



April 8, 2024

Peter Ramanauskas
U.S. EPA Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

Dear Mr. Ramanauskas:

Re: RCRA Corrective Action Administrative Order on Consent (AOC)
Progress Report 86, October 2023 through March 2024
GM Casting Operations Bedford Facility, ID 006036099, Docket No. RCRA 05 2017 0011
Bedford, Indiana

This Progress Report is submitted by General Motors LLC (GM) in accordance with the GM Bedford Casting Operations (BCO) Facility Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent (AOC – United States Environmental Protection Agency [U.S. EPA] Docket No. RCRA 05-2014-0011), executed on August 4, 2014. This report covers the period from October 2023 through March 2024 for the RCRA Corrective Action (CA) Project at the GM BCO – Bedford Facility (Facility) and select surrounding properties (Site), Bedford, Indiana.

The next RCRA progress report covering April through September 2024 will be submitted on or before October 15, 2024.

1. List of Completed Activities

The following activities took place, and the following documents were prepared and distributed during this quarter:

1. The Groundwater Treatment Plant (GWTP) collected and treated water from the Pilot Trench, Phase II Trench, Vault sumps, and wet wells during October 2023 through April 2024. An estimated 0.22 pounds of PCBs were removed during the reporting period through collection and treatment of the groundwater. A summary of the volumes and sample results used for this calculation is provided in Table 1. Operational and compliance samples were collected quarterly. Monthly discharge monitoring reports have been submitted to the State of Indiana in conformance with the National Pollutant Discharge Elimination System (NPDES) Permit Number IN0064424. A total of 11,419,477 gallons of treated groundwater were discharged during the reporting period.
2. Absorbent socks were removed and replaced from CH-5, MW-X209Y053, and CAMW-3 monthly from October 2023 through March 2024, except November 2023 when socks were removed but not replaced due to on-site shortage of replacement socks. Table 2 summarizes oil removal (based on disposal weights) from the AOI 8 area.
3. East Plant Area Cover System was mowed in October 2023.
4. GHD conducted the semi-annual cap inspection on November 20, 2023. A copy of the field inspection form and photos are provided in Attachment A.

5. Quarterly groundwater level monitoring was conducted November 13-15, 2023, and February 19-21, 2024. Data is provided in the EI CA750 summary memorandums.
6. Semi-annual groundwater sampling was conducted November 13-16, 2023. Data is provided in the EI CA750 summary memorandums.
7. Construction of the Phase II Trench was substantially completed on March 15, 2024. The restored area is being monitored pursuant to the construction stormwater permit.
8. Additional Pilot Trench performance water quality monitoring for PCB was conducted March 25-26, 2024, at select monitoring wells. Data will be provided in the revised Pilot Trench Performance Monitoring Report.
9. Routine project meetings updates were held with U.S.EPA and IDEM on October 26, November 16, and December 21, 2023, and January 22, February 13, and March 22, 2024. Agendas outlining meeting discussion points provided via email on day of meeting.
10. GHD submitted the EI CA750 First Half 2023 sampling event summary on October 11, 2023.
11. GHD submitted a memo on October 12, 2023, providing the revised Residential Well Memo, addressing U.S. EPA comments.
12. Between October 12 and 17, 2023, GM, U.S. EPA, and GHD discussed via email and conference call the use of Phase II Trench cuttings as backfill, resulting in U.S. EPA's approval to place the cuttings in areas where residual PCB contamination was previously present.
13. GHD submitted Progress Report 85 to U.S. EPA on October 16, 2023.
14. The 2024 Financial Assurance cost estimate was submitted to U.S. EPA on November 16, 2023.
15. GHD submitted a memo on October 27, 2023, providing the revised NAPL Recoverability Evaluation, addressing U.S. EPA comments.
16. GHD provided responses to U.S. EPA's comments regarding the Long-Term Operation, Monitoring, and Maintenance Plan (LTOMMP) on December 12, 2023.
17. On February 2, 2024, U.S. EPA provided comments on the Pilot Trench Performance Monitoring Report.
18. GHD provided responses to U.S. EPA's comments regarding the Corrective Measures Proposal (CMP) on February 2, 2024.
19. U.S. EPA provided comments on the 2024 Financial Assurance cost estimate.
20. GHD submitted the EI CA750 Second Half 2023 sampling event summary on February 5, 2024.
21. GM, U.S. EPA, IDEM, and GHD held their annual meeting at the GM Bedford facility on February 13, 2024.
22. GM held a public meeting to discuss project progress on February 13, 2024.
23. The revised 2024 Financial Assurance cost estimate was submitted to U.S. EPA on February 20, 2024.
24. On February 29, 2024, GHD and GM requested U.S. EPA's approval to resample select wells in the Pilot Trench performance monitoring network in advance of the next EI CA750 sampling event.
25. U.S. EPA approved GM's 2024 Financial Assurance cost estimate on March 1, 2024.
26. U.S. EPA approved GM's intent to resample select monitoring wells in the Pilot Trench performance monitoring network in advance of the next EI CA750 sampling event on March 4, 2024.

27. GHD provided responses to U.S. EPA's comments regarding the Corrective Measures Proposal on February 2, 2024.

2. Summaries of Problems and Planned Resolutions

2.1 Concrete Sealing Upstream of Confluence

GHD is finalizing plans to address the concrete heave and cracking in a limited area just upstream of the confluence of Bailey's Branch Creek and Tributary 3 including installing a headwall at Tributary 2 that is keyed into the bedrock and creating a lined pool in the area where the concrete broke. This should reduce the potential from cracking due to freeze/thaw cycling.

2.2 Asphalt Crack Sealing

Cover system inspections noted the asphalt cover system cracks are widening. These cracks will need to be cleaned and sealed. Asphalt work is being pushed into 2024 when the asphalt suppliers reopen following winter shutdown.

2.3 NAPL Recover

Absorbent socks were ordered prior to the November 2023 sampling event but had not arrived by the time the field NAPL recovery activities were conducted. Spent socks were removed from the cages in November so as not to artificially skew the NAPL recovery volumes (as NAPL recovery diminishes, socks begin to absorb water). Replacement socks arrived prior to the December 2023 field event and socks were then replaced.

3. Projected Work for the Next Reporting Period

Work anticipated for the next reporting period includes:

1. Continue OMM for the GWTP.
2. Continue GWTP discharge reporting under the NPDES permit.
3. Collect monthly transducer data from the Pilot Trench monitoring locations.
4. Remove Phase II Trench temporary erosion controls following satisfactory grass growth.
5. Submit the Phase II Trench Performance Monitoring Plan
6. Submit the Phase II Trench Construction Completion Report.
7. Submit the 2023 TSCA Vault Annual Report.
8. Mow the East Plant Area cover system.
9. Conduct the semi-annual cover system inspection.
10. Finalize the CMP and LTOMMP.
11. Finalize the Pilot Trench Performance Monitoring report.
12. Conduct the first half 2024 EI CA750 sampling event and the quarterly static water level gauging events.
13. Provide U.S. EPA and IDEM project updates via emails and/or telephone calls.
14. Conduct mid-year Agency meeting.
15. Submit the Spring 018 Area Decommissioning Plan including the confluence concrete repair and implement the plan.
16. Install monitoring wells to support Phase II Trench performance monitoring.
17. Install monitoring wells in the AOI 1 area in accordance with the CMP.
18. Submit plan to digitize rock cores, temporarily stored at the project site.

19. Request IDEM and U.S. EPA approval to modify Vault sampling and monitoring frequencies.
20. Request U.S. EPA approval to discontinue the EI CA750 groundwater monitoring program and begin the perimeter groundwater control system monitoring program in accordance with the LTOMMP.
21. Request U.S. EPA approval to modify the NAPL collection program in accordance with the LTOMMP.

Please feel free to call me at 313-506-9465 if you have any questions concerning this information or otherwise regarding the GM BCO Project.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ed Peterson".

Ed Peterson
Senior Project Manager, Remediation Services
GM Sustainable Workplaces

Encl.

cc: Corey Peaslee; U.S. EPA
Chris Myer; IDEM
Nathan Milliman; General Motors

Katie Kamm; GHD
Julie Luzwick; GHD
Nick Cooper; General Motors

Tables

**GWTP PCB Mass Removal Estimate
GM BCO Facility
Bedford, Indiana**

	Groundwater Treatment Plant (GWTP) Treated Volume (gallon)	PCB Influent Concentration ^(1,2) (µg/L)	Mass PCB Treated ⁽³⁾ (pound)
October 2023	692,220	2.5	0.014
November 2023	810,267	2.5	0.017
December 2023	1,083,123	2.5	0.023
January 2024	3,906,193	2.2	0.072
February 2024	2,355,746	2.2	0.043
March 2024	2,571,928	2.2	0.047
Total Estimated Volume of Water Treated During Reporting Period(gallons)			11,419,477
Total Estimated Mass of PCB Treated During Reporting Period (pounds)			0.22
Total Estimated Mass of PCB Treated, Since January 2019 (pounds)			2.84

Notes:

¹ PCB concentration based on an average of parent and duplicate sample, if collected.

² Influent sampling reduced from monthly to quarterly in April 2021.

³ Mass removed =
$$\frac{\text{treated volume (gallons)} \times \text{PCB concentration} \left(\frac{\mu\text{g}}{\text{L}} \right) \times 3.7854}{453.59 \times 1.000.000}$$

Table 2

**AOI 8 Oil Removal
GM BCO Facility
Bedford, Indiana**

Date	Well	Oil Mass (lbs)	PCB Content (mass %)	PCB Mass (lbs) ¹
10/23/2023	CH-5	0.98	11%	0.11
11/15/2023	CH-5	1.98	11%	0.22
12/12/2023 ¹	CH-5	--	11%	--
1/22/2024	CH-5	1.48	11%	0.16
2/21/2024	CH-5	0.98	11%	0.11
3/13/2024	CH-5	0.48	11%	0.05
Total PCB Removed from CH-5 (LNAPL) During Reporting Period ^{1,3}				0.64
Total PCB Removed from CH-5 (LNAPL) Since 2018 ^{1,3}				10.36
10/23/2023	MW-X209Y053	0.73	40%	0.29
11/15/2023	MW-X209Y053	0.73	40%	0.29
12/12/2023 ¹	MW-X209Y053	--	40%	--
1/22/2024	MW-X209Y053	0.48	40%	0.19
2/21/2024	MW-X209Y053	0.48	40%	0.19
3/13/2024	MW-X209Y053	0.98	40%	0.39
Total PCB Removed from MW-X209Y053 (DNAPL) During Reporting Period ^{1,2,4}				1.36
Total PCB Removed from MW-X209Y053 (DNAPL) Since 2019 ^{1,2,4}				26.67
10/23/2023	CAMW-3	0.73	31%	0.23
11/15/2023	CAMW-3	1.23	31%	0.38
12/12/2023 ¹	CAMW-3	--	31%	--
1/22/2024	CAMW-3	0.98	31%	0.30
2/21/2024	CAMW-3	0.48	31%	0.15
3/13/2024	CAMW-3	0.48	31%	0.15
Total PCB Removed from CAMW-3 (DNAPL) During Reporting Period ^{6,7}				1.21
Total PCB Removed from CAMW-3 (DNAPL) Since 2021 ^{6,7}				7.92

Table 2

**AOI-8 Oil Removal
GM BCO Facility
Bedford, Indiana**

Notes:

1 PCB weight based on average of analytical data

Location	Sample Date	PCB (mg/kg)	Average (mg/kg)
CH-5	9/19/2005	224,500	109,067
	8/16/2011	89,700	
	4/9/2014	13,000	
MW-X209Y053	9/19/2006	400,000	400,000
CH-2A	11/5/2008	380,000	580,000
	4/9/2014	780,000	
CAMW-2 (lower)	11/21/2019	310,000	310,000
CAMW-2 (upper)	11/21/2019	160,000	160,000

2 PCB weight from solar sipper and the initial removal from MW-X209Y053 (3/25/2019) is based on an approximate gallons of oil removal. DNAPL density of 1.16 g/cc used when converting volume (gallons) to mass (pounds). Density value determined by laboratory analysis from the 4/19/2014 sampling event.

3 CH-5 Mass $\frac{\text{Sock net weight (lbs)} \times 109,067 \text{ (mg/kg)}}{1,000,000 \text{ (mg/kg)}}$
(lbs)=

4 MW-X209Y053 $\frac{\text{Sock net weight (lbs)} \times 400,000 \text{ (mg/kg)}}{1,000,000 \text{ (mg/kg)}}$
Mass(lbs) =

3/25/2019 mass removal calculated based on removal of 2.5 gallons of NAPL

5 CH-2A Mass $\frac{\text{Liquid weight (lbs)} \times 580,000 \text{ (mg/kg)}}{1,000,000 \text{ (mg/kg)}}$
(lbs) =

6 CAMW-3 Mass $\frac{\text{Sock net weight (lbs)} \times 310,000 \text{ (mg/kg)}}{1,000,000 \text{ (mg/kg)}}$
(lbs)=

7 PCB concentration at CAMW-2 used for removal calculations as no data is available for CAMW3 and the two locations are in close proximity.

8 PCB weight from CAMW-2 is based on an approximate gallons of oil removal during the oil recovery test. Upper and lower NAPL density of 1.18 g/cc and 1.15 g/cc, respectively, used when converting volume (gallons) to mass (pounds). Density value determined by laboratory analysis from the 11/21/2019 sampling event.

9 CAMW-2 (upper) $\frac{\text{Liquid weight (lbs)} \times 160,000 \text{ (mg/kg)}}{1,000,000 \text{ (mg/kg)}}$
Mass (lbs) =

10 CAMW-2 (lower) $\frac{\text{Liquid weight (lbs)} \times 310,000 \text{ (mg/kg)}}{1,000,000 \text{ (mg/kg)}}$
Mass (lbs) =

Attachments

Attachment A

Field Inspection Form and Photos

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD FACILITY**

BEDFORD, INDIANA

Date of Inspection: 11/20/2023
Inspector: Scott Sholar

Weather: Overcast
Temp. (F): 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							
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Overgrown		
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD 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							
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
		QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Under construction.	
EXPOSURE OF LINER		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- EROSION		<input type="checkbox"/>	<input checked="" type="checkbox"/>				
- LOCALIZED SETTLEMENT/SLUMPING			<input type="checkbox"/>				
- PONDING OF WATER/DRAINAGE		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- SIGNS OF BURROWING BY ANIMALS		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- ROOTING OF TREES		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
		QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Overgrown	
	EXPOSURE OF LINER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- LOCALIZED SETTLEMENT/SLUMPING		<input type="checkbox"/>				
	- PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
		QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
EXPOSURE OF LINER		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- EROSION		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- LOCALIZED SETTLEMENT/SLUMPING			<input type="checkbox"/>				
- PONDING OF WATER/DRAINAGE		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- SIGNS OF BURROWING BY ANIMALS		<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- ROOTING OF TREES		<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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							
	- QUALITY OF ASPHALT COVER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- PRESENCE OF CRACKING OR DISCOLORATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Slight discoloration		
	- QUALITY OF ASPHALT COVER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- PRESENCE OF CRACKING OR DISCOLORATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Slight discoloration		
	- QUALITY OF ASPHALT COVER	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- PRESENCE OF CRACKING OR DISCOLORATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Slight discoloration		
ACCESS ROAD							
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS/DEBRIS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- POTHoles	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS/DEBRIS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- POTHoles	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS/DEBRIS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Covered with stone backfill with ongoing pilot trench construction.		
	- POTHoles	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	<input type="checkbox"/>	<input type="checkbox"/>				
	- EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS/DEBRIS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- POTHoles	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD 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							
	- DAMAGE CAUSED BY VEHICULAR TRAFFIC	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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							
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD 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							
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS						
	- OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS						
	- OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cutting of saplings	3 small trees beginning to grow.		
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS						
	- OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD 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							
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Tall grass.		
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Overgrown		
	EROSION	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Construction activities ongoing.		
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Construction activity ongoing		
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- OBSTRUCTIONS - OBSTRUCTIONS - SEDIMENT ACCUMULATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Overgrown, tall grass.		
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

**COVER SYSTEMS INSPECTION LOG
CONSTRUCTION CERTIFICATION REPORT EAST PLANT COVER SYSTEM
GM CET BEDFORD 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- CULVERT/CATCH BASIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- SIGNS OF BURROWING BY ANIMALS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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							
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	LOCALIZED SETTLEMENT/SLUMPING	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	QUALITY OF VEGETATIVE COVER - LENGTH OF GRASS - DEAD/DYING GRASS - GRASS COVERAGE - NOXIOUS WEEDS	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	EROSION	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	LOCALIZED SETTLEMENT/SLUMPING	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	PONDING OF WATER/DRAINAGE	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
	- ROOTING OF TREES	<input checked="" type="checkbox"/>	<input type="checkbox"/>				



Photo 1 - Transect: Transect EV4 - View Looking South



Photo 2 - Transect: Transect EV3 - View Looking South



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023



Photo 3 - Transect: Transect ES2 - View Looking South



Photo 4 - Transect: Transect EA1 - View Looking South



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023



Photo 5 - Transect: Transect EV2



Photo 6 - Transect: Transect ES3 - View Looking West



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023



Photo 7 - Transect: Transect EV5 - View Looking East



Photo 8 - Transect: Transect EV6 - View Looking South



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023



Photo 9 - Transect: Transect ES12 - View Looking South -



Photo 10 - Transect: Access Road - View Looking South



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023



Photo 11 - Transect: Transect ES14 - View Looking West



Photo 12 - Transect: Transect EV9 - View Looking South



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023



Photo 13 - Transect: Transect EV7 - - View Looking North



Site Photographs
GM, LLC Bedford RFI, 11228036
11/20/2023