachate and Leak Detection Water Disposal

Pursuant to U.S. EPA's Risk Based Approval to Dispose of PCBs dated October 18, 2006; Conditions of Approval; Leachate and Leak Detection System Water Monitoring and Disposal, Section 10.b. – *"Leachate and leak detection water with PCB concentrations from 1 ppm to, but not including, 50 ppm is TSCA reportable material that must be managed in compliance with the … NPDES Permit*." There were no analytical results with ≥1 mg/L (ppm) PCBs for water samples collected from the LCS or LDS during the calendar year and no evidence of hydraulic connection between the layers. Pumped leachate and leak detection liquid were treated by the GWTP.

5. Summary and Review of Water Elevations

The water level above the primary liner (i.e., in the LCS) and the secondary liner (i.e., in the LDS) continued to be measured on a weekly basis throughout 2023. Maximum daily transducer water levels recorded at the LCS and GUS sump are automatically stored at the SCADA system at the GWTP and retrieved by the operator. Tables 2.1, 2.2, and 2.3 show recorded water levels for the LCS, LDS, and GUS, respectively. Table 2.4 presents a summary of the water elevations in each of the sumps. Summaries of the maximum monthly water elevations in each of the systems are presented in Table 2.5. Field data for the LCS, LDS, and GUS are entered directly into electronic forms which are provided as Tables 2.1, 2.2 and 2.3.

Pumping operations began in 2006, with a significant reduction in the average monthly volume of water removed through 2009. Since 2010, the average monthly volume of water removed has generally continued to decline, but at a lessening rate. In July/August 2022, the LCS extubated a sharp temporary increase in the volume of leachate collected. This volume increase was likely a result of an initial influx of leachate collected due to a redistribution of perched water with the fill material that allowed an isolated pocket of leachate to drain to the sump. The fill material continued to dewater into early April 2023. Since 2023, leachate collection volumes have been consistent with the pre-July 2022 volumes. A summary of the average monthly volume of water removed from the LCS and the LDS since 2010 is presented on Figure 5.1 (volume presented is from both the calculation method as used up to 2014 and based on flow meter readings for the LDS to allow for direct comparison between calculation methods and historical monitoring data).

5.1 Leachate Collection System

Manual water level measurements were generally collected on a weekly basis (in excess of the monthly monitoring required by the PCP) in 2023. The automated system records the maximum level and total pumped quantities on a daily basis.

During 2023 the water elevation in the LCS was maintained within the operating limits set out in the PCP. The water levels recorded by the transducers are transmitted through the wireless modem to the PLC. It is these water level readings (converted to elevation) that trigger the pump in the LCS to turn ‘on’ (set point is 674 feet above mean sea level [AMSL]). On occasion, water level readings recorded at the GWTP are shown as a negative value. The negative water level readings are due to the water level in the sump being below the transducer’s ‘zero’ range. During 2023, manual water levels were monitored as a check on the transducer readings. The depth of water in the LCS was monitored and extracted such that an average level of less than 1-foot of leachate was maintained above the primary liner (over the 7-acre Vault footprint), in accordance with the PCP.

The total amount of water removed from the LCS in 2023 was 35,801 gallons based on flow meter readings, which is less than the estimated 126,114 gallons pumped in 2022.

5.2 Leak Detection System

Pumping at the LDS is conducted via a portable pump discharging through overland hose that is connected to the hard piping within the LCS manhole (for direct discharge to the EQ tank via forcemain). The total amount of water removed from the LDS during the 2023 calendar year was 428 gallons based on flow meter readings.

During 2023, the depth of water in the LDS was maintained such that the water level did not rise more than 18 inches in the sump in accordance with the PCP.

Leakage through the liner is evaluated as an indicator of potential failure of the liner system. Leakage through a liner system can occur through seams and puncture holes from handling and placement or through pinholes inadvertently introduced during the manufacturing process and not visible to the eye. In assessing the potential for leakage through the primary bottom liner system into the LDS, GHD takes records indicating the amount of water collected within the LDS system and compares this volume to a theoretical action leakage rate (ALR) measured in units of

gallons/acre/day (gpad). The volume of water removed (converted to an average flow rate in gpad) should be less than the ALR. The data are used in conjunction with other data to assess the overall performance of the Vault containment system.

The ALR was initially calculated in the Post-Closure Plan (GHD, 25 August 2016), as 32,000 gallons/acre/day (gpad).

The TSCA theoretical ALR for the landfill relative to the actual rate is assessed as an additional line of evidence for the integrity of the Vault liner system.

The equation for calculating the ALR is shown on Page 11 of U.S. EPA's January 1992 Action Leakage Rates for Leak Detection Systems (EPA 530-R-92-004):

$$Q = k * h * \tan(\alpha) * B_{\text{avg}}$$

k=1 cm/sec (hydraulic conductivity of INDOT No. 8 stone used in the gravel envelope)

α=0.0441 (calculated from the elevation difference between the LDS and LCS sumps and the distance between the two along to gravel base, 1.5 ft/34.033072 ft)

D=1 foot (average thickness of the gravel envelope within the LDS)

B_{avg}=20 feet (D/ sin(α))

Based on the above conditions, the ALR is calculated at 18,709 gpad.

The average daily flow rate for 2023 was calculated as the total volume of water removed, divided by the number of days since the previous pumping, divided by the Vault footprint (7 acres). In 2023, 425.7 gallons of water was pumped from January through December 2023 from the LDS. Water was pumped from the LDS system once a month for sample collection purposes. The average daily flow rate was calculated for each month that pumping occurred. The actual action leakage rates were calculated as follows:

Date of Removal	Volume Removed (gallons)	Days Since Last Pumped	Actual Action Leakage Rate (gpad)
January 9, 2023	54.7	34	0.23
February 6, 2023	57.9	27	0.31
March 14, 2023	36.3	35	0.15
April 10, 2023	33.8	26	0.19
May 15, 2023	41.2	34	0.17
June 13, 2023	31.4	28	0.16
July 17, 2023	35	33	0.15
August 7, 2023	36.8	20	0.26
September 11, 2023	36.8	34	0.15
October 12, 2023	26.4	30	0.13
November 9, 2023	19.4	27	0.10
December 7, 2023	16.5	27	0.09

It is concluded that the ALR, using both the original and alternate method outlined above, is higher (including a factor of safety of 2 as suggested by the U.S. EPA in their guidance method) than the quantity of liquid removed from the LDS during 2023, which is suggestive of a liner system which is functioning effectively.

5.3 Gravel Underdrain System

The GUS was installed as part of the overall TSCA Vault construction in order to maintain the stability of the liner system during active operations (e.g., construction and filling of the Vault) by mitigating excessive water pressure action on the bottom liner. Since active filling operations ceased over 10 years ago, the original purpose of the GUS operation is no longer necessary.

Water level measurements were collected by the PLC on a daily basis. The groundwater elevation at the GUS sump remained stable during 2023.

The GUS sump is no longer available as a sampling or extraction point due to obstructions and inoperable pumps within the sump.

6. Issues Encountered and Remedial Actions

No new issues were identified during the reporting period.

In July/August 2022, the LCS exhibited a spike in the volume of leachate collected. This volume increase was likely a result of an initial influx of leachate collected due to a redistribution of perched water within the fill material that allowed an isolated pocket of leachate to drain to the sump. The fill material continued to dewater into early April 2023. Since 2023, leachate collection volumes have been consistent with pre-July 2022 volumes.

7. Spill Cleanup Reports

There were no Facility PCB spills in 2023. There were no spills on public roads.

8. Financial Assurance

As required by the August 2014 RCRA AOC, a surety bond was obtained by GM in 2014 to provide financial assurance for the remaining Corrective Action tasks, including operation and maintenance related to the Vault, until the approval of the Corrective Measures Proposal (CMP); at which time costs to complete Corrective Action will be re-evaluated based on the requirements of the CMP. As required under the AOC, the financial assurance cost estimate is updated, at a minimum, annually. GM provided financial assurance for Fiscal Year 2023 (FY2023) on February 22, 2023. GM submitted the financial assurance cost estimate for FY2024 to U.S. EPA and IDEM on November 16, 2023, with a revised version, based on U.S. EPA comments submitted on February 20, 2024, GM submitted the financial assurance demonstration of the FY2024 financial assurance to U.S. EPA on March 1, 2024. The surety bond in the amount of the approved financial assurance cost estimate remains in effect.

9. References

Conestoga Rovers & Associates. 2012. Post Closure Plan, Bedford Plant Vault, GM CETC Bedford Facility, Bedford, Indiana. Ref. No. 13968 (Report 343). February 3.

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———. 2024. Letter to U.S. EPA. Progress Report 86 October 2023 through March 2024. April 8.

Tables

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations. Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Jan	-15.4	error					0	Sampled		
2-Jan	-15.4	error					0	Sampled		
3-Jan	-15.4	error					0	Sampled		
4-Jan	-15.4	error	69.19	671.68	error		0	Sampled		
5-Jan	-15.4	error					0	Sampled		
6-Jan	-15.3	error					0	Sampled		
7-Jan	-15.3	error					0	Sampled		
8-Jan	-15.3	error					0	Sampled		
9-Jan	-15.3	error	69.19	671.68	error	770	770	☑ Sampled		sampled and pumped
10-Jan	-15.3	error					770	Sampled		
11-Jan	-15.3	error					770	Sampled		
12-Jan	-15.3	error					770	Sampled		
13-Jan	-15.3	error					770	Sampled		
14-Jan	-15.3	error					770	Sampled		
15-Jan	-15.4	error					770	Sampled		
16-Jan	-15.4	error					770	Sampled		
17-Jan	-15.3	error					770	Sampled		
18-Jan	-15.3	error	69.26	671.61	error		770	Sampled		
19-Jan	-15.3	error					770	Sampled		
20-Jan	-15.3	error					770	Sampled		
21-Jan	-15.3	error					770	Sampled		
22-Jan	-15.3	error					770	Sampled		
23-Jan	-15.3	error	69.24	671.63	error		770	Sampled		
24-Jan	-15.3	error					770	Sampled		
25-Jan	-15.3	error					770	Sampled		
26-Jan	-15.3	error					770	Sampled		
27-Jan	-15.3	error					770	Sampled		
28-Jan	-15.3	error					770	Sampled		
29-Jan	-15.3	error					770	Sampled		
30-Jan	-15.3	error	69.22	671.65	error		770	Sampled		
31-Jan	-15.3	error					770	Sampled		
						Year to Date Total:	770			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations. Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Feb	-15.3	error	69.22	671.65	error		0	Sampled		
2-Feb	-15.3	error					0	Sampled		
3-Feb	-15.3	error					0	Sampled		
4-Feb	-15.3	error					0	Sampled		
5-Feb	-15.3	error					0	Sampled		
6-Feb	-15.3	error	69.2	671.67	error	715	715	☑ Sampled		sampled and pumped 69.45 after pumping
7-Feb	-15.3	error					715	Sampled		
8-Feb	-15.3	error					715	Sampled		
9-Feb	-15.3	error					715	Sampled		
10-Feb	-15.3	error					715	Sampled		
11-Feb	-15.3	error					715	Sampled		
12-Feb	-15.3	error					715	Sampled		
13-Feb	-15.3	error	69.26	671.61	error		715	Sampled		
14-Feb	-15.3	error					715	Sampled		
15-Feb	-15.3	error					715	Sampled		
16-Feb	-15.4	error					715	Sampled		
17-Feb	-15.3	error					715	Sampled		
18-Feb	-15.3	error					715	Sampled		
19-Feb	-15.3	error					715	Sampled		
20-Feb	-15.4	error	69.23	671.64	error		715	Sampled		
21-Feb	-15.3	error					715	Sampled		
22-Feb	-15.3	error					715	Sampled		
23-Feb	-15.4	error					715	Sampled		
24-Feb	-15.3	error					715	Sampled		
25-Feb	-15.3	error					715	Sampled		
26-Feb	-15.3	error					715	Sampled		
27-Feb	-15.3	error	69.21	671.66	error		715	Sampled		
28-Feb	-15.3	error					715	Sampled		
						Year to Date Total:	1485			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations. Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Mar	-15.3	error				0	0	Sampled		
2-Mar	-15.3	error				0	0	Sampled		
3-Mar	-15.3	error				3175	3175	Sampled		pumped in auto due to rain volume. 2.77" 3/3/23 - 3/4/23
4-Mar	5.6	671.47				5215	8390	Sampled		
5-Mar	9.2	671.77				4652	13042	Sampled		
6-Mar	6.3	671.53	67.91	672.96	1.44	0	13042	Sampled		
7-Mar	5.1	671.43				0	13042	Sampled		
8-Mar	5.7	671.48				0	13042	Sampled		
9-Mar	6.4	671.53				0	13042	Sampled		
10-Mar	6	671.50				1188	14230	Sampled		
11-Mar	5	671.42				423	14653	Sampled		
12-Mar	5.3	671.44				0	14653	Sampled		
13-Mar	3.2	671.27	68.09	672.78	1.51	462	15115	Sampled		
14-Mar	2.2	671.18	68.09	672.78	1.60	469	15584	☑ Sampled		sampled and pumped
15-Mar	2.7	671.23				265	15849	Sampled		
16-Mar	4	671.33				0	15849	Sampled		
17-Mar	2.9	671.24				0	15849	Sampled		
18-Mar	2.6	671.22				0	15849	Sampled		
19-Mar	3.3	671.28				0	15849	Sampled		
20-Mar	3.2	671.27	68.07	672.80	1.53	0	15849	Sampled		
21-Mar	3.2	671.27				0	15849	Sampled		
22-Mar	3.8	671.32				0	15849	Sampled		
23-Mar	3	671.25				897	16746	Sampled		
24-Mar	3.8	671.32				26	16772	Sampled		
25-Mar	3.6	671.30				51	16823	Sampled		
26-Mar	3.3	671.28				581	17404	Sampled		
27-Mar	2.9	671.24	68.11	672.76	1.52	7	17411	Sampled		
28-Mar	3.7	671.31				141	17552	Sampled		
29-Mar	3.8	671.32				206	17758	Sampled		
30-Mar	3.1	671.26				0	17758	Sampled		
31-Mar	4.7	671.39				5695	23453	Sampled		
						Year to Date Total:	24938			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
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1-Apr	4.9	671.41				3529	3529	Sampled		
2-Apr	2.1	671.18				182	3711	Sampled		
3-Apr	2.4	671.20				3	3714	Sampled		
4-Apr	3	671.25				10	3724	Sampled		
5-Apr	2.7	671.23	68.06	672.81	1.58	0	3724	Sampled		
6-Apr	1.7	671.14				0	3724	Sampled		
7-Apr	2.4	671.20				0	3724	Sampled		
8-Apr	3	671.25				192	3916	Sampled		
9-Apr	2	671.17				0	3916	Sampled		
10-Apr	2.3	671.19	68.06	672.81	1.62	268	4184	☑ Sampled		sampled and ending manual depth 68.11
11-Apr	2.4	671.20				0	4184	Sampled		
12-Apr	2.8	671.23				0	4184	Sampled		
13-Apr	2.5	671.21				0	4184	Sampled		
14-Apr	2.6	671.22				0	4184	Sampled		
15-Apr	2.3	671.19				0	4184	Sampled		
16-Apr	3.2	671.27				0	4184	Sampled		
17-Apr	3.5	671.29				5	4189	Sampled		
18-Apr	2.3	671.19	68.04	672.83	1.64	0	4189	Sampled		
19-Apr	2.4	671.20				0	4189	Sampled		
20-Apr	2.6	671.22				0	4189	Sampled		
21-Apr	2.6	671.22				0	4189	Sampled		
22-Apr	2.6	671.22				0	4189	Sampled		
23-Apr	2.6	671.22				0	4189	Sampled		
24-Apr	2.6	671.22				0	4189	Sampled		
25-Apr	2.9	671.24	68.06	672.81	1.57	0	4189	Sampled		
26-Apr	2.7	671.23				0	4189	Sampled		
27-Apr	3.4	671.28				0	4189	Sampled		
28-Apr	3	671.25				0	4189	Sampled		
29-Apr	3.5	671.29				0	4189	Sampled		
30-Apr	3.7	671.31				0	4189	Sampled		
						Year to Date Total:	29127			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
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1-May	3.4	671.28	68	672.87	1.59	0	0	Sampled		
2-May	2.7	671.23				0	0	Sampled		
3-May	2.6	671.22				0	0	Sampled		
4-May	2.7	671.23				0	0	Sampled		
5-May	3.3	671.28				0	0	Sampled		
6-May	3.6	671.30				11	11	Sampled		
7-May	3.8	671.32				0	11	Sampled		
8-May	2.3	671.19				18	29	Sampled		
9-May	2.5	671.21	68.1	672.77	1.56	0	29	Sampled		
10-May	2.7	671.23				42	71	Sampled		
11-May	2.9	671.24				0	71	Sampled		
12-May	2.9	671.24				0	71	Sampled		
13-May	2.8	671.23				0	71	Sampled		
14-May	2.8	671.23				0	71	Sampled		
15-May	2.9	671.24	68.01	672.86	1.62	671	742	Sampled		sampled and collected extra samples for microbial research
16-May	2.6	671.22				0	742	Sampled		
17-May	2.1	671.18				0	742	Sampled		
18-May	2.1	671.18				0	742	Sampled		
19-May	2.2	671.18				0	742	Sampled		
20-May	2.1	671.18				0	742	Sampled		
21-May	2.2	671.18				0	742	Sampled		
22-May	2.2	671.18	68.1	672.77	1.59	0	742	Sampled		
23-May	2.2	671.18				3	745	Sampled		
24-May	2.2	671.18				0	745	Sampled		
25-May	2.2	671.18				0	745	Sampled		
26-May	2.2	671.18				0	745	Sampled		
27-May	2.3	671.19				0	745	Sampled		
28-May	2.4	671.20				0	745	Sampled		
29-May	2.5	671.21				0	745	Sampled		
30-May	2.4	671.20	67.99	672.88	1.68	0	745	Sampled		
31-May	2.5	671.21				0	745	Sampled		
						Year to Date Total:	29872			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
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1-Jun	2.4	671.20				0	0	Sampled		
2-Jun	2.6	671.22				0	0	Sampled		
3-Jun	2.6	671.22				70	70	Sampled		
4-Jun	2.5	671.21				26	96	Sampled		
5-Jun	2.8	671.23	68.02	672.85	1.62	0	96	Sampled		
6-Jun	2.6	671.22				0	96	Sampled		
7-Jun	2.8	671.23				0	96	Sampled		
8-Jun	2.6	671.22				0	96	Sampled		
9-Jun	2.8	671.23				0	96	Sampled		
10-Jun	2.8	671.23				0	96	Sampled		
11-Jun	3.4	671.28				0	96	Sampled		
12-Jun	2.3	671.19	68.02	672.85	1.66	0	96	Sampled		
13-Jun	2.5	671.21	67.99	672.88	1.67	342	438	Sampled		
14-Jun	2.3	671.19				0	438	Sampled		
15-Jun	2.3	671.19				0	438	Sampled		
16-Jun	2.3	671.19				0	438	Sampled		installed new level sensor
17-Jun	*	*				0	438	Sampled		6/23/23 scheduled to set up and calibrate new level sensor
18-Jun	*	*				0	438	Sampled		
19-Jun	*	*	68.01	672.86	error	0	438	Sampled		
20-Jun	*	*				0	438	Sampled		
21-Jun	*	*				0	438	Sampled		
22-Jun	*	*				0	438	Sampled		
23-Jun	20.34	672.70	68.12	672.75	0.05	866	1304	Sampled		calibrated level sensor. Reading correctly at LCS not at SCADA
24-Jun	231.0*	231.0*				0	1304	Sampled		SCADA not reading properly
25-Jun	226.0*	226.0*				0	1304	Sampled		
26-Jun	225.7*	225.7*				52	1356	Sampled		
27-Jun	33.4	673.78	68.05	672.82	0.96	0	1356	Sampled		SCADA and local are not showing same data
28-Jun	32.8	673.73				0	1356	Sampled		
29-Jun	28.2	673.35				0	1356	Sampled		
30-Jun	28.6	673.38				0	1356	Sampled		
						Year to Date Total:	31228			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

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Pump automatically starts based on transducer reading.

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1-Jul	27.4	673.28				0	0	☐ Sampled	☐	
2-Jul	27.9	673.33				0	0	☐ Sampled	☐	
3-Jul	28.6	673.38	68.05	672.82	**0.56**	0	0	☐ Sampled	☑	SCADA not reading the same as local readout at LCS 22.37
4-Jul	28.2	673.35				0	0	☐ Sampled	☐	
5-Jul	28.6	673.38				0	0	☐ Sampled	☐	
6-Jul	28.6	673.38				0	0	☐ Sampled	☐	
7-Jul	28.2	673.35				0	0	☐ Sampled	☐	
8-Jul	28.8	673.40				0	0	☐ Sampled	☐	
9-Jul	28.9	673.41				0	0	☐ Sampled	☐	
10-Jul	29	673.42	68	672.87	**0.55**	0	0	☐ Sampled	☐	
11-Jul	28.6	673.38				0	0	☐ Sampled	☐	
12-Jul	28.6	673.38				0	0	☐ Sampled	☐	
13-Jul	28.6	673.38				0	0	☐ Sampled	☐	
14-Jul	28.6	673.38				0	0	☐ Sampled	☐	
15-Jul	28.6	673.38				0	0	☐ Sampled	☐	
16-Jul	28.6	673.38				0	0	☐ Sampled	☐	
17-Jul	28.6	673.38	68.01	672.86	**0.52**	1105	1105	☑ Sampled	☐	local level readings start 22.37 after pumping 20.34
18-Jul	27.8	673.32				0	1105	☐ Sampled	☐	
19-Jul	27.4	673.28				0	1105	☐ Sampled	☐	
20-Jul	27.4	673.28				0	1105	☐ Sampled	☐	
21-Jul	27.4	673.28				0	1105	☐ Sampled	☐	
22-Jul	27.6	673.30				0	1105	☐ Sampled	☐	
23-Jul	27.4	673.28				0	1105	☐ Sampled	☐	
24-Jul	27.4	673.28	68.11	672.76	**0.52**	0	1105	☐ Sampled	☐	
25-Jul	28.2	673.35				0	1105	☐ Sampled	☐	
26-Jul	27.8	673.32				0	1105	☐ Sampled	☐	
27-Jul	27.8	673.32				0	1105	☐ Sampled	☐	
28-Jul	27.8	673.32				0	1105	☐ Sampled	☐	
29-Jul	28.2	673.35				0	1105	☐ Sampled	☐	
30-Jul	28.2	673.35				0	1105	☐ Sampled	☐	
31-Jul	27.7	673.31	68.1	672.77	**0.54**	0	1105	☐ Sampled	☐	
						Year to Date Total:	32333			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

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1-Aug	27.8	673.32				0	0	☐ Sampled	☐	
2-Aug	28.1	673.34				0	0	☐ Sampled	☐	
3-Aug	28.1	673.34				0	0	☐ Sampled	☐	
4-Aug	28.5	673.38				0	0	☐ Sampled	☐	
5-Aug	28.6	673.38				0	0	☐ Sampled	☐	
6-Aug	28.6	673.38				0	0	☐ Sampled	☐	
7-Aug	28	673.33	68.07	672.80	**0.53**	905	905	☑ Sampled	☐	sampled and pumped. 68.24 after pumping
8-Aug	27	673.25				0	905	☐ Sampled	☐	
9-Aug	27	673.25				0	905	☐ Sampled	☐	
10-Aug	27.4	673.28				0	905	☐ Sampled	☐	
11-Aug	27.4	673.28				0	905	☐ Sampled	☐	
12-Aug	27.4	673.28				0	905	☐ Sampled	☐	
13-Aug	27.8	673.32				0	905	☐ Sampled	☐	
14-Aug	27.4	673.28				0	905	☐ Sampled	☐	
15-Aug	27	673.25	68.02	672.85	0.40	0	905	☐ Sampled	☑	flowmeter calibrations on LCS and GUS/LCS* 150 gallons in simulation mode. No flow.
16-Aug	27	673.25				0	905	☐ Sampled	☐	
17-Aug	27.4	673.28				0	905	☐ Sampled	☐	
18-Aug	27	673.25				0	905	☐ Sampled	☐	
19-Aug	27.4	673.28				0	905	☐ Sampled	☐	
20-Aug	27.8	673.32				0	905	☐ Sampled	☐	
21-Aug	27.4	673.28	68.14	672.73	**0.55**	0	905	☐ Sampled	☐	
22-Aug	27.4	673.28				0	905	☐ Sampled	☐	
23-Aug	28.1	673.34				0	905	☐ Sampled	☐	
24-Aug	28.1	673.34				0	905	☐ Sampled	☐	
25-Aug	27.8	673.32				0	905	☐ Sampled	☐	
26-Aug	27.8	673.32				0	905	☐ Sampled	☐	
27-Aug	27.4	673.28				0	905	☐ Sampled	☐	
28-Aug	27.4	673.28	68.09	672.78	**0.50**	0	905	☐ Sampled	☐	
29-Aug	27.4	673.28				0	905	☐ Sampled	☐	
30-Aug	27.8	673.32				0	905	☐ Sampled	☐	
31-Aug	27.4	673.28				0	905	☐ Sampled	☐	
						Year to Date Total:	33238			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations. Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Sep	27.4	673.28				0	0	Sampled		
2-Sep	27.8	673.32				0	0	Sampled		
3-Sep	27.8	673.32				0	0	Sampled		
4-Sep	27.8	673.32				0	0	Sampled		
5-Sep	28.2	673.35	68.09	672.78	0.57	0	0	Sampled		
6-Sep	28.2	673.35				0	0	Sampled		
7-Sep	27.8	673.32				260	260	Sampled		
8-Sep	27.4	673.28				0	260	Sampled		
9-Sep	27.4	673.28				0	260	Sampled		
10-Sep	27.4	673.28				0	260	Sampled		
11-Sep	27.4	673.28	68.09	672.78	0.50	686	946	☑ Sampled		sampled and pumped
12-Sep	26.6	673.22				0	946	Sampled		
13-Sep	26.6	673.22				0	946	Sampled		
14-Sep	26.7	673.23				0	946	Sampled		
15-Sep	26.7	673.23				0	946	Sampled		
16-Sep	27.4	673.28				0	946	Sampled		
17-Sep	26.7	673.23				0	946	Sampled		
18-Sep	26.7	673.23	68.17	672.70	0.52	0	946	Sampled		
19-Sep	27	673.25				0	946	Sampled		
20-Sep	27	673.25				0	946	Sampled		
21-Sep	27	673.25				0	946	Sampled		
22-Sep	27	673.25				0	946	Sampled		
23-Sep	27.4	673.28				0	946	Sampled		
24-Sep	27.4	673.28				0	946	Sampled		
25-Sep	27.4	673.28	68.19	672.68	0.60	0	946	Sampled		
26-Sep	27.8	673.32				0	946	Sampled		
27-Sep	27	673.25				0	946	Sampled		
28-Sep	27.1	673.26				0	946	Sampled		
29-Sep	27	673.25				0	946	Sampled		
30-Sep	27.4	673.28				0	946	Sampled		
						Year to Date Total:	34184			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-Oct	28.2	673.35				0	0	Sampled		
2-Oct	27.4	673.28	68.2	672.67	0.61	0	0	Sampled	☑	SCADA does not read same as local level sensor
3-Oct	27.4	673.28				0	0	Sampled		
4-Oct	27.4	673.28				0	0	Sampled		
5-Oct	27.6	673.30				0	0	Sampled		
6-Oct	27.6	673.30				0	0	Sampled		
7-Oct	27.8	673.32				0	0	Sampled		
8-Oct	27.8	673.32				0	0	Sampled		
9-Oct	27.8	673.32				0	0	Sampled		
10-Oct	27.8	673.32				0	0	Sampled		
11-Oct	27.4	673.28				0	0	Sampled		
12-Oct	27.4	673.28	68.11	672.76	0.52	757	757	☑ Sampled		sampled and pumped
13-Oct	26.6	673.22				0	757	Sampled		
14-Oct	26.7	673.23				0	757	Sampled		
15-Oct	26.7	673.23				0	757	Sampled		
16-Oct	26.7	673.23	68.19	672.68	0.54	0	757	Sampled		
17-Oct	26.6	673.22				0	757	Sampled		
18-Oct	26.7	673.23				0	757	Sampled		
19-Oct	27	673.25				0	757	Sampled		
20-Oct	27	673.25				0	757	Sampled		
21-Oct	26.6	673.22				0	757	Sampled		
22-Oct	26.6	673.22				0	757	Sampled		
23-Oct	26.6	673.22	68.19	672.68	0.54	0	757	Sampled		
24-Oct	26.6	673.22				0	757	Sampled		
25-Oct	27.4	673.28				0	757	Sampled		
26-Oct	27	673.25				0	757	Sampled		
27-Oct	27	673.25				0	757	Sampled		
28-Oct	26.3	673.19	68.19	672.68	0.51	0	757	Sampled		
29-Oct	27	673.25				0	757	Sampled		
30-Oct	27	673.25				0	757	Sampled		
31-Oct	27	673.25				0	757	Sampled		
						Year to Date Total:	34941			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations. Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Nov	26.6	673.22					0	Sampled		
2-Nov	26.6	673.22					0	Sampled		
3-Nov	26.6	673.22					0	Sampled		
4-Nov	27	673.25					0	Sampled		
5-Nov	27	673.25	68.15	672.72	**0.53**		0	Sampled	☑	SCADA does not match local level reading
6-Nov	27	673.25					0	Sampled		
7-Nov	27.4	673.28					0	Sampled		
8-Nov	27	673.25					0	Sampled		
9-Nov	27	673.25	68.15	672.72	**0.53**	343	343	☑ Sampled		sampled and pumped
10-Nov	26.6	673.22					343	Sampled		
11-Nov	26.3	673.19					343	Sampled		
12-Nov	27	673.25					343	Sampled		
13-Nov	27	673.25	68.15	672.72	**0.53**		343	Sampled		
14-Nov	27	673.25					343	Sampled		
15-Nov	27	673.25					343	Sampled		
16-Nov	27	673.25					343	Sampled		
17-Nov	27.4	673.28					343	Sampled		
18-Nov	27.4	673.28					343	Sampled		
19-Nov	27.4	673.28					343	Sampled		
20-Nov	27.4	673.28	68.16	672.71	**0.57**		343	Sampled		
21-Nov	27	673.25					343	Sampled		
22-Nov	27	673.25					343	Sampled		
23-Nov	27	673.25					343	Sampled		
24-Nov	27	673.25					343	Sampled		
25-Nov	27.4	673.28					343	Sampled		
26-Nov	27.4	673.28					343	Sampled		
27-Nov	26.6	673.22	68.16	672.71	**0.51**		343	Sampled		
28-Nov	26.6	673.22					343	Sampled		
29-Nov	27	673.25					343	Sampled		
30-Nov	27.4	673.28					343	Sampled		
						Year to Date Total:	35284			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.1

2023 Summary of Leachate Collection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Level [a] (from SCADA) (inches) *should not be more than 36 inches* daily	(1) Calculated Elevation from Transducer Measurement [a] (ft AMSL) *should not be more than 674.00 ft AMSL*	(X) Manual Depth To Water [b] (feet) *should not be less than 66.83 ft* weekly	(2) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 674.00 ft AMSL*	Water elevation based on transducer & manual measurement in agreement? (within 6 inches)	Water Pumped (from SCADA) (gallons)	Cumulative Water Removed (gallons)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Dec	27.4	673.28				0	0	☐ Sampled	☑	SCADA does not match local reading
2-Dec	27.4	673.28				0	0	☐ Sampled	☐	
3-Dec	27	673.25				0	0	☐ Sampled	☐	
4-Dec	27	673.25	68.13	672.74	**0.51**	0	0	☐ Sampled	☐	
5-Dec	26.6	673.22				0	0	☐ Sampled	☐	
6-Dec	26.6	673.22				0	0	☐ Sampled	☐	
7-Dec	27.4	673.28	68.08	672.79	0.49	517	517	☑ Sampled	☐	SAMPLED AND PUMPED/ AFTER PUMPED 68.15
8-Dec	27	673.25				0	517	☐ Sampled	☐	
9-Dec	26.6	673.22				0	517	☐ Sampled	☐	
10-Dec	26.6	673.22				0	517	☐ Sampled	☐	
11-Dec	26.6	673.22				0	517	☐ Sampled	☐	
12-Dec	26.6	673.22				0	517	☐ Sampled	☐	
13-Dec	26.6	673.22				0	517	☐ Sampled	☐	
14-Dec	27.4	673.28				0	517	☐ Sampled	☐	
15-Dec	27.8	673.32				0	517	☐ Sampled	☐	
16-Dec	27.4	673.28				0	517	☐ Sampled	☐	
17-Dec	27	673.25				0	517	☐ Sampled	☐	
18-Dec	27	673.25				0	517	☐ Sampled	☐	
19-Dec	26.6	673.22				0	517	☐ Sampled	☐	
20-Dec	27	673.25				0	517	☐ Sampled	☐	
21-Dec	27	673.25				0	517	☐ Sampled	☐	
22-Dec	27.4	673.28				0	517	☐ Sampled	☐	
23-Dec	27.4	673.28				0	517	☐ Sampled	☐	
24-Dec	27.8	673.32				0	517	☐ Sampled	☐	
25-Dec	27.4	673.28				0	517	☐ Sampled	☐	
26-Dec	27.4	673.28				0	517	☐ Sampled	☐	
27-Dec	27.2	673.27				0	517	☐ Sampled	☐	
28-Dec	27	673.25				0	517	☐ Sampled	☐	
29-Dec	27	673.25				0	517	☐ Sampled	☐	
30-Dec	27.4	673.28				0	517	☐ Sampled	☐	
31-Dec	26.8	673.23				0	517	☐ Sampled	☐	
						Year to Date Total:	35801			

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 740.87 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 671.00

Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 69.83

Pump operating level between 1.5 ft (672.50 ft AMSL or 68.83 ft below the top of sump) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 36 inches deep** (equates to a water level of 674.00 ft AMSL or 66.83 ft below top of the sump). Pumping must be initiated if the water level is above 674.00 ft AMSL. Pumping automatically initiated based on transducer readings. If does not occur, confirm SCADA water level measurements by taking manual reading. If both transducer and manual readings (converted to elevation) indicate pumping is required but does not automatically begin, manually pump LCS. Troubleshoot lack of automatic pumping.

(b) **Depth to water level should not be less than 66.83 ft below the top of sump** (equates to a water level of 674.00 ft AMSL or water depth of 36 inches). Initiate pumping if the water level is above 674.00 ft AMSL. Compare manual water level measurement against transducer reading. Troubleshoot discrepancies.

Table 2.2

2023 Summary of Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
from previous month						0.00	21				
1-Jan							22		Sampled		
2-Jan							23		Sampled		
3-Jan							24		Sampled		
4-Jan	72.81	668.93					25		Sampled		
5-Jan							26		Sampled		
6-Jan							27		Sampled		
7-Jan							28		Sampled		
8-Jan							29		Sampled		
9-Jan	72.81	668.93	72.88	6378	6432	54.7	0		☑ Sampled		sampled and pumped
10-Jan							1		Sampled		
11-Jan							2		Sampled		
12-Jan							3		Sampled		
13-Jan							4		Sampled		
14-Jan							5		Sampled		
15-Jan							6		Sampled		
16-Jan							7		Sampled		
17-Jan							8		Sampled		
18-Jan	72.86	668.88					9		Sampled		
19-Jan							10		Sampled		
20-Jan							11		Sampled		
21-Jan							12		Sampled		
22-Jan							13		Sampled		
23-Jan	72.86	668.88					14		Sampled		
24-Jan							15		Sampled		
25-Jan							16		Sampled		
26-Jan							17		Sampled		
27-Jan							18		Sampled		
28-Jan							19		Sampled		
29-Jan							20		Sampled		
30-Jan	72.88	668.86					21		Sampled		
31-Jan							22		Sampled		
					Year to Date Total:	54.7					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

Table 2.2

2023 Summary of Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-Feb							23		Sampled		
2-Feb							24		Sampled		
3-Feb							25		Sampled		
4-Feb							26		Sampled		
5-Feb							27		Sampled		
6-Feb	72.86	668.88	72.91	6432	6490	57.9	0	0.31	Sampled		sampled and pumped
7-Feb							1		Sampled		
8-Feb							2		Sampled		
9-Feb							3		Sampled		
10-Feb							4		Sampled		
11-Feb							5		Sampled		
12-Feb							6		Sampled		
13-Feb	72.9	668.84					7		Sampled		
14-Feb							8		Sampled		
15-Feb							9		Sampled		
16-Feb							10		Sampled		
17-Feb							11		Sampled		
18-Feb							12		Sampled		
19-Feb							13		Sampled		
20-Feb	72.89	668.85					14		Sampled		
21-Feb							15		Sampled		
22-Feb							16		Sampled		
23-Feb							17		Sampled		
24-Feb							18		Sampled		
25-Feb							19		Sampled		
26-Feb							20		Sampled		
27-Feb	72.89	668.85					21		Sampled		
28-Feb							22		Sampled		
					Year to Date Total:	112.6					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

Table 2.2

2023 Summary of Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(X) Manual Depth To Water [(a)] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [(b)] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [(b)] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-Mar							23		Sampled		
2-Mar							24		Sampled		
3-Mar							25		Sampled		
4-Mar							26		Sampled		
5-Mar							27		Sampled		
6-Mar	72.83	668.91					28		Sampled		
7-Mar							29		Sampled		
8-Mar							30		Sampled		
9-Mar							31		Sampled		
10-Mar							32		Sampled		
11-Mar							33		Sampled		
12-Mar							34		Sampled		
13-Mar	72.93	668.81					35		Sampled		
14-Mar	72.93	668.81	72.93	6490	6526	36.3	0	0.15	☑ Sampled		sampled and pumped
15-Mar							1		Sampled		
16-Mar							2		Sampled		
17-Mar							3		Sampled		
18-Mar							4		Sampled		
19-Mar							5		Sampled		
20-Mar	72.93	668.81					6		Sampled		
21-Mar							7		Sampled		
22-Mar							8		Sampled		
23-Mar							9		Sampled		
24-Mar							10		Sampled		
25-Mar							11		Sampled		
26-Mar							12		Sampled		
27-Mar	72.93	668.81					13		Sampled		
28-Mar							14		Sampled		
29-Mar							15		Sampled		
30-Mar							16		Sampled		
31-Mar							17		Sampled		
					Year to Date Total:	148.9					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

Table 2.2

2023 Summary of Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-Apr							18		Sampled		
2-Apr							19		Sampled		
3-Apr							20		Sampled		
4-Apr	72.9	668.84					21		Sampled		
5-Apr							22		Sampled		
6-Apr							23		Sampled		
7-Apr							24		Sampled		
8-Apr							25		Sampled		
9-Apr							26		Sampled		
10-Apr	72.9	668.84	72.94	6526	6560	33.8	0	0.19	Sampled		*not enough water to collect water sample
11-Apr							1		Sampled		
12-Apr							2		Sampled		
13-Apr							3		Sampled		
14-Apr							4		Sampled		
15-Apr							5		Sampled		
16-Apr							6		Sampled		
17-Apr							7		Sampled		
18-Apr	72.92	668.82					8		Sampled		
19-Apr							9		Sampled		
20-Apr							10		Sampled		
21-Apr							11		Sampled		
22-Apr							12		Sampled		
23-Apr							13		Sampled		
24-Apr							14		Sampled		
25-Apr	72.94	668.80					15		Sampled		
26-Apr							16		Sampled		
27-Apr							17		Sampled		
28-Apr							18		Sampled		
29-Apr							19		Sampled		
30-Apr							20		Sampled		
					Year to Date Total:	182.7					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

Table 2.2

2023 Summary of Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-May	72.9	668.84					21		Sampled		
2-May							22		Sampled		
3-May							23		Sampled		
4-May							24		Sampled		
5-May							25		Sampled		
6-May							26		Sampled		
7-May							27		Sampled		
8-May							28		Sampled		
9-May	72.96	668.78					29		Sampled		
10-May							30		Sampled		
11-May							31		Sampled		
12-May							32		Sampled		
13-May							33		Sampled		
14-May							34		Sampled		
15-May	72.92	668.82	72	6560	6601	41.2	0	0.17	☑ Sampled		sampled and collected extra microbial research samples
16-May							1		Sampled		
17-May							2		Sampled		
18-May							3		Sampled		
19-May							4		Sampled		
20-May							5		Sampled		
21-May							6		Sampled		
22-May	72.96	668.78					7		Sampled		
23-May							8		Sampled		
24-May							9		Sampled		
25-May							10		Sampled		
26-May							11		Sampled		
27-May							12		Sampled		
28-May							13		Sampled		
29-May							14		Sampled		
30-May	72.91	668.83					15		Sampled		
31-May							16		Sampled		
					Year to Date Total:	223.9					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

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Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-Jun							17		Sampled		
2-Jun							18		Sampled		
3-Jun							19		Sampled		
4-Jun							20		Sampled		
5-Jun	72.91	668.83					21		Sampled		
6-Jun							22		Sampled		
7-Jun							23		Sampled		
8-Jun							24		Sampled		
9-Jun							25		Sampled		
10-Jun							26		Sampled		
11-Jun							27		Sampled		
12-Jun	72.93	668.81					28		Sampled		
13-Jun	72.93	668.81	73.01	6601	6633	31.4	0	0.16	☑ Sampled		sampled and pumped
14-Jun							1		Sampled		
15-Jun							2		Sampled		
16-Jun							3		Sampled		
17-Jun							4		Sampled		
18-Jun							5		Sampled		
19-Jun	72.97	668.77					6		Sampled		
20-Jun							7		Sampled		
21-Jun							8		Sampled		
22-Jun							9		Sampled		
23-Jun							10		Sampled		
24-Jun							11		Sampled		
25-Jun							12		Sampled		
26-Jun	72.92	668.82					13		Sampled		
27-Jun							14		Sampled		
28-Jun							15		Sampled		
29-Jun							16		Sampled		
30-Jun							17		Sampled		
					Year to Date Total:	255.3					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

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East Plant Area TSCA Vault Annual Report, Calendar Year 2023
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Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Jul							18		Sampled		
2-Jul							19		Sampled		
3-Jul	72.92	668.82					20		Sampled		
4-Jul							21		Sampled		
5-Jul							22		Sampled		
6-Jul							23		Sampled		
7-Jul							24		Sampled		
8-Jul							25		Sampled		
9-Jul							26		Sampled		
10-Jul	72.92	668.82					27		Sampled		
11-Jul							28		Sampled		
12-Jul							29		Sampled		
13-Jul							30		Sampled		
14-Jul							31		Sampled		
15-Jul							32		Sampled		
16-Jul							33		Sampled		
17-Jul	72.92	668.82	72.95	6633	6667	34.5	0	0.15	☑ Sampled		sampled and pumped, inflow flowmeter used
18-Jul							1		Sampled		
19-Jul							2		Sampled		
20-Jul							3		Sampled		
21-Jul							4		Sampled		
22-Jul							5		Sampled		
23-Jul							6		Sampled		
24-Jul	72.97	668.77					7		Sampled		
25-Jul							8		Sampled		
26-Jul							9		Sampled		
27-Jul							10		Sampled		
28-Jul							11		Sampled		
29-Jul							12		Sampled		
30-Jul							13		Sampled		
31-Jul	72.95	668.79					14		Sampled		
					Year to Date Total:	289.8					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
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East Plant Area TSCA Vault Annual Report, Calendar Year 2023
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Bedford, Indiana

Frequency	(X) Manual Depth To Water [(a)] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [(b)] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [(b)] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Aug							15		☐ Sampled	☐	
2-Aug							16		☐ Sampled	☐	
3-Aug							17		☐ Sampled	☐	
4-Aug							18		☐ Sampled	☐	
5-Aug							19		☐ Sampled	☐	
6-Aug							20		☐ Sampled	☐	
7-Aug	72.94	668.80	72.97	6667	6704	36.8	0	0.26	☑ Sampled	☑	Sampled and pumped. SCADA does not match local readings this has been presented to Greg W/GHD after new level sensor installed
8-Aug							1		☐ Sampled	☐	
9-Aug							2		☐ Sampled	☐	
10-Aug							3		☐ Sampled	☐	
11-Aug							4		☐ Sampled	☐	
12-Aug							5		☐ Sampled	☐	
13-Aug							6		☐ Sampled	☐	
14-Aug							7		☐ Sampled	☐	
15-Aug	72.95	668.79					8		☐ Sampled	☐	
16-Aug							9		☐ Sampled	☐	
17-Aug							10		☐ Sampled	☐	
18-Aug							11		☐ Sampled	☐	
19-Aug							12		☐ Sampled	☐	
20-Aug							13		☐ Sampled	☐	
21-Aug	72.95	668.79					14		☐ Sampled	☐	
22-Aug							15		☐ Sampled	☐	
23-Aug							16		☐ Sampled	☐	
24-Aug							17		☐ Sampled	☐	
25-Aug							18		☐ Sampled	☐	
26-Aug							19		☐ Sampled	☐	
27-Aug							20		☐ Sampled	☐	
28-Aug	72.94	668.80					21		☐ Sampled	☐	
29-Aug							22		☐ Sampled	☐	
30-Aug							23		☐ Sampled	☐	
31-Aug							24		☐ Sampled	☐	
					Year to Date Total:	326.6					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
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1-Sep							25		☐ Sampled	☐	
2-Sep							26		☐ Sampled	☐	
3-Sep							27		☐ Sampled	☐	
4-Sep							28		☐ Sampled	☐	
5-Sep	72.94	668.80					29		☐ Sampled	☐	
6-Sep							30		☐ Sampled	☐	
7-Sep							31		☐ Sampled	☐	
8-Sep							32		☐ Sampled	☐	
9-Sep							33		☐ Sampled	☐	
10-Sep							34		☐ Sampled	☐	
11-Sep	72.94	668.80	72.97	6667	6704	36.8	0	0.15	☑ Sampled	☐	sampled and pumped
12-Sep							1		☐ Sampled	☐	
13-Sep							2		☐ Sampled	☐	
14-Sep							3		☐ Sampled	☐	
15-Sep							4		☐ Sampled	☐	
16-Sep							5		☐ Sampled	☐	
17-Sep							6		☐ Sampled	☐	
18-Sep	72.97	668.77					7		☐ Sampled	☐	
19-Sep							8		☐ Sampled	☐	
20-Sep							9		☐ Sampled	☐	
21-Sep							10		☐ Sampled	☐	
22-Sep							11		☐ Sampled	☐	
23-Sep							12		☐ Sampled	☐	
24-Sep							13		☐ Sampled	☐	
25-Sep	72.97	668.77					14		☐ Sampled	☐	
26-Sep							15		☐ Sampled	☐	
27-Sep							16		☐ Sampled	☐	
28-Sep							17		☐ Sampled	☐	
29-Sep							18		☐ Sampled	☐	
30-Sep							19		☐ Sampled	☐	
					Year to Date Total:	363.4					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
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1-Oct							20		☐ Sampled	☐	
2-Oct	73.05	668.69					21		☐ Sampled	☐	
3-Oct							22		☐ Sampled	☐	
4-Oct							23		☐ Sampled	☐	
5-Oct							24		☐ Sampled	☐	
6-Oct							25		☐ Sampled	☐	
7-Oct							26		☐ Sampled	☐	
8-Oct							27		☐ Sampled	☐	
9-Oct							28		☐ Sampled	☐	
10-Oct	72.95	668.79					29		☐ Sampled	☐	
11-Oct							30		☐ Sampled	☐	
12-Oct	72.95	668.79	72.98	6731	6758	26.4	0	0.13	☑ Sampled	☐	sampled and pumped
13-Oct							1		☐ Sampled	☐	
14-Oct							2		☐ Sampled	☐	
15-Oct							3		☐ Sampled	☐	
16-Oct	72.98	668.76					4		☐ Sampled	☐	
17-Oct							5		☐ Sampled	☐	
18-Oct							6		☐ Sampled	☐	
19-Oct							7		☐ Sampled	☐	
20-Oct							8		☐ Sampled	☐	
21-Oct							9		☐ Sampled	☐	
22-Oct							10		☐ Sampled	☐	
23-Oct	72.98	668.76					11		☐ Sampled	☐	
24-Oct							12		☐ Sampled	☐	
25-Oct							13		☐ Sampled	☐	
26-Oct							14		☐ Sampled	☐	
27-Oct							15		☐ Sampled	☐	
28-Oct							16		☐ Sampled	☐	
29-Oct							17		☐ Sampled	☐	
30-Oct	72.98	668.76					18		☐ Sampled	☐	
31-Oct							19		☐ Sampled	☐	
					Year to Date Total:	389.8					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
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1-Nov							20		Sampled		
2-Nov							21		Sampled		
3-Nov							22		Sampled		
4-Nov							23		Sampled		
5-Nov							24		Sampled		
6-Nov	72.97	668.77					25		Sampled		
7-Nov							26		Sampled		
8-Nov							27		Sampled		
9-Nov	72.97	668.77	73.3	6758	6777	19.4	0	0.10	☑ Sampled		sampled and pumped
10-Nov							1		Sampled		
11-Nov							2		Sampled		
12-Nov							3		Sampled		
13-Nov	73	668.74					4		Sampled		
14-Nov							5		Sampled		
15-Nov							6		Sampled		
16-Nov							7		Sampled		
17-Nov							8		Sampled		
18-Nov							9		Sampled		
19-Nov							10		Sampled		
20-Nov	73.1	668.64					11		Sampled		
21-Nov							12		Sampled		
22-Nov							13		Sampled		
23-Nov							14		Sampled		
24-Nov							15		Sampled		
25-Nov							16		Sampled		
26-Nov							17		Sampled		
27-Nov	73.1	668.64					18		Sampled		
28-Nov							19		Sampled		
29-Nov							20		Sampled		
30-Nov							21		Sampled		
					Year to Date Total:	409.2					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

Table 2.2

2023 Summary of Leak Detection System Log
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(X) Manual Depth To Water [a] *should not be less than 71.14 ft* (feet) weekly	(Y) Calculated Elevation from Manual Depth Measurement [b] (ft AMSL) *should not be more than 670.00 ft AMSL*	(2) Manual Depth To Water After Pumping (if pumping occurred) (feet)	In-Line Flow Meter Reading Before Pumping gallons	In-Line Flow Meter Reading After Pumping gallons	Volume Removed gallons	Days Since Last Pumped days	Action Leakage Rate [b] gpad	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments: Summarize issues or observations; Provide detail on maintenance, calibration, programing, etc.; Identify issues raised to GHD.; Identify issues resolved.
1-Dec							22		☐ Sampled	☐	
2-Dec							23		☐ Sampled	☐	
3-Dec							24		☐ Sampled	☐	
4-Dec	72.98	668.76					25		☐ Sampled	☐	
5-Dec							26		☐ Sampled	☐	
6-Dec							27		☐ Sampled	☐	
7-Dec	72.98	668.76	73.08	6777	6794	16.5	0	0.09	☑ Sampled	☐	*no sample could be taken. Not enough water
8-Dec							1		☐ Sampled	☐	
9-Dec							2		☐ Sampled	☐	
10-Dec							3		☐ Sampled	☐	
11-Dec							4		☐ Sampled	☐	
12-Dec							5		☐ Sampled	☐	
13-Dec							6		☐ Sampled	☐	
14-Dec							7		☐ Sampled	☐	
15-Dec							8		☐ Sampled	☐	
16-Dec							9		☐ Sampled	☐	
17-Dec							10		☐ Sampled	☐	
18-Dec							11		☐ Sampled	☐	
19-Dec							12		☐ Sampled	☐	
20-Dec							13		☐ Sampled	☐	
21-Dec							14		☐ Sampled	☐	
22-Dec							15		☐ Sampled	☐	
23-Dec							16		☐ Sampled	☐	
24-Dec							17		☐ Sampled	☐	
25-Dec							18		☐ Sampled	☐	
26-Dec							19		☐ Sampled	☐	
27-Dec							20		☐ Sampled	☐	
28-Dec							21		☐ Sampled	☐	
29-Dec							22		☐ Sampled	☐	
30-Dec							23		☐ Sampled	☐	
31-Dec							24		☐ Sampled	☐	
					Year to Date Total:	425.7					

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 741.74 (Oct. 7, 2022)*
Bottom of sump (feet AMSL): 668.50
Inside diameter of sump (feet): 6
Total depth of sump manhole (feet): 72.64

Pump manually starts based on manual readings

(a) **Water level not to rise above 18 inches deep** (equates to a water level of 670.00 ft AMSL or 71.14 ft below top of the sump). Pumping must be initiated if the water level is above 670.00 ft AMSL.
(b) USEPA action leakage rate based on good CQA during construction is 100 gpad. Review operations if calculated ALR is >50 gpad

Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations. Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
	- -	- -	148000.00	- -	- -	- -	- -	manually entered from last time water pumped in previous year
1-Jan	74.1	668.36	146660.00	-1340.00	-1340	Sampled		
2-Jan	74.1	668.36				Sampled		
3-Jan	74.3	668.37				Sampled		
4-Jan	74.4	668.38				Sampled		
5-Jan	74.5	668.39				Sampled		
6-Jan	74.3	668.37				Sampled		
7-Jan	74.4	668.38				Sampled		
8-Jan	74.4	668.38				Sampled		
9-Jan	74.4	668.38				Sampled		
10-Jan	74.7	668.41				Sampled		
11-Jan	74.6	668.40				Sampled		
12-Jan	74.5	668.39				Sampled		
13-Jan	74.6	668.40				Sampled		
14-Jan	74.4	668.38				Sampled		
15-Jan	74.6	668.40				Sampled		
16-Jan	74.6	668.40				Sampled		
17-Jan	74.5	668.39				Sampled		
18-Jan	74.5	668.39				Sampled		
19-Jan	74.6	668.40				Sampled		
20-Jan	74.7	668.41				Sampled		
21-Jan	74.4	668.38				Sampled		
22-Jan	74.4	668.38				Sampled		
23-Jan	74.5	668.39				Sampled		
24-Jan	74.7	668.41				Sampled		
25-Jan	74.4	668.38				Sampled		
26-Jan	74.6	668.40				Sampled		
27-Jan	74.6	668.40				Sampled		
28-Jan	74.5	668.39				Sampled		
29-Jan	74.6	668.40				Sampled		
30-Jan	74.6	668.40				Sampled		
31-Jan	74.4	668.38				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 52 inches deep** (equates to a water level of 666.83 ft AMSL). Pumping must be initiated if the water level is above 666.5 ft AMSL.

Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Feb	74.7	668.41				Sampled		
2-Feb	74.6	668.40				Sampled		
3-Feb	74.6	668.40				Sampled		
4-Feb	74.7	668.41				Sampled		
5-Feb	74.7	668.41				Sampled		
6-Feb	74.4	668.38				Sampled		
7-Feb	74.4	668.38				Sampled		
8-Feb	74.4	668.38				Sampled		
9-Feb	74.6	668.40				Sampled		
10-Feb	74.6	668.40				Sampled		
11-Feb	74.7	668.41				Sampled		
12-Feb	74.7	668.41				Sampled		
13-Feb	74.7	668.41				Sampled		
14-Feb	74.4	668.38				Sampled		
15-Feb	74.4	668.38				Sampled		
16-Feb	74.4	668.38				Sampled		
17-Feb	74	668.35				Sampled		
18-Feb	74.1	668.36				Sampled		
19-Feb	74	668.35				Sampled		
20-Feb	74.3	668.37				Sampled		
21-Feb	72.6	668.23				Sampled		
22-Feb	72.5	668.22				Sampled		
23-Feb	72.5	668.22				Sampled		
24-Feb	72.6	668.23				Sampled		
25-Feb	72.5	668.22				Sampled		
26-Feb	72.5	668.22				Sampled		
27-Feb	72.4	668.21				Sampled		
28-Feb	72.4	668.21				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 52 inches deep** (equates to a water level of 666.83 ft AMSL). Pumping must be initiated if the water level is above 666.5 ft AMSL.

Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Mar	72.4	668.21				Sampled		
2-Mar	72.4	668.21				Sampled		
3-Mar	72.2	668.20				Sampled		
4-Mar	72.5	668.22				Sampled		
5-Mar	72.5	668.22				Sampled		
6-Mar	72.5	668.22				Sampled		
7-Mar	72.6	668.23				Sampled		
8-Mar	72.8	668.25				Sampled		
9-Mar	72.6	668.23				Sampled		
10-Mar	72.6	668.23				Sampled		
11-Mar	72.5	668.22				Sampled		
12-Mar	72.5	668.22				Sampled		
13-Mar	72.5	668.22				Sampled		
14-Mar	72.2	668.20				Sampled		
15-Mar	72.2	668.20				Sampled		
16-Mar	72.4	668.21				Sampled		
17-Mar	72.6	668.23				Sampled		
18-Mar	72.5	668.22				Sampled		
19-Mar	72.5	668.22				Sampled		
20-Mar	72.6	668.23				Sampled		
21-Mar	72.5	668.22				Sampled		
22-Mar	72.5	668.22				Sampled		
23-Mar	72.4	668.21				Sampled		
24-Mar	72.4	668.21				Sampled		
25-Mar	72.2	668.20				Sampled		
26-Mar	72.4	668.21				Sampled		
27-Mar	72.4	668.21				Sampled		
28-Mar	72.6	668.23				Sampled		
29-Mar	72.4	668.21				Sampled		
30-Mar	72.6	668.23				Sampled		
31-Mar	72.5	668.22				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 52 inches deep** (equates to a water level of 666.83 ft AMSL). Pumping must be initiated if the water level is above 666.5 ft AMSL.

Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Apr	72.4	668.21				Sampled		
2-Apr	72.4	668.21				Sampled		
3-Apr	72.2	668.20				Sampled		
4-Apr	72.2	668.20				Sampled		
5-Apr	72.5	668.22				Sampled		
6-Apr	72.3	668.21				Sampled		
7-Apr	72.5	668.22				Sampled		
8-Apr	72.6	668.23				Sampled		
9-Apr	72.7	668.24				Sampled		
10-Apr	72.5	668.22				Sampled		
11-Apr	72.5	668.22				Sampled		
12-Apr	72.3	668.21				Sampled		
13-Apr	72.4	668.21				Sampled		
14-Apr	72.4	668.21				Sampled		
15-Apr	72	668.18				Sampled		
16-Apr	72.4	668.21				Sampled		
17-Apr	72.5	668.22				Sampled		
18-Apr	72.4	668.21				Sampled		
19-Apr	72.5	668.22				Sampled		
20-Apr	72.5	668.22				Sampled		
21-Apr	72.1	668.19				Sampled		
22-Apr	72.3	668.21				Sampled		
23-Apr	72.4	668.21				Sampled		
24-Apr	72.1	668.19				Sampled		
25-Apr	71.9	668.17				Sampled		
26-Apr	72.2	668.20				Sampled		
27-Apr	72.2	668.20				Sampled		
28-Apr	72.2	668.20				Sampled		
29-Apr	72.2	668.20				Sampled		
30-Apr	72.2	668.20				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
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Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-May	72.6	668.23				Sampled		
2-May	72	668.18				Sampled		
3-May	71.8	668.16				Sampled		
4-May	71.8	668.16				Sampled		
5-May	71.8	668.16				Sampled		
6-May	71.7	668.16				Sampled		
7-May	71.8	668.16				Sampled		
8-May	72	668.18				Sampled		
9-May	71.8	668.16				Sampled		
10-May	71.8	668.16				Sampled		
11-May	71.9	668.17				Sampled		
12-May	71.9	668.17				Sampled		
13-May	71.8	668.16				Sampled		
14-May	71.8	668.16				Sampled		
15-May	71.9	668.17				Sampled		
16-May	71.8	668.16				Sampled		
17-May	71.7	668.16				Sampled		
18-May	71.9	668.17				Sampled		
19-May	71.8	668.16				Sampled		
20-May	71.8	668.16				Sampled		
21-May	71.5	668.14				Sampled		
22-May	71.5	668.14				Sampled		
23-May	71.8	668.16				Sampled		
24-May	71.6	668.15				Sampled		
25-May	71.6	668.15				Sampled		
26-May	71.6	668.15				Sampled		
27-May	71.4	668.13				Sampled		
28-May	71.6	668.15				Sampled		
29-May	71.2	668.11				Sampled		
30-May	71.5	668.14				Sampled		
31-May	71.5	668.14				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

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Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Jun	71.5	668.14				☐ Sampled	☐	
2-Jun	71.5	668.14				☐ Sampled	☐	
3-Jun	71.6	668.15				☐ Sampled	☐	
4-Jun	71.8	668.16				☐ Sampled	☐	
5-Jun	71.7	668.16				☐ Sampled	☐	
6-Jun	71.7	668.16				☐ Sampled	☐	
7-Jun	71.7	668.16				☐ Sampled	☐	
8-Jun	71.6	668.15				☐ Sampled	☐	
9-Jun	71.5	668.14				☐ Sampled	☐	
10-Jun	71.5	668.14				☐ Sampled	☐	
11-Jun	71.7	668.16				☐ Sampled	☐	
12-Jun	71.4	668.13				☐ Sampled	☐	
13-Jun	71.9	668.17				☐ Sampled	☐	
14-Jun	71.8	668.16				☐ Sampled	☐	
15-Jun	71.6	668.15				☐ Sampled	☐	
16-Jun	71.6	668.15				☐ Sampled	☐	
17-Jun	71.7	668.16				☐ Sampled	☐	
18-Jun	71.9	668.17				☐ Sampled	☐	
19-Jun	71.9	668.17				☐ Sampled	☐	
20-Jun	72	668.18				☐ Sampled	☐	
21-Jun	71.9	668.17				☐ Sampled	☐	
22-Jun	72	668.18				☐ Sampled	☐	
23-Jun	71.7	668.16				☐ Sampled	☐	
24-Jun	71.8	668.16				☐ Sampled	☐	
25-Jun	71.7	668.16				☐ Sampled	☐	
26-Jun	71.7	668.16				☐ Sampled	☐	
27-Jun	71.7	668.16				☐ Sampled	☐	
28-Jun	71.9	668.17				☐ Sampled	☐	
29-Jun	71.6	668.15				☐ Sampled	☐	
30-Jun	71.9	668.17				☐ Sampled	☐	

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
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Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Jul	71.8	668.16				Sampled		
2-Jul	71.8	668.16				Sampled		
3-Jul	71.8	668.16				Sampled		
4-Jul	71.9	668.17				Sampled		
5-Jul	71.8	668.16				Sampled		
6-Jul	71.7	668.16				Sampled		
7-Jul	71.7	668.16				Sampled		
8-Jul	71.9	668.17				Sampled		
9-Jul	71.9	668.17				Sampled		
10-Jul	71.9	668.17				Sampled		
11-Jul	71.9	668.17				Sampled		
12-Jul	71.9	668.17				Sampled		
13-Jul	71.9	668.17				Sampled		
14-Jul	71.6	668.15				Sampled		
15-Jul	71.6	668.15				Sampled		
16-Jul	71.8	668.16				Sampled		
17-Jul	72.1	668.19				Sampled		
18-Jul	72.1	668.19				Sampled		
19-Jul	72	668.18				Sampled		
20-Jul	72.2	668.20				Sampled		
21-Jul	72.2	668.20				Sampled		
22-Jul	72.1	668.19				Sampled		
23-Jul	71.8	668.16				Sampled		
24-Jul	71.8	668.16				Sampled		
25-Jul	71.9	668.17				Sampled		
26-Jul	72	668.18				Sampled		
27-Jul	72.2	668.20				Sampled		
28-Jul	72.3	668.21				Sampled		
29-Jul	72.1	668.19				Sampled		
30-Jul	72.1	668.19				Sampled		
31-Jul	72	668.18				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 52 inches deep** (equates to a water level of 666.83 ft AMSL). Pumping must be initiated if the water level is above 666.5 ft AMSL.

Table 2.3

2023 Summary of Gravel Underdrain System Log
East Plant Area TCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Aug	72.1	668.19				☐ Sampled	☐	
2-Aug	72.1	668.19				☐ Sampled	☐	
3-Aug	72.1	668.19				☐ Sampled	☐	
4-Aug	72	668.18				☐ Sampled	☐	
5-Aug	72	668.18				☐ Sampled	☐	
6-Aug	72	668.18				☐ Sampled	☐	
7-Aug	71.8	668.16				☐ Sampled	☐	
8-Aug	71.8	668.16				☐ Sampled	☐	
9-Aug	72.2	668.20				☐ Sampled	☐	
10-Aug	72	668.18				☐ Sampled	☐	
11-Aug	72	668.18				☐ Sampled	☐	
12-Aug	72	668.18				☐ Sampled	☐	
13-Aug	71.8	668.16				☐ Sampled	☐	
14-Aug	72.1	668.19				☐ Sampled	☐	
15-Aug	72.2	668.20				☐ Sampled	☑	Flowmeter calibration on GUS/LCS combined flow
16-Aug	72.1	668.19				☐ Sampled	☐	
17-Aug	71.9	668.17				☐ Sampled	☐	
18-Aug	72	668.18				☐ Sampled	☐	
19-Aug	72	668.18				☐ Sampled	☐	
20-Aug	72	668.18				☐ Sampled	☐	
21-Aug	72.2	668.20				☐ Sampled	☐	
22-Aug	72	668.18				☐ Sampled	☐	
23-Aug	72	668.18				☐ Sampled	☐	
24-Aug	71.9	668.17				☐ Sampled	☐	
25-Aug	72	668.18				☐ Sampled	☐	
26-Aug	72.1	668.19				☐ Sampled	☐	
27-Aug	72.3	668.21				☐ Sampled	☐	
28-Aug	72.3	668.21				☐ Sampled	☐	
29-Aug	72.2	668.20				☐ Sampled	☐	
30-Aug	72.3	668.21				☐ Sampled	☐	
31-Aug	72.1	668.19				☐ Sampled	☐	

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 52 inches deep** (equates to a water level of 666.83 ft AMSL). Pumping must be initiated if the water level is above 666.5 ft AMSL.

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Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Sep	72.1	668.19				Sampled		
2-Sep	72.1	668.19				Sampled		
3-Sep	72.1	668.19				Sampled		
4-Sep	72	668.18				Sampled		
5-Sep	72.1	668.19				Sampled		
6-Sep	72.2	668.20				Sampled		
7-Sep	72.2	668.20				Sampled		
8-Sep	72	668.18				Sampled		
9-Sep	72	668.18				Sampled		
10-Sep	72	668.18				Sampled		
11-Sep	72	668.18				Sampled		
12-Sep	71.9	668.17				Sampled		
13-Sep	71.9	668.17				Sampled		
14-Sep	72.3	668.21				Sampled		
15-Sep	72.2	668.20				Sampled		
16-Sep	72.3	668.21				Sampled		
17-Sep	72.3	668.21				Sampled		
18-Sep	72.3	668.21				Sampled		
19-Sep	72.1	668.19				Sampled		
20-Sep	72.1	668.19				Sampled		
21-Sep	72	668.18				Sampled		
22-Sep	72.1	668.19				Sampled		
23-Sep	72	668.18				Sampled		
24-Sep	72	668.18				Sampled		
25-Sep	72	668.18				Sampled		
26-Sep	72	668.18				Sampled		
27-Sep	71.7	668.16				Sampled		
28-Sep	72.1	668.19				Sampled		
29-Sep	71.9	668.17				Sampled		
30-Sep	71.9	668.17				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99* *Inside diameter of sump (feet): 3*
Bottom of sump (feet AMSL): 662.18 *Total depth of sump manhole (feet): 76.81*

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
Pump automatically starts based on transducer reading.

(a) **Water level not to rise above 52 inches deep** (equates to a water level of 666.83 ft AMSL). Pumping must be initiated if the water level is above 666.5 ft AMSL.

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GM Bedford Casting Operations Facility
Bedford, Indiana

Frequency	(Y) Transducer Water Water Level [(a)] (from SCADA) (inches) *should not be more than 52 inches* daily	(1) Calculated Elevation from Transducer Measurement [(a)] (ft AMSL) *should not be more than 666.5 ft AMSL*	Totalizer Reading (from local flow meter) (gallons) *contact GHD to re-do formula if meter is reset	Water Pumped (from local flow meter) (gallons)	Cumulative Water Removed (gallons) (starting Jan. 2023)	Sample Collected monthly	Maintenance, Calibration, or Programing Performed	Comments Summarize issues or observations Provide detail on maintenance, calibration, programing, etc. Identify issues raised to GHD. Identify issues resolved.
1-Oct	71.9	668.17				Sampled		
2-Oct	71.8	668.16				Sampled		
3-Oct	71.8	668.16				Sampled		
4-Oct	72.2	668.20				Sampled		
5-Oct	72.2	668.20				Sampled		
6-Oct	72.2	668.20				Sampled		
7-Oct	72.2	668.20				Sampled		
8-Oct	72.3	668.21				Sampled		
9-Oct	72.3	668.21				Sampled		
10-Oct	72.1	668.19				Sampled		
11-Oct	72.1	668.19				Sampled		
12-Oct	72.1	668.19				Sampled		
13-Oct	72	668.18				Sampled		
14-Oct	72	668.18				Sampled		
15-Oct	72	668.18				Sampled		
16-Oct	72	668.18				Sampled		
17-Oct	72.1	668.19				Sampled		
18-Oct	72.1	668.19				Sampled		
19-Oct	72	668.18				Sampled		
20-Oct	72.1	668.19				Sampled		
21-Oct	72	668.18				Sampled		
22-Oct	72	668.18				Sampled		
23-Oct	71.7	668.16				Sampled		
24-Oct	71.8	668.16				Sampled		
25-Oct	72	668.18				Sampled		
26-Oct	72.1	668.19				Sampled		
27-Oct	71.8	668.16				Sampled		
28-Oct	72.2	668.20				Sampled		
29-Oct	72.1	668.19				Sampled		
30-Oct	72.1	668.19				Sampled		
31-Oct	72.1	668.19				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
Total depth of sump manhole (feet): 76.81

Pump operating level between 2.5 ft (666.5 ft AMSL) and 3 ft (674.00 ft AMSL or 66.83 ft below the top of sump) of water in the LCS manhole.
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1-Nov	72	668.18				Sampled		
2-Nov	72	668.18				Sampled		
3-Nov	72.3	668.21				Sampled		
4-Nov	72.3	668.21				Sampled		
5-Nov	72	668.18				Sampled		
6-Nov	72	668.18				Sampled		
7-Nov	72.1	668.19				Sampled		
8-Nov	71.8	668.16				Sampled		
9-Nov	71.8	668.16				Sampled		
10-Nov	71.6	668.15				Sampled		
11-Nov	72	668.18				Sampled		
12-Nov	71.7	668.16				Sampled		
13-Nov	71.9	668.17				Sampled		
14-Nov	71.9	668.17				Sampled		
15-Nov	71.8	668.16				Sampled		
16-Nov	71.6	668.15				Sampled		
17-Nov	71.8	668.16				Sampled		
18-Nov	72.1	668.19				Sampled		
19-Nov	72.1	668.19				Sampled		
20-Nov	72.1	668.19				Sampled		
21-Nov	72	668.18				Sampled		
22-Nov	72	668.18				Sampled		
23-Nov	72	668.18				Sampled		
24-Nov	72.2	668.20				Sampled		
25-Nov	72.2	668.20				Sampled		
26-Nov	72.1	668.19				Sampled		
27-Nov	71.8	668.16				Sampled		
28-Nov	71.6	668.15				Sampled		
29-Nov	71.9	668.17				Sampled		
30-Nov	71.9	668.17				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
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1-Dec	72	668.18				Sampled		
2-Dec	71.9	668.17				Sampled		
3-Dec	71.9	668.17				Sampled		
4-Dec	71.9	668.17				Sampled		
5-Dec	71.9	668.17				Sampled		
6-Dec	71.9	668.17				Sampled		
7-Dec	71.8	668.16				Sampled		
8-Dec	71.8	668.16				Sampled		
9-Dec	71.6	668.15				Sampled		
10-Dec	71.6	668.15				Sampled		
11-Dec	71.6	668.15				Sampled		
12-Dec	71.5	668.14				Sampled		
13-Dec	71.5	668.14				Sampled		
14-Dec	71.7	668.16				Sampled		
15-Dec	71.6	668.15				Sampled		
16-Dec	71.8	668.16				Sampled		
17-Dec	72.1	668.19				Sampled		
18-Dec	71.9	668.17				Sampled		
19-Dec	71.8	668.16				Sampled		
20-Dec	71.8	668.16				Sampled		
21-Dec	71.8	668.16				Sampled		
22-Dec	71.7	668.16				Sampled		
23-Dec	71.8	668.16				Sampled		
24-Dec	71.6	668.15				Sampled		
25-Dec	71.4	668.13				Sampled		
26-Dec	71.6	668.15				Sampled		
27-Dec	71.6	668.15				Sampled		
28-Dec	71.7	668.16				Sampled		
29-Dec	71.5	668.14				Sampled		
30-Dec	71.4	668.13				Sampled		
31-Dec	71.6	668.15				Sampled		

Notes: *Top of sump [top of concrete manhole] (feet AMSL): 738.99*
Bottom of sump (feet AMSL): 662.18
Inside diameter of sump (feet): 3
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Summary of 2023 Water Elevations Compared to Liner System
East Plant Area TSCA Annual Vault Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Date (mm/dd/yy)	LCS[1] Water Elevation (Manual) (ft. AMSL)	LCS[1] Water Elevation (ft. AMSL)	Lowest Elevation of Primary Liner (ft. AMSL)	LDS[2] Water Elevation (Manual) (ft. AMSL)	Lowest Elevation of Secondary Liner (ft. AMSL)	GUS[3] Water Elevation (PLC) (ft. AMSL)
1/1/23	--	Not Available[4]	669.50	--	667.5	668.36
1/2/23	--	Not Available[4]	669.50	--	667.5	668.36
1/3/23	--	Not Available[4]	669.50	--	667.5	668.37
1/4/23	671.68	Not Available[4]	669.50	668.9	667.5	668.38
1/5/23	--	Not Available[4]	669.50	--	667.5	668.39
1/6/23	--	Not Available[4]	669.50	--	667.5	668.37
1/7/23	--	Not Available[4]	669.50	--	667.5	668.38
1/8/23	--	Not Available[4]	669.50	--	667.5	668.38
1/9/23	671.68	Not Available[4]	669.50	668.9	667.5	668.38
1/10/23	--	Not Available[4]	669.50	--	667.5	668.41
1/11/23	--	Not Available[4]	669.50	--	667.5	668.40
1/12/23	--	Not Available[4]	669.50	--	667.5	668.39
1/13/23	--	Not Available[4]	669.50	--	667.5	668.40
1/14/23	--	Not Available[4]	669.50	--	667.5	668.38
1/15/23	--	Not Available[4]	669.50	--	667.5	668.40
1/16/23	--	Not Available[4]	669.50	--	667.5	668.40
1/17/23	--	Not Available[4]	669.50	--	667.5	668.39
1/18/23	671.61	Not Available[4]	669.50	668.9	667.5	668.39
1/19/23	--	Not Available[4]	669.50	--	667.5	668.40
1/20/23	--	Not Available[4]	669.50	--	667.5	668.41
1/21/23	--	Not Available[4]	669.50	--	667.5	668.38
1/22/23	--	Not Available[4]	669.50	--	667.5	668.38
1/23/23	671.63	Not Available[4]	669.50	668.9	667.5	668.39
1/24/23	--	Not Available[4]	669.50	--	667.5	668.41
1/25/23	--	Not Available[4]	669.50	--	667.5	668.38
1/26/23	--	Not Available[4]	669.50	--	667.5	668.40
1/27/23	--	Not Available[4]	669.50	--	667.5	668.40
1/28/23	--	Not Available[4]	669.50	--	667.5	668.39
1/29/23	--	Not Available[4]	669.50	--	667.5	668.40
1/30/23	671.65	Not Available[4]	669.50	668.9	667.5	668.40
1/31/23	--	Not Available[4]	669.50	--	667.5	668.38
2/1/23	671.65	Not Available[4]	669.50	--	667.5	668.41
2/2/23	--	Not Available[4]	669.50	--	667.5	668.40
2/3/23	--	Not Available[4]	669.50	--	667.5	668.40
2/4/23	--	Not Available[4]	669.50	--	667.5	668.41
2/5/23	--	Not Available[4]	669.50	--	667.5	668.41
2/6/23	671.67	Not Available[4]	669.50	668.9	667.5	668.38
2/7/23	--	Not Available[4]	669.50	--	667.5	668.38
2/8/23	--	Not Available[4]	669.50	--	667.5	668.38
2/9/23	--	Not Available[4]	669.50	--	667.5	668.40
2/10/23	--	Not Available[4]	669.50	--	667.5	668.40
2/11/23	--	Not Available[4]	669.50	--	667.5	668.41
2/12/23	--	Not Available[4]	669.50	--	667.5	668.41
2/13/23	671.61	Not Available[4]	669.50	668.8	667.5	668.41
2/14/23	--	Not Available[4]	669.50	--	667.5	668.38
2/15/23	--	Not Available[4]	669.50	--	667.5	668.38
2/16/23	--	Not Available[4]	669.50	--	667.5	668.38
2/17/23	--	Not Available[4]	669.50	--	667.5	668.35
2/18/23	--	Not Available[4]	669.50	--	667.5	668.36
2/19/23	--	Not Available[4]	669.50	--	667.5	668.35
2/20/23	671.64	Not Available[4]	669.50	668.9	667.5	668.37
2/21/23	--	Not Available[4]	669.50	--	667.5	668.23
2/22/23	--	Not Available[4]	669.50	--	667.5	668.22
2/23/23	--	Not Available[4]	669.50	--	667.5	668.22
2/24/23	--	Not Available[4]	669.50	--	667.5	668.23
2/25/23	--	Not Available[4]	669.50	--	667.5	668.22
2/26/23	--	Not Available[4]	669.50	--	667.5	668.22
2/27/23	671.66	Not Available[4]	669.50	668.9	667.5	668.21
2/28/23	--	Not Available[4]	669.50	--	667.5	668.21
3/1/23	--	Not Available[4]	669.50	--	667.5	668.21
3/2/23	--	Not Available[4]	669.50	--	667.5	668.21
3/3/23	--	Not Available[4]	669.50	--	667.5	668.20
3/4/23	--	671.47	669.50	--	667.5	668.22
3/5/23	--	671.77	669.50	--	667.5	668.22
3/6/23	672.96	671.53	669.50	668.9	667.5	668.22
3/7/23	--	671.43	669.50	--	667.5	668.23
3/8/23	--	671.48	669.50	--	667.5	668.25
3/9/23	--	671.53	669.50	--	667.5	668.23
3/10/23	--	671.5	669.50	--	667.5	668.23
3/11/23	--	671.42	669.50	--	667.5	668.22
3/12/23	--	671.44	669.50	--	667.5	668.22
3/13/23	672.78	671.27	669.50	668.8	667.5	668.22
3/14/23	672.78	671.18	669.50	668.8	667.5	668.20
3/15/23	--	671.23	669.50	--	667.5	668.20
3/16/23	--	671.33	669.50	--	667.5	668.21
3/17/23	--	671.24	669.50	--	667.5	668.23

Summary of 2023 Water Elevations Compared to Liner System
East Plant Area TSCA Annual Vault Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Date (mm/dd/yy)	LCS[1] Water Elevation (Manual) (ft. AMSL)	LCS[1] Water Elevation (ft. AMSL)	Lowest Elevation of Primary Liner (ft. AMSL)	LDS[2] Water Elevation (Manual) (ft. AMSL)	Lowest Elevation of Secondary Liner (ft. AMSL)	GUS[3] Water Elevation (PLC) (ft. AMSL)
3/18/23	--	671.22	669.50	--	667.5	668.22
3/19/23	--	671.28	669.50	--	667.5	668.22
3/20/23	672.80	671.27	669.50	668.8	667.5	668.23
3/21/23	--	671.27	669.50	--	667.5	668.22
3/22/23	--	671.32	669.50	--	667.5	668.22
3/23/23	--	671.25	669.50	--	667.5	668.21
3/24/23	--	671.32	669.50	--	667.5	668.21
3/25/23	--	671.3	669.50	--	667.5	668.20
3/26/23	--	671.28	669.50	--	667.5	668.21
3/27/23	672.76	671.24	669.50	668.8	667.5	668.21
3/28/23	--	671.31	669.50	--	667.5	668.23
3/29/23	--	671.32	669.50	--	667.5	668.21
3/30/23	--	671.26	669.50	--	667.5	668.23
3/31/23	--	671.4	669.50	--	667.5	668.22
4/1/23	--	671.4	669.50	--	667.5	668.21
4/2/23	--	671.18	669.50	--	667.5	668.21
4/3/23	--	671.2	669.50	--	667.5	668.20
4/4/23	--	671.25	669.50	668.8	667.5	668.20
4/5/23	672.81	671.23	669.50	--	667.5	668.22
4/6/23	--	671.14	669.50	--	667.5	668.21
4/7/23	--	671.2	669.50	--	667.5	668.22
4/8/23	--	671.25	669.50	--	667.5	668.23
4/9/23	--	671.17	669.50	--	667.5	668.24
4/10/23	672.81	671.19	669.50	668.8	667.5	668.22
4/11/23	--	671.2	669.50	--	667.5	668.22
4/12/23	--	671.23	669.50	--	667.5	668.21
4/13/23	--	671.21	669.50	--	667.5	668.21
4/14/23	--	671.22	669.50	--	667.5	668.21
4/15/23	--	671.19	669.50	--	667.5	668.18
4/16/23	--	671.27	669.50	--	667.5	668.21
4/17/23	--	671.29	669.50	--	667.5	668.22
4/18/23	672.83	671.19	669.50	668.8	667.5	668.21
4/19/23	--	671.2	669.50	--	667.5	668.22
4/20/23	--	671.22	669.50	--	667.5	668.22
4/21/23	--	671.22	669.50	--	667.5	668.19
4/22/23	--	671.22	669.50	--	667.5	668.21
4/23/23	--	671.22	669.50	--	667.5	668.21
4/24/23	--	671.22	669.50	--	667.5	668.19
4/25/23	672.81	671.24	669.50	668.8	667.5	668.17
4/26/23	--	671.23	669.50	--	667.5	668.20
4/27/23	--	671.28	669.50	--	667.5	668.20
4/28/23	--	671.25	669.50	--	667.5	668.20
4/29/23	--	671.29	669.50	--	667.5	668.20
4/30/23	--	671.31	669.50	--	667.5	668.20
5/1/23	672.87	671.3	669.50	668.8	667.5	668.23
5/2/23	--	671.23	669.50	--	667.5	668.18
5/3/23	--	671.22	669.50	--	667.5	668.16
5/4/23	--	671.23	669.50	--	667.5	668.16
5/5/23	--	671.28	669.50	--	667.5	668.16
5/6/23	--	671.3	669.50	--	667.5	668.16
5/7/23	--	671.32	669.50	--	667.5	668.16
5/8/23	--	671.19	669.50	--	667.5	668.18
5/9/23	672.77	671.21	669.50	668.8	667.5	668.16
5/10/23	--	671.23	669.50	--	667.5	668.16
5/11/23	--	671.24	669.50	--	667.5	668.17
5/12/23	--	671.24	669.50	--	667.5	668.17
5/13/23	--	671.23	669.50	--	667.5	668.16
5/14/23	--	671.23	669.50	--	667.5	668.16
5/15/23	672.86	671.24	669.50	668.8	667.5	668.17
5/16/23	--	671.22	669.50	--	667.5	668.16
5/17/23	--	671.18	669.50	--	667.5	668.16
5/18/23	--	671.18	669.50	--	667.5	668.17
5/19/23	--	671.18	669.50	--	667.5	668.16
5/20/23	--	671.18	669.50	--	667.5	668.16
5/21/23	--	671.18	669.50	--	667.5	668.14
5/22/23	672.77	671.18	669.50	668.8	667.5	668.14
5/23/23	--	671.18	669.50	--	667.5	668.16
5/24/23	--	671.18	669.50	--	667.5	668.15
5/25/23	--	671.18	669.50	--	667.5	668.15
5/26/23	--	671.18	669.50	--	667.5	668.15
5/27/23	--	671.19	669.50	--	667.5	668.13
5/28/23	--	671.2	669.50	--	667.5	668.15
5/29/23	--	671.21	669.50	--	667.5	668.11
5/30/23	672.88	671.2	669.50	668.8	667.5	668.14
5/31/23	--	671.21	669.50	--	667.5	668.14
6/1/23	--	671.2	669.50	--	667.5	668.14

Summary of 2023 Water Elevations Compared to Liner System
East Plant Area TSCA Annual Vault Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Date (mm/dd/yy)	LCS[1] Water Elevation (Manual) (ft. AMSL)	LCS[1] Water Elevation (ft. AMSL)	Lowest Elevation of Primary Liner (ft. AMSL)	LDS[2] Water Elevation (Manual) (ft. AMSL)	Lowest Elevation of Secondary Liner (ft. AMSL)	GUS[3] Water Elevation (PLC) (ft. AMSL)
6/2/23	--	671.22	669.50	--	667.5	668.14
6/3/23	--	671.22	669.50	--	667.5	668.15
6/4/23	--	671.21	669.50	--	667.5	668.16
6/5/23	672.85	671.23	669.50	668.8	667.5	668.16
6/6/23	--	671.22	669.50	--	667.5	668.16
6/7/23	--	671.23	669.50	--	667.5	668.16
6/8/23	--	671.22	669.50	--	667.5	668.15
6/9/23	--	671.23	669.50	--	667.5	668.14
6/10/23	--	671.23	669.50	--	667.5	668.14
6/11/23	--	671.28	669.50	--	667.5	668.16
6/12/23	672.85	671.19	669.50	668.8	667.5	668.13
6/13/23	672.88	671.21	669.50	668.8	667.5	668.17
6/14/23	--	671.19	669.50	--	667.5	668.16
6/15/23	--	671.19	669.50	--	667.5	668.15
6/16/23	--	671.19	669.50	--	667.5	668.15
6/17/23	--	Not Available[4]	669.50	--	667.5	668.16
6/18/23	--	Not Available[4]	669.50	--	667.5	668.17
6/19/23	672.86	Not Available[4]	669.50	668.8	667.5	668.17
6/20/23	--	Not Available[4]	669.50	--	667.5	668.18
6/21/23	--	Not Available[4]	669.50	--	667.5	668.17
6/22/23	--	Not Available[4]	669.50	--	667.5	668.18
6/23/23	672.75	672.7	669.50	--	667.5	668.16
6/24/23	--	231.0	669.50	--	667.5	668.16
6/25/23	--	226.0	669.50	--	667.5	668.16
6/26/23	--	225.7	669.50	668.8	667.5	668.16
6/27/23	672.82	673.8	669.50	--	667.5	668.16
6/28/23	--	673.7	669.50	--	667.5	668.17
6/29/23	--	673.4	669.50	--	667.5	668.15
6/30/23	--	673.4	669.50	--	667.5	668.17
7/1/23	--	673.28	669.50	--	667.5	668.16
7/2/23	--	673.33	669.50	--	667.5	668.16
7/3/23	672.82	673.38	669.50	668.8	667.5	668.16
7/4/23	--	673.35	669.50	--	667.5	668.17
7/5/23	--	673.38	669.50	--	667.5	668.16
7/6/23	--	673.38	669.50	--	667.5	668.16
7/7/23	--	673.35	669.50	--	667.5	668.16
7/8/23	--	673.4	669.50	--	667.5	668.17
7/9/23	--	673.41	669.50	--	667.5	668.17
7/10/23	672.87	673.42	669.50	668.8	667.5	668.17
7/11/23	--	673.38	669.50	--	667.5	668.17
7/12/23	--	673.38	669.50	--	667.5	668.17
7/13/23	--	673.38	669.50	--	667.5	668.17
7/14/23	--	673.38	669.50	--	667.5	668.15
7/15/23	--	673.38	669.50	--	667.5	668.15
7/16/23	--	673.38	669.50	--	667.5	668.16
7/17/23	672.86	673.38	669.50	668.8	667.5	668.19
7/18/23	--	673.32	669.50	--	667.5	668.19
7/19/23	--	673.28	669.50	--	667.5	668.18
7/20/23	--	673.28	669.50	--	667.5	668.20
7/21/23	--	673.28	669.50	--	667.5	668.20
7/22/23	--	673.3	669.50	--	667.5	668.19
7/23/23	--	673.28	669.50	--	667.5	668.16
7/24/23	672.76	673.28	669.50	668.8	667.5	668.16
7/25/23	--	673.35	669.50	--	667.5	668.17
7/26/23	--	673.32	669.50	--	667.5	668.18
7/27/23	--	673.32	669.50	--	667.5	668.20
7/28/23	--	673.32	669.50	--	667.5	668.21
7/29/23	--	673.35	669.50	--	667.5	668.19
7/30/23	--	673.35	669.50	--	667.5	668.19
7/31/23	672.77	673.31	669.50	668.8	667.5	668.18
8/1/23	--	673.32	669.50	--	667.5	668.19
8/2/23	--	673.34	669.50	--	667.5	668.19
8/3/23	--	673.34	669.50	--	667.5	668.19
8/4/23	--	673.38	669.50	--	667.5	668.18
8/5/23	--	673.38	669.50	--	667.5	668.18
8/6/23	--	673.38	669.50	--	667.5	668.18
8/7/23	672.80	673.33	669.50	668.8	667.5	668.16
8/8/23	--	673.25	669.50	--	667.5	668.16
8/9/23	--	673.25	669.50	--	667.5	668.20
8/10/23	--	673.28	669.50	--	667.5	668.18
8/11/23	--	673.28	669.50	--	667.5	668.18
8/12/23	--	673.28	669.50	--	667.5	668.18
8/13/23	--	673.32	669.50	--	667.5	668.16
8/14/23	--	673.28	669.50	--	667.5	668.19
8/15/23	672.85	673.25	669.50	668.8	667.5	668.20
8/16/23	--	673.25	669.50	--	667.5	668.19

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Date (mm/dd/yy)	LCS[1] Water Elevation (Manual) (ft. AMSL)	LCS[1] Water Elevation (ft. AMSL)	Lowest Elevation of Primary Liner (ft. AMSL)	LDS[2] Water Elevation (Manual) (ft. AMSL)	Lowest Elevation of Secondary Liner (ft. AMSL)	GUS[3] Water Elevation (PLC) (ft. AMSL)
8/17/23	--	673.28	669.50	--	667.5	668.17
8/18/23	--	673.25	669.50	--	667.5	668.18
8/19/23	--	673.28	669.50	--	667.5	668.18
8/20/23	--	673.32	669.50	--	667.5	668.18
8/21/23	672.73	673.28	669.50	668.8	667.5	668.20
8/22/23	--	673.28	669.50	--	667.5	668.18
8/23/23	--	673.34	669.50	--	667.5	668.18
8/24/23	--	673.34	669.50	--	667.5	668.17
8/25/23	--	673.32	669.50	--	667.5	668.18
8/26/23	--	673.32	669.50	--	667.5	668.19
8/27/23	--	673.28	669.50	--	667.5	668.21
8/28/23	672.78	673.28	669.50	668.8	667.5	668.21
8/29/23	--	673.28	669.50	--	667.5	668.20
8/30/23	--	673.32	669.50	--	667.5	668.21
8/31/23	--	673.28	669.50	--	667.5	668.19
9/1/23	--	673.28	669.50	--	667.5	668.19
9/2/23	--	673.32	669.50	--	667.5	668.19
9/3/23	--	673.32	669.50	--	667.5	668.19
9/4/23	--	673.32	669.50	--	667.5	668.18
9/5/23	672.78	673.35	669.50	668.8	667.5	668.19
9/6/23	--	673.35	669.50	--	667.5	668.20
9/7/23	--	673.32	669.50	--	667.5	668.20
9/8/23	--	673.28	669.50	--	667.5	668.18
9/9/23	--	673.28	669.50	--	667.5	668.18
9/10/23	--	673.28	669.50	--	667.5	668.18
9/11/23	672.78	673.28	669.50	668.8	667.5	668.18
9/12/23	--	673.22	669.50	--	667.5	668.17
9/13/23	--	673.22	669.50	--	667.5	668.17
9/14/23	--	673.23	669.50	--	667.5	668.21
9/15/23	--	673.23	669.50	--	667.5	668.20
9/16/23	--	673.28	669.50	--	667.5	668.21
9/17/23	--	673.23	669.50	--	667.5	668.21
9/18/23	672.70	673.23	669.50	668.8	667.5	668.21
9/19/23	--	673.25	669.50	--	667.5	668.19
9/20/23	--	673.25	669.50	--	667.5	668.19
9/21/23	--	673.25	669.50	--	667.5	668.18
9/22/23	--	673.25	669.50	--	667.5	668.19
9/23/23	--	673.28	669.50	--	667.5	668.18
9/24/23	--	673.28	669.50	--	667.5	668.18
9/25/23	672.68	673.28	669.50	668.8	667.5	668.18
9/26/23	--	673.32	669.50	--	667.5	668.18
9/27/23	--	673.25	669.50	--	667.5	668.16
9/28/23	--	673.26	669.50	--	667.5	668.19
9/29/23	--	673.25	669.50	--	667.5	668.17
9/30/23	--	673.28	669.50	--	667.5	668.17
10/1/23	--	673.35	669.50	--	667.5	668.17
10/2/23	672.67	673.28	669.50	668.7	667.5	668.16
10/3/23	--	673.28	669.50	--	667.5	668.16
10/4/23	--	673.28	669.50	--	667.5	668.20
10/5/23	--	673.3	669.50	--	667.5	668.20
10/6/23	--	673.3	669.50	--	667.5	668.20
10/7/23	--	673.32	669.50	--	667.5	668.20
10/8/23	--	673.32	669.50	--	667.5	668.21
10/9/23	--	673.32	669.50	--	667.5	668.21
10/10/23	--	673.32	669.50	668.8	667.5	668.19
10/11/23	--	673.28	669.50	--	667.5	668.19
10/12/23	672.76	673.28	669.50	668.8	667.5	668.19
10/13/23	--	673.22	669.50	--	667.5	668.18
10/14/23	--	673.23	669.50	--	667.5	668.18
10/15/23	--	673.23	669.50	--	667.5	668.18
10/16/23	672.68	673.23	669.50	668.8	667.5	668.18
10/17/23	--	673.22	669.50	--	667.5	668.19
10/18/23	--	673.23	669.50	--	667.5	668.19
10/19/23	--	673.25	669.50	--	667.5	668.18
10/20/23	--	673.25	669.50	--	667.5	668.19
10/21/23	--	673.22	669.50	--	667.5	668.18
10/22/23	--	673.22	669.50	--	667.5	668.18
10/23/23	672.68	673.22	669.50	668.8	667.5	668.16
10/24/23	--	673.22	669.50	--	667.5	668.16
10/25/23	--	673.28	669.50	--	667.5	668.18
10/26/23	--	673.25	669.50	--	667.5	668.19
10/27/23	--	673.25	669.50	--	667.5	668.16
10/28/23	672.68	673.19	669.50	--	667.5	668.20
10/29/23	--	673.25	669.50	--	667.5	668.19
10/30/23	--	673.25	669.50	668.8	667.5	668.19
10/31/23	--	673.25	669.50	--	667.5	668.19

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11/1/23	--	673.22	669.50	--	667.5	668.18
11/2/23	--	673.22	669.50	--	667.5	668.18
11/3/23	--	673.22	669.50	--	667.5	668.21
11/4/23	--	673.25	669.50	--	667.5	668.21
11/5/23	672.72	673.25	669.50	--	667.5	668.18
11/6/23	--	673.25	669.50	668.8	667.5	668.18
11/7/23	--	673.28	669.50	--	667.5	668.19
11/8/23	--	673.25	669.50	--	667.5	668.16
11/9/23	672.72	673.25	669.50	668.8	667.5	668.16
11/10/23	--	673.22	669.50	--	667.5	668.15
11/11/23	--	673.19	669.50	--	667.5	668.18
11/12/23	--	673.25	669.50	--	667.5	668.16
11/13/23	672.72	673.25	669.50	668.7	667.5	668.17
11/14/23	--	673.25	669.50	--	667.5	668.17
11/15/23	--	673.25	669.50	--	667.5	668.16
11/16/23	--	673.25	669.50	--	667.5	668.15
11/17/23	--	673.28	669.50	--	667.5	668.16
11/18/23	--	673.28	669.50	--	667.5	668.19
11/19/23	--	673.28	669.50	--	667.5	668.19
11/20/23	672.71	673.28	669.50	668.6	667.5	668.19
11/21/23	--	673.25	669.50	--	667.5	668.18
11/22/23	--	673.25	669.50	--	667.5	668.18
11/23/23	--	673.25	669.50	--	667.5	668.18
11/24/23	--	673.25	669.50	--	667.5	668.20
11/25/23	--	673.28	669.50	--	667.5	668.20
11/26/23	--	673.28	669.50	--	667.5	668.19
11/27/23	672.71	673.22	669.50	668.6	667.5	668.16
11/28/23	--	673.22	669.50	--	667.5	668.15
11/29/23	--	673.25	669.50	--	667.5	668.17
11/30/23	--	673.28	669.50	--	667.5	668.17
12/1/23	--	673.28	669.50	--	667.5	668.18
12/2/23	--	673.28	669.50	--	667.5	668.17
12/3/23	--	673.25	669.50	--	667.5	668.17
12/4/23	672.74	673.25	669.50	668.8	667.5	668.17
12/5/23	--	673.22	669.50	--	667.5	668.17
12/6/23	--	673.22	669.50	--	667.5	668.17
12/7/23	672.79	673.28	669.50	668.8	667.5	668.16
12/8/23	--	673.25	669.50	--	667.5	668.16
12/9/23	--	673.22	669.50	--	667.5	668.15
12/10/23	--	673.22	669.50	--	667.5	668.15
12/11/23	--	673.22	669.50	--	667.5	668.15
12/12/23	--	673.22	669.50	--	667.5	668.14
12/13/23	--	673.22	669.50	--	667.5	668.14
12/14/23	--	673.28	669.50	--	667.5	668.16
12/15/23	--	673.32	669.50	--	667.5	668.15
12/16/23	--	673.28	669.50	--	667.5	668.16
12/17/23	--	673.25	669.50	--	667.5	668.19
12/18/23	--	673.25	669.50	--	667.5	668.17
12/19/23	--	673.22	669.50	--	667.5	668.16
12/20/23	--	673.25	669.50	--	667.5	668.16
12/21/23	--	673.25	669.50	--	667.5	668.16
12/22/23	--	673.28	669.50	--	667.5	668.16
12/23/23	--	673.28	669.50	--	667.5	668.16
12/24/23	--	673.32	669.50	--	667.5	668.15
12/25/23	--	673.28	669.50	--	667.5	668.13
12/26/23	--	673.28	669.50	--	667.5	668.15
12/27/23	--	673.27	669.50	--	667.5	668.15
12/28/23	--	673.25	669.50	--	667.5	668.16
12/29/23	--	673.25	669.50	--	667.5	668.14
12/30/23	--	673.28	669.50	--	667.5	668.13
12/31/23	--	673.23	669.50	--	667.5	668.15

Notes:
AMSL - Above mean sea level
ft - feet
[1] LCS: Top of 6-ft. diameter sump [top of concrete manhole] (feet AMSL): 740.83, Bottom of sump (feet AMSL): 671.00, Total depth of sump manhole (feet): 69.83.
[2] LDS: Top of 6-ft. diameter sump [top of concrete manhole] (feet AMSL): 741.14, Bottom of sump (feet AMSL): 668.5, Total depth of sump manhole (feet): 72.64
Top of concrete manhole where water levels readings are collected re-surveyed October 7, 2022: 741.74 (ft. AMSL)
3 GUS: Top of 3-ft diameter sump [top of concrete] (feet AMSL): 738.99, Bottom of sump (feet AMSL): 662.18, Total depth of sump manhole (feet): 76.81.
[4] The error reading on the LCS transducer is a result of the leachate level being below what the transducer recognizes as "zero." Therefore, no reading is available. On June 23, 2024 the level sensor was calibrated. The LCS was reading correct but not the SCADA.

Table 2.5

2023 LCS, LDS, and GUS Maximum Water Elevation Summary
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Date	LCS[1]	LCS[1]	LDS[2]	LDS[2]	GUS[3]	GUS[3]
Operational Level	Manual Recorded Depth to Water (ft.)	Max. Water Surface Elevation (manual) (ft. AMSL)	Manual Recorded Depth to Water (ft.)	Max. Water Surface Elevation (manual) (ft. AMSL)	PLC-Recorded Water Depth (inches)	Max. Water Surface Elevation (PLC) (ft AMSL)
Jan-23	69.19	671.64	72.81	668.33	74.7	674.81
Feb-23	69.20	671.63	72.86	668.28	74.7	674.81
Mar-23	67.91	672.92	72.83	668.31	72.6	674.63
Apr-23	68.04	672.79	72.90	668.24	72.7	674.64
May-23	67.99	672.84	72.90	668.24	72.6	674.63
Jun-23	67.99	672.84	72.91	668.23	72	674.58
Jul-23	68	672.83	72.92	668.22	72.3	674.61
Aug-23	68.02	672.81	72.94	668.20	72.3	674.61
Sep-23	68.09	672.74	72.94	668.20	72.3	674.61
Oct-23	68.11	672.72	72.95	668.79	72.3	674.61
Nov-23	68.15	672.68	72.97	668.77	72.3	674.61
Dec-23	68.08	672.75	72.98	668.76	72.1	674.59

Notes:

AMSL - Above mean sea level

ft - feet

[1] LCS: Top of 6-ft. diameter sump [top of concrete manhole] (feet AMSL): 740.83, Bottom of sump (feet AMSL): 671.00, Total depth of sump manhole (feet): 69.83.
Pump operating start level: 674.00 ft. AMSL

[2] LDS: Top of 6-ft. diameter sump [top of concrete manhole] (feet AMSL): 741.14, Bottom of sump (feet AMSL): 668.5, Total depth of sump manhole (feet): 72.64
Top of concrete manhole where water levels readings are collected re-surveyed October 7, 2022: 741.74 (ft. AMSL). Operating start level: 670.00
Pump operating start level: 670.00 ft. AMSL. Water elevation that exceeds 1 ft over primary liner: 671.5 ft. AMSL

[3] GUS: Top of 3-ft diameter sump [top of concrete] (feet AMSL): 738.99, Bottom of sump (feet AMSL): 662.18, Total depth of sump manhole (feet): 76.81.
Pump operating start level: 666.5 ft. AMSL

Indication of water level reaching or exceeding the operational limit.

Table 2.6

2023 Summary of Monthly Total Volume of Water Treated
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Month	Groundwater Treatment Plant (GWTP) Number of Operational Days	Volume of Water Treated/Discharged at the GWTP (million gallons)	Daily Average Water Treated/Discharged at the GWTP (million gallons)
Jan-23	31	3.356	0.108
Feb-23	28	2.626	0.094
Mar-23	31	3.917	0.126
Apr-23	30	2.760	0.092
May-23	31	1.038	0.033
Jun-23	30	0.872	0.029
Jul-23	31	3.743	0.121
Aug-23	31	2.083	0.067
Sep-23	30	0.887	0.030
Oct-23	31	0.692	0.022
Nov-23	30	0.81	0.027
Dec-23	31	1.083	0.035
Total	**365**	**23.867**	
Month Average	**-**	**1.989**	
Daily Average	**-**	**0.065**	

Table 3.1

Summary of Analytical Results - EI CA750 First Half 2023 Sampling Event
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		9-4	CH-20	CH-42	CH-42A	CH-43	CH-44	MW-X033Y147S	MW-X043Y176	MW-X047Y236	MW-X085Y070S-1	MW-X085Y070S-2	MW-X146Y084	MW-X146Y084	MW-X169Y058S-1	MW-X227Y054	MW-X242Y060S
Sample Date		**05/24/2023**	**05/24/2023**	**05/22/2023**	**05/22/2023**	**05/22/2023**	**05/22/2023**	**05/25/2023**	**05/23/2023**	**05/23/2023**	**05/25/2023**	**05/25/2023**	**05/24/2023**	**05/24/2023**	**05/25/2023**	**05/23/2023**	**05/24/2023**
Parameters	**Units**																
Polychlorinated biphenyl (PCBs)																	
Aroclor-1016 (PCB-1016)	µg/L	0.11 U	0.10 U	0.10 U	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	2.0 U	48 U
Aroclor-1221 (PCB-1221)	µg/L	0.11 U	0.10 U	0.10 U	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	2.0 U	48 U
Aroclor-1232 (PCB-1232)	µg/L	0.11 U	0.10 U	0.10 U	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	2.0 U	48 U
Aroclor-1242 (PCB-1242)	µg/L	0.33	0.10 U	0.15	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	24	130
Aroclor-1248 (PCB-1248)	µg/L	0.11 U	0.10 U	0.10 U	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	2.0 U	48 U
Aroclor-1254 (PCB-1254)	µg/L	0.11 U	0.10 U	0.10 U	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	2.0 U	48 U
Aroclor-1260 (PCB-1260)	µg/L	0.11 U	0.10 U	0.10 U	0.095 U	0.099 U	0.10 U	0.095 U	0.096 U	0.095 U	0.11 U	0.11 U	0.095 U	0.095 U	0.095 U	2.0 U	48 U
Total PCBs	µg/L	0.33	ND	0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24	130
Aroclor-1016 (PCB-1016) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.49
Aroclor-1248 (PCB-1248) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	µg/L	0.099 U	0.12 U	0.096 U	0.095 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.096 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.10 U
Total PCBs (dissolved)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49
Semi-Volatile Organic Compounds (SVOCs)																	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzylphthalate (BBP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate (DBP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.1

Summary of Analytical Results - EI CA750 First Half 2023 Sampling Event
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		9-4	CH-20	CH-42	CH-42A	CH-43	CH-44	MW-X033Y147S	MW-X043Y176	MW-X047Y236	MW-X085Y070S-1	MW-X085Y070S-2	MW-X146Y084	MW-X146Y084	MW-X169Y058S-1	MW-X227Y054	MW-X242Y060S
Sample Date		05/24/2023	05/24/2023	05/22/2023	05/22/2023	05/22/2023	05/22/2023	05/25/2023	05/23/2023	05/23/2023	05/25/2023	05/25/2023	05/24/2023	05/24/2023	05/25/2023	05/23/2023	05/24/2023
Parameters	**Units**																
Hexachlorobutadiene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)																	
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	ug/L	10 U	10 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl benzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl acetate	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl cyclohexane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/L	5.0 U	5.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trifluorotrichloroethane (CFC-113)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	ug/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	1.0 U	1.0 U	0.70 J	--	--
Xylenes (total)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.1

Summary of Analytical Results - EI CA750 First Half 2023 Sampling Event
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		9-4	CH-20	CH-42	CH-42A	CH-43	CH-44	MW-X033Y147S	MW-X043Y176	MW-X047Y236	MW-X085Y070S-1	MW-X085Y070S-2	MW-X146Y084	MW-X146Y084	MW-X169Y058S-1	MW-X227Y054	MW-X242Y060S
Sample Date		**05/24/2023**	**05/24/2023**	**05/22/2023**	**05/22/2023**	**05/22/2023**	**05/22/2023**	**05/25/2023**	**05/23/2023**	**05/23/2023**	**05/25/2023**	**05/25/2023**	**05/24/2023**	**05/24/2023**	**05/25/2023**	**05/23/2023**	**05/24/2023**
Parameters	**Units**																
General Chemistry																	
Chloride	ug/L	--	--	--	--	--	--	--	--	--	--	--	1900000	2000000	--	--	--
Field Parameters																	
Conductivity, field	uS/cm	592	757	0.564	0.483	0.815	0.841	1641	1.542	0.692	8.715	4.665	5124	5124	1.862	1796	1.702
Dissolved oxygen (DO), field	ug/L	2570	190	11100	5190	440	400	4460	180	1620	6280	9370	290	290	7350	580	1190
Flow rate	mL/min	--	--	--	--	500	500	--	--	--	--	--	--	--	--	125	--
Oxidation reduction potential (ORP), field	millivolts	-83.4	-203.9	32.3	-36.9	-0.9	94.1	4.2	-101.8	18.3	-163.0	-156.0	-152.0	-152.0	-31.9	-106.3	-300.9
pH, field	s.u.	7.10	7.80	6.08	6.91	6.89	6.77	6.77	6.89	7.08	6.99	7.33	7.33	7.33	7.65	7.15	7.12
Temperature, sample	Deg C	16.05	14.59	17.59	15.85	17.48	15.97	17.65	14.06	16.97	18.25	18.64	23.06	23.06	14.84	18.11	15.91
Turbidity, field	NTU	3.69	6.15	3.16	2.46	9.67	1.58	10.77	17.1	2.36	4.36	8.42	21.6	21.6	5.31	34.7	2.98
Volume purged	gal	0	0	--	0	6.66	5.84	0	0	0	0	0	0	0	0	2.11	--

Table 3.1

Summary of Analytical Results - EI CA750 First Half 2023 Sampling Event
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		MW-X261Y356D-3	MW-X277Y100	MW-X297Y305D-2	MW-X300Y199I-1	MW-X300Y199I-2	MW-X315Y115	MW-X315Y150	MW-X315Y150	ST-59	ST-59	Tributary 3-3
Sample Date		05/23/2023	05/24/2023	05/23/2023	05/23/2023	05/23/2023	05/23/2023	05/23/2023	05/23/2023	05/25/2023	05/25/2023	05/25/2023
Parameters	**Units**											
Polychlorinated biphenyl (PCBs)												
Aroclor-1016 (PCB-1016)	µg/L	0.095 U	0.095 U	0.097 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Aroclor-1221 (PCB-1221)	µg/L	0.095 U	0.095 U	0.097 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Aroclor-1232 (PCB-1232)	µg/L	0.095 U	0.095 U	0.097 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Aroclor-1242 (PCB-1242)	µg/L	0.095 U	0.091 J	0.097 U	0.095 U	0.24	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Aroclor-1248 (PCB-1248)	µg/L	0.095 U	0.095 U	0.097 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Aroclor-1254 (PCB-1254)	µg/L	0.095 U	0.095 U	0.097 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Aroclor-1260 (PCB-1260)	µg/L	0.095 U	0.095 U	0.097 U	0.095 U	0.099 U	0.095 U	0.095 U	0.095 U	0.095 U	0.097 U	0.10 U
Total PCBs	µg/L	ND	0.091 J	ND	ND	0.24	ND	ND	ND	ND	ND	ND
Aroclor-1016 (PCB-1016) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Aroclor-1221 (PCB-1221) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Aroclor-1232 (PCB-1232) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Aroclor-1242 (PCB-1242) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Aroclor-1248 (PCB-1248) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Aroclor-1254 (PCB-1254) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Aroclor-1260 (PCB-1260) (dissolved)	µg/L	0.10 U	0.095 U	0.095 U	0.095 U	0.11 U	0.095 U	0.095 U	0.095 U	0.10 U	0.095 U	0.096 U
Total PCBs (dissolved)	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs)												
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2-Chlorophenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2-Methylphenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
2-Nitroaniline	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
2-Nitrophenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
3-Nitroaniline	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
4-Chloroaniline	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
4-Nitroaniline	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
4-Nitrophenol	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
Acenaphthene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Acetophenone	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Anthracene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Atrazine	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Benzaldehyde	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Butyl benzylphthalate (BBP)	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Caprolactam	µg/L	--	R	--	--	--	--	--	--	--	--	--
Carbazole	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Dibenzofuran	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Diethyl phthalate	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate (DBP)	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Fluoranthene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Fluorene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--

Table 3.1

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East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		MW-X261Y356D-3	MW-X277Y100	MW-X297Y305D-2	MW-X300Y199I-1	MW-X300Y199I-2	MW-X315Y115	MW-X315Y150	MW-X315Y150	ST-59	ST-59	Tributary 3-3
Sample Date		05/23/2023	05/24/2023	05/23/2023	05/23/2023	05/23/2023	05/23/2023	05/23/2023	05/23/2023	05/25/2023	05/25/2023	05/25/2023
Parameters	**Units**											
Hexachlorobutadiene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	µg/L	--	48 U	--	--	--	--	--	--	--	--	--
Hexachloroethane	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Isophorone	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Nitrobenzene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Pentachlorophenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Phenol	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Pyrene	µg/L	--	9.5 U	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)												
1,1,1-Trichloroethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	--	2.0 U	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	--	10 U	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	ug/L	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	ug/L	--	10 U	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	--	10 U	--	--	--	--	--	--	--	--	--
Acetone	ug/L	--	10 U	--	--	--	--	--	--	--	--	--
Benzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Bromoform	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Carbon disulfide	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Chlorobenzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Chloroethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Chloroform (Trichloromethane)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Cyclohexane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Dibromochloromethane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Ethylbenzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Isopropyl benzene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Methyl acetate	ug/L	--	10 U	--	--	--	--	--	--	--	--	--
Methyl cyclohexane	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/L	--	5.0 U	--	--	--	--	--	--	--	--	--
Styrene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Tetrachloroethene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Toluene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Trichloroethene	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Trifluorotrichloroethane (CFC-113)	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Vinyl chloride	ug/L	--	1.0 U	--	--	--	--	--	--	--	--	--
Xylenes (total)	ug/L	--	2.0 U	--	--	--	--	--	--	--	--	--

Table 3.1

Summary of Analytical Results - EI CA750 First Half 2023 Sampling Event
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		MW-X261Y356D-3	MW-X277Y100	MW-X297Y305D-2	MW-X300Y199I-1	MW-X300Y199I-2	MW-X315Y115	MW-X315Y150	MW-X315Y150	ST-59	ST-59	Tributary 3-3
Sample Date		**05/23/2023**	**05/24/2023**	**05/23/2023**	**05/23/2023**	**05/23/2023**	**05/23/2023**	**05/23/2023**	**05/23/2023**	**05/25/2023**	**05/25/2023**	**05/25/2023**
Parameters	**Units**											
General Chemistry												
Chloride	ug/L	--	--	--	--	--	--	--	--	18000	18000	--
Field Parameters												
Conductivity, field	uS/cm	0.501	0.932	0.366	0.287	0.314	0.429	0.415	0.415	519	519	0.759
Dissolved oxygen (DO), field	ug/L	1020	1460	2170	1570	1020	1200	1900	1900	42100	42100	14600
Flow rate	mL/min	--	--	--	--	--	--	--	--	--	--	--
Oxidation reduction potential (ORP), field	millivolts	-168.5	-34.9	-78.4	-99.8	-111.9	-24.8	-79.9	-79.9	-22.3	-22.3	255.6
pH, field	s.u.	7.02	7.09	7.23	7.23	7.68	7.72	7.47	7.47	3.05	3.05	2.57
Temperature, sample	Deg C	16.54	14.75	14.23	15.68	16.16	16.03	17.24	17.24	13.82	13.82	22.06
Turbidity, field	NTU	3.08	3.84	3.14	3.01	2.97	23.2	15.4	15.4	2.44	2.44	7.82
Volume purged	gal	0	--	0	0	--	0	0	0	0	0	0

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
R - Rejected.
ND - Non Detect.

Table 3.2

Summary of Analytical Results - EI CA750 Second Half 2023
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operation Facility
Bedford, Indiana

Sample Location		9-4	CH-20	CH-42	CH-42A	CH-43	CH-44	MW-X033Y147S	MW-X043Y176	MW-X047Y236	MW-X085Y070S-1	MW-X085Y070S-2	MW-X146Y084	MW-X146Y084	MW-X169Y058S-1
Sample Date		**11/15/2023**	**11/15/2023**	**11/13/2023**	**11/13/2023**	**11/13/2023**	**11/13/2023**	**11/15/2023**	**11/16/2023**	**11/16/2023**	**11/15/2023**	**11/15/2023**	**11/15/2023**	**11/15/2023**	**11/15/2023**
Parameters	**Units**														
Polychlorinated biphenyl (PCBs)															
Aroclor-1016 (PCB-1016)	µg/L	0.11 U	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.10 U	0.21 U	0.40 U	0.095 U
Aroclor-1221 (PCB-1221)	µg/L	0.11 U	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.10 U	0.21 U	0.40 U	0.095 U
Aroclor-1232 (PCB-1232)	µg/L	0.11 U	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.10 U	0.21 U	0.40 U	0.095 U
Aroclor-1242 (PCB-1242)	µg/L	0.34	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.078 J	4.1	4.2	0.095 U
Aroclor-1248 (PCB-1248)	µg/L	0.11 U	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.10 U	0.21 U	0.40 U	0.095 U
Aroclor-1254 (PCB-1254)	µg/L	0.11 U	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.10 U	0.21 U	0.40 U	0.095 U
Aroclor-1260 (PCB-1260)	µg/L	0.11 U	0.11 U	0.10 U	0.095 U	0.097 U	0.14 U	0.095 U	0.095 U	0.11 U	0.097 U	0.10 U	0.21 U	0.40 U	0.095 U
Total PCBs	µg/L	0.34	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.078 J	4.1	4.2	ND
Aroclor-1016 (PCB-1016) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	µg/L	0.095 U	0.095 U	0.10 U	0.095 U	0.098 U	--	0.095 U	0.095 U	0.095 U	0.098 U	0.11 U	0.11 U	0.096 U	0.095 U
Total PCBs (dissolved)	µg/L	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs)															
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3&4-Methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Atrazine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzaldehyde	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzylphthalate (BBP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Caprolactam	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butylphthalate (DBP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.2

Summary of Analytical Results - EI CA750 Second Half 2023
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operation Facility
Bedford, Indiana

Sample Location		9-4	CH-20	CH-42	CH-42A	CH-43	CH-44	MW-X033Y147S	MW-X043Y176	MW-X047Y236	MW-X085Y070S-1	MW-X085Y070S-2	MW-X146Y084	MW-X146Y084	MW-X169Y058S-1
Sample Date		11/15/2023	11/15/2023	11/13/2023	11/13/2023	11/13/2023	11/13/2023	11/15/2023	11/16/2023	11/16/2023	11/15/2023	11/15/2023	11/15/2023	11/15/2023	11/15/2023
Parameters	**Units**														
Fluoranthene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorobutadiene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloroethane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isophorone	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrobenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)															
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	µg/L	10 U	10 U	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 UJ	1.0 UJ	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Isopropyl benzene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl acetate	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl cyclohexane	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	µg/L	5.0 U	5.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--	--	--
Trifluorotrichloroethane (CFC-113)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	µg/L	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	1.0 U	1.0 U	0.95 J
Xylenes (total)	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3.2

Summary of Analytical Results - EI CA750 Second Half 2023
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operation Facility
Bedford, Indiana

Sample Location		9-4	CH-20	CH-42	CH-42A	CH-43	CH-44	MW-X033Y147S	MW-X043Y176	MW-X047Y236	MW-X085Y070S-1	MW-X085Y070S-2	MW-X146Y084	MW-X146Y084	MW-X169Y058S-1
Sample Date		**11/15/2023**	**11/15/2023**	**11/13/2023**	**11/13/2023**	**11/13/2023**	**11/13/2023**	**11/15/2023**	**11/16/2023**	**11/16/2023**	**11/15/2023**	**11/15/2023**	**11/15/2023**	**11/15/2023**	**11/15/2023**
Parameters	**Units**														
General Chemistry															
Chloride	µg/L	--	--	--	--	--	--	--	--	--	--	--	1900000	1800000	--
Field Parameters															
Conductivity, field	uS/cm	0.582	0.667	0.652	0.565	0.906	1.028	1577	1585	610	7.920	4.442	4544	4544	1.811
Dissolved oxygen (DO), field	µg/L	250	310	11930	2710	2470	6300	1120	1560	2090	7020	10650	910	910	29000
Flow rate	mL/min	500	500	--	--	500	500	500	500	500	--	--	500	500	--
Oxidation reduction potential (ORP), field	millivolts	-141.1	-190.3	-87.9	25.5	4.0	76.0	29.2	-25.5	-53.0	-138.9	-180.9	-96.6	-96.6	-52.4
pH, field	s.u.	7.40	7.55	8.32	8.04	7.41	7.21	6.87	6.96	7.40	6.97	7.52	7.58	7.58	7.55
Temperature, sample	Deg C	15.59	14.52	13.87	14.71	14.26	16	16.74	13.73	13.92	18.19	19.06	17.49	17.49	15.25
Turbidity, field	NTU	2.82	7.09	25.9	15.9	14.9	3.15	23.6	2.89	0.95	35.3	79.1	66.6	66.6	15.9
Volume purged	gal	2.81	5.15	ND	ND	3.89	--	4	4.16	4.77	ND	ND	8.65	8.65	ND

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.2

Summary of Analytical Results - EI CA750 Second Half 2023
East Plant TSCA Vault Annual Report - Calendar Year 2023
GM Bedford Casting Operation Facility
Bedford, Indiana

Sample Location Sample Date Parameters	Units	MW-X169Y058S-1 11/15/2023	MW-X227Y054 11/14/2023	MW-X242Y060S 11/14/2023	MW-X261Y356D-3 11/14/2023	MW-X277Y100 11/16/2023	MW-X297Y305D-2 11/14/2023	MW-X300Y199I-1 11/14/2023	MW-X300Y199I-2 11/14/2023	MW-X315Y115 11/14/2023	MW-X315Y150 11/14/2023	MW-X315Y150 11/14/2023	ST-59 11/16/2023	Tributary 3-3 11/16/2023
Polychlorinated biphenyl (PCBs)														
Aroclor-1016 (PCB-1016)	µg/L	0.095 U	1.9 U	19 U	0.10 U	0.095 U	0.095 U	0.098 U	0.10 U	0.10 U	0.095 U	0.10 U	0.095 U	0.097 U
Aroclor-1221 (PCB-1221)	µg/L	0.095 U	1.9 U	19 U	0.10 U	0.095 U	0.095 U	0.098 U	0.10 U	0.10 U	0.095 U	0.10 U	0.095 U	0.097 U
Aroclor-1232 (PCB-1232)	µg/L	0.095 U	1.9 U	19 U	0.10 U	0.095 U	0.095 U	0.098 U	0.10 U	0.10 U	0.095 U	0.10 U	0.095 U	0.097 U
Aroclor-1242 (PCB-1242)	µg/L	0.095 U	26	450	0.10 U	0.34	0.095 U	0.15	0.10 U	0.098 J	0.073 J	0.084 J	0.095 U	0.097 U
Aroclor-1248 (PCB-1248)	µg/L	0.095 U	1.9 U	19 U	0.10 U	0.095 U	0.095 U	0.098 U	0.10 U	0.10 U	0.095 U	0.10 U	0.095 U	0.097 U
Aroclor-1254 (PCB-1254)	µg/L	0.095 U	1.9 U	19 U	0.10 U	0.095 U	0.095 U	0.098 U	0.10 U	0.10 U	0.095 U	0.10 U	0.095 U	0.097 U
Aroclor-1260 (PCB-1260)	µg/L	0.095 U	1.9 U	19 U	0.10 U	0.095 U	0.095 U	0.098 U	0.10 U	0.10 U	0.095 U	0.10 U	0.095 U	0.097 U
Total PCBs	µg/L	ND	26	450	ND	0.34	ND	0.15	ND	0.098 J	0.073 J	0.084 J	ND	ND
Aroclor-1016 (PCB-1016) (dissolved)	µg/L	0.095 U	0.95 U	0.48 U	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Aroclor-1221 (PCB-1221) (dissolved)	µg/L	0.095 U	0.95 U	0.48 U	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Aroclor-1232 (PCB-1232) (dissolved)	µg/L	0.095 U	0.95 U	0.48 U	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Aroclor-1242 (PCB-1242) (dissolved)	µg/L	0.095 U	0.95 U	3.5	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Aroclor-1248 (PCB-1248) (dissolved)	µg/L	0.095 U	0.95 U	0.48 U	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Aroclor-1254 (PCB-1254) (dissolved)	µg/L	0.095 U	0.95 U	0.48 U	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Aroclor-1260 (PCB-1260) (dissolved)	µg/L	0.095 U	0.95 U	0.48 U	0.11 U	0.10 U	0.095 U	0.095 U	0.11 U	0.095 U	0.13 U	0.11 U	0.10 U	0.097 U
Total PCBs (dissolved)	µg/L	ND	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs)														
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2,4,6-Trichlorophenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2,4-Dichlorophenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2,4-Dinitrophenol	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2-Chloronaphthalene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2-Chlorophenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2-Methylnaphthalene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2-Methylphenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2-Nitroaniline	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
2-Nitrophenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
3&4-Methylphenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
3,3'-Dichlorobenzidine	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
3-Nitroaniline	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
4-Chloroaniline	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
4-Nitroaniline	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
4-Nitrophenol	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
Acenaphthene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Acetophenone	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Atrazine	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzaldehyde	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Biphenyl (1,1-Biphenyl)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Butyl benzylphthalate (BBP)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Caprolactam	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Carbazole	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Dibenzofuran	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Diethyl phthalate	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Dimethyl phthalate	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Di-n-butylphthalate (DBP)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Di-n-octyl phthalate (DnOP)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--

Table 3.2

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GM Bedford Casting Operation Facility
Bedford, Indiana

Sample Location Sample Date Parameters	Units	MW-X169Y058S-1 11/15/2023	MW-X227Y054 11/14/2023	MW-X242Y060S 11/14/2023	MW-X261Y356D-3 11/14/2023	MW-X277Y100 11/16/2023	MW-X297Y305D-2 11/14/2023	MW-X300Y199I-1 11/14/2023	MW-X300Y199I-2 11/14/2023	MW-X315Y115 11/14/2023	MW-X315Y150 11/14/2023	MW-X315Y150 11/14/2023	ST-59 11/16/2023	Tributary 3-3 11/16/2023
Fluoranthene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Hexachlorobenzene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Hexachlorobutadiene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene	µg/L	--	--	--	--	52 U	--	--	--	--	--	--	--	--
Hexachloroethane	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Isophorone	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Nitrobenzene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Pentachlorophenol	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Phenol	µg/L	--	--	--	--	0.74 J	--	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Volatile Organic Compounds (VOCs)														
1,1,1-Trichloroethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,1-Dichloroethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,1-Dichloroethene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	--	--	--	--	2.0 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,2-Dichloroethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,2-Dichloropropane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Hexanone	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Acetone	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Benzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Bromodichloromethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Bromoform	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Carbon disulfide	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Carbon tetrachloride	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Chlorobenzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Chloroethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Chloroform (Trichloromethane)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Cyclohexane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Dibromochloromethane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Ethylbenzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Isopropyl benzene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Methyl acetate	µg/L	--	--	--	--	10 U	--	--	--	--	--	--	--	--
Methyl cyclohexane	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Methyl tert butyl ether (MTBE)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Methylene chloride	µg/L	--	--	--	--	5.0 U	--	--	--	--	--	--	--	--
Styrene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Tetrachloroethene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Toluene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Trichloroethene	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Trifluorotrichloroethane (CFC-113)	µg/L	--	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Vinyl chloride	µg/L	0.98 J	--	--	--	1.0 U	--	--	--	--	--	--	--	--
Xylenes (total)	µg/L	--	--	--	--	2.0 U	--	--	--	--	--	--	--	--

Table 3.2

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GM Bedford Casting Operation Facility
Bedford, Indiana

Sample Location Sample Date Parameters	Units	MW-X169Y058S-1 11/15/2023	MW-X227Y054 11/14/2023	MW-X242Y060S 11/14/2023	MW-X261Y356D-3 11/14/2023	MW-X277Y100 11/16/2023	MW-X297Y305D-2 11/14/2023	MW-X300Y199I-1 11/14/2023	MW-X300Y199I-2 11/14/2023	MW-X315Y115 11/14/2023	MW-X315Y150 11/14/2023	MW-X315Y150 11/14/2023	ST-59 11/16/2023	Tributary 3-3 11/16/2023
General Chemistry														
Chloride	µg/L	--	--	--	--	--	--	--	--	--	--	--	15000	--
Field Parameters														
Conductivity, field	uS/cm	1.811	1126	863	0.523	1.447	0.641	0.447	0.669	450	266	266	311	566
Dissolved oxygen (DO), field	µg/L	29000	1010	1660	1680	1690	810	560	2990	1210	3030	3030	12890	13270
Flow rate	mL/min	--	500	500	--	--	--	--	--	500	500	500	--	--
Oxidation reduction potential (ORP), field	millivolts	-52.4	-111.8	-83.2	81.5	-115.8	-71.7	-123.0	-132.2	-1.3	-64.6	-64.6	103.2	105.8
pH, field	s.u.	7.55	7.81	7.28	7.11	6.97	7.03	7.43	7.11	7.50	7.57	7.57	7.98	7.96
Temperature, sample	Deg C	15.25	15.26	14.19	15.84	14.08	14.63	14.53	15.49	14.48	14.72	14.72	15.34	12.87
Turbidity, field	NTU	15.9	16.1	12.8	12.6	5.23	19.9	9.56	12.1	12.4	63.0	63.0	--	--
Volume purged	gal	ND	4.82	--	ND	--	ND	ND	--	3.69	--	--	ND	ND

Notes:
U - Not detected at the associated reporting limit.
J - Estimated concentration.
UJ - Not detected; associated reporting limit is estimated.

Table 3.3

2023 LCS and LDS Analytical Results
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS	EPA LCS
Sample Date		01/09/2023	02/06/2023	03/14/2023	04/10/2023	05/15/2023	05/15/2023	06/13/2023	07/17/2023	08/07/2023	09/11/2023	10/12/2023	11/09/2023	12/07/2023
Sample Type							Duplicate							
Parameters	Units													
Polychlorinated biphenyl (PCBs)														
Aroclor-1016 (PCB-1016)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.48 U	0.48 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1221 (PCB-1221)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.48 U	0.48 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1232 (PCB-1232)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.48 U	0.48 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1242 (PCB-1242)	ug/L	0.19 P	0.22	0.83	0.56	0.69 P	0.56 P	0.45	0.37 P	0.095 U	0.38	0.34	0.36	0.16 p
Aroclor-1248 (PCB-1248)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.48 U	0.48 U	0.095 U	0.095 U	0.30	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1254 (PCB-1254)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.48 U	0.48 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1260 (PCB-1260)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.48 U	0.48 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Total PCBs	ug/L	0.19 P	0.22	0.83	0.56	0.69 P	0.56 P	0.45	0.37 P	0.3	0.38	0.34	0.36	0.16 P
Volatile Organic Compounds (VOCs)														
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 UH	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
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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-Dichloroethane	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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-Chloroethyl vinyl ether	ug/L	10 U	10 UH	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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*+
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 UH	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
Carbon tetrachloride	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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
Chloroethane	ug/L	1.0 U	1.0 UH	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 (Trichloromethane)	ug/L	1.0 U	1.0 UH	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 (Methyl chloride)	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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*+
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 UH	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
Ethylbenzene	ug/L	1.0 U	1.0 UH	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
Methylene chloride	ug/L	5.0 U	5.0 UH	5.0 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	5.0 U	5.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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-1,2-Dichloroethene	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 UH	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	ug/L	1.0 U	1.0 UH	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
General Chemistry														
Sulfate	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Total organic carbon (TOC)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--	--
Field Parameters														
Conductivity, field	mS/cm	3.69	2.91	2.47	2.27	2.47	2.47	26.1	2.47	4.39	2.92	2.98	2.15	3.58
Dissolved oxygen (DO), field	ug/L	7820	7820	5260	7470	10590	10590	9230	6650	--	6110	7510	5980	7180
Oxidation reduction potential (ORP), field	millivolts	70	241	166	331	2.35	2.35	-24	-60	-5	-33	13	-39	46
pH, field	s.u.	6.7	6.7	7.3	7	--	--	6.8	6.7	6.8	7	7	7	7
Temperature, sample	Deg F	53.78	57.02	52.34	66.56	62.96	62.96	64.76	69.44	71.78	69.08	62.78	61.34	53.24

Table 3.3

2023 LCS and LDS Analytical Results
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Bedford, Indiana

Sample Location		EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS	EPA LDS
Sample Date		01/09/2023	02/06/2023	03/14/2023	05/15/2023	06/13/2023	06/13/2023	07/17/2023	08/07/2023	09/11/2023	10/12/2023	11/09/2023	11/09/2023
Sample Type							Duplicate						Duplicate
Parameters	Units												
Polychlorinated biphenyl (PCBs)													
Aroclor-1016 (PCB-1016)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1221 (PCB-1221)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1232 (PCB-1232)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1242 (PCB-1242)	ug/L	0.095 U	0.095 U	0.11 p	0.13	0.15	0.16	0.095 U	0.095 U	0.11	0.095 U	0.095 U	0.095 U
Aroclor-1248 (PCB-1248)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1254 (PCB-1254)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1260 (PCB-1260)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Total PCBs	ug/L	ND	ND	0.11 P	0.13	0.15	0.16	ND	ND	0.11	ND	ND	ND
Volatile Organic Compounds (VOCs)													
1,1,1-Trichloroethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
2-Chloroethyl vinyl ether	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane (Methyl bromide)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Carbon tetrachloride	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform (Trichloromethane)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Chloromethane (Methyl chloride)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
General Chemistry													
Sulfate	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Total organic carbon (TOC)	ug/L	--	--	--	--	--	--	--	--	--	--	--	--
Field Parameters													
Conductivity, field	mS/cm	2.55	2.42	2.73	2.57	1641	1641	2.51	2.34	3.83	2.71	2.11	2.11
Dissolved oxygen (DO), field	ug/L	8400	11170	9010	14700	13450	13450	13300	--	6090	6200	4080	4080
Oxidation reduction potential (ORP), field	millivolts	112	173	135	2.54	-15	-15	-2	8	-47	-18	-54	-54
pH, field	s.u.	7.5	7.5	8	--	7.3	7.3	6.9	6.9	6.9	6.7	7	7
Temperature, sample	Deg F	53.06	58.28	55.4	61.7	65.66	65.6	68	70.93	68.9	62.08	62.24	62.24

Notes:
U - Not detected at the associated reporting limit.
P - The %RPD between the primary and confirmation column.detector is >40%. The lower value has been reported.
H - Sample was prepped or analyzed beyond the specific holding time.
*+ - LCS and/or LCSD is outside acceptance limits, high biased.

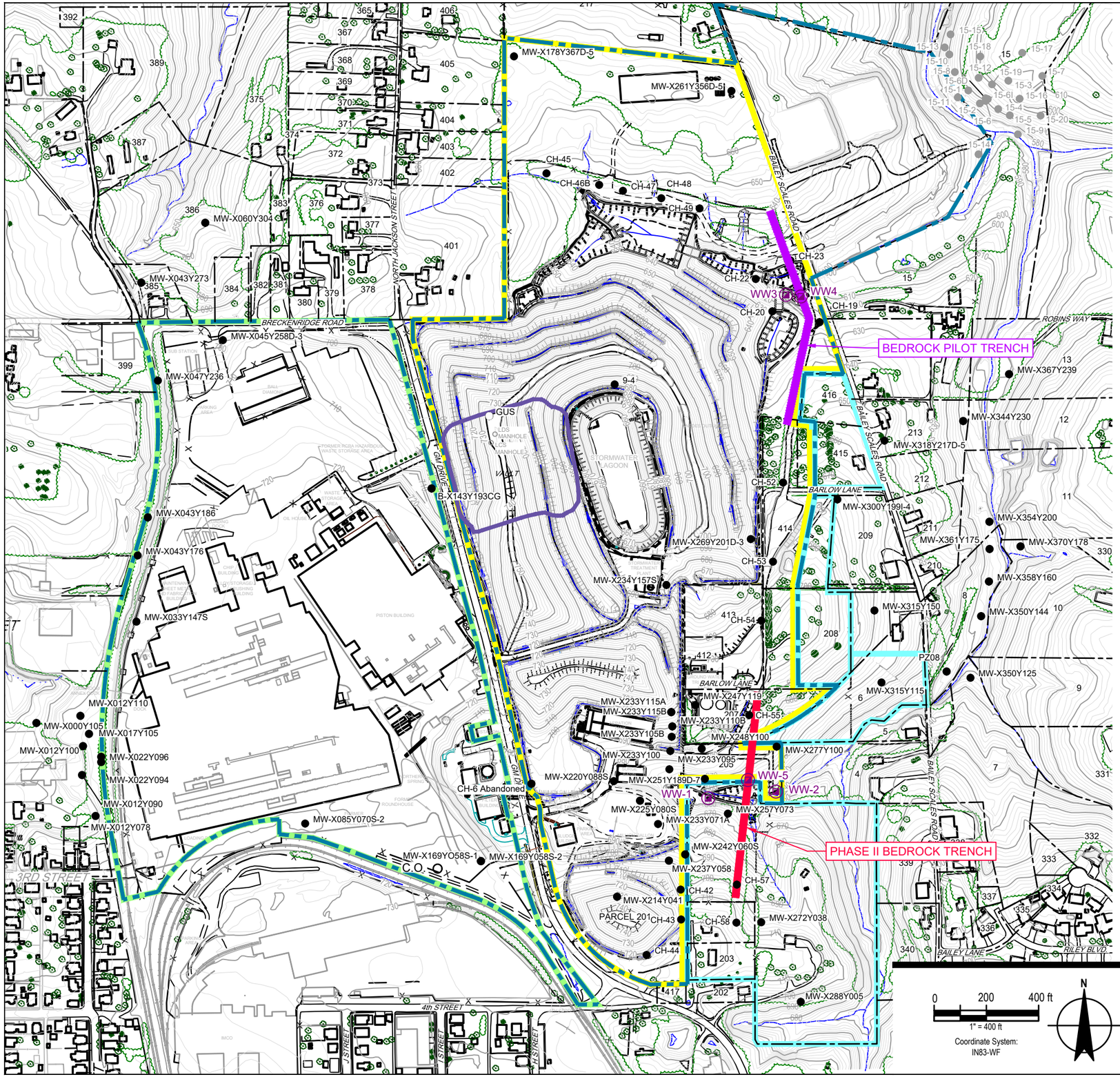
Table 3.4

2023 Groundwater Treatment Plant Monitoring Analytical Results
East Plant Area TSCA Vault Annual Report, Calendar Year 2023
GM Bedford Casting Operations Facility
Beford, Indiana

Sample Location		HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A	HV-6021A
Sample Date		01/09/2023	02/06/2023	03/14/2023	04/10/2023	05/15/2023	06/13/2023	07/17/2023	08/07/2023	09/11/2023	09/11/2023	10/12/2023	10/12/2023	11/09/2023	12/07/2023
Sample Type											Duplicate		Duplicate		
Parameters	Units														
Polychlorinated biphenyl (PCBs)															
Aroclor-1016 (PCB-1016)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1221 (PCB-1221)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1232 (PCB-1232)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1242 (PCB-1242)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1248 (PCB-1248)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1254 (PCB-1254)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Aroclor-1260 (PCB-1260)	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Total PCBs	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
General Chemistry															
Total suspended solids (TSS)	ug/L	--	--	--	--	--	--	4000 U	--	--	--	--	--	--	--
Field Parameters															
pH, field	s.u.	7	7	7	7	7	7	7	7	7	7	7	7	7	7

Notes:
U Not detected at the associated reporting limit.

Figures



LEGEND

- EXISTING GROUND SURFACE ELEVATION CONTOURS (feet AMSL)
- EXISTING VEGETATION
- EXISTING BUILDINGS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- APPROXIMATE PARCEL PROPERTY
- APPROXIMATE FACILITY BOUNDARY
- APPROXIMATE SURFACE WATER LOCATION
- WEST PLANT AREA BOUNDARY
- EAST PLANT AREA BOUNDARY
- GM LLC OWNED RESIDENTIAL PROPERTIES
- VAULT LIMIT
- EXISTING PILOT TRENCH ALIGNMENT
- PROPOSED PHASE II TRENCH ALIGNMENT
- LIMIT OF EAST PLANT COVER SYSTEM
- GUS — VAULT GROUNDWATER UNDER DRAIN SYSTEM SUMP
- MONITORING WELL SAMPLE LOCATION
- WET WELL

0 200 400 ft

1" = 400 ft

Coordinate System: IN83-WF

N

GHD

GM BCO FACILITY
BEDFORD, INDIANA
EAST PLANT AREA TSCA VAULT ANNUAL REPORT
CALENDAR YEAR 2023

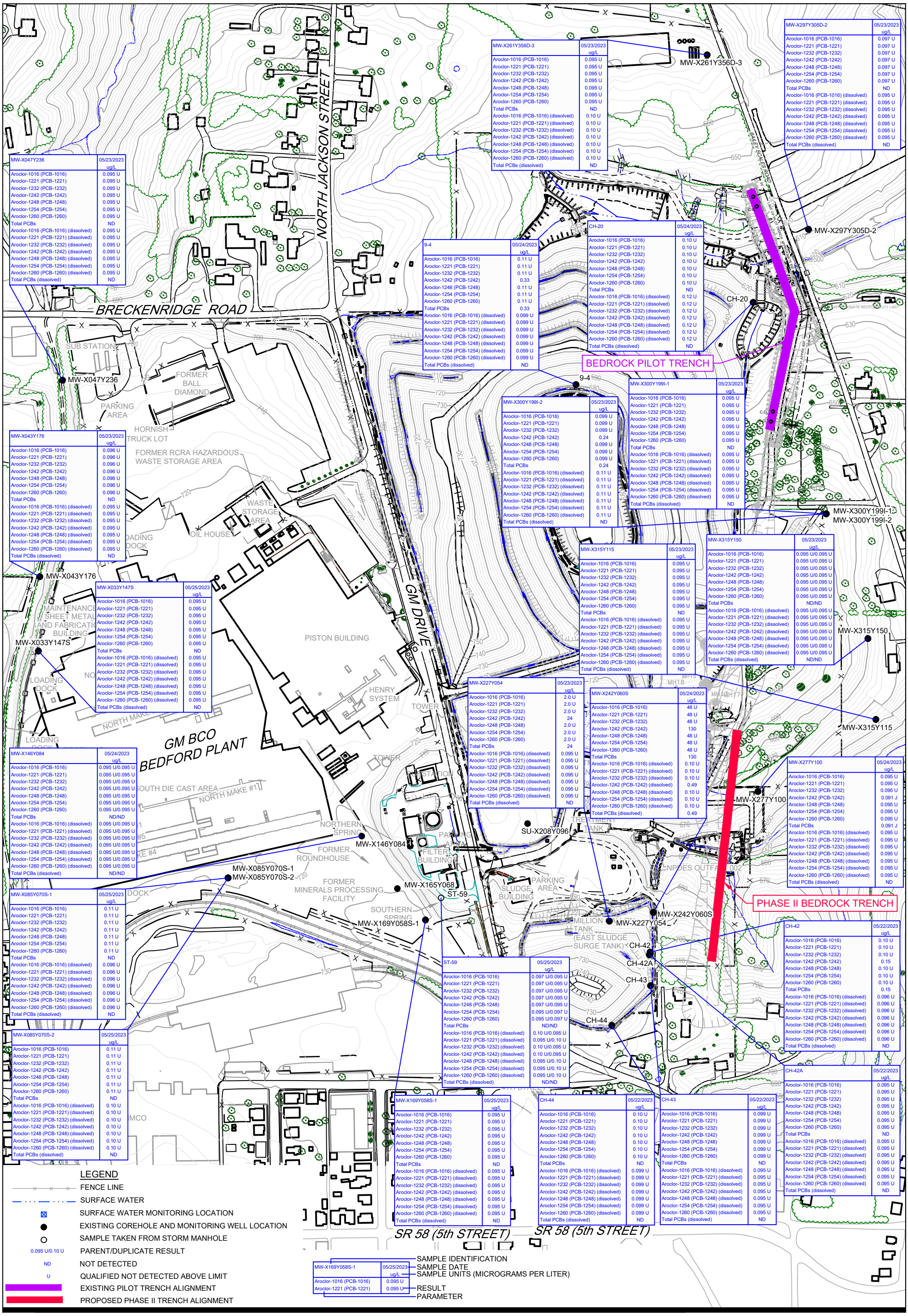
Project No. **11228036**
Date **May 2024**

GROUNDWATER SAMPLING LOCATIONS

FIGURE 3.1

Filename: N:\US\Chicago\Projects\563\11228036\Digital_Design\ACAD\Figures\RPT020\11228036-GHD-00-00-RPT-EN-D101_WA-020.dwg
Plot Date: 15 May 2024 8:40 AM

SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001 AND GHD SURVEYS 2002 TO 2013; UPDATED SEPTEMBER 2023.



MW-X261Y356D-3	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	0.10 U
Aroclor-1248 (PCB-1248) (dissolved)	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.10 U
Total PCBs (dissolved)	ND

MW-X297Y305D-2	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.097 U
Aroclor-1221 (PCB-1221)	0.097 U
Aroclor-1232 (PCB-1232)	0.097 U
Aroclor-1242 (PCB-1242)	0.097 U
Aroclor-1248 (PCB-1248)	0.097 U
Aroclor-1254 (PCB-1254)	0.097 U
Aroclor-1260 (PCB-1260)	0.097 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X047Y236	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

9-4	05/24/2023 ug/L
Aroclor-1016 (PCB-1016)	0.11 U
Aroclor-1221 (PCB-1221)	0.11 U
Aroclor-1232 (PCB-1232)	0.11 U
Aroclor-1242 (PCB-1242)	0.33
Aroclor-1248 (PCB-1248)	0.11 U
Aroclor-1254 (PCB-1254)	0.11 U
Aroclor-1260 (PCB-1260)	0.11 U
Total PCBs	0.33
Aroclor-1016 (PCB-1016) (dissolved)	0.099 U
Aroclor-1221 (PCB-1221) (dissolved)	0.099 U
Aroclor-1232 (PCB-1232) (dissolved)	0.099 U
Aroclor-1242 (PCB-1242) (dissolved)	0.099 U
Aroclor-1248 (PCB-1248) (dissolved)	0.099 U
Aroclor-1254 (PCB-1254) (dissolved)	0.099 U
Aroclor-1260 (PCB-1260) (dissolved)	0.099 U
Total PCBs (dissolved)	ND

CH-20	05/24/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.10 U
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.12 U
Aroclor-1221 (PCB-1221) (dissolved)	0.12 U
Aroclor-1232 (PCB-1232) (dissolved)	0.12 U
Aroclor-1242 (PCB-1242) (dissolved)	0.12 U
Aroclor-1248 (PCB-1248) (dissolved)	0.12 U
Aroclor-1254 (PCB-1254) (dissolved)	0.12 U
Aroclor-1260 (PCB-1260) (dissolved)	0.12 U
Total PCBs (dissolved)	ND

MW-X300Y199I-2	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.099 U
Aroclor-1221 (PCB-1221)	0.099 U
Aroclor-1232 (PCB-1232)	0.099 U
Aroclor-1242 (PCB-1242)	0.24
Aroclor-1248 (PCB-1248)	0.099 U
Aroclor-1254 (PCB-1254)	0.099 U
Aroclor-1260 (PCB-1260)	0.099 U
Total PCBs	0.24
Aroclor-1016 (PCB-1016) (dissolved)	0.11 U
Aroclor-1221 (PCB-1221) (dissolved)	0.11 U
Aroclor-1232 (PCB-1232) (dissolved)	0.11 U
Aroclor-1242 (PCB-1242) (dissolved)	0.11 U
Aroclor-1248 (PCB-1248) (dissolved)	0.11 U
Aroclor-1254 (PCB-1254) (dissolved)	0.11 U
Aroclor-1260 (PCB-1260) (dissolved)	0.11 U
Total PCBs (dissolved)	ND

MW-X300Y199I-1	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X043Y176	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.096 U
Aroclor-1221 (PCB-1221)	0.096 U
Aroclor-1232 (PCB-1232)	0.096 U
Aroclor-1242 (PCB-1242)	0.096 U
Aroclor-1248 (PCB-1248)	0.096 U
Aroclor-1254 (PCB-1254)	0.096 U
Aroclor-1260 (PCB-1260)	0.096 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X033Y147S	05/25/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X315Y115	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X315Y150	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U/0.095 U
Aroclor-1221 (PCB-1221)	0.095 U/0.095 U
Aroclor-1232 (PCB-1232)	0.095 U/0.095 U
Aroclor-1242 (PCB-1242)	0.095 U/0.095 U
Aroclor-1248 (PCB-1248)	0.095 U/0.095 U
Aroclor-1254 (PCB-1254)	0.095 U/0.095 U
Aroclor-1260 (PCB-1260)	0.095 U/0.095 U
Total PCBs	ND/ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U/0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U/0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U/0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U/0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U/0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U/0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U/0.095 U
Total PCBs (dissolved)	ND/ND

MW-X227Y054	05/23/2023 ug/L
Aroclor-1016 (PCB-1016)	2.0 U
Aroclor-1221 (PCB-1221)	2.0 U
Aroclor-1232 (PCB-1232)	2.0 U
Aroclor-1242 (PCB-1242)	24
Aroclor-1248 (PCB-1248)	2.0 U
Aroclor-1254 (PCB-1254)	2.0 U
Aroclor-1260 (PCB-1260)	2.0 U
Total PCBs	24
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X242Y060S	05/24/2023 ug/L
Aroclor-1016 (PCB-1016)	48 U
Aroclor-1221 (PCB-1221)	48 U
Aroclor-1232 (PCB-1232)	48 U
Aroclor-1242 (PCB-1242)	130
Aroclor-1248 (PCB-1248)	48 U
Aroclor-1254 (PCB-1254)	48 U
Aroclor-1260 (PCB-1260)	48 U
Total PCBs	130
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	0.49
Aroclor-1248 (PCB-1248) (dissolved)	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.10 U
Total PCBs (dissolved)	0.49

MW-X277Y100	05/24/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.091 J
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	0.091 J
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X146Y084	05/24/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U/0.095 U
Aroclor-1221 (PCB-1221)	0.095 U/0.095 U
Aroclor-1232 (PCB-1232)	0.095 U/0.095 U
Aroclor-1242 (PCB-1242)	0.095 U/0.095 U
Aroclor-1248 (PCB-1248)	0.095 U/0.095 U
Aroclor-1254 (PCB-1254)	0.095 U/0.095 U
Aroclor-1260 (PCB-1260)	0.095 U/0.095 U
Total PCBs	ND/ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U/0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U/0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U/0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U/0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U/0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U/0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U/0.095 U
Total PCBs (dissolved)	ND/ND

MW-X085Y070S-1	05/25/2023 ug/L
Aroclor-1016 (PCB-1016)	0.11 U
Aroclor-1221 (PCB-1221)	0.11 U
Aroclor-1232 (PCB-1232)	0.11 U
Aroclor-1242 (PCB-1242)	0.11 U
Aroclor-1248 (PCB-1248)	0.11 U
Aroclor-1254 (PCB-1254)	0.11 U
Aroclor-1260 (PCB-1260)	0.11 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.096 U
Aroclor-1221 (PCB-1221) (dissolved)	0.096 U
Aroclor-1232 (PCB-1232) (dissolved)	0.096 U
Aroclor-1242 (PCB-1242) (dissolved)	0.096 U
Aroclor-1248 (PCB-1248) (dissolved)	0.096 U
Aroclor-1254 (PCB-1254) (dissolved)	0.096 U
Aroclor-1260 (PCB-1260) (dissolved)	0.096 U
Total PCBs (dissolved)	ND

MW-X085Y070S-2	05/25/2023 ug/L
Aroclor-1016 (PCB-1016)	0.11 U
Aroclor-1221 (PCB-1221)	0.11 U
Aroclor-1232 (PCB-1232)	0.11 U
Aroclor-1242 (PCB-1242)	0.11 U
Aroclor-1248 (PCB-1248)	0.11 U
Aroclor-1254 (PCB-1254)	0.11 U
Aroclor-1260 (PCB-1260)	0.11 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	0.10 U
Aroclor-1248 (PCB-1248) (dissolved)	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.10 U
Total PCBs (dissolved)	ND

ST-59	05/25/2023 ug/L
Aroclor-1016 (PCB-1016)	0.097 U/0.095 U
Aroclor-1221 (PCB-1221)	0.097 U/0.095 U
Aroclor-1232 (PCB-1232)	0.097 U/0.095 U
Aroclor-1242 (PCB-1242)	0.097 U/0.095 U
Aroclor-1248 (PCB-1248)	0.097 U/0.095 U
Aroclor-1254 (PCB-1254)	0.095 U/0.097 U
Aroclor-1260 (PCB-1260)	0.095 U/0.097 U
Total PCBs	ND/ND
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U/0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U/0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U/0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.10 U/0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U/0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U/0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U/0.10 U
Total PCBs (dissolved)	ND/ND

MW-X169Y058S-1	05/25/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

CH-44	05/22/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.10 U
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.099 U
Aroclor-1221 (PCB-1221) (dissolved)	0.099 U
Aroclor-1232 (PCB-1232) (dissolved)	0.099 U
Aroclor-1242 (PCB-1242) (dissolved)	0.099 U
Aroclor-1248 (PCB-1248) (dissolved)	0.099 U
Aroclor-1254 (PCB-1254) (dissolved)	0.099 U
Aroclor-1260 (PCB-1260) (dissolved)	0.099 U
Total PCBs (dissolved)	ND

CH-43	05/22/2023 ug/L
Aroclor-1016 (PCB-1016)	0.099 U
Aroclor-1221 (PCB-1221)	0.099 U
Aroclor-1232 (PCB-1232)	0.099 U
Aroclor-1242 (PCB-1242)	0.099 U
Aroclor-1248 (PCB-1248)	0.099 U
Aroclor-1254 (PCB-1254)	0.099 U
Aroclor-1260 (PCB-1260)	0.099 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

CH-42	05/22/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.15
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	0.15
Aroclor-1016 (PCB-1016) (dissolved)	0.096 U
Aroclor-1221 (PCB-1221) (dissolved)	0.096 U
Aroclor-1232 (PCB-1232) (dissolved)	0.096 U
Aroclor-1242 (PCB-1242) (dissolved)	0.096 U
Aroclor-1248 (PCB-1248) (dissolved)	0.096 U
Aroclor-1254 (PCB-1254) (dissolved)	0.096 U
Aroclor-1260 (PCB-1260) (dissolved)	0.096 U
Total PCBs (dissolved)	ND

CH-42A	05/22/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

LEGEND

- FENCE LINE
- SURFACE WATER
- SURFACE WATER MONITORING LOCATION
- EXISTING COREHOLE AND MONITORING WELL LOCATION
- SAMPLE TAKEN FROM STORM MANHOLE
- 0.095 U/0.10 U — PARENT/DUPLICATE RESULT
- ND — NOT DETECTED
- U — QUALIFIED NOT DETECTED ABOVE LIMIT
- EXISTING PILOT TRENCH ALIGNMENT
- PROPOSED PHASE II TRENCH ALIGNMENT

MW-X169Y058S-1	05/25/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U

- SAMPLE IDENTIFICATION
- SAMPLE DATE
- SAMPLE UNITS (MICROGRAMS PER LITER)
- RESULT
- PARAMETER

0 150 300 ft

1" = 300 ft

Coordinate System: IN83-WF

N

GHD

GM BCO FACILITY
BEDFORD, INDIANA
EAST PLANT AREA TSCA VAULT ANNUAL REPORT
CALENDAR YEAR 2023

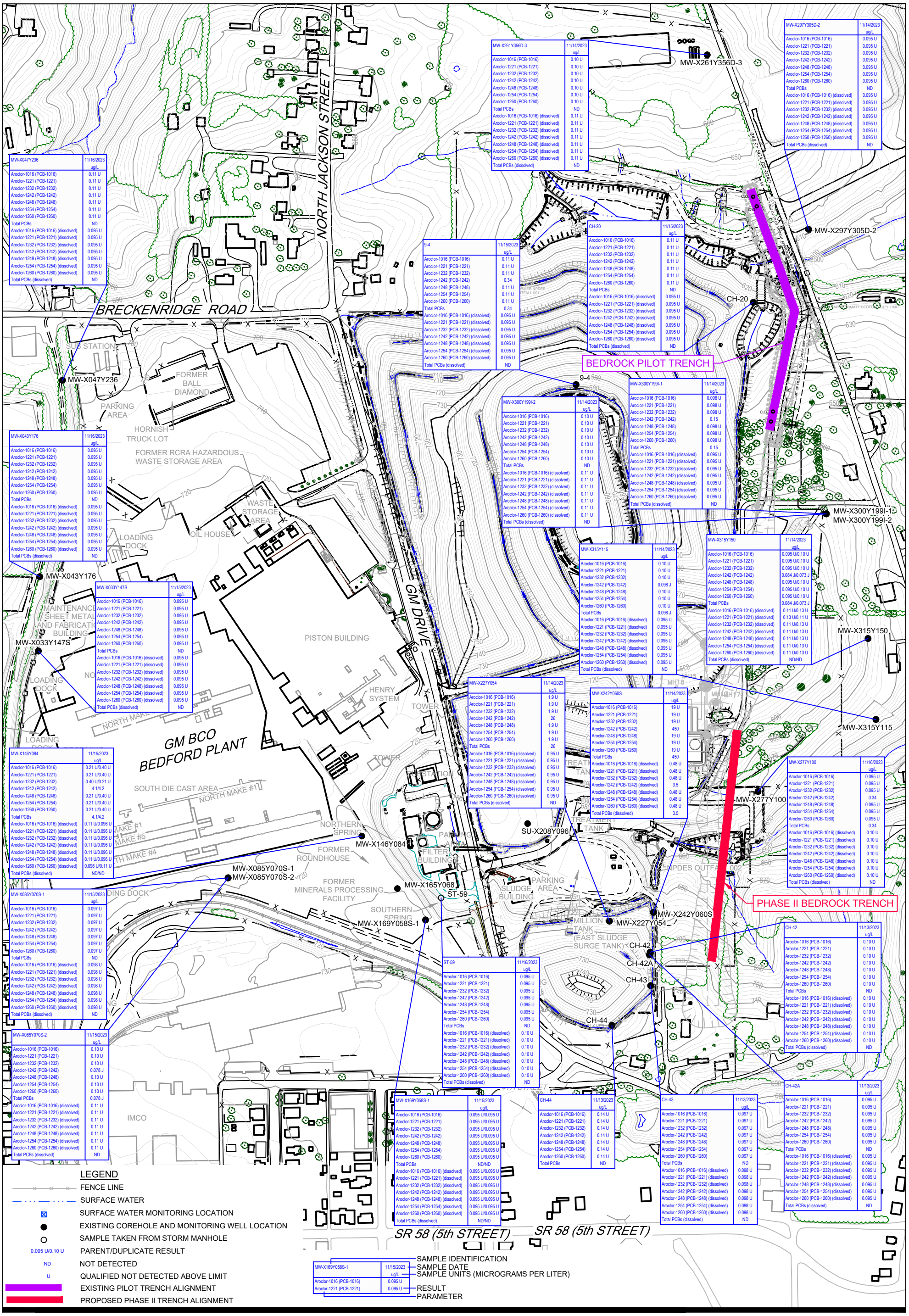
FIRST HALF 2023 CA750 MONITORING - PCBs ANALYTICAL RESULT

Project No. **11228036**
Date **May 2024**

FIGURE 3.2

Filename: N:\US\Chicago\Projects\563\11228036\Digital_Design\ACAD\Figures\RPT020\11228036-GHD-00-00-RPT-EN-D102_WA-020.dwg
Plot Date: 15 May 2024 8:49 AM

SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001 AND GHD SURVEYS 2002 TO 2013; UPDATED SEPTEMBER 2023.



MW-X047Y236	11/16/2023 ug/L
Aroclor-1016 (PCB-1016)	0.11 U
Aroclor-1221 (PCB-1221)	0.11 U
Aroclor-1232 (PCB-1232)	0.11 U
Aroclor-1242 (PCB-1242)	0.11 U
Aroclor-1248 (PCB-1248)	0.11 U
Aroclor-1254 (PCB-1254)	0.11 U
Aroclor-1260 (PCB-1260)	0.11 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X261Y356D-3	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.10 U
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.11 U
Aroclor-1221 (PCB-1221) (dissolved)	0.11 U
Aroclor-1232 (PCB-1232) (dissolved)	0.11 U
Aroclor-1242 (PCB-1242) (dissolved)	0.11 U
Aroclor-1248 (PCB-1248) (dissolved)	0.11 U
Aroclor-1254 (PCB-1254) (dissolved)	0.11 U
Aroclor-1260 (PCB-1260) (dissolved)	0.11 U
Total PCBs (dissolved)	ND

MW-X297Y305D-2	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

9-4	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.11 U
Aroclor-1221 (PCB-1221)	0.11 U
Aroclor-1232 (PCB-1232)	0.11 U
Aroclor-1242 (PCB-1242)	0.34
Aroclor-1248 (PCB-1248)	0.11 U
Aroclor-1254 (PCB-1254)	0.11 U
Aroclor-1260 (PCB-1260)	0.11 U
Total PCBs	0.34
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

CH-20	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.11 U
Aroclor-1221 (PCB-1221)	0.11 U
Aroclor-1232 (PCB-1232)	0.11 U
Aroclor-1242 (PCB-1242)	0.11 U
Aroclor-1248 (PCB-1248)	0.11 U
Aroclor-1254 (PCB-1254)	0.11 U
Aroclor-1260 (PCB-1260)	0.11 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X300Y199I-2	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.10 U
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.11 U
Aroclor-1221 (PCB-1221) (dissolved)	0.11 U
Aroclor-1232 (PCB-1232) (dissolved)	0.11 U
Aroclor-1242 (PCB-1242) (dissolved)	0.11 U
Aroclor-1248 (PCB-1248) (dissolved)	0.11 U
Aroclor-1254 (PCB-1254) (dissolved)	0.11 U
Aroclor-1260 (PCB-1260) (dissolved)	0.11 U
Total PCBs (dissolved)	ND

MW-X300Y199I-1	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	0.098 U
Aroclor-1221 (PCB-1221)	0.098 U
Aroclor-1232 (PCB-1232)	0.098 U
Aroclor-1242 (PCB-1242)	0.15
Aroclor-1248 (PCB-1248)	0.098 U
Aroclor-1254 (PCB-1254)	0.098 U
Aroclor-1260 (PCB-1260)	0.098 U
Total PCBs	0.15
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X315Y150	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U/0.10 U
Aroclor-1221 (PCB-1221)	0.095 U/0.10 U
Aroclor-1232 (PCB-1232)	0.095 U/0.10 U
Aroclor-1242 (PCB-1242)	0.084 J/0.073 J
Aroclor-1248 (PCB-1248)	0.095 U/0.10 U
Aroclor-1254 (PCB-1254)	0.095 U/0.10 U
Aroclor-1260 (PCB-1260)	0.095 U/0.10 U
Total PCBs	0.084 J/0.073 J
Aroclor-1016 (PCB-1016) (dissolved)	0.11 U/0.13 U
Aroclor-1221 (PCB-1221) (dissolved)	0.13 U/0.11 U
Aroclor-1232 (PCB-1232) (dissolved)	0.11 U/0.13 U
Aroclor-1242 (PCB-1242) (dissolved)	0.11 U/0.13 U
Aroclor-1248 (PCB-1248) (dissolved)	0.11 U/0.13 U
Aroclor-1254 (PCB-1254) (dissolved)	0.11 U/0.13 U
Aroclor-1260 (PCB-1260) (dissolved)	0.11 U/0.13 U
Total PCBs (dissolved)	ND/ND

MW-X315Y115	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.098 J
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	0.098 J
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X242Y060S	11/14/2023 ug/L
Aroclor-1016 (PCB-1016)	19 U
Aroclor-1221 (PCB-1221)	19 U
Aroclor-1232 (PCB-1232)	19 U
Aroclor-1242 (PCB-1242)	450
Aroclor-1248 (PCB-1248)	19 U
Aroclor-1254 (PCB-1254)	19 U
Aroclor-1260 (PCB-1260)	19 U
Total PCBs	450
Aroclor-1016 (PCB-1016) (dissolved)	0.48 U
Aroclor-1221 (PCB-1221) (dissolved)	0.48 U
Aroclor-1232 (PCB-1232) (dissolved)	0.48 U
Aroclor-1242 (PCB-1242) (dissolved)	3.5
Aroclor-1248 (PCB-1248) (dissolved)	0.48 U
Aroclor-1254 (PCB-1254) (dissolved)	0.48 U
Aroclor-1260 (PCB-1260) (dissolved)	0.48 U
Total PCBs (dissolved)	3.5

MW-X277Y100	11/16/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.34
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	0.34
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	0.10 U
Aroclor-1248 (PCB-1248) (dissolved)	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.10 U
Total PCBs (dissolved)	ND

MW-X043Y176	11/16/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X033Y147S	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

MW-X146Y084	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.21 U/0.40 U
Aroclor-1221 (PCB-1221)	0.21 U/0.40 U
Aroclor-1232 (PCB-1232)	0.40 U/0.21 U
Aroclor-1242 (PCB-1242)	4.1/4.2
Aroclor-1248 (PCB-1248)	0.21 U/0.40 U
Aroclor-1254 (PCB-1254)	0.21 U/0.40 U
Aroclor-1260 (PCB-1260)	0.21 U/0.40 U
Total PCBs	4.1/4.2
Aroclor-1016 (PCB-1016) (dissolved)	0.11 U/0.096 U
Aroclor-1221 (PCB-1221) (dissolved)	0.11 U/0.096 U
Aroclor-1232 (PCB-1232) (dissolved)	0.11 U/0.096 U
Aroclor-1242 (PCB-1242) (dissolved)	0.11 U/0.096 U
Aroclor-1248 (PCB-1248) (dissolved)	0.11 U/0.096 U
Aroclor-1254 (PCB-1254) (dissolved)	0.11 U/0.096 U
Aroclor-1260 (PCB-1260) (dissolved)	0.096 U/0.11 U
Total PCBs (dissolved)	ND/ND

MW-X085Y070S-1	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.097 U
Aroclor-1221 (PCB-1221)	0.097 U
Aroclor-1232 (PCB-1232)	0.097 U
Aroclor-1242 (PCB-1242)	0.097 U
Aroclor-1248 (PCB-1248)	0.097 U
Aroclor-1254 (PCB-1254)	0.097 U
Aroclor-1260 (PCB-1260)	0.097 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.098 U
Aroclor-1221 (PCB-1221) (dissolved)	0.098 U
Aroclor-1232 (PCB-1232) (dissolved)	0.098 U
Aroclor-1242 (PCB-1242) (dissolved)	0.098 U
Aroclor-1248 (PCB-1248) (dissolved)	0.098 U
Aroclor-1254 (PCB-1254) (dissolved)	0.098 U
Aroclor-1260 (PCB-1260) (dissolved)	0.098 U
Total PCBs (dissolved)	ND

MW-X085Y070S-2	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.078 J
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	0.078 J
Aroclor-1016 (PCB-1016) (dissolved)	0.11 U
Aroclor-1221 (PCB-1221) (dissolved)	0.11 U
Aroclor-1232 (PCB-1232) (dissolved)	0.11 U
Aroclor-1242 (PCB-1242) (dissolved)	0.11 U
Aroclor-1248 (PCB-1248) (dissolved)	0.11 U
Aroclor-1254 (PCB-1254) (dissolved)	0.11 U
Aroclor-1260 (PCB-1260) (dissolved)	0.11 U
Total PCBs (dissolved)	ND

ST-59	11/16/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	0.10 U
Aroclor-1248 (PCB-1248) (dissolved)	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.10 U
Total PCBs (dissolved)	ND

MW-X169Y058S-1	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U/0.095 U
Aroclor-1221 (PCB-1221)	0.095 U/0.095 U
Aroclor-1232 (PCB-1232)	0.095 U/0.095 U
Aroclor-1242 (PCB-1242)	0.095 U/0.095 U
Aroclor-1248 (PCB-1248)	0.095 U/0.095 U
Aroclor-1254 (PCB-1254)	0.095 U/0.095 U
Aroclor-1260 (PCB-1260)	0.095 U/0.095 U
Total PCBs	ND/ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U/0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U/0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U/0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U/0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U/0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U/0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U/0.095 U
Total PCBs (dissolved)	ND/ND

CH-44	11/13/2023 ug/L
Aroclor-1016 (PCB-1016)	0.14 U
Aroclor-1221 (PCB-1221)	0.14 U
Aroclor-1232 (PCB-1232)	0.14 U
Aroclor-1242 (PCB-1242)	0.14 U
Aroclor-1248 (PCB-1248)	0.14 U
Aroclor-1254 (PCB-1254)	0.14 U
Aroclor-1260 (PCB-1260)	0.14 U
Total PCBs	ND

CH-43	11/13/2023 ug/L
Aroclor-1016 (PCB-1016)	0.097 U
Aroclor-1221 (PCB-1221)	0.097 U
Aroclor-1232 (PCB-1232)	0.097 U
Aroclor-1242 (PCB-1242)	0.097 U
Aroclor-1248 (PCB-1248)	0.097 U
Aroclor-1254 (PCB-1254)	0.097 U
Aroclor-1260 (PCB-1260)	0.097 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.098 U
Aroclor-1221 (PCB-1221) (dissolved)	0.098 U
Aroclor-1232 (PCB-1232) (dissolved)	0.098 U
Aroclor-1242 (PCB-1242) (dissolved)	0.098 U
Aroclor-1248 (PCB-1248) (dissolved)	0.098 U
Aroclor-1254 (PCB-1254) (dissolved)	0.098 U
Aroclor-1260 (PCB-1260) (dissolved)	0.098 U
Total PCBs (dissolved)	ND

CH-42	11/13/2023 ug/L
Aroclor-1016 (PCB-1016)	0.10 U
Aroclor-1221 (PCB-1221)	0.10 U
Aroclor-1232 (PCB-1232)	0.10 U
Aroclor-1242 (PCB-1242)	0.10 U
Aroclor-1248 (PCB-1248)	0.10 U
Aroclor-1254 (PCB-1254)	0.10 U
Aroclor-1260 (PCB-1260)	0.10 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.10 U
Aroclor-1221 (PCB-1221) (dissolved)	0.10 U
Aroclor-1232 (PCB-1232) (dissolved)	0.10 U
Aroclor-1242 (PCB-1242) (dissolved)	0.10 U
Aroclor-1248 (PCB-1248) (dissolved)	0.10 U
Aroclor-1254 (PCB-1254) (dissolved)	0.10 U
Aroclor-1260 (PCB-1260) (dissolved)	0.10 U
Total PCBs (dissolved)	ND

CH-42A	11/13/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U
Aroclor-1232 (PCB-1232)	0.095 U
Aroclor-1242 (PCB-1242)	0.095 U
Aroclor-1248 (PCB-1248)	0.095 U
Aroclor-1254 (PCB-1254)	0.095 U
Aroclor-1260 (PCB-1260)	0.095 U
Total PCBs	ND
Aroclor-1016 (PCB-1016) (dissolved)	0.095 U
Aroclor-1221 (PCB-1221) (dissolved)	0.095 U
Aroclor-1232 (PCB-1232) (dissolved)	0.095 U
Aroclor-1242 (PCB-1242) (dissolved)	0.095 U
Aroclor-1248 (PCB-1248) (dissolved)	0.095 U
Aroclor-1254 (PCB-1254) (dissolved)	0.095 U
Aroclor-1260 (PCB-1260) (dissolved)	0.095 U
Total PCBs (dissolved)	ND

LEGEND

- FENCE LINE
- SURFACE WATER
- SURFACE WATER MONITORING LOCATION
- EXISTING COREHOLE AND MONITORING WELL LOCATION
- SAMPLE TAKEN FROM STORM MANHOLE
- 0.095 U/0.10 U — PARENT/DUPLICATE RESULT
- ND — NOT DETECTED
- U — QUALIFIED NOT DETECTED ABOVE LIMIT
- EXISTING PILOT TRENCH ALIGNMENT
- PROPOSED PHASE II TRENCH ALIGNMENT

MW-X169Y058S-1	11/15/2023 ug/L
Aroclor-1016 (PCB-1016)	0.095 U
Aroclor-1221 (PCB-1221)	0.095 U

- SAMPLE IDENTIFICATION
- SAMPLE DATE
- SAMPLE UNITS (MICROGRAMS PER LITER)
- RESULT
- PARAMETER

0 150 300 ft

1" = 300 ft

Coordinate System: IN83-WF

N

GHD

GM BCO FACILITY
BEDFORD, INDIANA
EAST PLANT AREA TSCA VAULT ANNUAL REPORT
CALENDAR YEAR 2023

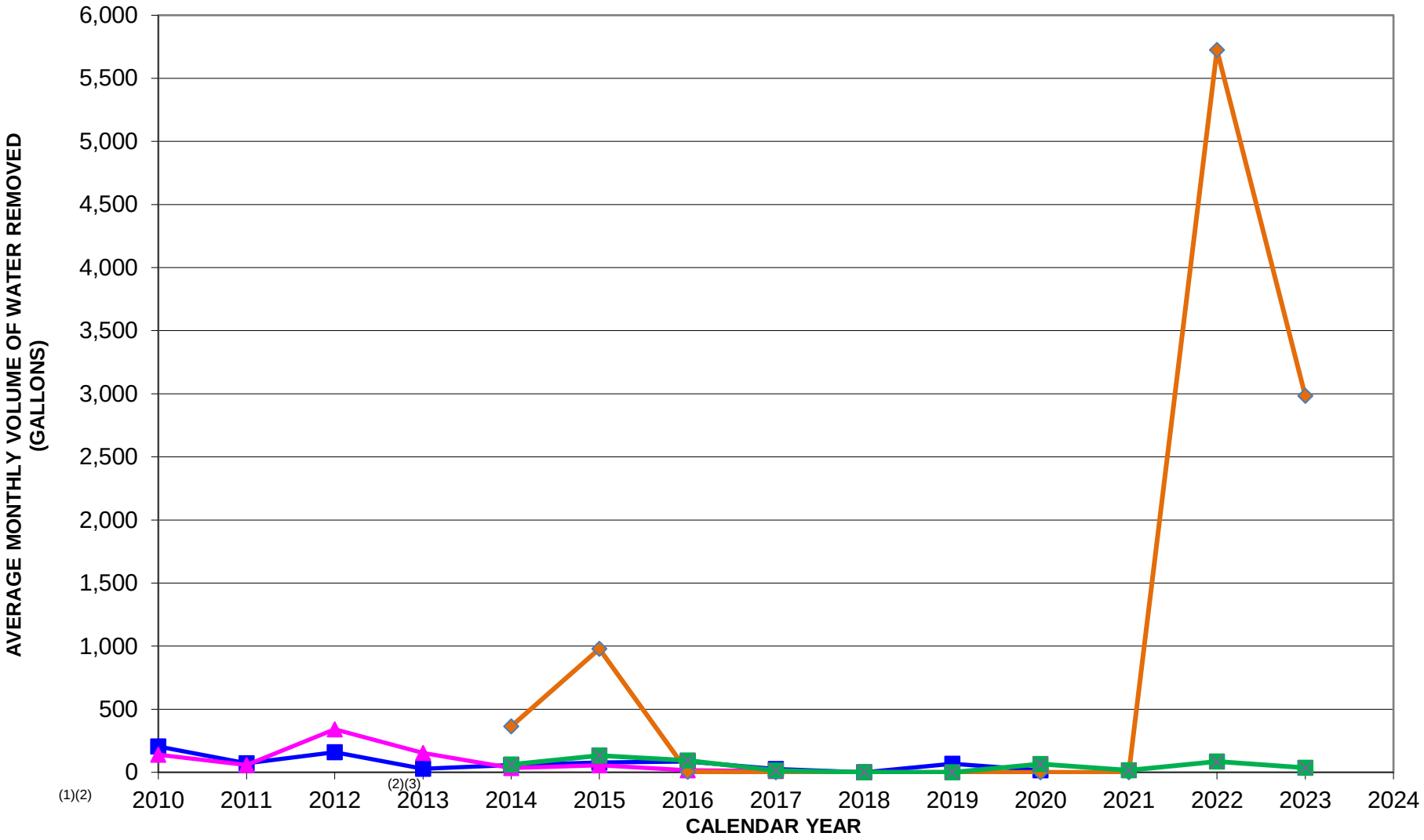
SECOND HALF 2023 CA750 MONITORING - PCBs ANALYTICAL RESULT

Project No. **11228036**
Date **May 2024**

FIGURE 3.3

Filename: N:\US\Chicago\Projects\563\11228036\Digital_Design\ACAD\Figures\RPT020\11228036-GHD-00-00-RPT-EN-D103_WA-020.dwg
Plot Date: 15 May 2024 8:51 AM

SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001 AND GHD SURVEYS 2002 TO 2013; UPDATED SEPTEMBER 2023.



LEGEND

- LCS Calculated
- LDS Calculated
- LCS Flow Meter
- LDS Flow Meter

NOTES

2016 - 2018 LCS flow meter readings have been excluded due to the flow meter being by-passed while temporary pump in place.

LCS flow meter readings from 2021have been excluded due false positive flow being recorded at PLC

LCS flow meter readings for the first half of 2022 have been excluded due false positive flow being recorded at PLC

The recorded volume of water removed from the LCS from Novermber 2021-June 2022 contain discrepencies due to signal fluctuations (drift) and are not included in the chart development

Figure 5.1

SUMMARY OF AVERAGE MONTHLY VOLUME OF WATER REMOVED FROM LCS AND LDS
EAST PLANT AREA TSCA VAULT ANNUAL REPORT, CALENDAR YEAR 2023
GM BEDFORD CASTING OPERATIONS FACILITY
Bedford, Indiana

GHD

Appendices

Appendix A

Cover System Inspection Forms

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

Date of Inspection: 11/20/2023
Inspector: Scott Sholar
Weather: Overcast
Temperature: 33

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
VEGETATED SOIL COVER SYSTEM							
Transect EV5	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV4	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV3	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV2	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
VEGETATED SOIL COVER SYSTEM							
Transect EV1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV6	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown		
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV7	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV8	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Under construction.		
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☐	☑				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV9	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown		
	EXPPOSURE OF LINER	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
VEGETATED SOIL COVER SYSTEM							
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect WV1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
HARD SURFACE COVER SYSTEMS							
Transect EA1	- QUALITY OF ASPHALT COVER	☑	☐				
	- PRESENCE OF CRACKING OR DISCOLORATION	☐	☑		Slight discoloration		
Transect EA2	- QUALITY OF ASPHALT COVER	☑	☐				
	- PRESENCE OF CRACKING OR DISCOLORATION	☐	☑		Slight discoloration		
Transect WA1	- QUALITY OF ASPHALT COVER	☑	☐				
	- PRESENCE OF CRACKING OR DISCOLORATION	☐	☑		Slight discoloration		
ACCESS ROAD							
Phase II Trench Access	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☑	☐				
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☑	☐				
Vault Access	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☑	☐				
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☑	☐				
GWTP Parking	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☐	☑		Covered with stone backfill with ongoing pilot trench construction.		
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☐	☐				
Pilot Trench Access	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
HARD SURFACE COVER SYSTEMS							
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☑	☐				

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
Transect ES10	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES11	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES9	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
Transect ES8	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES7	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES6	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES5	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES4	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES3	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☐	☑	Cutting of saplings	3 small trees beginning to grow.		
Transect ES2	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
Transect ES12	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Tall grass.		
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES13	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown		
	EROSION	☐	☑		Construction activities ongoing.		
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☐	☑		Construction activity ongoing		
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES14	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown, tall grass.		
	EROSION	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
PERIMETER GROUNDWATER CONTROL SYSTEM							
PGCS 1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	PONDING OF WATER/DRAINAGE	☑	☐				
	- ROOTING OF TREES	☑	☐				
PGCS 2	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	PONDING OF WATER/DRAINAGE	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

Date of Inspection: 11/20/2023
Inspector: Scott Sholar
Weather: Overcast
Temperature: 33

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
VEGETATED SOIL COVER SYSTEM							
Transect EV5	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV4	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV3	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV2	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
VEGETATED SOIL COVER SYSTEM							
Transect EV1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV6	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown		
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV7	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV8	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Under construction.		
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☐	☑				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect EV9	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown		
	EXPPOSURE OF LINER	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
VEGETATED SOIL COVER SYSTEM							
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect WV1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EXPPOSURE OF LINER	☑	☐				
	- EROSION	☑	☐				
	- LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	- PONDING OF WATER/DRAINAGE	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
HARD SURFACE COVER SYSTEMS							
Transect EA1	- QUALITY OF ASPHALT COVER	☑	☐				
	- PRESENCE OF CRACKING OR DISCOLORATION	☐	☑		Slight discoloration		
Transect EA2	- QUALITY OF ASPHALT COVER	☑	☐				
	- PRESENCE OF CRACKING OR DISCOLORATION	☐	☑		Slight discoloration		
Transect WA1	- QUALITY OF ASPHALT COVER	☑	☐				
	- PRESENCE OF CRACKING OR DISCOLORATION	☐	☑		Slight discoloration		
ACCESS ROAD							
Phase II Trench Access	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☑	☐				
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☑	☐				
Vault Access	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☑	☐				
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☑	☐				
GWTP Parking	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☐	☑		Covered with stone backfill with ongoing pilot trench construction.		
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☐	☐				
Pilot Trench Access	- EROSION	☑	☐				
	- OBSTRUCTIONS/DEBRIS	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

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		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
HARD SURFACE COVER SYSTEMS							
	- POTHOLES	☑	☐				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	☑	☐				

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
Transect ES10	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES11	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES9	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
Transect ES8	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES7	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES6	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES5	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

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		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES4	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES3	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☐	☑	Cutting of saplings	3 small trees beginning to grow.		
Transect ES2	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

COVER SYSTEMS INSPECTION LOG
GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
Transect ES12	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Tall grass.		
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES13	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown		
	EROSION	☐	☑		Construction activities ongoing.		
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☐	☑		Construction activity ongoing		
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				
Transect ES14	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☐	☑		Overgrown, tall grass.		
	EROSION	☑	☐				

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GM BEDFORD CASTING OPERATIONS FACILITY

BEDFORD, INDIANA

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		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
SWALE/DRAINAGE DITCHES							
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	☑	☐				
	- CULVERT/CATCH BASIN	☑	☐				
	- SIGNS OF BURROWING BY ANIMALS	☑	☐				
	- ROOTING OF TREES	☑	☐				

ITEM	TYPES OF PROBLEMS	CHECKED		DETAILED ACTIONS REQUIRED	NOTES	DATE AND NATURE OF ACTIONS COMPLETED	EXTRA NOTES
		NO PROBLEMS	CORRECTIVE ACTION REQUIRED				
PERIMETER GROUNDWATER CONTROL SYSTEM							
PGCS 1	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	PONDING OF WATER/DRAINAGE	☑	☐				
	- ROOTING OF TREES	☑	☐				
PGCS 2	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	☑	☐				
	EROSION	☑	☐				
	LOCALIZED SETTLEMENT/SLUMPING	☑	☐				
	PONDING OF WATER/DRAINAGE	☑	☐				
	- ROOTING OF TREES	☑	☐