



# RCRA INTERIM MEASURE WORK PLAN WEST PLANT AREA

GM BEDFORD POWERTRAIN FACILITY  
105 GM DRIVE  
BEDFORD, INDIANA

EPA ID# IND006036099

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APRIL 23, 2007  
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**Worldwide Facilities Group  
Remediation Team**

April 23, 2007

Reference No. 013968

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Dear Mr. Ramanauskas:

Re: GM Powertrain – Bedford Facility, IND 006036099  
Voluntary RCRA Corrective Action  
Technical Memorandum (TM) RCRA Facility Investigation (RFI) Results  
Addendums No. 3, 4, 5, 6, and 7  
GM Powertrain Group, Bedford Indiana Facility  
Bedford, Indiana

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Please find enclosed the RCRA Interim Work Plan for the West Plant Area as part of the Performance-Based RCRA Corrective Action project at the GM Powertrain Bedford Facility, 105 GM Drive, Bedford, Indiana. This IM is being submitted pursuant to the Performance-Based RCRA Corrective Action Agreement between the U.S. EPA and General Motors, signed March 20, 2001 and amended October 1, 2002.

Should you have any questions regarding this document, please do not hesitate to contact me at (248) 753-5799.

Yours truly,

General Motors Corporation

Cheryl R. Hiatt  
Project Manager

PG/cnb/93  
Encl.

c.c.: See Attached Distribution List

***GM Bedford Distribution List***

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AOI	Area of Interest
AOI 21-1	Area of Interest 21 Area 1
AOI 21-2	Area of Interest 21 Area 2
CA725	RCRA Environmental Indicator CA725 Report for the Determination of Current Human Exposures Under Control
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRA	Conestoga-Rovers & Associates
CSP	Corrugated Steel Pipe
EI	Environmental Indicator
ENVIRON	ENVIRON International Corporation
Facility	GM Powertrain Bedford Facility
ft	feet
GM	General Motors
HDPE	High Density Polyethylene
HI	hazard index
IM	Interim Measure
mg/kg	milligrams per kilograms
PCBs	polychlorinated biphenyls
PRG	Preliminary Remediation Goals
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SHHRA	Streamlined Human Health Risk Assessment
U.S. EPA	United States Environmental Protection Agency
Work Plan	West Plant Area Interim Measure Work Plan

## 1.0 INTRODUCTION

Conestoga-Rovers & Associates Inc. (CRA) has prepared this Resource Conservation and Recovery Act (RCRA) West Plant Area Interim Measure (IM) Work Plan (Work Plan) to present details of the proposed IM for the West Plant Area located at the General Motors Corporation (GM) Powertrain - Bedford Plant (Facility) located in Bedford, Indiana (U.S. EPA ID# IND006036099). This Work Plan is being submitted pursuant to the Performance-Based Corrective Action Agreement between the United States Environmental Protection Agency (U.S. EPA) and GM, signed March 20, 2001, and amended October 1, 2002.

The Facility Location is presented on Figure 1.1.

### 1.1 GENERAL

This Work Plan presents the details of the proposed IM to permanently abandon select storm sewer pipes in the northeast corner of the West Plant Area, and the excavation or containment of soil at specific areas in the West Plant Area. The West Plant Area is made up of GM property west of GM Drive. Details of the proposed IM are presented in the following Sections:

- **Section 2.0 - Investigative Summary**  
Provides a summary of the investigative activities and sampling summary.
- **Section 3.0 - Objectives**  
Explains the objectives for the proposed IM.
- **Section 4.0 - Proposed Interim Measures**  
Presents the proposed permanent catch basin/piping abandonment and proposed excavation/containment limits for this IM.
- **Section 5.0 - Schedule**  
Presents the proposed schedule for implementation of this IM.
- **Section 6.0 - References**  
Presents references cited in the Work Plan.

## 2.0 INVESTIGATIVE SUMMARY

The following paragraphs summarize the investigative activities for areas within the West Plant Area in which PCB results exceed the screening criteria. A complete summary of the investigation and results are presented in the Technical Memorandum - RCRA Facility Investigation (RFI) Work Plan Addenda No. 3, 4, 5, 6, and 7 (CRA, March 2007).

### MH-ST-43 Catch Basin

During the RFI, sediment containing polychlorinated biphenyls (PCBs) were identified in an existing catch basin (MH-ST-43 catch basin) and storm sewer network at the northeast corner of the Facility property (AOI 21-1). The location of this catch basin and pipes are presented on Figure 2.1. These pipe sections include a 22-inch diameter concrete pipe, a 24-inch diameter corrugated steel pipe (CSP), and a 48-inch diameter CSP. These pipes and catch basin are no longer in service. The 24- and 48-inch diameter pipes used to drain to the creek on the east side of GM Drive (between Parcel 401 and GM property).

The MH-ST-43 catch basin, the 22-inch and 24-inch pipes entering and exiting MH-ST-43 catch basin, and the 48-inch culvert under GM Drive were cleaned under the supervision of CRA in November 2003 as part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Removal Action to mitigate potential impacts to the creek. Cleaning consisted of vacuuming sediment from the pipes, water jetting the pipes, and collecting the resulting rinse waters. The 22-inch diameter concrete pipe and the 24-inch diameter CSP pipe were blocked with temporary pneumatic plugs on July 17, 2004 where they join MH-ST-43. Figure 2.2 presents the locations of the temporary pneumatic plugs. Abandonment of these pipes will not adversely offset plant operations.

### AOI 9 - Service Tunnels

Two areas where soil samples at or near bedrock surface contain PCB levels exceeding the Site Screening Criterion (7.4 mg/kg) are located beneath the Facility building structure. Currently, there is no reasonable exposure pathway as discussed in the RCRA Environmental Indicator (EI) CA725 Report for the Determination of Current Human Exposures Under Control (ENVIRON, January 2005). In addition, there is no unacceptable exposure of future receptors at this area as discussed below. Therefore no interim or corrective measures are planned for this area.



#### AOI 13 - South Piston Yard

Historically, this area was occupied by five underground storage tanks (USTs) that were removed between 1991 and 1994 by GM's consultant at the time, O'Brien & Gere (O&G). O&G submitted a Closure Report to IDEM in 1994 but GM has not received a No Further Action letter with respect to these USTs. As part of RFI Work Plan: Addendum No. 10, GM completed further subsurface investigations at former USTs 1 and 2 at the request of IDEM. Based on the results, GM will be submitting a letter to IDEM requesting a No Further Action letter for these USTs.

#### AOI 18 - Area Affected by the Henry System Discharge

This area is covered by concrete in the north and rip rap along the southern slope. This area and the sample locations are presented on Figure 2.3. A surface soil sample at boring SS-X154Y117, located underneath rip rap material, collected as part of the RFI Work Plan (CRA, October 2001) exhibited a concentration of 17 mg/kg total PCBs which is above the Site Screening Criterion. Additional delineation was conducted horizontally and vertically to determine the extent of elevated PCBs at this location. A surface soil sample directly under concrete at boring B-X154Y117C exhibited a total PCB concentration of 140 mg/kg. As discussed in the EI CA725 Report, there is no reasonable exposure pathway currently because of the concrete pavement in this area. Table 2.1 presents the analytical results of all samples collected in this area.

#### AOI 21 Area 1 - Former Drainage Valley Under Hourly Parking Lot

During the implementation of RFI Work Plan Addendum No. 3 (CRA, March 2004), a surficial soil sample at boring B-X129Y247 exhibited a total PCB concentration of 67 mg/kg. This result was detected near the intersection of Breckenridge Road and GM Drive. Twelve subsequent soil borings (RFI Work Plan Addendum No. 7 (CRA, November 2004)) delineated the horizontal and vertical extent of PCBs in soil at this location. This area and the sample locations are presented on Figure 2.4. Table 2.2 presents the data for all collected soil samples in AOI 21 Area 1 (AOI 21-1). Currently, there is no pavement or surface cover in AOI 21-1, so the area around the boring location B-X129Y247 is fenced to prevent potential exposure to the surficial soil.

#### AOI 21 Area 2 - Former Drainage Valley Northeast of Piston and Office Buildings

A surficial soil sample with the PCB concentration above the Site Screening Criterion was also detected during the implementation of RFI Work Plan Addendum No. 3 (CRA, March 2004) at soil boring B-X143Y193B. This area is located south of AOI 21-1, to the northeast of the existing office building in a grassy area between the building and GM Drive. Subsequent delineation activities, which included 70 additional borings, were completed as part of RFI Work Plan: Addendum No. 7 (CRA, November 2004). This area and the sample locations are presented on Figure 2.5. Table 2.3 presents the data

for all collected soil samples in AOI 21 Area 2 (AOI 21-2). Because PCB concentrations in surface soils at several soil boring locations in this area are above the Site Screening Criterion, AOI 21-2 is currently fenced to prevent potential exposure to the soil.

#### Streamlined Human Health Risk Assessment

The Streamlined Human Health Risk Assessment (SHHRA) (presented in Appendix A) was prepared by ENVIRON International Corporation (ENVIRON) to support a determination of whether interim measures (IM) are warranted within the West Plant Area. The soil data collected in the West Plant Area during the RFI were evaluated to assess the significance of potential exposures under current and reasonably expected future land use. As discussed in the SHHRA, the conservative estimates of cumulative cancer risks and noncancer hazard indices (HIs) under reasonable maximum exposure (RME) for all receptors are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for exposures of routine workers to surface soil at AOIs 18, 21-1, and 21-2. For these AOIs, additional risk calculations were performed to determine the extent of soil remediation necessary to reduce the risk estimates for routine worker exposure to soil in these areas to acceptable levels. The extent of remediation determined via these additional risk calculations then provided the basis for the proposed IM discussed in Section 4 of this Work Plan. The details of these additional risk calculations are also provided in Appendix A.

### 3.0 OBJECTIVES

As discussed in Section 2.0, the SHHRA determined that the concentrations of PCBs in soil found at AOIs 18, 21-1, and 21-2 during investigations completed within the West Plant Area may pose a potential future risk if these areas were to be used for routine industrial activities and the surface soil in these areas were left exposed. It was also determined that the sewer piping and manhole at MH-ST-43 should continue to be blocked to protect Tributary 3 in the future and that this will not impact Plant activities. The proposed objectives for the West Plant Area IM, include:

- permanent abandonment and sealing of MH-ST-43 and related piping;
- maintenance of the existing surface cover at AOI 18;
- excavation of PCB material at AOI 21-1; and
- containment of PCB material via a cover system at AOI 21-2.

AOI 13 is not included in this IM. If IDEM requests additional investigation, the work plan, and if necessary a separate IM for this area will be submitted to the U.S. EPA for review.

## 4.0 PROPOSED INTERIM MEASURES

### 4.1 PERMANENT ABANDONMENT OF MH-ST-43 CATCH BASIN

Each of these pipe sections will be pumped full of grout to prevent any future infiltration and/or flow. The sections of pipe to be grouted are presented on Figure 2.2. The 22-inch inlet and 24-inch outlet to and from the catch basin, as well as the 48-inch outfall to the west of GM Drive, will be sealed with plugs after grouting. The catch basin will be grouted within 3 feet (ft) of the surface. The remaining catch basin will be removed, the area graded, and restored as an open grassed area. The surface water runoff on the Facility property will be directed to the current stormwater system via grading.

### 4.2 AOI 18 - AREA AFFECTED BY THE HENRY SYSTEM DISCHARGE

The SHHRA shows that the noncancer HI for routine worker exposure to soil exceeds the U.S. EPA-established limit of 1. Additional risk calculations show that by excluding the surface soil concentration of PCBs at B-X154Y117C (i.e., preventing worker contact with soil at this location) the HI would not exceed 1. Because worker contact with surface soil in this area is already prevented by concrete pavement, no soil excavation in AOI 18 is proposed. The proposed IM includes routine inspection and maintenance of the concrete surface to ensure its integrity.

### 4.3 AOI 21 - FILLED RAVINE NORTH OF DIE CAST BUILDING

#### 4.3.1 AOI 21 AREA 1 - FORMER DRAINAGE VALLEY UNDER HOURLY PARKING LOT

The SHHRA shows that the noncancer HI for routine worker exposure to soil exceeds the U.S. EPA-established limit of 1. Additional risk calculations show that by excluding the surface soil concentration of PCBs at B-X129Y247 (i.e., preventing worker contact with soil at this location) the HI would not exceed 1. Excavation rather than containment is proposed due to the small size of the impacted area, which is bounded by several nearby soil boring locations as shown on Figure 2.4. It would be less efficient to manage a small capped area over a long-term basis. Limited excavation of the surface soil (approximately 2 ft in depth) is proposed to remove the elevated PCBs in this area. The limits of the proposed excavation are presented on Figure 2.4. Upon completion of the excavation, the area will be backfilled with clean material, and the surface will be restored.

#### **4.3.2      AOI 21 AREA 2 - FORMER DRAINAGE VALLEY NORTHEAST OF PISTON AND OFFICE BUILDINGS**

The SHHRA shows that the noncancer HI for routine worker exposure to soil exceeds the U.S. EPA-established limit of 1. Additional risk calculations show that by excluding the surface soil concentrations of PCBs at the seven soil boring locations identified in Table A.5 of Appendix A (i.e., preventing worker contact with soil at these locations) the HI would not exceed 1. This area will be contained with the construction of a low permeability cover system of the same design as the proposed East Plant Area Cover System (CRA, August 2006). Containment of this area has been selected because the area is located between existing buildings and GM Drive. Excavation in this area would be challenging due to nature of the material and depth of the impacts. A section of the roadside drainage ditch will be excavated and rebuilt using a minimum of one foot clay for grading and restored with topsoil and seed. Surface runoff will be directed via a perimeter swale around the north, west, and south sides of the cover system. The surface water from the cover system will be directed towards the rebuilt drainage ditch. Figure 2.5 identifies the existing facilities and the limits of the proposed West Plant Area cover system site at AOI 21-2.

**5.0**    **SCHEDULE**

This IM is proposed for implementation in during the second and third quarters of 2007.

**6.0**    **REFERENCES**

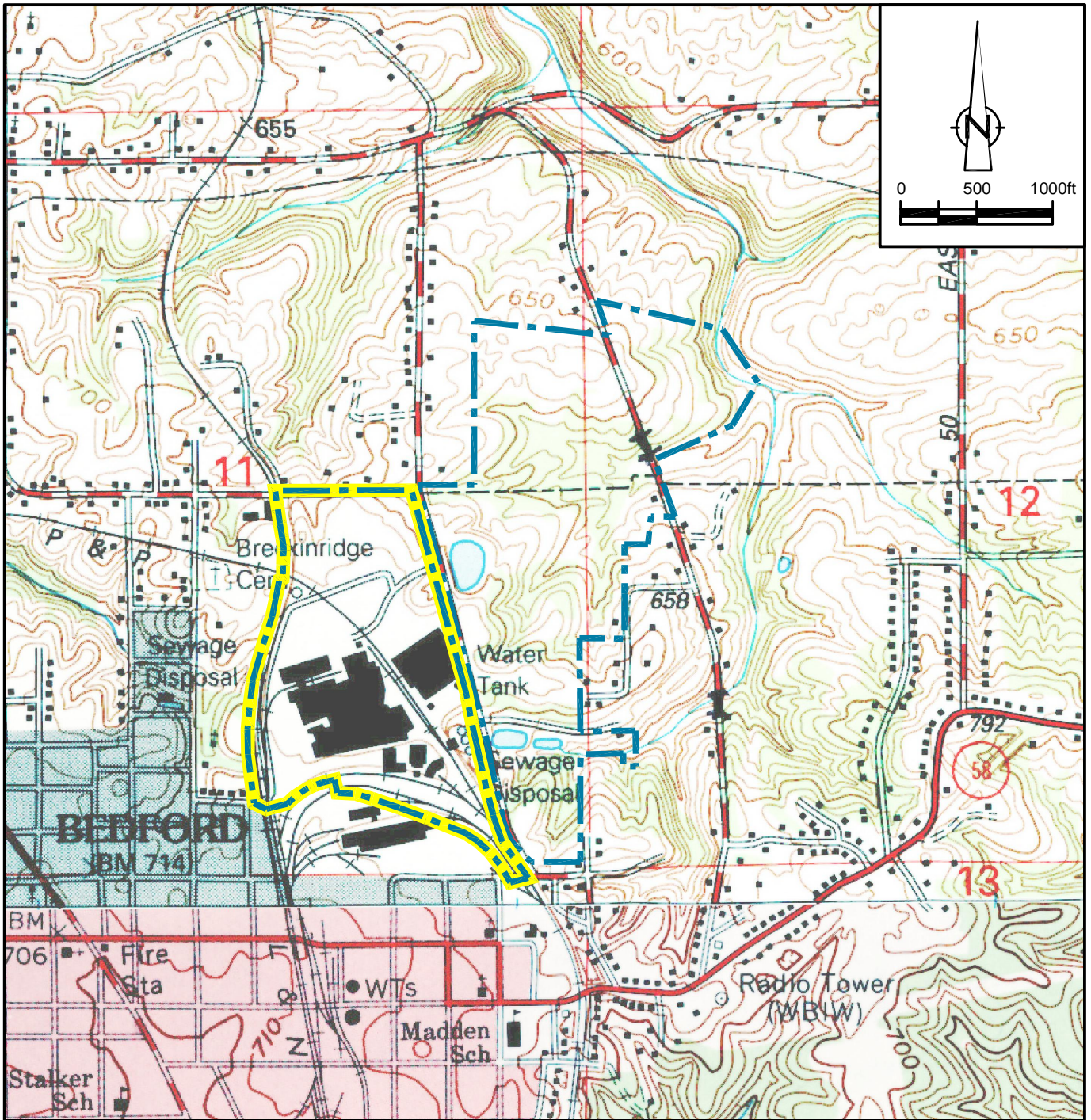
CRA. October, 2001. RFI Work Plan, Conestoga-Rovers & Associates.

CRA. March, 2004. RFI Work Plan: Addendum No. 3, Conestoga-Rovers & Associates.

CRA. November, 2004. RFI Work Plan: Addendum No. 7, Conestoga-Rovers & Associates.

CRA. March, 2007. Technical Memorandum – RFI Work Plan Addenda No. 3, 4, 5, 6, and 7, Conestoga-Rovers & Associates.

ENVIRON. January, 2005. RCRA Environmental Indicator CA725 Report for the Determination of Current Human Exposures Under Control, ENVIRON International Corporation.



BASE SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES;  
 BARTLETTSVILLE, INDIANA 1994  
 BEDFORD EAST, INDIANA 1978  
 BEDFORD WEST, INDIANA 1993  
 OOLITIC, INDIANA 1987



**LEGEND**

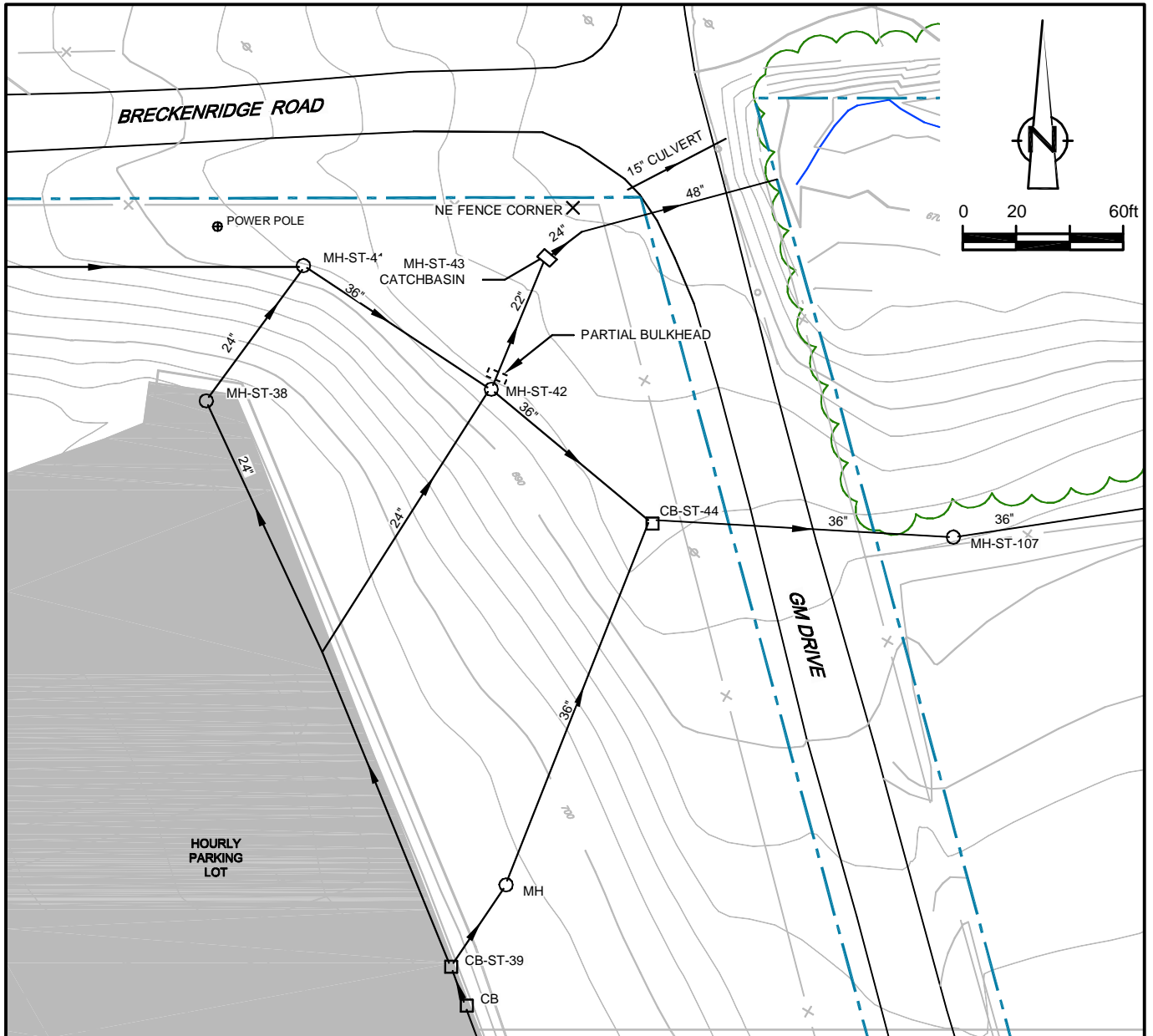
- - - FACILITY BOUNDARY
- WEST PLANT AREA

figure 1.1

**FACILITY LOCATION  
 WEST PLANT AREA INTERIM MEASURE  
 GM POWERTRAIN BEDFORD FACILITY  
 Bedford, Indiana**







SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001.  
SEWER SURVEY COMPLETED BY PROFESSIONAL ENGINEERING ASSOCIATES, TROY, MI, JUNE 2000.

**LEGEND**

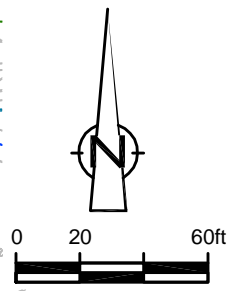
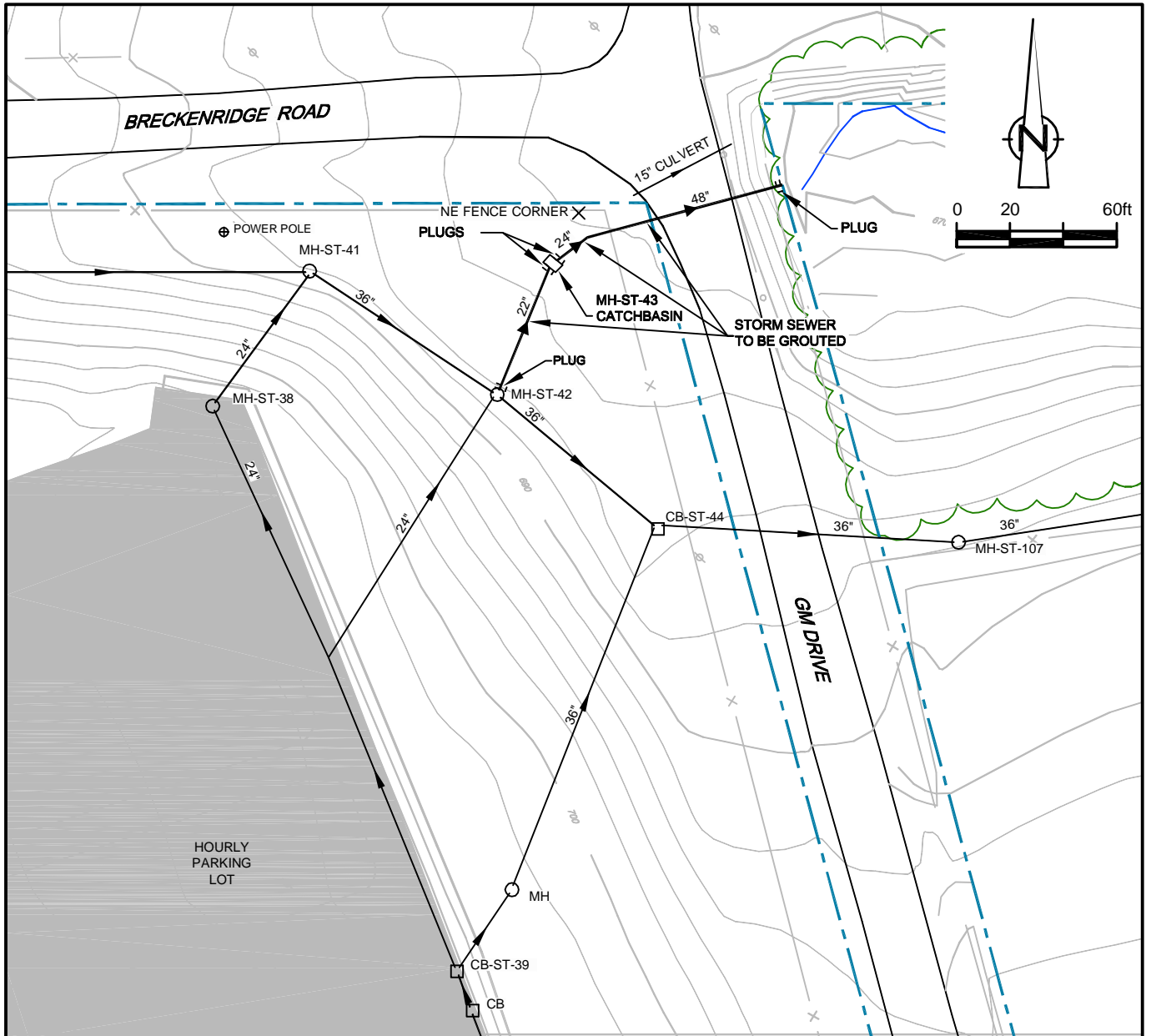
- |  |  |  |  |
|--|--|--|--|
|  | EXISTING GROUND SURFACE ELEVATION CONTOURS (feet AMSL) |  | APPROXIMATE GM PROPERTY BOUNDARY                         |
|  | EXISTING VEGETATION                                    |  | APPROXIMATE PARCEL BOUNDARY                              |
|  | EXISTING BUILDINGS                                     |  | STORM PIPE LOCATION, DIRECTION OF FLOW AND SIZE DIAMETER |
|  | FENCE LINE   |  | ASPHALTED AREA   |
|  | RAILROAD TRACKS  |  |  |
|  | DIRT ROADS   |  |  |
|  | ROADS / UNPAVED AREAS                                  |  |  |
|  | ROADS / PAVED AREAS                                    |  |  |
|  | APPROXIMATE SURFACE WATER LOCATION                     |  |  |

NOTE: PROPERTY BOUNDARY LOCATIONS APPROXIMATED FROM THE LAWRENCE COUNTY SURVEY PLATS. LOCATIONS MAY NOT ACCURATELY REPRESENT THE TRUE BOUNDARIES

figure 2.1

**ESTIMATED STORM MANHOLE AND PIPING LOCATIONS  
WEST PLANT AREA INTERIM MEASURE  
GM POWERTRAIN BEDFORD FACILITY  
*Bedford, Indiana***





SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001.  
SEWER SURVEY COMPLETED BY PROFESSIONAL ENGINEERING ASSOCIATES, TROY, MI, JUNE 2000.

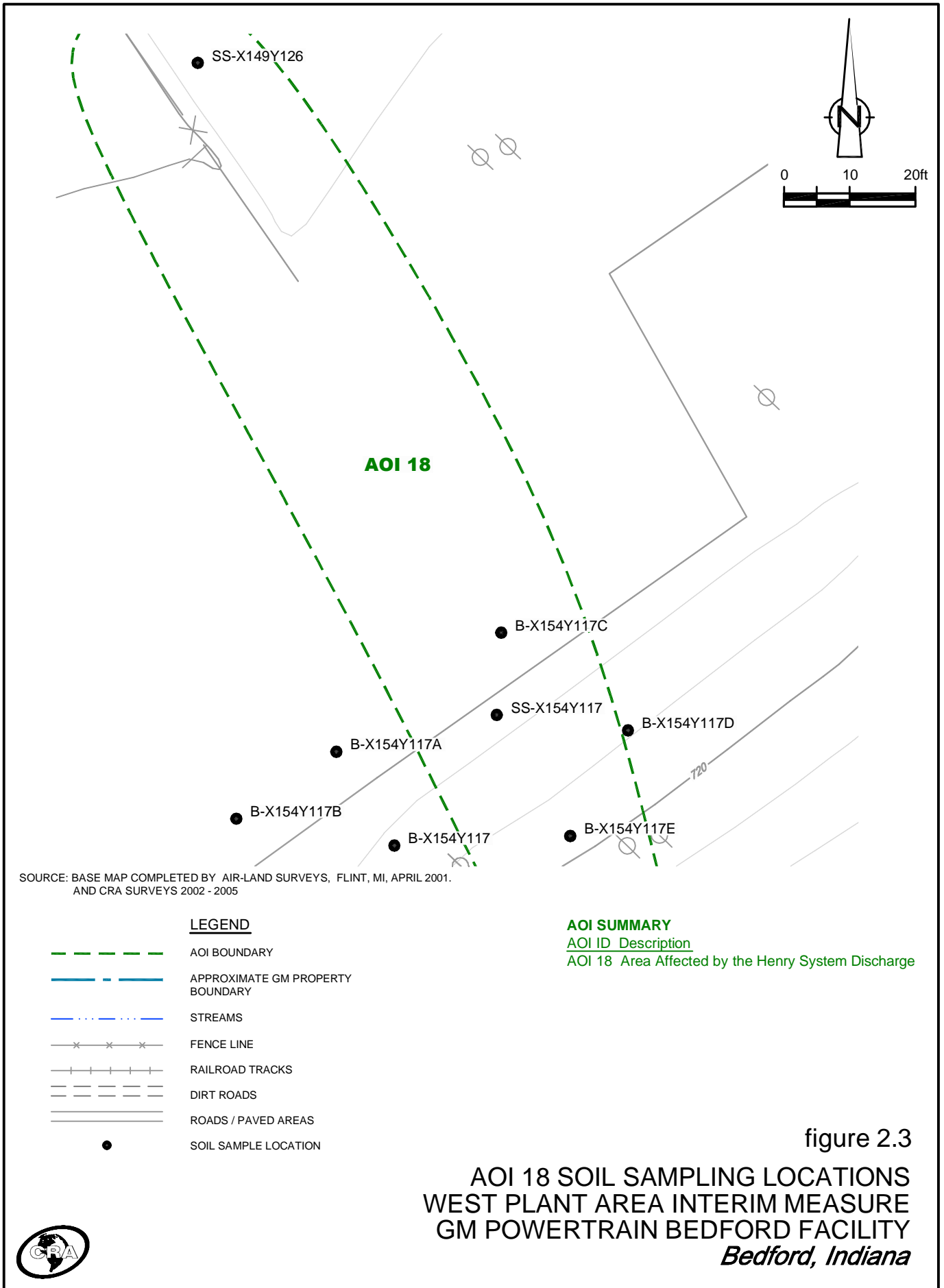
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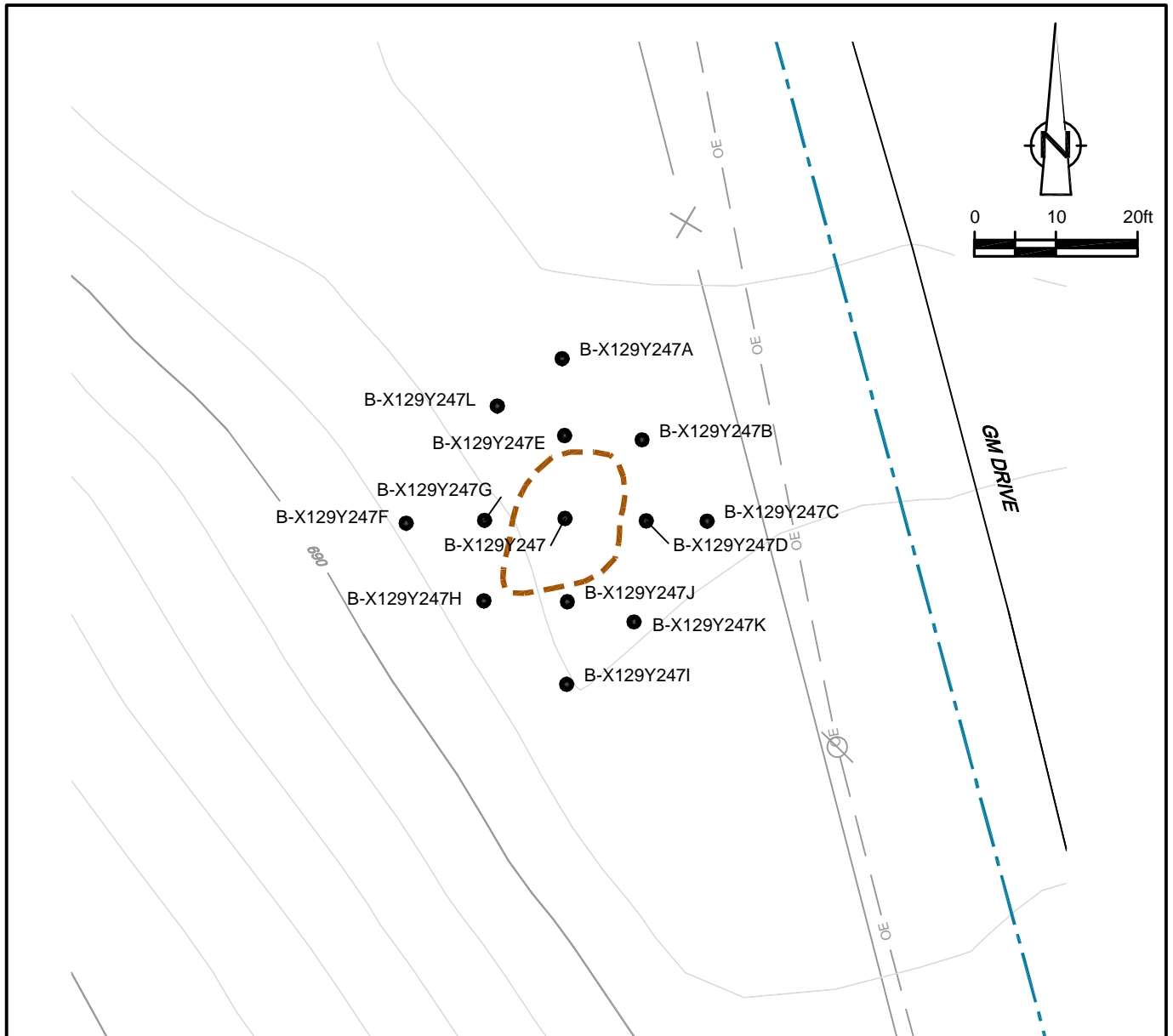
- |  |  |  |  |
|--|--|--|--|
|  | EXISTING GROUND SURFACE ELEVATION CONTOURS (feet AMSL) |  | 24" STORM PIPE LOCATION, DIRECTION OF FLOW AND SIZE DIAMETER |
|  | EXISTING VEGETATION                                    |  | 24" GROUTED STORM PIPE                                       |
|  | EXISTING BUILDINGS                                     |  | ASPHALTED AREA   |
|  | FENCE LINE   |  |  |
|  | RAILROAD TRACKS  |  |  |
|  | DIRT ROADS   |  |  |
|  | ROADS / UNPAVED AREAS                                  |  |  |
|  | ROADS / PAVED AREAS                                    |  |  |
|  | APPROXIMATE SURFACE WATER LOCATION                     |  |  |
|  | APPROXIMATE GM PROPERTY BOUNDARY                       |  |  |
|  | APPROXIMATE PARCEL BOUNDARY                            |  |  |

NOTE: PROPERTY BOUNDARY LOCATIONS APPROXIMATED FROM THE LAWRENCE COUNTY SURVEY PLATS. LOCATIONS MAY NOT ACCURATELY REPRESENT THE TRUE BOUNDARIES

figure 2.2  
**PNEUMATIC PLUG LOCATIONS**  
**WEST PLANT AREA INTERIM MEASURE**  
**GM POWERTRAIN BEDFORD FACILITY**  
*Bedford, Indiana*







SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001.  
AND CRA SURVEYS 2002 - 2005

**LEGEND**

- AOI BOUNDARY
- APPROXIMATE GM PROPERTY BOUNDARY
- STREAMS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- SOIL SAMPLE LOCATION
- LIMITS OF EXCAVATION (TO 2ft BGS)

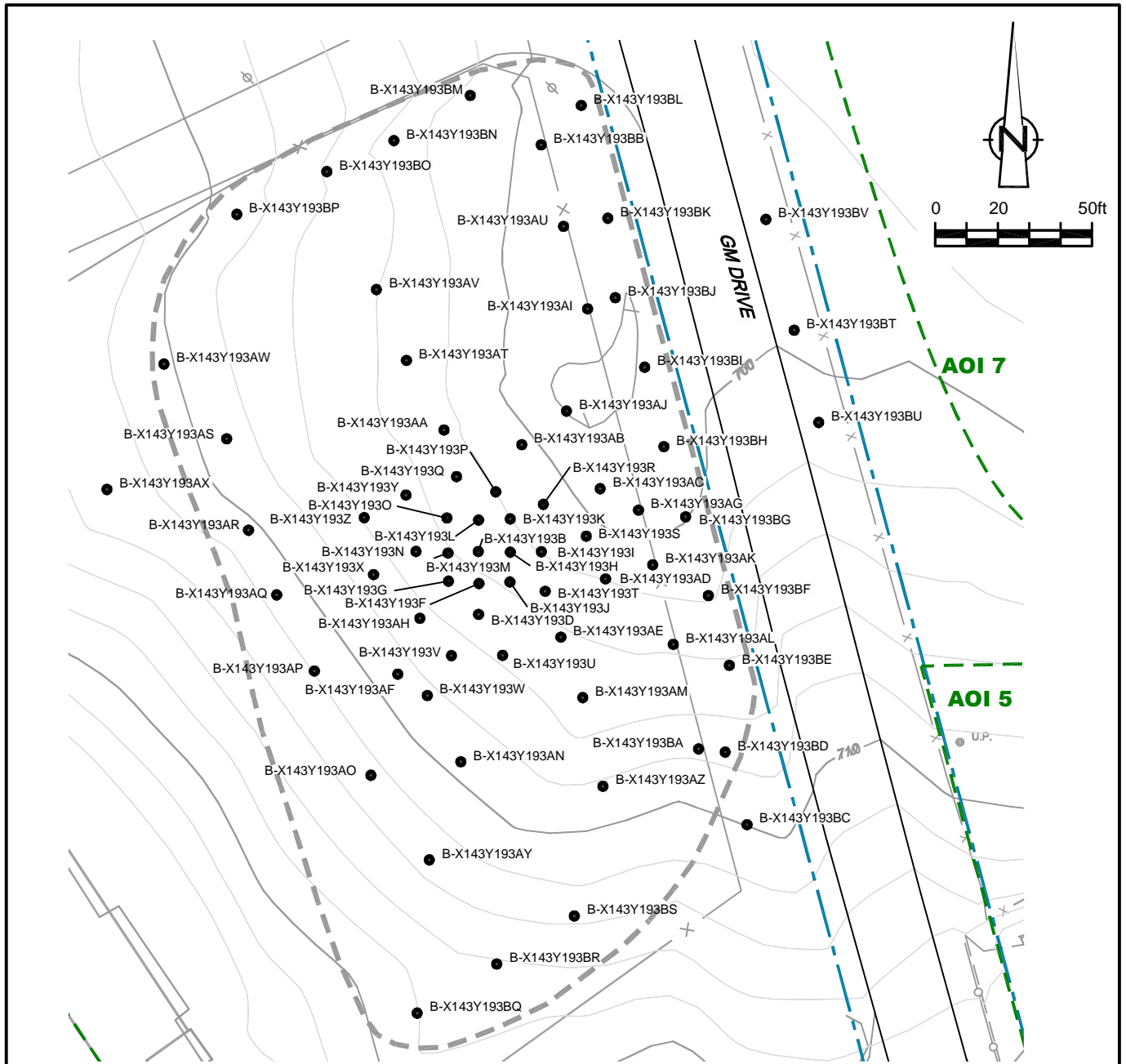
**AOI SUMMARY**

- AOI ID Description
- AOI 21 Filled Ravine North of Die Cast Building

figure 2.4

**AOI 21 AREA 1 SAMPLING LOCATIONS AND PROPOSED LIMITS OF EXCAVATION - WEST PLANT AREA INTERIM MEASURE  
GM POWERTRAIN BEDFORD FACILITY  
Bedford, Indiana**





SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001.  
AND CRA SURVEYS 2002 - 2005

**LEGEND**

- AOI BOUNDARY
- APPROXIMATE GM PROPERTY BOUNDARY
- STREAMS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- SOIL SAMPLE LOCATION
- LIMITS OF PROPOSED COVER SYSTEM

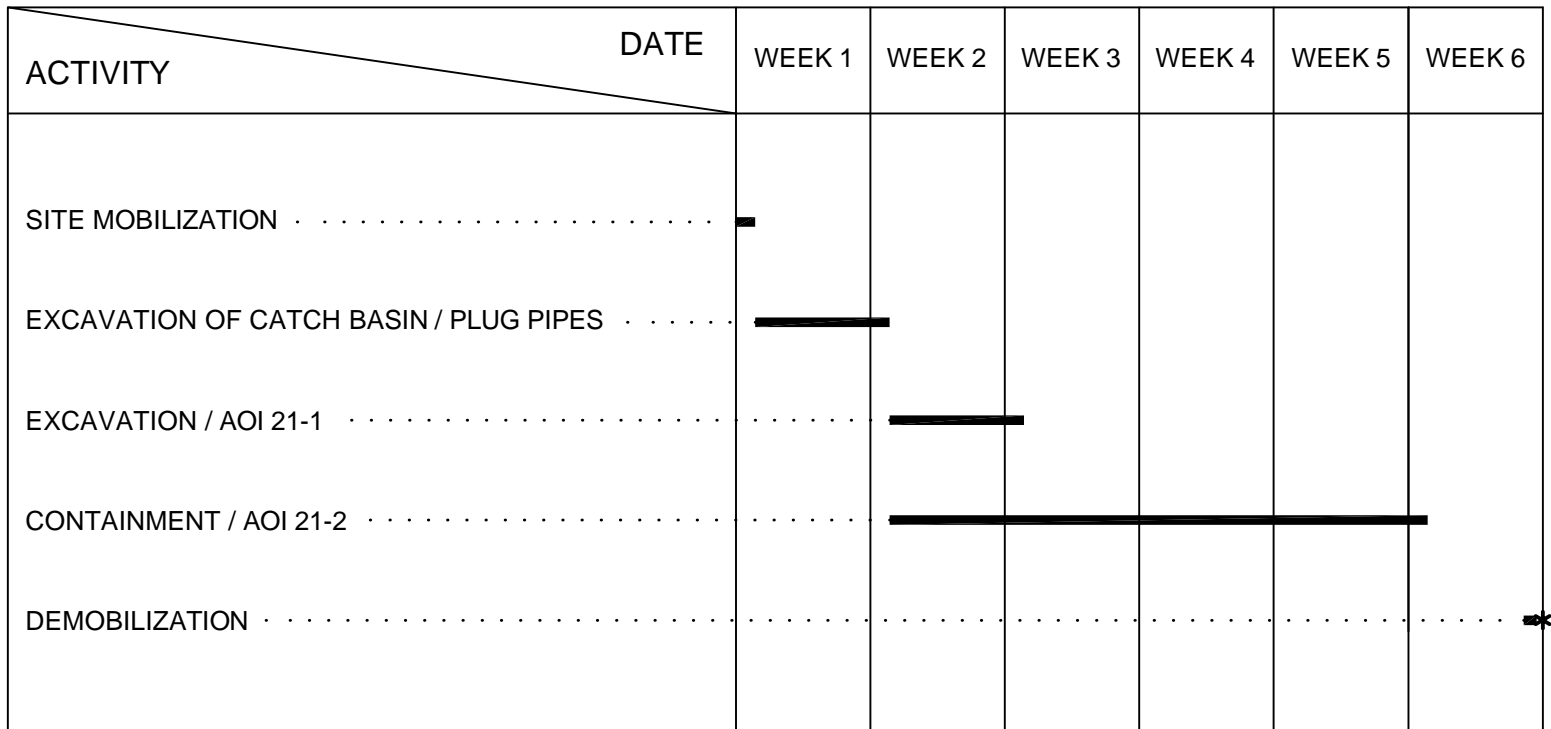
**AOI SUMMARY**

- AOI ID Description**
- AOI 5 Former East Sand Disposal Area
- AOI 7 Former North Lagoon and Outfall 001
- AOI 21 Filled Ravine North of Die Cast Building

figure 2.5

**AOI 21 AREA 2 SAMPLING LOCATIONS AND PROPOSED LIMITS OF COVER SYSTEM - WEST PLANT AREA INTERIM MEASURE GM POWERTRAIN BEDFORD FACILITY Bedford, Indiana**





**NOTES**

UPON WORK PLAN APPROVAL, THE SCHEDULE FOR IMPLEMENTATION AND COMPLETION IS DEPENDENT UPON THE FOLLOWING FACTORS:

- a) DRAFTING FINAL DESIGN AND SPECIFICATIONS;
- b) DESIGNATION OF CONTRACTOR;
- c) INCLEMENT WEATHER CONDITIONS DURING EXCAVATION WORK (e.g. RAIN, SEVERE WEATHER);
- d) DOES NOT INCLUDE POST-CONSTRUCTION MONITORING, IF REQUIRED;
- e) SCHEDULE IS BASED ON COMPLETING ACTIVITIES SEQUENTIALLY. ACTIVITIES ON EACH PARCEL MAY BE CONDUCTED CONCURRENTLY TO REDUCE SCHEDULE TIME.

**LEGEND**

- CONTINUOUS ACTIVITY
- \* MAJOR MILESTONE

figure 5.1

PROJECT SCHEDULE  
 WEST PLANT INTERIM MEASURE WORK PLAN  
 GM POWERTRAIN BEDFORD FACILITY  
*Bedford, Indiana*



TABLE 2.1

AOI 18 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Location	B-X154Y117	B-X154Y117	B-X154Y117	B-X154Y117A	B-X154Y117A	B-X154Y117A	B-X154Y117B	B-X154Y117B	B-X154Y117B	B-X154Y117B	B-X154Y117C	B-X154Y117C
Sample Identification	S-111203-JC-024	S-111203-JC-025	S-111203-JC-026	S-111203-JC-021	S-111203-JC-022	S-111203-JC-023	S-111003-JC-017	S-111003-JC-018	S-111003-JC-019	S-111003-JC-020	S-120104-DD-772	S-120104-DD-773
Sample Date	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/10/2003	11/10/2003	11/10/2003	11/10/2003	12/1/2004	12/1/2004
Sample Depth	(0-2)	(6-8)	(24-25)	(0-2)	(6-8)	(24-25)	(0-2)	(6-8)	(6-8)	(24-25)	(0-2)	(2-4)
Sample Type	<i>Duplicate</i>											
		<i>Units</i>										
<i>Volatile Organic Compounds</i>												
1,1,1-Trichloroethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,1,2,2-Tetrachloroethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,1,2-Trichloroethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,1-Dichloroethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,1-Dichloroethene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,2,4-Trichlorobenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.0089 U	0.013 U	0.013 U	0.53 U	0.012 U	0.014 U	0.0096 U	0.013 U	0.012 U	0.013 U	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,2-Dichlorobenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,2-Dichloroethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,2-Dichloropropane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,3-Dichlorobenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
1,4-Dichlorobenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
2-Butanone (Methyl Ethyl Ketone)	mg/kg	0.018 U	0.026 U	0.025 U	1.1 U	0.024 U	0.027 U	0.019 U	0.026 U	0.024 U	0.027 U	--
2-Hexanone	mg/kg	0.018 U	0.026 U	0.025 U	1.1 U	0.024 U	0.027 U	0.019 U	0.026 U	0.024 U	0.027 U	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	0.018 U	0.026 U	0.025 U	1.1 U	0.024 U	0.027 U	0.019 U	0.026 U	0.024 U	0.027 U	--
Acetone	mg/kg	0.018 U	0.026 U	0.025 U	1.1 U	0.024 U	0.027 U	0.019 U	0.026 U	0.024 U	0.027 U	--
Benzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Bromodichloromethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Bromoform	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Bromomethane (Methyl Bromide)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Carbon disulfide	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Carbon tetrachloride	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Chlorobenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Chloroethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Chloroform (Trichloromethane)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Chloromethane (Methyl Chloride)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
cis-1,2-Dichloroethene	mg/kg	0.0022 U	0.0033 U	0.0031 U	0.063 J	0.003 U	0.0034 U	0.0024 U	0.0032 U	0.003 U	0.0033 U	--
cis-1,3-Dichloropropene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Cyclohexane	mg/kg	0.0089 U	0.013 U	0.013 U	0.53 U	0.012 U	0.014 U	0.0096 U	0.013 U	0.012 U	0.013 U	--
Dibromochloromethane	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Dichlorodifluoromethane (CFC-12)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Ethylbenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Isopropylbenzene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Methyl acetate	mg/kg	0.0089 U	0.013 U	0.013 U	0.53 U	0.012 U	0.014 U	0.0096 U	0.013 U	0.012 U	0.013 U	--
Methyl cyclohexane	mg/kg	0.0089 U	0.013 U	0.013 U	0.53 U	0.012 U	0.014 U	0.0096 U	0.013 U	0.012 U	0.013 U	--
Methyl Tert Butyl Ether	mg/kg	0.018 U	0.026 U	0.025 U	1.1 U	0.024 U	0.027 U	0.019 U	0.026 U	0.024 U	0.027 U	--
Methylene chloride	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Styrene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Tetrachloroethene	mg/kg	0.0045 U	0.0065 U	0.0063 U	1.1	0.006 U	0.0069 U	0.00067 J	0.0065 U	0.0059 U	0.0066 U	--
Toluene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.026 J	0.006 U	0.0069 U	0.00088 J	0.0065 U	0.0059 U	0.0066 U	--
trans-1,2-Dichloroethene	mg/kg	0.0022 U	0.0033 U	0.0031 U	0.13 U	0.003 U	0.0034 U	0.0024 U	0.0032 U	0.003 U	0.0033 U	--
trans-1,3-Dichloropropene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Trichloroethene	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.21 J	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Trichlorofluoromethane (CFC-11)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Trifluorotrchloroethane (Freon 113)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Vinyl chloride	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
Xylene (total)	mg/kg	0.0045 U	0.0065 U	0.0063 U	0.26 U	0.006 U	0.0069 U	0.0048 U	0.0065 U	0.0059 U	0.0066 U	--
<i>Semi-Volatile Organic Compounds</i>												
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--
2,4,5-Trichlorophenol	mg/kg	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--
2,4,6-Trichlorophenol	mg/kg	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--
2,4-Dichlorophenol	mg/kg	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--
2,4-Dimethylphenol	mg/kg	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--

TABLE 2.1

**AOI 18 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA**

Sample Location	B-X154Y117	B-X154Y117	B-X154Y117	B-X154Y117A	B-X154Y117A	B-X154Y117A	B-X154Y117B	B-X154Y117B	B-X154Y117B	B-X154Y117B	B-X154Y117C	B-X154Y117C
Sample Identification	S-111203-JC-024	S-111203-JC-025	S-111203-JC-026	S-111203-JC-021	S-111203-JC-022	S-111203-JC-023	S-111003-JC-017	S-111003-JC-018	S-111003-JC-019	S-111003-JC-020	S-120104-DD-772	S-120104-DD-773
Sample Date	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/10/2003	11/10/2003	11/10/2003	11/10/2003	12/1/2004	12/1/2004
Sample Depth	(0-2)	(6-8)	(24-25)	(0-2)	(6-8)	(24-25)	(0-2)	(6-8)	(6-8)	(24-25)	(0-2)	(2-4)
Sample Type	<i>Duplicate</i>											
	<i>Units</i>											
2,4-Dinitrophenol	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
2,4-Dinitrotoluene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
2,6-Dinitrotoluene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
2-Chloronaphthalene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
2-Chlorophenol	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
2-Methylnaphthalene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
2-Methylphenol	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
2-Nitroaniline	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
2-Nitrophenol	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
3,3'-Dichlorobenzidine	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
3-Nitroaniline	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
4,6-Dinitro-2-methylphenol	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
4-Bromophenyl phenyl ether	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
4-Chloro-3-methylphenol	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
4-Chloroaniline	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
4-Chlorophenyl phenyl ether	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
4-Methylphenol	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
4-Nitroaniline	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
4-Nitrophenol	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
Acenaphthene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Acenaphthylene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.074 J	0.41 U	0.41 U	0.41 U	--	--
Acetophenone	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Anthracene	0.38 U	0.45 U	0.45 U	0.072 J	0.4 U	0.43 U	0.073 J	0.41 U	0.13 J	0.41 U	--	--
Atrazine	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Benzaldehyde	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Benzo(a)anthracene	0.021 J	0.08 J	0.45 U	0.08 J	0.4 U	0.43 U	0.04 J	0.41 U	0.41 U	0.41 U	--	--
Benzo(a)pyrene	0.033 J	0.098 J	0.45 U	0.098 J	0.024 J	0.43 U	0.084 J	0.11 J	0.11 J	0.41 U	--	--
Benzo(b)fluoranthene	0.031 J	0.11 J	0.45 U	0.19 J	0.032 J	0.43 U	0.11 J	0.11 J	0.13 J	0.41 U	--	--
Benzo(g,h,i)perylene	0.029 J	0.07 J	0.45 U	0.089 J	0.4 U	0.43 U	0.088 J	0.41 U	0.41 U	0.41 U	--	--
Benzo(k)fluoranthene	0.38 U	0.035 J	0.45 U	0.13 J	0.4 U	0.43 U	0.03 J	0.41 U	0.12 J	0.41 U	--	--
Biphenyl	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
bis(2-Chloroethoxy)methane	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
bis(2-Chloroethyl)ether	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
bis(2-Ethylhexyl)phthalate	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Butyl benzylphthalate	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Caprolactam	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Carbazole	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Chrysene	0.027 J	0.1 J	0.45 U	0.12 J	0.033 J	0.43 U	0.071 J	0.41 U	0.028 J	0.41 U	--	--
Dibenz(a,h)anthracene	0.38 U	0.45 U	0.45 U	0.082 J	0.4 U	0.43 U	0.025 J	0.41 U	0.41 U	0.41 U	--	--
Dibenzofuran	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.07 J	0.41 U	0.41 U	0.41 U	--	--
Diethyl phthalate	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Dimethyl phthalate	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Di-n-butylphthalate	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.065 J	0.37 U	0.096 J	0.095 J	0.41 U	--	--
Di-n-octyl phthalate	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Fluoranthene	0.049 J	0.22 J	0.45 U	0.22 J	0.04 J	0.43 U	0.063 J	0.14 J	0.15 J	0.41 U	--	--
Fluorene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Hexachlorobenzene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Hexachlorobutadiene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Hexachlorocyclopentadiene	1.8 U	2.2 U	2.2 U	1.8 U	2 U	2.1 U	1.8 U	2 U	2 U	2 U	--	--
Hexachloroethane	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Indeno(1,2,3-cd)pyrene	0.026 J	0.058 J	0.45 U	0.13 J	0.4 U	0.43 U	0.072 J	0.41 U	0.095 J	0.41 U	--	--
Isophorone	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Naphthalene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Nitrobenzene	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
N-Nitrosodi-n-propylamine	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
N-Nitrosodiphenylamine	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Pentachlorophenol	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Phenanthrene	0.028 J	0.11 J	0.45 U	0.14 J	0.035 J	0.43 U	0.1 J	0.13 J	0.14 J	0.41 U	--	--



**TABLE 2.1**  
**AOI 18 SOIL ANALYTICAL RESULTS SUMMARY**  
**GM POWERTRAIN BEDFORD FACILITY**  
**BEDFORD, INDIANA**

Sample Location		B-X154Y117	B-X154Y117	B-X154Y117	B-X154Y117A	B-X154Y117A	B-X154Y117A	B-X154Y117B	B-X154Y117B	B-X154Y117B	B-X154Y117B	B-X154Y117C	B-X154Y117C
Sample Identification		S-111203-JC-024	S-111203-JC-025	S-111203-JC-026	S-111203-JC-021	S-111203-JC-022	S-111203-JC-023	S-111003-JC-017	S-111003-JC-018	S-111003-JC-019	S-111003-JC-020	S-120104-DD-772	S-120104-DD-773
Sample Date		11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/12/2003	11/10/2003	11/10/2003	11/10/2003	11/10/2003	12/1/2004	12/1/2004
Sample Depth		(0-2)	(6-8)	(24-25)	(0-2)	(6-8)	(24-25)	(0-2)	(6-8)	(6-8)	(24-25)	(0-2)	(2-4)
Sample Type		Duplicate											
	Units												
Phenol	mg/kg	0.38 U	0.45 U	0.45 U	0.38 U	0.4 U	0.43 U	0.37 U	0.41 U	0.41 U	0.41 U	--	--
Pyrene	mg/kg	0.047 J	0.21 J	0.45 U	0.18 J	0.034 J	0.43 U	0.061 J	0.41 UJ	0.034 J	0.41 U	--	--
<b>Metals</b>													
Aluminum	mg/Kg	6770	13700	4950	633	9760	6500	6920	7800	4540	8050	--	--
Antimony	mg/Kg	6.9 UJ	1.1 J	8.1 UJ	6.9 UJ	1.6 J	0.56 J	6.7 UJ	0.75 J	0.95 J	0.28 J	--	--
Arsenic	mg/kg	3.9	5.7	5.9	2.3	7.8	4.0	5.7	4.8	5.3	6.7	--	--
Barium	mg/kg	31.9	41.8	13.5 J	14.9 J	57.7	25.0 J	121	45.3	43.1	58.1	--	--
Beryllium	mg/kg	0.21 J	0.85	2.7	0.58 U	0.60 J	1.1	0.097 J	0.32 J	0.27 J	3.8	--	--
Cadmium	mg/Kg	0.22 J	0.17 J	0.42 J	0.84	0.49 J	0.37 J	0.99	0.37 J	0.50 J	0.68	--	--
Chromium Total	mg/kg	213 J	28.6 J	11.2 J	5.1 J	19.3 J	26.9 J	248 J	13.4 J	15.0 J	44.2 J	--	--
Cobalt	mg/kg	346	12.3	0.80 J	4.2 J	9.8	7.4	3.3 J	3.2 J	3.6.8	--	--	
Copper	mg/Kg	30.1	53.7	17.5	16.3	41.0	14.0	86.7	24.5	24.7	17.7	--	--
Iron	mg/kg	11600	29500	12800	3370	26200	17300	14500	15400	15100	29100	--	--
Lead	mg/Kg	28.1 J	15.4 J	12.0 J	21.0 J	73.6 J	13.7 J	213 J	33.9 J	39.4 J	36.8 J	--	--
Manganese	mg/kg	98.4 J	53.7 J	308 J	69.6 J	198 J	408 J	464 J	68.2 J	152 J	1170 J	--	--
Mercury	mg/kg	0.23	0.039 J	0.12 J	0.042 J	0.049 J	0.053 J	1.1	0.043 J	0.048 J	0.027 J	--	--
Nickel	mg/kg	35.1	22.1	55.8	3.0 J	10.8	27.3	26.2	7.1	6.0	65.4	--	--
Selenium	mg/kg	0.57 U	0.63 J	0.68 U	0.61 U	0.58 U	0.65 U	2.5	0.62 U	0.62 U	0.63 U	--	--
Silver	mg/kg	1.1 U	1.4 U	1.4 U	1.2 U	1.2 U	1.3 U	0.33 J	1.2 U	1.2 U	1.3 U	--	--
Thallium	mg/kg	2.0	1.4 U	0.61 J	1.2 U	1.2 U	1.3 U	1.1	1.2 U	1.2 U	1.3 U	--	--
Vanadium	mg/kg	18.6	30.8	14.0	3.7 J	29.7	25.3	15.4	21.7	20.0	35.9	--	--
Zinc	mg/kg	43.1 J	111 J	46.5 J	80.4 J	96.4 J	43.8 J	241 J	73.7 J	81.6 J	88.5 J	--	--
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.038 U	0.045 U	0.045 U	0.038 U	0.04 UJ	0.043 U	0.037 U	0.041 U	0.041 U	0.041 U	20 U	0.04 U
Aroclor-1221 (PCB-1221)	mg/kg	0.038 U	0.045 U	0.045 U	0.038 U	0.04 UJ	0.043 U	0.037 U	0.041 U	0.041 U	0.041 U	20 U	0.04 U
Aroclor-1232 (PCB-1232)	mg/kg	0.038 U	0.045 U	0.045 U	0.038 U	0.04 UJ	0.043 U	0.037 U	0.041 U	0.041 U	0.041 U	20 U	0.04 U
Aroclor-1242 (PCB-1242)	mg/kg	0.038 U	0.045 U	0.045 U	0.038 U	0.04 UJ	0.043 U	0.037 U	0.041 U	0.041 U	0.041 U	140	0.075
Aroclor-1248 (PCB-1248)	mg/kg	0.079	0.045 U	0.045 U	0.019 J	0.04 UJ	0.043 U	0.018 J	0.041 U	0.041 U	0.041 U	20 U	0.04 U
Aroclor-1254 (PCB-1254)	mg/kg	0.038 U	0.045 U	0.045 U	0.038 U	0.04 UJ	0.043 U	0.037 U	0.041 U	0.041 U	0.041 U	20 U	0.04 U
Aroclor-1260 (PCB-1260)	mg/kg	0.038 U	0.045 U	0.045 U	0.038 U	0.04 UJ	0.043 U	0.037 U	0.041 U	0.041 U	0.041 U	20 U	0.04 U
Total PCBs	mg/kg	0.079	0	0	0.019 J	0	0	0.018 J	0	0	0	140	0.075
<b>Wet</b>													
Cyanide (amenable)	mg/kg	0.57 U	0.68 U	0.68 U	0.58 U	0.61 U	0.65 U	0.56 U	0.62 U	0.62 U	0.63 U	--	--
Cyanide (total)	mg/Kg	0.57 U	0.68 U	0.68 U	0.58 U	0.61 U	0.65 U	0.56 U	0.62 U	0.62 U	0.63 U	--	--
Total Solids	%	87.4	73.7	74.0	86.7	81.8	77.4	89.5	80.3	80.9	79.7	82.7	82.9

Notes:  
 U - Not present at or above the associated value.  
 J - Estimated concentration.  
 UJ - Estimated reporting limit.

TABLE 2.1

AOI 18 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Location	B-XI54Y17D	B-XI54Y17D	B-XI54Y17E	B-XI54Y17E	SS-XI49Y126	SS-XI54Y117	SS-XI54Y117F	SS-XI54Y117G	SS-XI54Y117H	SS-XI54Y117I
Sample Identification	S-120204-DD-776	S-120204-DD-777	S-120204-DD-774	S-120204-DD-775	SS-012802-MG-002	SS-012802-MG-003	S-AOI18-082806-AH-11941	S-AOI18-082806-AH-11940	S-AOI18-082906-GD-11951	S-AOI18-082906-GD-11950
Sample Date	12/2/2004	12/2/2004	12/2/2004	12/2/2004	1/28/2002	1/28/2002	8/28/2006	8/28/2006	8/29/2006	8/29/2006
Sample Depth	(0-2)	(2-4)	(0-2)	(2-4)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Sample Type										
	Units									
<i>Volatile Organic Compounds</i>										
1,1,1-Trichloroethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,1,2,2-Tetrachloroethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,1,2-Trichloroethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,1-Dichloroethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,1-Dichloroethene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,2,4-Trichlorobenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	--	--	--	0.016 U	0.011 U	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,2-Dichlorobenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,2-Dichloroethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,2-Dichloropropane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,3-Dichlorobenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
1,4-Dichlorobenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	mg/kg	--	--	--	0.032 U	0.022 U	--	--	--	--
2-Hexanone	mg/kg	--	--	--	0.032 U	0.022 U	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	--	--	--	0.032 U	0.022 U	--	--	--	--
Acetone	mg/kg	--	--	--	0.032 UJ	0.022 UJ	--	--	--	--
Benzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Bromodichloromethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Bromoform	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Bromomethane (Methyl Bromide)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Carbon disulfide	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Carbon tetrachloride	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Chlorobenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Chloroethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Chloroform (Trichloromethane)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Chloromethane (Methyl Chloride)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
cis-1,2-Dichloroethene	mg/kg	--	--	--	0.004 U	0.0028 U	--	--	--	--
cis-1,3-Dichloropropene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Cyclohexane	mg/kg	--	--	--	0.016 U	0.011 U	--	--	--	--
Dibromochloromethane	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Dichlorodifluoromethane (CFC-12)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Ethylbenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Isopropylbenzene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Methyl acetate	mg/kg	--	--	--	0.016 U	0.0026 J	--	--	--	--
Methyl cyclohexane	mg/kg	--	--	--	0.016 U	0.011 U	--	--	--	--
Methyl Tert Butyl Ether	mg/kg	--	--	--	0.032 U	0.022 U	--	--	--	--
Methylene chloride	mg/kg	--	--	--	0.004 J	0.0073	--	--	--	--
Styrene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Tetrachloroethene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Toluene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
trans-1,2-Dichloroethene	mg/kg	--	--	--	0.004 U	0.0028 U	--	--	--	--
trans-1,3-Dichloropropene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Trichloroethene	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Trichlorofluoromethane (CFC-11)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Trifluorotrichloroethane (Freon 113)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Vinyl chloride	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
Xylene (total)	mg/kg	--	--	--	0.0079 U	0.0056 U	--	--	--	--
<i>Semi-Volatile Organic Compounds</i>										
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	--	--	--	0.44 U	0.36 U	--	--	--	--
2,4,5-Trichlorophenol	mg/kg	--	--	--	0.44 U	0.36 U	--	--	--	--
2,4,6-Trichlorophenol	mg/kg	--	--	--	0.44 U	0.36 U	--	--	--	--
2,4-Dichlorophenol	mg/kg	--	--	--	0.44 U	0.36 U	--	--	--	--
2,4-Dimethylphenol	mg/kg	--	--	--	0.44 U	0.36 U	--	--	--	--

TABLE 2.1

AOI 18 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Location	B-XI54Y117D	B-XI54Y117D	B-XI54Y117E	B-XI54Y117E	SS-XI49Y126	SS-XI54Y117	SS-XI54Y117F	SS-XI54Y117G	SS-XI54Y117H	SS-XI54Y117I
Sample Identification	S-120204-DD-776	S-120204-DD-777	S-120204-DD-774	S-120204-DD-775	SS-012802-MG-002	SS-012802-MG-003	S-AOI18-082806-AH-11941	S-AOI18-082806-AH-11940	S-AOI18-082906-GD-11951	S-AOI18-082906-GD-11950
Sample Date	12/2/2004	12/2/2004	12/2/2004	12/2/2004	1/28/2002	1/28/2002	8/28/2006	8/28/2006	8/29/2006	8/29/2006
Sample Depth	(0-2)	(2-4)	(0-2)	(2-4)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Sample Type										
	<i>Units</i>									
2,4-Dinitrophenol	--	--	--	--	2.1 U	1.7 U	--	--	--	--
2,4-Dinitrotoluene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
2,6-Dinitrotoluene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
2-Chloronaphthalene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
2-Chlorophenol	--	--	--	--	0.44 U	0.36 U	--	--	--	--
2-Methylnaphthalene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
2-Methylphenol	--	--	--	--	0.44 U	0.36 U	--	--	--	--
2-Nitroaniline	--	--	--	--	2.1 U	1.7 U	--	--	--	--
2-Nitrophenol	--	--	--	--	0.44 U	0.36 U	--	--	--	--
3,3'-Dichlorobenzidine	--	--	--	--	2.1 U	1.7 U	--	--	--	--
3-Nitroaniline	--	--	--	--	2.1 U	1.7 U	--	--	--	--
4,6-Dinitro-2-methylphenol	--	--	--	--	2.1 U	1.7 U	--	--	--	--
4-Bromophenyl phenyl ether	--	--	--	--	0.44 U	0.36 U	--	--	--	--
4-Chloro-3-methylphenol	--	--	--	--	0.44 U	0.36 U	--	--	--	--
4-Chloroaniline	--	--	--	--	0.44 U	0.36 U	--	--	--	--
4-Chlorophenyl phenyl ether	--	--	--	--	0.44 U	0.36 U	--	--	--	--
4-Methylphenol	--	--	--	--	0.44 U	0.36 U	--	--	--	--
4-Nitroaniline	--	--	--	--	2.1 U	1.7 U	--	--	--	--
4-Nitrophenol	--	--	--	--	2.1 U	1.7 U	--	--	--	--
Acenaphthene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Acenaphthylene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Acetophenone	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Anthracene	--	--	--	--	0.44 U	0.069 J	--	--	--	--
Atrazine	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Benzaldehyde	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Benzo(a)anthracene	--	--	--	--	0.44 U	0.21 J	--	--	--	--
Benzo(a)pyrene	--	--	--	--	0.44 U	0.2 J	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	0.44 U	0.32 J	--	--	--	--
Benzo(g,h,i)perylene	--	--	--	--	0.44 U	0.13 J	--	--	--	--
Benzo(k)fluoranthene	--	--	--	--	0.44 U	0.21 J	--	--	--	--
Biphenyl	--	--	--	--	0.44 U	0.36 U	--	--	--	--
bis(2-Chloroethoxy)methane	--	--	--	--	0.44 U	0.36 U	--	--	--	--
bis(2-Chloroethyl)ether	--	--	--	--	0.44 U	0.36 U	--	--	--	--
bis(2-Ethylhexyl)phthalate	--	--	--	--	0.44 U	0.12 J	--	--	--	--
Butyl benzylphthalate	--	--	--	--	0.44 U	0.12 J	--	--	--	--
Caprolactam	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Carbazole	--	--	--	--	0.44 U	0.057 J	--	--	--	--
Chrysene	--	--	--	--	0.44 U	0.2 J	--	--	--	--
Dibenz(a,h)anthracene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Dibenzofuran	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Diethyl phthalate	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Dimethyl phthalate	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Di-n-butylphthalate	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Di-n-octyl phthalate	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Fluoranthene	--	--	--	--	0.44 U	0.36	--	--	--	--
Fluorene	--	--	--	--	0.44 UJ	0.36 UJ	--	--	--	--
Hexachlorobenzene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Hexachlorobutadiene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Hexachlorocyclopentadiene	--	--	--	--	2.1 UJ	1.7 UJ	--	--	--	--
Hexachloroethane	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	--	--	0.44 U	0.12 J	--	--	--	--
Isophorone	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Naphthalene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Nitrobenzene	--	--	--	--	0.44 U	0.36 U	--	--	--	--
N-Nitrosodi-n-propylamine	--	--	--	--	0.44 U	0.36 U	--	--	--	--
N-Nitrosodiphenylamine	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Pentachlorophenol	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Phenanthrene	--	--	--	--	0.44 U	0.17 J	--	--	--	--

**TABLE 2.1**  
**AOI 18 SOIL ANALYTICAL RESULTS SUMMARY**  
**GM POWERTRAIN BEDFORD FACILITY**  
**BEDFORD, INDIANA**

Sample Location		B-X154Y117D	B-X154Y117D	B-X154Y117E	B-X154Y117E	SS-X149Y126	SS-X154Y117	SS-X154Y117F	SS-X154Y117G	SS-X154Y117H	SS-X154Y117I
Sample Identification		S-120204-DD-776	S-120204-DD-777	S-120204-DD-774	S-120204-DD-775	SS-012802-MG-002	SS-012802-MG-003	S-AO118-082806-AH-11941	S-AO118-082806-AH-11940	S-AO118-082906-GD-11951	S-AO118-082906-GD-11950
Sample Date		12/2/2004	12/2/2004	12/2/2004	12/2/2004	1/28/2002	1/28/2002	8/28/2006	8/28/2006	8/29/2006	8/29/2006
Sample Depth		(0-2)	(2-4)	(0-2)	(2-4)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)	(0-2)
Sample Type											
	<i>Units</i>										
Phenol	mg/kg	--	--	--	--	0.44 U	0.36 U	--	--	--	--
Pyrene	mg/kg	--	--	--	--	0.44 U	0.28 J	--	--	--	--
<b>Metals</b>											
Aluminum	mg/Kg	--	--	--	--	16300	9700	--	--	--	--
Antimony	mg/Kg	--	--	--	--	1.2 J	1.1 J	--	--	--	--
Arsenic	mg/kg	--	--	--	--	11.3	8.3	--	--	--	--
Barium	mg/kg	--	--	--	--	38.0	40.4	--	--	--	--
Beryllium	mg/kg	--	--	--	--	0.37 J	0.51 J	--	--	--	--
Cadmium	mg/Kg	--	--	--	--	0.67 U	1.2	--	--	--	--
Chromium Total	mg/kg	--	--	--	--	61.9	117	--	--	--	--
Cobalt	mg/kg	--	--	--	--	2.4 J	70.3	--	--	--	--
Copper	mg/Kg	--	--	--	--	14.2	224	--	--	--	--
Iron	mg/kg	--	--	--	--	53200	32900	--	--	--	--
Lead	mg/Kg	--	--	--	--	24.4	67.1	--	--	--	--
Manganese	mg/kg	--	--	--	--	43.3	266	--	--	--	--
Mercury	mg/kg	--	--	--	--	0.13 U	0.15	--	--	--	--
Nickel	mg/kg	--	--	--	--	11.7	312	--	--	--	--
Selenium	mg/kg	--	--	--	--	1.7	0.90	--	--	--	--
Silver	mg/kg	--	--	--	--	1.3 U	1.1 U	--	--	--	--
Thallium	mg/kg	--	--	--	--	1.3 U	1.1 U	--	--	--	--
Vanadium	mg/kg	--	--	--	--	106	16.2	--	--	--	--
Zinc	mg/kg	--	--	--	--	43.2	315	--	--	--	--
<b>PCBs</b>											
Aroclor-1016 (PCB-1016)	mg/kg	0.41 U	0.042 U	0.76 U	0.04 U	0.044 U	1.8 U	0.39 U	0.79 U	0.73 U	0.8 U
Aroclor-1221 (PCB-1221)	mg/kg	0.41 U	0.042 U	0.76 U	0.04 U	0.044 U	1.8 U	0.39 U	0.79 U	0.73 U	0.8 U
Aroclor-1232 (PCB-1232)	mg/kg	0.41 U	0.042 U	0.76 U	0.04 U	0.044 U	1.8 U	0.39 U	0.79 U	0.73 U	0.8 U
Aroclor-1242 (PCB-1242)	mg/kg	0.41 U	0.042 U	0.76 U	0.04 U	0.044 U	1.8 U	0.39 U	0.79 U	0.73 U	0.8 U
Aroclor-1248 (PCB-1248)	mg/kg	1.4	0.13	5.2	0.023 J	0.044 U	17	4.7	10	8.4	12
Aroclor-1254 (PCB-1254)	mg/kg	0.41 U	0.042 U	0.76 U	0.04 U	0.044 U	1.8 U	0.39 U	0.79 U	0.73 U	0.8 U
Aroclor-1260 (PCB-1260)	mg/kg	0.39 J	0.022 J	0.75 J	0.04 U	0.044 U	1.8 U	1.2	1.7	0.83	1.4
Total PCBs	mg/kg	1.79 J	0.152 J	5.95 J	0.023 J	0	17	5.9	11.7	9.23	13.4
<b>Wet</b>											
Cyanide (amenable)	mg/kg	--	--	--	--	0.67 U	0.54 U				
Cyanide (total)	mg/Kg	--	--	--	--	0.67 U	0.54 U				
Total Solids	%	80.2	78.3	86.8	81.6	74.9	91.9	83.7	83.1	90.8	82.5

Notes:  
 U - Not present at or above the associated value.  
 J - Estimated concentration.  
 UJ - Estimated reporting limit.

TABLE 2.2

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	
Sample Location:	B-X129Y247	B-X129Y247	B-X129Y247A	B-X129Y247A	B-X129Y247A	B-X129Y247B	B-X129Y247B	B-X129Y247B	B-X129Y247B	B-X129Y247B	B-X129Y247C	B-X129Y247C	B-X129Y247D	
Sample ID:	S-041404-JC-063	S-041404-JC-064	S-102504-JC-285	S-102504-JC-286	S-102504-JC-287	S-102504-JC-290	S-102504-JC-291	S-102504-JC-292	S-102504-JC-293	S-102504-JC-296	S-102504-JC-297	S-102504-JC-298	S-102504-JC-302	
Sample Date:	4/14/2004	4/14/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	
Sample Depth:	(0-2) ft (orig)	(6-8) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(0-2) ft (orig)	
Parameters	Units													
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	19 U	0.042 U	0.04 U	0.036 UJ	0.04 U	0.2 U	0.038 U	0.075 U	0.044 U	0.19 U	0.04 U	0.042 U	0.04 U
Aroclor-1221 (PCB-1221)	mg/kg	19 U	0.042 U	0.04 U	0.036 UJ	0.04 U	0.2 U	0.038 U	0.075 U	0.044 U	0.19 U	0.04 U	0.042 U	0.04 U
Aroclor-1232 (PCB-1232)	mg/kg	19 U	0.042 U	0.04 U	0.036 UJ	0.04 U	0.2 U	0.038 U	0.075 U	0.044 U	0.19 U	0.04 U	0.042 U	0.04 U
Aroclor-1242 (PCB-1242)	mg/kg	19 U	0.042 U	0.04 U	0.036 UJ	0.04 U	0.2 U	0.038 U	0.075 U	0.044 U	0.19 U	0.04 U	0.042 U	0.04 U
Aroclor-1248 (PCB-1248)	mg/kg	19 U	0.042 U	0.04 U	0.036 UJ	0.04 U	0.2 U	0.038 U	0.075 U	0.044 U	0.19 U	0.04 U	0.042 U	0.04 U
Aroclor-1254 (PCB-1254)	mg/kg	67	0.042 U	0.22	0.036 UJ	0.04 U	0.85	0.26	0.075 U	0.044 U	1.4	0.04 U	0.042 U	0.074
Aroclor-1260 (PCB-1260)	mg/kg	19 U	0.042 U	0.04 U	0.0094 J	0.04 U	0.2 U	0.038 U	0.28	0.044 U	0.19 U	0.04 U	0.042 U	0.04 U
<b>General Chemistry</b>														
Total Solids	%	86.8	78.3	81.8	92.7	83.0	84.3	86.9	88.2	74.6	86.8	83.1	78.3	82.2

TABLE 2.2

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	
Sample Location:	B-X129Y247D	B-X129Y247D	B-X129Y247E	B-X129Y247E	B-X129Y247E	B-X129Y247F	B-X129Y247F	B-X129Y247F	B-X129Y247G	B-X129Y247G	B-X129Y247G	B-X129Y247G	B-X129Y247G	
Sample ID:	S-102504-JC-303	S-102504-JC-304	S-102504-JC-307	S-102504-JC-308	S-102504-JC-309	S-102504-JC-313	S-102504-JC-314	S-102504-JC-315	S-102504-JC-317	S-102504-JC-318	S-102504-JC-319	S-102504-JC-320	S-102504-JC-321	
Sample Date:	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	10/25/2004	
Sample Depth:	(2-4) ft	(4-6) ft	(0-2) ft	(2-4) ft	(4-6) ft	(0-2) ft	(2-4) ft	(4-6) ft	(0-2) ft	(2-4) ft	(2-4) ft	(4-6) ft	(6-8) ft	
	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(Duplicate)	(orig)	
<b>Parameters</b>														
	<b>Units</b>													
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	0.077 U	0.042 U	0.039 U	0.036 U	0.043 U	0.079 U	0.071 U	0.07 U	0.076 U	0.073 U	0.037 U	0.039 U	0.042 U
Aroclor-1221 (PCB-1221)	mg/kg	0.077 U	0.042 U	0.039 U	0.036 U	0.043 U	0.079 U	0.071 U	0.07 U	0.076 U	0.073 U	0.037 U	0.039 U	0.042 U
Aroclor-1232 (PCB-1232)	mg/kg	0.077 U	0.042 U	0.039 U	0.036 U	0.043 U	0.079 U	0.071 U	0.07 U	0.076 U	0.073 U	0.037 U	0.039 U	0.042 U
Aroclor-1242 (PCB-1242)	mg/kg	0.077 U	0.042 U	0.039 U	0.036 U	0.043 U	0.079 U	0.071 U	0.07 U	0.076 U	0.073 U	0.037 U	0.039 U	0.042 U
Aroclor-1248 (PCB-1248)	mg/kg	0.077 U	0.042 U	0.039 U	0.036 U	0.043 U	0.7	0.071 U	0.07 U	0.076 U	0.073 U	0.037 U	0.039 U	0.042 U
Aroclor-1254 (PCB-1254)	mg/kg	0.66	0.042 U	0.084	0.036 U	0.043 U	0.079 U	0.071 U	0.07 U	0.6	0.073 U	0.037 U	0.039 U	0.042 U
Aroclor-1260 (PCB-1260)	mg/kg	0.077 U	0.042 U	0.039 U	0.16	0.043 U	0.18	0.23	0.34	0.076 U	0.55	0.11	0.039 U	0.042 U
<b>General Chemistry</b>														
Total Solids	%	85.9	77.8	84.0	91.8	76.6	83.8	92.3	93.9	87.1	90.8	89.1	85.5	77.9

TABLE 2.2

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1	
Sample Location:	B-X129Y247G	B-X129Y247H	B-X129Y247H	B-X129Y247H	B-X129Y247H	B-X129Y247I	B-X129Y247I	B-X129Y247I	B-X129Y247I	B-X129Y247J	B-X129Y247J	B-X129Y247K	B-X129Y247K	
Sample ID:	S-102504-JC-322	S-102604-JC-323	S-102604-JC-324	S-102604-JC-325	S-102604-JC-326	S-102604-JC-329	S-102604-JC-330	S-102604-JC-331	S-102604-JC-334	S-102604-JC-335	S-102604-JC-336	S-102604-JC-339	S-102604-JC-340	
Sample Date:	10/25/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	
Sample Depth:	(8-10) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(4-6) ft (Duplicate)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	
Parameters	Units													
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	0.042 U	0.076 U	0.071 U	0.072 U	0.041 U	0.038 U	0.037 U	0.041 U	0.078 U	0.073 U	0.042 U	0.19 U	0.19 U
Aroclor-1221 (PCB-1221)	mg/kg	0.042 U	0.076 U	0.071 U	0.072 U	0.041 U	0.038 U	0.037 U	0.041 U	0.078 U	0.073 U	0.042 U	0.19 U	0.19 U
Aroclor-1232 (PCB-1232)	mg/kg	0.042 U	0.076 U	0.071 U	0.072 U	0.041 U	0.038 U	0.037 U	0.041 U	0.078 U	0.073 U	0.042 U	0.19 U	0.19 U
Aroclor-1242 (PCB-1242)	mg/kg	0.023 J	0.076 U	0.071 U	0.072 U	0.041 U	0.038 U	0.037 U	0.041 U	0.078 U	0.073 U	0.042 U	0.19 U	0.19 U
Aroclor-1248 (PCB-1248)	mg/kg	0.042 U	0.43	0.071 U	0.072 U	0.041 U	0.038 U	0.037 U	0.041 U	0.078 U	0.073 U	0.042 U	0.19 U	0.19 U
Aroclor-1254 (PCB-1254)	mg/kg	0.042 U	0.076 U	0.34	0.39	0.041 U	0.2	0.037 U	0.041 U	0.86	0.073 U	0.042 U	1	1.1
Aroclor-1260 (PCB-1260)	mg/kg	0.042 U	0.22	0.071 U	0.072 U	0.057	0.038 U	0.18	0.041 U	0.078 U	0.14	0.042 U	0.19 U	0.19 U
<b>General Chemistry</b>														
Total Solids	%	78.0	87.0	92.6	92.0	81.0	86.3	90.0	80.7	84.8	90.9	78.3	87.3	84.7

TABLE 2.2

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-1	A021-1	A021-1	A021-1	A021-1	A021-1
Sample Location:	B-X129Y247K	B-X129Y247K	B-X129Y247L	B-X129Y247L	B-X129Y247L	B-X129Y247L
Sample ID:	S-102604-JC-341	S-102604-JC-342	S-102604-JC-345	S-102604-JC-346	S-102604-JC-347	S-102604-JC-348
Sample Date:	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004
Sample Depth:	(2-4) ft (Duplicate)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)
Parameters	Units					
<b>PCBs</b>						
Aroclor-1016 (PCB-1016)	mg/kg	0.19 U	0.19 U	0.081 U	0.36 U	0.039 U
Aroclor-1221 (PCB-1221)	mg/kg	0.19 U	0.19 U	0.081 U	0.36 U	0.039 U
Aroclor-1232 (PCB-1232)	mg/kg	0.19 U	0.19 U	0.081 U	0.36 U	0.039 U
Aroclor-1242 (PCB-1242)	mg/kg	0.19 U	0.19 U	0.081 U	0.36 U	0.039 U
Aroclor-1248 (PCB-1248)	mg/kg	0.19 U	0.19 U	0.081 U	0.36 U	0.039 U
Aroclor-1254 (PCB-1254)	mg/kg	0.89	0.1 J	0.81	2.1	0.039 U
Aroclor-1260 (PCB-1260)	mg/kg	0.19 U	0.19 U	0.081 U	0.36 U	0.039 U
<b>General Chemistry</b>						
Total Solids	%	87.8	87.4	81.0	92.2	85.5



TABLE 2.3

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY - VOCs, SVOCs, AND METALS  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

<i>Sample Area:</i>	A021-1	A021-1
<i>Sample Location:</i>	B-X129Y247	B-X129Y247
<i>Sample ID:</i>	S-041404-JC-063	S-041404-JC-064
<i>Sample Date:</i>	4/14/2004	4/14/2004
<i>Sample Depth:</i>	(0-2) ft	(6-8) ft
	(orig)	(orig)

<i>Parameters</i>	<i>Units</i>		
<i>Volatile Organic Compounds</i>			
1,1,1-Trichloroethane	mg/kg	0.0066 U	0.0052 U
1,1,2,2-Tetrachloroethane	mg/kg	0.0066 U	0.0052 U
1,1,2-Trichloroethane	mg/kg	0.0066 U	0.0052 U
1,1-Dichloroethane	mg/kg	0.0066 U	0.0052 U
1,1-Dichloroethene	mg/kg	0.0066 U	0.0052 U
1,2,4-Trichlorobenzene	mg/kg	0.0066 U	0.0052 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.013 U	0.01 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.0066 U	0.0052 U
1,2-Dichlorobenzene	mg/kg	0.0066 U	0.0052 U
1,2-Dichloroethane	mg/kg	0.0066 U	0.0052 U
1,2-Dichloropropane	mg/kg	0.0066 U	0.0052 U
1,3-Dichlorobenzene	mg/kg	0.0066 U	0.0052 U
1,4-Dichlorobenzene	mg/kg	0.0066 U	0.0052 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	0.026 U	0.021 U
2-Hexanone	mg/kg	0.026 U	0.021 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	0.026 U	0.021 U
Acetone	mg/kg	0.026 U	0.0079 J
Benzene	mg/kg	0.0066 U	0.0052 U
Bromodichloromethane	mg/kg	0.0066 U	0.0052 U
Bromoform	mg/kg	0.0066 U	0.0052 U
Bromomethane (Methyl Bromide)	mg/kg	0.0066 U	0.0052 U
Carbon disulfide	mg/kg	0.0066 U	0.0052 U
Carbon tetrachloride	mg/kg	0.0066 U	0.0052 U
Chlorobenzene	mg/kg	0.0066 U	0.0052 U
Chloroethane	mg/kg	0.0066 U	0.0052 U
Chloroform (Trichloromethane)	mg/kg	0.0066 U	0.0052 U
Chloromethane (Methyl Chloride)	mg/kg	0.0066 U	0.0052 U
cis-1,2-Dichloroethene	mg/kg	0.0033 U	0.0026 U
cis-1,3-Dichloropropene	mg/kg	0.0066 U	0.0052 U
Cyclohexane	mg/kg	0.013 U	0.01 U
Dibromochloromethane	mg/kg	0.0066 U	0.0052 U
Dichlorodifluoromethane (CFC-12)	mg/kg	0.0066 U	0.0052 U
Ethylbenzene	mg/kg	0.0066 U	0.0052 U
Isopropylbenzene	mg/kg	0.0066 U	0.0052 U
Methyl acetate	mg/kg	0.013 U	0.01 U
Methyl cyclohexane	mg/kg	0.013 U	0.01 U
Methyl Tert Butyl Ether	mg/kg	0.026 U	0.021 U
Methylene chloride	mg/kg	0.0022 J	0.0013 J
Styrene	mg/kg	0.0066 U	0.0052 U
Tetrachloroethene	mg/kg	0.0066 U	0.0052 U
Toluene	mg/kg	0.0066 U	0.0052 U
trans-1,2-Dichloroethene	mg/kg	0.0033 U	0.0026 U
trans-1,3-Dichloropropene	mg/kg	0.0066 U	0.0052 U
Trichloroethene	mg/kg	0.0066 U	0.0052 U
Trichlorofluoromethane (CFC-11)	mg/kg	0.0066 U	0.0052 U
Trifluorotrchloroethane (Freon 113)	mg/kg	0.0066 U	0.0052 U
Vinyl chloride	mg/kg	0.0066 U	0.0052 U
Xylene (total)	mg/kg	0.0066 U	0.0052 U
<i>Semi-Volatile Organic Compounds</i>			
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	3.8 U	0.42 U
2,4,5-Trichlorophenol	mg/kg	3.8 U	0.42 U

TABLE 2.3

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY - VOCs, SVOCs, AND METALS  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-1	A021-1
Sample Location:	B-X129Y247	B-X129Y247
Sample ID:	S-041404-JC-063	S-041404-JC-064
Sample Date:	4/14/2004	4/14/2004
Sample Depth:	(0-2) ft	(6-8) ft
	(orig)	(orig)
Parameters	Units	
2,4,6-Trichlorophenol	mg/kg	3.8 U
2,4-Dichlorophenol	mg/kg	3.8 U
2,4-Dimethylphenol	mg/kg	3.8 U
2,4-Dinitrophenol	mg/kg	18 U
2,4-Dinitrotoluene	mg/kg	3.8 U
2,6-Dinitrotoluene	mg/kg	3.8 U
2-Chloronaphthalene	mg/kg	3.8 U
2-Chlorophenol	mg/kg	3.8 U
2-Methylnaphthalene	mg/kg	3.8 U
2-Methylphenol	mg/kg	3.8 U
2-Nitroaniline	mg/kg	18 U
2-Nitrophenol	mg/kg	3.8 U
3,3'-Dichlorobenzidine	mg/kg	18 U
3-Nitroaniline	mg/kg	18 U
4,6-Dinitro-2-methylphenol	mg/kg	18 U
4-Bromophenyl phenyl ether	mg/kg	3.8 U
4-Chloro-3-methylphenol	mg/kg	3.8 U
4-Chloroaniline	mg/kg	3.8 U
4-Chlorophenyl phenyl ether	mg/kg	3.8 U
4-Methylphenol	mg/kg	3.8 U
4-Nitroaniline	mg/kg	18 U
4-Nitrophenol	mg/kg	18 U
Acenaphthene	mg/kg	3.8 U
Acenaphthylene	mg/kg	3.8 U
Acetophenone	mg/kg	3.8 U
Anthracene	mg/kg	3.8 U
Atrazine	mg/kg	3.8 U
Benzaldehyde	mg/kg	3.8 U
Benzo(a)anthracene	mg/kg	3.8 U
Benzo(a)pyrene	mg/kg	3.8 U
Benzo(b)fluoranthene	mg/kg	3.8 U
Benzo(g,h,i)perylene	mg/kg	3.8 U
Benzo(k)fluoranthene	mg/kg	3.8 U
Biphenyl	mg/kg	3.8 U
bis(2-Chloroethoxy)methane	mg/kg	3.8 U
bis(2-Chloroethyl)ether	mg/kg	3.8 U
bis(2-Ethylhexyl)phthalate	mg/kg	3.8 U
Butyl benzylphthalate	mg/kg	3.8 U
Caprolactam	mg/kg	3.8 U
Carbazole	mg/kg	3.8 U
Chrysene	mg/kg	3.8 U
Dibenz(a,h)anthracene	mg/kg	3.8 U
Dibenzofuran	mg/kg	3.8 U
Diethyl phthalate	mg/kg	3.8 U
Dimethyl phthalate	mg/kg	3.8 U
Di-n-butylphthalate	mg/kg	3.8 U
Di-n-octyl phthalate	mg/kg	3.8 U
Fluoranthene	mg/kg	3.8 U
Fluorene	mg/kg	3.8 U
Hexachlorobenzene	mg/kg	3.8 U
Hexachlorobutadiene	mg/kg	3.8 U
Hexachlorocyclopentadiene	mg/kg	18 U
Hexachloroethane	mg/kg	3.8 U
Indeno(1,2,3-cd)pyrene	mg/kg	3.8 U
Isophorone	mg/kg	3.8 U
Naphthalene	mg/kg	3.8 U

TABLE 2.3

AOI 21 AREA 1 SOIL ANALYTICAL RESULTS SUMMARY - VOCs, SVOCs, AND METALS  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

<i>Sample Area:</i>	A021-1	A021-1
<i>Sample Location:</i>	B-X129Y247	B-X129Y247
<i>Sample ID:</i>	S-041404-JC-063	S-041404-JC-064
<i>Sample Date:</i>	4/14/2004	4/14/2004
<i>Sample Depth:</i>	(0-2) ft (orig)	(6-8) ft (orig)
<b>Parameters</b>		
	<b>Units</b>	
Nitrobenzene	mg/kg	3.8 U
N-Nitrosodi-n-propylamine	mg/kg	3.8 U
N-Nitrosodiphenylamine	mg/kg	3.8 U
Pentachlorophenol	mg/kg	3.8 U
Phenanthrene	mg/kg	3.8 U
Phenol	mg/kg	3.8 U
Pyrene	mg/kg	3.8 U
<b>Metals</b>		
Aluminum	mg/kg	9190
Antimony	mg/kg	6.9 U
Arsenic	mg/kg	2.1
Barium	mg/kg	19.3 J
Beryllium	mg/kg	0.58 U
Cadmium	mg/kg	0.28 J
Chromium Total	mg/kg	39.9
Cobalt	mg/kg	13.2
Copper	mg/kg	218
Iron	mg/kg	5160
Lead	mg/kg	42.7
Manganese	mg/kg	128
Mercury	mg/kg	6.6
Nickel	mg/kg	137
Selenium	mg/kg	0.37 J
Silver	mg/kg	0.33 J
Thallium	mg/kg	1.2 U
Vanadium	mg/kg	7.4
Zinc	mg/kg	68.8
<b>General Chemistry</b>		
Cyanide (amenable)	mg/kg	0.58 U
Cyanide (total)	mg/kg	0.58 U

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2		A021-2		A021-2		A021-2		A021-2		A021-2		A021-2	
Sample Location:	B-X143Y193AA		B-X143Y193AA		B-X143Y193AA		B-X143Y193AA		B-X143Y193AA		B-X143Y193AB		B-X143Y193AB	
Sample ID:	S-112204-DD-690		S-112204-DD-691		S-112204-DD-692		S-112204-DD-693		S-112204-DD-694		S-112204-DD-695		S-112304-DD-700	
Sample Date:	11/22/2004		11/22/2004		11/22/2004		11/22/2004		11/22/2004		11/22/2004		11/23/2004	
Sample Depth:	(0-0.5) ft		(1-2) ft		(2-4) ft		(4-6) ft		(6-8) ft		(8-10) ft		(10-12) ft	
	(orig)		(orig)		(orig)		(orig)		(orig)		(orig)		(orig)	
Parameters	Units													
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	20 U	2.1 U	0.8 U	3.7 U	0.041 U	0.04 U	0.042 U	0.043 U	8.1 U	8.1 U	1.9 U	20 U	
Aroclor-1221 (PCB-1221)	mg/kg	20 U	2.1 U	0.8 U	3.7 U	0.041 U	0.04 U	0.042 U	0.043 U	8.1 U	8.1 U	1.9 U	20 U	
Aroclor-1232 (PCB-1232)	mg/kg	20 U	2.1 U	0.8 U	3.7 U	0.041 U	0.04 U	0.042 U	0.043 U	8.1 U	8.1 U	1.9 U	20 U	
Aroclor-1242 (PCB-1242)	mg/kg	20 U	2.1 U	0.8 U	26	0.034 J	0.04 U	0.042 U	0.043 U	8.1 U	8.1 U	1.9 U	20 U	
Aroclor-1248 (PCB-1248)	mg/kg	130	15	5.1	3.7 U	0.041 U	0.04 U	0.0086 J	0.043 U	54	32	9.9	77	
Aroclor-1254 (PCB-1254)	mg/kg	20 U	2.1 U	0.8 U	3.7 U	0.041 U	0.04 U	0.042 U	0.043 U	8.1 U	8.1 U	1.9 U	20 U	
Aroclor-1260 (PCB-1260)	mg/kg	20	2.3	0.62 J	3.5 J	0.041 U	0.04 U	0.042 U	0.043 U	8 J	4.9 J	1.4 J	20 U	
<b>General Chemistry</b>														
Total Solids	%	80.6	80.1	82.4	88.7	80.5	81.6	78.7	77.3	81.5	81.7	87.1	83.8	
<b>Sample Area:</b> A021-2														
<b>Sample Location:</b> B-X143Y193AT														
<b>Sample ID:</b> S-120804-KMV-849														
<b>Sample Date:</b> 12/8/2004														
<b>Sample Depth:</b> (2-4) ft														
<b>Sample Depth:</b> (orig)														
<b>Parameters</b>														
<b>Units</b>														
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	0.38 U	0.81 U	0.045 U	0.043 U	0.043 U	2.2 U	4.1 U	77 U	2 U	0.042 U	0.042 U	0.041 U	
Aroclor-1221 (PCB-1221)	mg/kg	0.38 U	0.81 U	0.045 U	0.043 U	0.043 U	2.2 U	4.1 U	77 U	2 U	0.042 U	0.042 U	0.041 U	
Aroclor-1232 (PCB-1232)	mg/kg	0.38 U	0.81 U	0.045 U	0.043 U	0.043 U	2.2 U	4.1 U	77 U	2 U	0.042 U	0.042 U	0.041 U	
Aroclor-1242 (PCB-1242)	mg/kg	0.38 U	0.81 U	0.045 U	0.043 U	0.043 U	2.2 U	4.1 U	77 U	2 U	0.042 U	0.042 U	0.041 U	
Aroclor-1248 (PCB-1248)	mg/kg	2.3	0.81 U	0.038 J	0.043 U	0.023 J	27	28	690	10	0.014 J	0.039 J	0.0088 J	
Aroclor-1254 (PCB-1254)	mg/kg	0.38 U	2	0.045 U	0.043 U	0.043 U	2.2 U	4.1 U	77 U	2 U	0.042 U	0.042 U	0.041 U	
Aroclor-1260 (PCB-1260)	mg/kg	0.35 J	0.81 U	0.045 U	0.043 U	0.043 U	6.4	6.1	69 J	1.7 J	0.042 U	0.042 U	0.041 U	
<b>General Chemistry</b>														
Total Solids	%	86.8	81.6	73.7	76.8	76.3	74.0	80.4	85.6	81.0	78.7	77.7	80.9	

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AB	B-X143Y193AB	B-X143Y193AB	B-X143Y193AB	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC
Sample ID:	S-112304-DD-702	S-112304-DD-703	S-112304-DD-704	S-112304-DD-707	S-112904-DD-740	S-112904-DD-741	S-112904-DD-750	S-112904-DD-751	S-112904-DD-742	S-112904-DD-743	S-112904-DD-744	S-112904-DD-745	
Sample Date:	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/29/2004	11/29/2004	11/29/2004	11/29/2004	11/29/2004	11/29/2004	11/29/2004	11/29/2004	
Sample Depth:	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(14-16) ft (orig)	(0-0.5) ft (orig)	(0-0.5) ft (Duplicate)	(16-18) ft (orig)	(20-22) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	80 U	0.41 U	0.042 U	0.042 UJ	4.2 U	8.3 U	220 UJ	7.8 UJ	3.8 U	20 U	3.8 U	81 U
Aroclor-1221 (PCB-1221)	mg/kg	80 U	0.41 U	0.042 U	0.042 UJ	4.2 U	8.3 U	220 UJ	7.8 UJ	3.8 U	20 U	3.8 U	81 U
Aroclor-1232 (PCB-1232)	mg/kg	80 U	0.41 U	0.042 U	0.042 UJ	4.2 U	8.3 U	220 UJ	7.8 UJ	3.8 U	20 U	3.8 U	81 U
Aroclor-1242 (PCB-1242)	mg/kg	80 U	0.41 U	0.042 U	0.042 UJ	4.2 U	8.3 U	1400 J	52 J	3.8 U	130	20	570
Aroclor-1248 (PCB-1248)	mg/kg	440	2.5	0.052	0.042 UJ	34	48	220 UJ	7.8 UJ	23	20 U	3.8 U	81 U
Aroclor-1254 (PCB-1254)	mg/kg	80 U	0.41 U	0.042 U	0.042 UJ	4.2 U	8.3 U	220 UJ	7.8 UJ	3.8 U	20 U	3.8 U	81 U
Aroclor-1260 (PCB-1260)	mg/kg	37 J	0.14 J	0.042 U	0.042 UJ	5.7	8.6	190 J	8.1 J	3 J	11 J	1.6 J	81 U
<b>General Chemistry</b>													
Total Solids	%	82.9	81.0	78.5	78.4	78.9	79.2	74.8	84.5	87.2	82.9	86.3	81.7
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AV	B-X143Y193AW	B-X143Y193AW	B-X143Y193AW	B-X143Y193AW	B-X143Y193AW	B-X143Y193AW	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX
Sample ID:	S-122104-JC-917	S-122104-JC-918	S-122104-JC-919	S-122104-JC-920	S-122104-JC-921	S-122104-JC-922	S-122104-JC-923	S-122104-JC-924	S-122104-JC-925	S-122104-JC-926	S-122104-JC-927	S-122104-JC-928	
Sample Date:	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	
Sample Depth:	(6-8) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(2-4) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)	(6-8) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.044 U	0.2 U	0.19 U	0.36 U	0.042 U	0.045 U	0.039 U	0.039 U	0.39 U	0.78 U	0.078 U	0.19 U
Aroclor-1221 (PCB-1221)	mg/kg	0.044 U	0.2 U	0.19 U	0.36 U	0.042 U	0.045 U	0.039 U	0.039 U	0.39 U	0.78 U	0.078 U	0.19 U
Aroclor-1232 (PCB-1232)	mg/kg	0.044 U	0.2 U	0.19 U	0.36 U	0.042 U	0.045 U	0.039 U	0.039 U	0.39 U	0.78 U	0.078 U	0.19 U
Aroclor-1242 (PCB-1242)	mg/kg	0.044 U	0.2 U	0.19 U	0.36 U	0.042 U	0.045 U	0.039 U	0.039 U	0.39 U	0.78 U	0.078 U	0.19 U
Aroclor-1248 (PCB-1248)	mg/kg	0.044 U	1.4	1.1	3	0.042	0.018 J	0.21	0.11	4.5	5.9	1.2	1.3
Aroclor-1254 (PCB-1254)	mg/kg	0.044 U	0.2 U	0.19 U	0.36 U	0.042 U	0.045 U	0.039 U	0.039 U	0.39 U	0.78 U	0.078 U	0.19 U
Aroclor-1260 (PCB-1260)	mg/kg	0.044 U	0.25	0.26	0.51	0.042 U	0.045 U	0.12	0.056	0.39 U	0.78 U	0.098	0.11 J
<b>General Chemistry</b>													
Total Solids	%	75.5	82.8	87.5	91.3	79.4	73.1	84.9	85.5	85.3	84.7	84.9	85.2

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AC	B-X143Y193AD	B-X143Y193AD	B-X143Y193AD	B-X143Y193AD	B-X143Y193AD	B-X143Y193AD	B-X143Y193AD	B-X143Y193AE	B-X143Y193AE
Sample ID:	S-112904-DD-746	S-112904-DD-747	S-112904-DD-748	S-112904-DD-749	S-112304-DD-708	S-112304-DD-709	S-112304-DD-710	S-112304-DD-711	S-112304-DD-712	S-112304-DD-713	S-112304-DD-731	S-112304-DD-732	
Sample Date:	11/29/2004	11/29/2004	11/29/2004	11/29/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	
Sample Depth:	(8-10) ft (orig)	(10-12) ft (orig)	(12-14) ft (orig)	(14-16) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	2.1 U	0.039 UJ	0.043 UJ	210 UJ	34 U	3.8 U	0.38 U	0.04 U	0.041 U	0.037 U	0.84 U	0.77 U
Aroclor-1221 (PCB-1221)	mg/kg	2.1 U	0.039 UJ	0.043 UJ	210 UJ	34 U	3.8 U	0.38 U	0.04 U	0.041 U	0.037 U	0.84 U	0.77 U
Aroclor-1232 (PCB-1232)	mg/kg	2.1 U	0.039 UJ	0.043 UJ	210 UJ	34 U	3.8 U	0.38 U	0.04 U	0.041 U	0.037 U	0.84 U	0.77 U
Aroclor-1242 (PCB-1242)	mg/kg	11	0.24 J	0.043 UJ	690 J	34 U	3.8 U	0.38 U	0.04 U	0.041 U	0.037 U	0.84 U	0.77 U
Aroclor-1248 (PCB-1248)	mg/kg	2.1 U	0.039 UJ	0.04 J	210 UJ	270	27	2.1	0.17	0.014 J	0.0084 J	6.7	6.2
Aroclor-1254 (PCB-1254)	mg/kg	2.1 U	0.039 UJ	0.043 UJ	210 UJ	34 U	3.8 U	0.38 U	0.04 U	0.041 U	0.037 U	0.84 U	0.77 U
Aroclor-1260 (PCB-1260)	mg/kg	1 J	0.032 J	0.043 UJ	110 J	36	3.4 J	0.21 J	0.038 J	0.041 U	0.037 U	1.4	0.69 J
<b>General Chemistry</b>													
Total Solids	%	77.7	83.9	77.1	80.3	96.3	85.9	87.7	81.8	80.8	88.0	79.0	85.8
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX	B-X143Y193AX	B-X143Y193AY	B-X143Y193AY	B-X143Y193AY	B-X143Y193AY	B-X143Y193AY	B-X143Y193AY	B-X143Y193AY	B-X143Y193AY
Sample ID:	S-122104-JC-929	S-122104-JC-930	S-122104-JC-931	S-122104-JC-932	S-122104-JC-933	S-122104-JC-903	S-122104-JC-904	S-122104-JC-905	S-122104-JC-906	S-122104-JC-907	S-122104-JC-908	S-122104-JC-909	
Sample Date:	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	12/21/2004	
Sample Depth:	(8-10) ft (orig)	(10-12) ft (orig)	(12-14) ft (orig)	(14-16) ft (orig)	(14-16) ft (Duplicate)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.19 U	0.081 U	0.043 U	0.042 U	0.042 U	0.039 U	0.077 U	0.04 U	0.077 U	0.38 U	0.77 U	3.6 U
Aroclor-1221 (PCB-1221)	mg/kg	0.19 U	0.081 U	0.043 U	0.042 U	0.042 U	0.039 U	0.077 U	0.04 U	0.077 U	0.38 U	0.77 U	3.6 U
Aroclor-1232 (PCB-1232)	mg/kg	0.19 U	0.081 U	0.043 U	0.042 U	0.042 U	0.039 U	0.077 U	0.04 U	0.077 U	0.38 U	0.77 U	3.6 U
Aroclor-1242 (PCB-1242)	mg/kg	0.19 U	0.081 U	0.043 U	0.042 U	0.042 U	0.039 U	0.077 U	0.04 U	0.077 U	0.38 U	0.77 U	3.6 U
Aroclor-1248 (PCB-1248)	mg/kg	0.6	0.081 U	0.0063 J	0.0089 J	0.042 U	0.093	0.62	0.25	0.55	3.1	6	37
Aroclor-1254 (PCB-1254)	mg/kg	0.19 U	0.081 U	0.043 U	0.042 U	0.042 U	0.039 U	0.077 U	0.04 U	0.077 U	0.38 U	0.77 U	3.6 U
Aroclor-1260 (PCB-1260)	mg/kg	0.19 U	0.081 U	0.043 U	0.042 U	0.042 U	0.042	0.12	0.028 J	0.069 J	0.38	0.73 J	6.2
<b>General Chemistry</b>													
Total Solids	%	84.8	81.9	77.5	77.7	78.1	84.6	86.1	82.6	86.2	87.0	86.2	91.2

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AE	B-X143Y193AE	B-X143Y193AE	B-X143Y193AE	B-X143Y193AF	B-X143Y193AF	B-X143Y193AF	B-X143Y193AF	B-X143Y193AF	B-X143Y193AF	B-X143Y193AF	B-X143Y193AF	B-X143Y193AG
Sample ID:	S-112304-DD-733	S-112304-DD-734	S-112304-DD-735	S-112304-DD-736	S-112304-DD-717	S-112304-DD-718	S-112304-DD-719	S-112304-DD-720	S-112304-DD-721	S-112304-DD-722	S-112304-DD-723	S-113004-DD-752	
Sample Date:	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/23/2004	11/30/2004	
Sample Depth:	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-0.5) ft (orig)	(0-0.5) ft (orig)	(0-0.5) ft (Duplicate)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-0.5) ft (orig)
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.2 U	0.04 U	0.2 U	0.04 U	0.83 U	0.87 U	0.078 U	0.078 U	0.04 U	7.7 U	0.19 U	2 U
Aroclor-1221 (PCB-1221)	mg/kg	0.2 U	0.04 U	0.2 U	0.04 U	0.83 U	0.87 U	0.078 U	0.078 U	0.04 U	7.7 U	0.19 U	2 U
Aroclor-1232 (PCB-1232)	mg/kg	0.2 U	0.04 U	0.2 U	0.04 U	0.83 U	0.87 U	0.078 U	0.078 U	0.04 U	7.7 U	0.19 U	2 U
Aroclor-1242 (PCB-1242)	mg/kg	0.2 U	0.04 U	0.2 U	0.04 U	0.83 U	0.87 U	0.078 U	0.078 U	0.04 U	64	0.38	2 U
Aroclor-1248 (PCB-1248)	mg/kg	1.1	0.23	0.94	0.105 U	6.9	6.9	0.35	0.52	0.21	7.7 U	0.19 U	9.3
Aroclor-1254 (PCB-1254)	mg/kg	0.2 U	0.04 U	0.2 U	0.04 U	0.83 U	0.87 U	0.078 U	0.078 U	0.04 U	7.7 U	0.19 U	2 U
Aroclor-1260 (PCB-1260)	mg/kg	0.17 J	0.025 J	0.2 U	0.04 U	1.8	1.6	0.059 J	0.094	0.04 U	7.7 U	0.19 U	1.4 J
<b>General Chemistry</b>													
Total Solids	%	84.1	82.6	81.3	81.6	79.4	75.6	85.0	84.1	83.0	86.1	84.9	84.4
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AY	B-X143Y193AY	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193AZ	B-X143Y193B	B-X143Y193B
Sample ID:	S-122104-JC-910	S-122104-JC-911	S-121604-KMV-895	S-121604-KMV-896	S-121604-KMV-897	S-121604-KMV-898	S-121604-KMV-899	S-121604-KMV-900	S-121604-KMV-901	S-121604-KMV-902	S-040704-JC-047	S-040704-JC-048	
Sample Date:	12/21/2004	12/21/2004	12/16/2004	12/16/2004	12/16/2004	12/16/2004	12/16/2004	12/16/2004	12/16/2004	12/16/2004	4/7/2004	4/7/2004	
Sample Depth:	(12-14) ft (orig)	(14-16) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(4-6) ft (Duplicate)	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	(0-2) ft (orig)	(6-8) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.21 U	0.044 U	0.73 U	0.19 U	0.2 U	0.21 U	0.43 U	0.082 U	0.041 U	0.044 U	1.9 U	0.19 U
Aroclor-1221 (PCB-1221)	mg/kg	0.21 U	0.044 U	0.73 U	0.19 U	0.2 U	0.21 U	0.43 U	0.082 U	0.041 U	0.044 U	1.9 U	0.19 U
Aroclor-1232 (PCB-1232)	mg/kg	0.21 U	0.044 U	0.73 U	0.19 U	0.2 U	0.21 U	0.43 U	0.082 U	0.041 U	0.044 U	1.9 U	0.19 U
Aroclor-1242 (PCB-1242)	mg/kg	0.21 U	0.044 U	0.73 U	0.19 U	0.2 U	0.21 U	0.43 U	0.082 U	0.041 U	0.044 U	1.9 U	0.19 U
Aroclor-1248 (PCB-1248)	mg/kg	0.56	0.027 J	4.6	0.75	0.77	0.64	1.6	0.79	0.0081 J	0.013 J	13	1.1
Aroclor-1254 (PCB-1254)	mg/kg	0.21 U	0.044 U	0.73 U	0.19 U	0.2 U	0.21 U	0.43 U	0.082 U	0.041 U	0.044 U	1.9 U	0.19 U
Aroclor-1260 (PCB-1260)	mg/kg	0.15 J	0.044 U	1.6	0.35	0.36	0.11 J	0.37 J	0.21	0.041 U	0.044 U	1.9 U	0.093 J
<b>General Chemistry</b>													
Total Solids	%	80.4	74.7	90.3	84.8	82.8	79.3	76.8	80.7	80.6	75.0	85.3	86.3

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AG	B-X143Y193AG	B-X143Y193AG	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AH	B-X143Y193AI
Sample ID:	S-113004-DD-753	S-113004-DD-754	S-113004-DD-755	S-113004-DD-756	S-113004-DD-757	S-113004-DD-758	S-113004-DD-759	S-113004-DD-760	S-113004-DD-761	S-113004-DD-762	S-120104-DD-771	S-120804-KMV-854	
Sample Date:	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	11/30/2004	12/1/2004	12/8/2004	
Sample Depth:	(0-0.5) ft (Duplicate)	(1-2) ft (orig)	(2-4) ft (orig)	(0-0.5) ft (orig)	(0-0.5) ft (Duplicate)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(12.5-14.5) ft (orig)	(0-0.5) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	2 U	0.77 U	3.9 U	0.73 U	2 U	0.39 U	2 U	0.041 U	0.08 U	0.2 U	0.042 U	4.2 U
Aroclor-1221 (PCB-1221)	mg/kg	2 U	0.77 U	3.9 U	0.73 U	2 U	0.39 U	2 U	0.041 U	0.08 U	0.2 U	0.042 U	4.2 U
Aroclor-1232 (PCB-1232)	mg/kg	2 U	0.77 U	3.9 U	0.73 U	2 U	0.39 U	2 U	0.041 U	0.08 U	0.2 U	0.042 U	4.2 U
Aroclor-1242 (PCB-1242)	mg/kg	2 U	0.77 U	3.9 U	0.73 U	2 U	0.39 U	2 U	0.041 U	0.08 U	0.67	0.042 U	4.2 U
Aroclor-1248 (PCB-1248)	mg/kg	11	4.3	19	4.1	11	2	11	0.087	0.45	0.2 U	0.011 J	18
Aroclor-1254 (PCB-1254)	mg/kg	2 U	0.77 U	3.9 U	0.73 U	2 U	0.39 U	2 U	0.041 U	0.08 U	0.2 U	0.042 U	4.2 U
Aroclor-1260 (PCB-1260)	mg/kg	1.5 J	0.77 U	4.4	0.94	2 U	0.39 U	2 U	0.016 J	0.08 U	0.088 J	0.042 U	3.2 J
<b>General Chemistry</b>													
Total Solids	%	81.4	85.2	83.7	90.4	82.7	84.6	82.8	81.1	82.5	83.0	78.2	78.7
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193B	B-X143Y193BA	B-X143Y193BA	B-X143Y193BB	B-X143Y193BB	B-X143Y193BC	B-X143Y193BC	B-X143Y193BC	B-X143Y193BC	B-X143Y193BC	B-X143Y193BC	B-X143Y193BC	B-X143Y193BC
Sample ID:	S-040704-JC-049	S-121604-KMV-893	S-121604-KMV-894	S-122204-JC-934	S-122204-JC-935	S-011905-KMV-895	S-011905-KMV-896	S-011905-KMV-897	S-011905-KMV-898	S-011905-KMV-899	S-011905-KMV-900	S-011905-KMV-901	
Sample Date:	4/7/2004	12/16/2004	12/16/2004	12/22/2004	12/22/2004	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	
Sample Depth:	(27-29.4) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.2 U	0.042 U	2.1 U	0.82 U	0.045 U	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.2 U	0.042 U	2.1 U	0.82 U	0.045 U	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.2 U	0.042 U	2.1 U	0.82 U	0.045 U	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.2 U	0.042 U	2.1 U	0.82 U	0.045 U	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
Aroclor-1248 (PCB-1248)	mg/kg	0.012 J	1.9	0.017 J	7.9	4.4	0.062 J	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.2 U	0.042 U	2.1 U	0.82 U	0.045 U	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
Aroclor-1260 (PCB-1260)	mg/kg	0.041 U	1.1	0.042 U	1.3 J	0.74 J	0.052 J	0.04 U	0.039 U	0.038 U	0.042 U	0.045 U	0.042 U
<b>General Chemistry</b>													
Total Solids	%	79.9	83.4	78.3	80.3	80.6	73.7	82.4	85.6	86.6	78.7	72.7	77.7



TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AI	B-X143Y193AI	B-X143Y193AJ	B-X143Y193AJ	B-X143Y193AJ	B-X143Y193AK	B-X143Y193AK	B-X143Y193AK	B-X143Y193AL	B-X143Y193AL	B-X143Y193AM	
Sample ID:	S-120804-KMV-855	S-120804-KMV-856	S-120904-KMV-857	S-120904-KMV-858	S-120904-KMV-859	S-120904-KMV-860	S-120904-KMV-861	S-120904-KMV-862	S-120904-KMV-863	S-120904-KMV-864	S-120904-KMV-865	
Sample Date:	12/8/2004	12/8/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	
Sample Depth:	(1-2) ft	(2-4) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(0-0.5) ft	(1-2) ft	(0-0.5) ft	
	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	4 U	0.042 U	4 U	19 U	20 U	2 U	1.9 U	0.36 U	4.3 U	3.8 U	3.7 U
Aroclor-1221 (PCB-1221)	mg/kg	4 U	0.042 U	4 U	19 U	20 U	2 U	1.9 U	0.36 U	4.3 U	3.8 U	3.7 U
Aroclor-1232 (PCB-1232)	mg/kg	4 U	0.042 U	4 U	19 U	20 U	2 U	1.9 U	0.36 U	4.3 U	3.8 U	3.7 U
Aroclor-1242 (PCB-1242)	mg/kg	4 U	0.042 U	4 U	19 U	20 U	2 U	1.9 U	0.36 U	4.3 U	3.8 U	3.7 U
Aroclor-1248 (PCB-1248)	mg/kg	32	0.28	23 J	36 J	46 J	7 J	5.8 J	2.4 J	17 J	6.2 J	16 J
Aroclor-1254 (PCB-1254)	mg/kg	4 U	0.042 U	4 U	19 U	20 U	2 U	1.9 U	0.36 U	4.3 U	3.8 U	3.7 U
Aroclor-1260 (PCB-1260)	mg/kg	6.6	0.08	4.1 J	19 U	9 J	0.97 J	0.63 J	0.28 J	2.5 J	3.8 U	2 J
<b>General Chemistry</b>												
Total Solids	%	83.5	78.2	83.2	85.1	80.7	83.1	84.9	90.8	76.1	87.2	88.1
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BD	B-X143Y193BD	B-X143Y193BD	B-X143Y193BD	B-X143Y193BD	B-X143Y193BD	B-X143Y193BD	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE
Sample ID:	S-011905-KMV-902	S-011905-KMV-903	S-011905-KMV-904	S-011905-KMV-905	S-011905-KMV-906	S-011905-KMV-907	S-011905-KMV-908	S-011905-KMV-918	S-011905-KMV-919	S-011905-KMV-920	S-011905-KMV-921	
Sample Date:	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005
Sample Depth:	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft	(1-2) ft	(6-8) ft	(8-10) ft	(10-12) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft
	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.047 U	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	2.4 U	0.039 U	0.042 U	0.043 U
Aroclor-1221 (PCB-1221)	mg/kg	0.047 U	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	2.4 U	0.039 U	0.042 U	0.043 U
Aroclor-1232 (PCB-1232)	mg/kg	0.047 U	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	2.4 U	0.039 U	0.042 U	0.043 U
Aroclor-1242 (PCB-1242)	mg/kg	0.047 U	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	2.4 U	0.039 U	0.042 U	0.043 U
Aroclor-1248 (PCB-1248)	mg/kg	0.1 J	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	15	0.16	0.042 U	0.043 U
Aroclor-1254 (PCB-1254)	mg/kg	0.047 U	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	2.4 U	0.039 U	0.042 U	0.043 U
Aroclor-1260 (PCB-1260)	mg/kg	0.044 J	0.04 U	0.039 U	0.04 U	0.043 U	0.042 U	0.044 U	2.7	0.041	0.042 U	0.043 U
<b>General Chemistry</b>												
Total Solids	%	70.1	82.8	84.3	82.8	76.6	79.1	74.4	68.5	83.7	79.0	76.6

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AM	B-X143Y193AM	B-X143Y193AM	B-X143Y193AM	B-X143Y193AM	B-X143Y193AM	B-X143Y193AM	B-X143Y193AM	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN
Sample ID:	S-120904-KMV-866	S-120904-KMV-867	S-120904-KMV-868	S-120904-KMV-869	S-120904-KMV-870	S-120904-KMV-871	S-120904-KMV-873	S-120904-KMV-875	S-120904-KMV-876	S-120904-KMV-877	S-120904-KMV-878	S-120904-KMV-878
Sample Date:	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004
Sample Depth:	(1-2) ft	(2-4) ft	(4-6) ft	(6-8) ft	(8-10) ft	(8-10) ft	(8-10) ft	(12-14) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft
	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.2 U	0.079 U	0.39 U	0.039 U	0.041 U	0.04 U	0.041 UJ	0.078 U	0.04 U	0.04 U	0.04 U
Aroclor-1221 (PCB-1221)	mg/kg	0.2 U	0.079 U	0.39 U	0.039 U	0.041 U	0.04 U	0.041 UJ	0.078 U	0.04 U	0.04 U	0.04 U
Aroclor-1232 (PCB-1232)	mg/kg	0.2 U	0.079 U	0.39 U	0.039 U	0.041 U	0.04 U	0.041 UJ	0.078 U	0.04 U	0.04 U	0.04 U
Aroclor-1242 (PCB-1242)	mg/kg	0.2 U	0.079 U	0.39 U	0.039 U	0.041 U	0.04 U	0.041 UJ	0.078 U	0.04 U	0.04 U	0.04 U
Aroclor-1248 (PCB-1248)	mg/kg	0.58 J	0.2 J	1.4 J	0.16 J	0.11 J	0.014 J	0.0091 J	0.25 J	0.046 J	0.034 J	0.12 J
Aroclor-1254 (PCB-1254)	mg/kg	0.2 U	0.079 U	0.39 U	0.039 U	0.041 U	0.04 U	0.041 UJ	0.078 U	0.04 U	0.04 U	0.04 U
Aroclor-1260 (PCB-1260)	mg/kg	0.071 J	0.028 J	0.17 J	0.039 U	0.018 J	0.04 U	0.041 UJ	0.077 J	0.013 J	0.04 U	0.015 J
<b>General Chemistry</b>												
Total Solids	%	81.5	83.8	85.4	83.8	80.1	81.7	79.7	84.3	82.0	82.8	81.8
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE	B-X143Y193BE	B-X143Y193BF	B-X143Y193BF	B-X143Y193BF	B-X143Y193BF	B-X143Y193BF	B-X143Y193BF
Sample ID:	S-011905-KMV-922	S-011905-KMV-923	S-011905-KMV-924	S-011905-KMV-925	S-011905-KMV-926	S-011905-KMV-909	S-011905-KMV-910	S-011905-KMV-911	S-011905-KMV-912	S-011905-KMV-913	S-011905-KMV-914	S-011905-KMV-914
Sample Date:	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005
Sample Depth:	(6-8) ft	(8-10) ft	(10-12) ft	(12-14) ft	(14-16) ft	(0-0.5) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft	(6-8) ft	(6-8) ft
	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.046 U	0.042 U	0.041 U	0.046 U	0.043 U	4 U	4 U	3.8 U	0.039 U	0.044 U	0.044 U
Aroclor-1221 (PCB-1221)	mg/kg	0.046 U	0.042 U	0.041 U	0.046 U	0.043 U	4 U	4 U	3.8 U	0.039 U	0.044 U	0.044 U
Aroclor-1232 (PCB-1232)	mg/kg	0.046 U	0.042 U	0.041 U	0.046 U	0.043 U	4 U	4 U	3.8 U	0.039 U	0.044 U	0.044 U
Aroclor-1242 (PCB-1242)	mg/kg	0.046 U	0.042 U	0.041 U	0.046 U	0.043 U	4 U	4 U	3.8 U	0.039 U	0.044 U	0.044 U
Aroclor-1248 (PCB-1248)	mg/kg	0.046 U	0.0077 J	0.041 U	0.046 U	0.043 U	20 J	24 J	15 J	0.039 U	0.044 U	0.044 U
Aroclor-1254 (PCB-1254)	mg/kg	0.046 U	0.042 U	0.041 U	0.046 U	0.043 U	4 U	4 U	3.8 U	0.039 U	0.044 U	0.044 U
Aroclor-1260 (PCB-1260)	mg/kg	0.046 U	0.042 U	0.041 U	0.046 U	0.043 U	3.7 J	3.6 J	1.4 J	0.039 U	0.044 U	0.044 U
<b>General Chemistry</b>												
Total Solids	%	72.5	77.7	80.6	72.5	75.9	82.5	83.0	86.3	83.7	74.2	75.6

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN	B-X143Y193AN	B-X143Y193AO	B-X143Y193AO	B-X143Y193AO	B-X143Y193AO	B-X143Y193AO
Sample ID:	S-120904-KMV-879	S-120904-KMV-880	S-120904-KMV-881	S-120904-KMV-882	S-120904-KMV-884	S-120904-KMV-885	S-120904-KMV-885	S-120604-KMV-785	S-120604-KMV-786	S-120604-KMV-787	S-120604-KMV-788	S-120604-KMV-789
Sample Date:	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/9/2004	12/6/2004	12/6/2004	12/6/2004	12/6/2004	12/6/2004
Sample Depth:	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	(12-14) ft (orig)	(16-18) ft (orig)	(16-18) ft (orig)	(16-18) ft (Duplicate)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.39 U	0.21 U	4 U	0.08 U	0.043 U	0.041 U	0.23 U	0.077 U	0.04 U	0.041 U	0.078 U
Aroclor-1221 (PCB-1221)	mg/kg	0.39 U	0.21 U	4 U	0.08 U	0.043 U	0.041 U	0.23 U	0.077 U	0.04 U	0.041 U	0.078 U
Aroclor-1232 (PCB-1232)	mg/kg	0.39 U	0.21 U	4 U	0.08 U	0.043 U	0.041 U	0.23 U	0.077 U	0.04 U	0.041 U	0.078 U
Aroclor-1242 (PCB-1242)	mg/kg	0.39 U	0.21 U	4 U	0.08 U	0.043 U	0.041 U	0.23 U	0.077 U	0.04 U	0.041 U	0.078 U
Aroclor-1248 (PCB-1248)	mg/kg	2.1	0.64	12	0.24	0.043 U	0.041 U	2.2	0.62	0.15	0.17	0.83
Aroclor-1254 (PCB-1254)	mg/kg	0.39 U	0.21 U	4 U	0.08 U	0.043 U	0.041 U	0.23 U	0.077 U	0.04 U	0.041 U	0.078 U
Aroclor-1260 (PCB-1260)	mg/kg	0.24 J	0.1 J	1.4 J	0.067 J	0.043 U	0.041 U	0.49	0.11	0.035 J	0.029 J	0.082
<b>General Chemistry</b>												
Total Solids	%	84.1	79.0	82.4	82.3	76.5	79.6	72.5	86.2	83.4	80.6	84.3
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BF	B-X143Y193BF	B-X143Y193BF	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG
Sample ID:	S-011905-KMV-915	S-011905-KMV-916	S-011905-KMV-917	S-011905-KMV-927	S-011905-KMV-937	S-011905-KMV-938	S-011905-KMV-938	S-011905-KMV-939	S-011905-KMV-928	S-011905-KMV-929	S-011905-KMV-930	S-011905-KMV-931
Sample Date:	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005
Sample Depth:	(8-10) ft (orig)	(10-12) ft (orig)	(14-16) ft (orig)	(0-0.5) ft (orig)	(16-18) ft (orig)	(18-20) ft (orig)	(18-20) ft (Duplicate)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(6-8) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.042 U	0.04 U	0.042 U	4.1 U	0.04 U	0.041 U	0.041 U	0.78 U	0.044 U	0.045 U	0.044 U
Aroclor-1221 (PCB-1221)	mg/kg	0.042 U	0.04 U	0.042 U	4.1 U	0.04 U	0.041 U	0.041 U	0.78 U	0.044 U	0.045 U	0.044 U
Aroclor-1232 (PCB-1232)	mg/kg	0.042 U	0.04 U	0.042 U	4.1 U	0.04 U	0.041 U	0.041 U	0.78 U	0.044 U	0.045 U	0.044 U
Aroclor-1242 (PCB-1242)	mg/kg	0.042 U	0.04 U	0.042 U	4.1 U	0.04 U	0.041 U	0.041 U	0.78 U	0.044 U	0.045 U	0.044 U
Aroclor-1248 (PCB-1248)	mg/kg	0.042 U	0.04 U	0.042 U	17	0.04 U	0.041 U	0.041 U	4.9	0.01 J	0.045 U	0.044 U
Aroclor-1254 (PCB-1254)	mg/kg	0.042 U	0.04 U	0.042 U	4.1 U	0.04 U	0.041 U	0.041 U	0.78 U	0.044 U	0.045 U	0.044 U
Aroclor-1260 (PCB-1260)	mg/kg	0.042 U	0.04 U	0.042 U	2.6 J	0.04 U	0.041 U	0.041 U	0.55 J	0.044 U	0.045 U	0.044 U
<b>General Chemistry</b>												
Total Solids	%	78.6	82.5	78.7	80.9	81.9	81.3	80.9	85.1	74.3	73.5	74.5

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AO	B-X143Y193AP	B-X143Y193AP	B-X143Y193AP	B-X143Y193AP	B-X143Y193AP	B-X143Y193AP	B-X143Y193AP	B-X143Y193AP	B-X143Y193AQ	B-X143Y193AQ	B-X143Y193AQ
Sample ID:	S-120604-KMV-790	S-120704-KMV-798	S-120704-KMV-799	S-120704-KMV-800	S-120704-KMV-801	S-120704-KMV-802	S-120704-KMV-803	S-120704-KMV-813	S-120804-KMV-815	S-120804-KMV-829	S-120804-KMV-816	
Sample Date:	12/6/2004	12/7/2004	12/7/2004	12/7/2004	12/7/2004	12/7/2004	12/7/2004	12/7/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004
Sample Depth:	(8-10) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(28-30) ft (orig)	(0-0.5) ft (orig)	(0-0.5) ft (Duplicate)	(1-2) ft (orig)	
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.2 U	0.079 U	0.076 U	0.04 U	0.2 U	0.041 U	0.2 U	0.04 U	0.086 U	0.2 U	0.038 U
Aroclor-1221 (PCB-1221)	mg/kg	0.2 U	0.079 U	0.076 U	0.04 U	0.2 U	0.041 U	0.2 U	0.04 U	0.086 U	0.2 U	0.038 U
Aroclor-1232 (PCB-1232)	mg/kg	0.2 U	0.079 U	0.076 U	0.04 U	0.2 U	0.041 U	0.2 U	0.04 U	0.086 U	0.2 U	0.038 U
Aroclor-1242 (PCB-1242)	mg/kg	0.2 U	0.079 U	0.076 U	0.04 U	0.2 U	0.041 U	0.2 U	0.04 U	0.086 U	0.2 U	0.038 U
Aroclor-1248 (PCB-1248)	mg/kg	0.82	0.49	0.44	0.25 J	1.3	0.25	0.92	0.0089 J	0.65	1	0.23 J
Aroclor-1254 (PCB-1254)	mg/kg	0.2 U	0.079 U	0.076 U	0.04 U	0.2 U	0.041 U	0.2 U	0.04 U	0.086 U	0.2 U	0.038 U
Aroclor-1260 (PCB-1260)	mg/kg	0.094 J	0.11	0.059 J	0.033 J	0.2	0.025 J	0.069 J	0.04 U	0.12	0.16 J	0.029 J
<b>General Chemistry</b>												
Total Solids	%	84.3	83.3	86.8	81.9	81.1	80.8	84.1	82.0	76.7	83.6	86.9
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BG	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH
Sample ID:	S-011905-KMV-932	S-011905-KMV-933	S-011905-KMV-934	S-011905-KMV-935	S-011905-KMV-936	S-011905-KMV-940	S-011905-KMV-950	S-011905-KMV-951	S-011905-KMV-941	S-011905-KMV-942	S-011905-KMV-943	S-011905-KMV-943
Sample Date:	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005
Sample Depth:	(6-8) ft (Duplicate)	(8-10) ft (orig)	(10-12) ft (orig)	(12-14) ft (orig)	(14-16) ft (orig)	(0-0.5) ft (orig)	(16-18) ft (orig)	(18-20) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.19 U	0.043 U	0.042 U	2 U	3.8 U	0.038 U
Aroclor-1221 (PCB-1221)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.19 U	0.043 U	0.042 U	2 U	3.8 U	0.038 U
Aroclor-1232 (PCB-1232)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.19 U	0.043 U	0.042 U	2 U	3.8 U	0.038 U
Aroclor-1242 (PCB-1242)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.19 U	0.043 U	0.042 U	2 U	3.8 U	0.038 U
Aroclor-1248 (PCB-1248)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.61	0.043 U	0.042 U	11	17	0.03 J
Aroclor-1254 (PCB-1254)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.19 U	0.043 U	0.042 U	2 U	3.8 U	0.038 U
Aroclor-1260 (PCB-1260)	mg/kg	0.045 U	0.04 U	0.044 U	0.043 U	0.041 U	0.097 J	0.043 U	0.042 U	1.3 J	3.4 J	0.038 U
<b>General Chemistry</b>												
Total Solids	%	73.2	81.6	75.1	76.8	80.2	84.9	76.7	79.1	81.1	87.1	87.1

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AQ	B-X143Y193AQ	B-X143Y193AQ	B-X143Y193AQ	B-X143Y193AQ	B-X143Y193AQ	B-X143Y193AR	B-X143Y193AR	B-X143Y193AR	B-X143Y193AR	B-X143Y193AR	B-X143Y193AR
Sample ID:	S-120804-KMV-817	S-120804-KMV-818	S-120804-KMV-819	S-120804-KMV-820	S-120804-KMV-827	S-120804-KMV-830	S-120804-KMV-831	S-120804-KMV-832	S-120804-KMV-833	S-120804-KMV-834	S-120804-KMV-835	S-120804-KMV-835
Sample Date:	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004
Sample Depth:	(2-4) ft	(4-6) ft	(6-8) ft	(8-10) ft	(20-22) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft	(6-8) ft	(8-10) ft	(8-10) ft
	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.37 U	0.8 U	0.81 U	0.83 U	0.044 U	0.073 U	0.19 U	0.075 U	0.078 U	0.19 U	0.2 U
Aroclor-1221 (PCB-1221)	mg/kg	0.37 U	0.8 U	0.81 U	0.83 U	0.044 U	0.073 U	0.19 U	0.075 U	0.078 U	0.19 U	0.2 U
Aroclor-1232 (PCB-1232)	mg/kg	0.37 U	0.8 U	0.81 U	0.83 U	0.044 U	0.073 U	0.19 U	0.075 U	0.078 U	0.19 U	0.2 U
Aroclor-1242 (PCB-1242)	mg/kg	0.37 U	0.8 U	0.81 U	0.83 U	0.044 U	0.073 U	0.19 U	0.075 U	0.078 U	0.19 U	0.2 U
Aroclor-1248 (PCB-1248)	mg/kg	1.6	6.8	4.6	4.8	0.044 U	0.55	1.4	0.69	0.71	1.2	1.1
Aroclor-1254 (PCB-1254)	mg/kg	0.37 U	0.8 U	0.81 U	0.83 U	0.044 U	0.073 U	0.19 U	0.075 U	0.078 U	0.19 U	0.2 U
Aroclor-1260 (PCB-1260)	mg/kg	0.13 J	0.35 J	0.81 U	0.83 U	0.044 U	0.11	0.26	0.058 J	0.042 J	0.11 J	0.2 U
<b>General Chemistry</b>												
Total Solids	%	88.7	82.3	81.8	79.2	74.2	90.6	88.0	87.5	84.1	85.4	80.6
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BH	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI
Sample ID:	S-011905-KMV-944	S-011905-KMV-945	S-011905-KMV-946	S-011905-KMV-947	S-011905-KMV-948	S-011905-KMV-948	S-011905-KMV-949	S-012005-KMV-952	S-012005-KMV-953	S-012005-KMV-954	S-012005-KMV-955	S-012005-KMV-956
Sample Date:	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/19/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005
Sample Depth:	(6-8) ft	(8-10) ft	(10-12) ft	(12-14) ft	(12-14) ft	(12-14) ft	(14-16) ft	(0-0.5) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft
	(orig)	(orig)	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.39 U	0.38 U	2 U	20 U
Aroclor-1221 (PCB-1221)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.39 U	0.38 U	2 U	20 U
Aroclor-1232 (PCB-1232)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.39 U	0.38 U	2 U	20 U
Aroclor-1242 (PCB-1242)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.39 U	0.38 U	2 U	20 U
Aroclor-1248 (PCB-1248)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	1.7	2.2	8.1	52	2.6
Aroclor-1254 (PCB-1254)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	0.39 U	0.38 U	2 U	20 U	0.43 U
Aroclor-1260 (PCB-1260)	mg/kg	0.043 U	0.046 U	0.041 U	0.043 U	0.043 U	0.043 U	0.33 J	0.31 J	2.3	12 J	0.16 J
<b>General Chemistry</b>												
Total Solids	%	75.9	71.2	80.4	75.9	76.1	76.9	84.0	88.0	82.5	84.4	77.0

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AS	B-X143Y193AS	B-X143Y193AS	B-X143Y193AS	B-X143Y193AS	B-X143Y193AS	B-X143Y193AS	B-X143Y193AS	B-X143Y193AT	B-X143Y193AT	B-X143Y193BJ	B-X143Y193BJ
Sample ID:	S-120804-KMV-839	S-120804-KMV-840	S-120804-KMV-841	S-120804-KMV-842	S-120804-KMV-843	S-120804-KMV-844	S-120804-KMV-845	S-120804-KMV-847	S-120804-KMV-848	S-120804-KMV-848	S-012005-KMV-966	S-012005-KMV-967
Sample Date:	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	12/8/2004	1/20/2005	1/20/2005
Sample Depth:	(0-0.5) ft (orig)	(1-2) ft (orig)	(1-2) ft (Duplicate)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(8-10) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.076 U	0.37 U	0.38 U	0.37 U	7.9 U	0.4 U	0.04 U	3.9 U	0.38 U	0.43 U	0.042 U
Aroclor-1221 (PCB-1221)	mg/kg	0.076 U	0.37 U	0.38 U	0.37 U	7.9 U	0.4 U	0.04 U	3.9 U	0.38 U	0.43 U	0.042 U
Aroclor-1232 (PCB-1232)	mg/kg	0.076 U	0.37 U	0.38 U	0.37 U	7.9 U	0.4 U	0.04 U	3.9 U	0.38 U	0.43 U	0.042 U
Aroclor-1242 (PCB-1242)	mg/kg	0.076 U	0.37 U	0.38 U	0.37 U	7.9 U	0.4 U	0.04 U	3.9 U	0.38 U	0.43 U	0.042 U
Aroclor-1248 (PCB-1248)	mg/kg	1.2 J	2.3	2.6	2.6	46	3.8	0.04 U	13	3.5	2.1	0.1
Aroclor-1254 (PCB-1254)	mg/kg	0.076 U	0.37 U	0.38 U	0.37 U	7.9 U	0.4 U	0.04 U	3.9 U	0.38 U	0.43 U	0.042 U
Aroclor-1260 (PCB-1260)	mg/kg	0.31 J	0.32 J	0.36 J	0.26 J	4.8 J	0.39 J	0.04 U	1.7 J	0.55	0.44	0.018 J
<b>General Chemistry</b>												
Total Solids	%	86.7	88.2	87.6	88.2	83.1	82.9	81.5	84.4	87.0	76.4	78.2
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BI	B-X143Y193BJ	B-X143Y193BJ	B-X143Y193BJ	B-X143Y193I	B-X143Y193I
Sample ID:	S-012005-KMV-957	S-012005-KMV-958	S-012005-KMV-959	S-012005-KMV-960	S-012005-KMV-961	S-012005-KMV-962	S-012005-KMV-963	S-012005-KMV-964	S-012005-KMV-965	S-012005-KMV-965	S-102704-JC-375	S-102704-JC-376
Sample Date:	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	10/27/2004	10/27/2004
Sample Depth:	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	(12-14) ft (orig)	(14-16) ft (orig)	(14-16) ft (Duplicate)	(14-16) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.041 U	0.045 U	0.043 U	0.041 U	0.041 U	39 U	8.2 U	0.43 U	4 U	0.04 UJ
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.041 U	0.045 U	0.043 U	0.041 U	0.041 U	39 U	8.2 U	0.43 U	4 U	0.04 UJ
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.041 U	0.045 U	0.043 U	0.041 U	0.041 U	39 U	8.2 U	0.43 U	4 U	0.04 UJ
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.041 U	0.045 U	0.043 U	0.041 U	0.041 U	39 U	8.2 U	0.43 U	4 U	0.73
Aroclor-1248 (PCB-1248)	mg/kg	0.052	0.013 J	0.0097 J	0.02 J	0.0079 J	0.018 J	150	35	2	49	0.04 UJ
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.041 U	0.045 U	0.043 U	0.041 U	0.041 U	39 U	8.2 U	0.43 U	4 U	0.04 UJ
Aroclor-1260 (PCB-1260)	mg/kg	0.013 J	0.041 U	0.045 U	0.043 U	0.041 U	0.041 U	22 J	5.1 J	0.38 J	3.7 J	0.029 J
<b>General Chemistry</b>												
Total Solids	%	80.1	80.7	73.9	76.5	79.7	79.7	83.9	80.1	76.6	82.0	83.3

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	
Sample Location:	B-X143Y193BJ	B-X143Y193BJ	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BK	B-X143Y193BL	
Sample ID:	S-012005-KMV-968	S-012005-KMV-969	S-012005-KMV-970	S-012005-KMV-971	S-012005-KMV-972	S-012005-KMV-973	S-012005-KMV-974	S-012005-KMV-975	S-012005-KMV-976	S-012005-KMV-977	S-012005-KMV-978	S-012005-KMV-979	
Sample Date:	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/20/2005	
Sample Depth:	(6-8) ft (orig)	(8-10) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(6-8) ft (Duplicate)	(8-10) ft (orig)	(10-12) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.044 U	0.042 U	8.1 U	8.1 U	0.086 U	0.04 U	0.042 U	0.042 U	0.04 U	0.041 U	2 U	0.04 U
Aroclor-1221 (PCB-1221)	mg/kg	0.044 U	0.042 U	8.1 U	8.1 U	0.086 U	0.04 U	0.042 U	0.042 U	0.04 U	0.041 U	2 U	0.04 U
Aroclor-1232 (PCB-1232)	mg/kg	0.044 U	0.042 U	8.1 U	8.1 U	0.086 U	0.04 U	0.042 U	0.042 U	0.04 U	0.041 U	2 U	0.04 U
Aroclor-1242 (PCB-1242)	mg/kg	0.044 U	0.042 U	8.1 U	8.1 U	0.086 U	0.04 U	0.042 U	0.042 U	0.04 U	0.041 U	2 U	0.04 U
Aroclor-1248 (PCB-1248)	mg/kg	0.036 J	0.019 J	35	25	0.52	0.01 J	0.042 U	0.042 U	0.04 U	0.041 U	15	0.1
Aroclor-1254 (PCB-1254)	mg/kg	0.044 U	0.042 U	8.1 U	8.1 U	0.086 U	0.04 U	0.042 U	0.042 U	0.04 U	0.041 U	2 U	0.04 U
Aroclor-1260 (PCB-1260)	mg/kg	0.044 U	0.042 U	5.2 J	4.3 J	0.1	0.04 U	0.042 U	0.042 U	0.04 U	0.041 U	3	0.026 J
<b>General Chemistry</b>													
Total Solids	%	75.7	78.3	81.8	81.7	76.6	83.5	78.7	78.0	81.8	79.5	82.9	82.3
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	
Sample Location:	B-X143Y193I	B-X143Y193J	B-X143Y193J	B-X143Y193J	B-X143Y193J	B-X143Y193J	B-X143Y193J	B-X143Y193J	B-X143Y193K	B-X143Y193K	B-X143Y193K	B-X143Y193K	
Sample ID:	S-102704-JC-377	S-102704-JC-378	S-102704-JC-379	S-102704-JC-380	S-102704-JC-381	S-102704-JC-382	S-102704-JC-383	S-102704-JC-384	S-102704-JC-385	S-102704-JC-386	S-102704-JC-387	S-102704-JC-388	
Sample Date:	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	
Sample Depth:	(8-10) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(4-6) ft (Duplicate)	(6-8) ft (orig)	(8-10) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.04 UJ	0.38 U	0.8 U	0.19 U	0.37 U	0.4 UJ	0.041 UJ	0.77 U	3.9 U	0.24 U	0.041 UJ	0.041 UJ
Aroclor-1221 (PCB-1221)	mg/kg	0.04 UJ	0.38 U	0.8 U	0.19 U	0.37 U	0.4 UJ	0.041 UJ	0.77 U	3.9 U	0.24 U	0.041 UJ	0.041 UJ
Aroclor-1232 (PCB-1232)	mg/kg	0.04 UJ	0.38 U	0.8 U	0.19 U	0.37 U	0.4 UJ	0.041 UJ	0.77 U	3.9 U	0.24 U	0.041 UJ	0.041 UJ
Aroclor-1242 (PCB-1242)	mg/kg	0.04 UJ	0.38 U	0.8 U	0.19 U	0.37 U	4.2	0.041 UJ	0.77 U	3.9 U	0.24 U	0.18	0.041 UJ
Aroclor-1248 (PCB-1248)	mg/kg	0.04 UJ	4.5	10	1.1	2.7	0.4 UJ	0.041 UJ	6.6	38	1.9	0.041 UJ	0.041 UJ
Aroclor-1254 (PCB-1254)	mg/kg	0.04 UJ	0.38 U	0.8 U	0.19 U	0.37 U	0.4 UJ	0.041 UJ	0.77 U	3.9 U	0.24 U	0.041 UJ	0.041 UJ
Aroclor-1260 (PCB-1260)	mg/kg	0.04 UJ	0.4	0.89	0.26	0.47	0.27 J	0.041 UJ	0.48 J	2.5 J	0.1 J	0.052 J	0.041 UJ
<b>General Chemistry</b>													
Total Solids	%	82.6	87.6	82.8	89.0	89.8	83.4	80.1	85.6	85.3	69.1	80.7	81.2

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	
Sample Location:	B-X143Y193BL	B-X143Y193BL	B-X143Y193BL	B-X143Y193BL	B-X143Y193BM	B-X143Y193BM	B-X143Y193BM	B-X143Y193BM	B-X143Y193BM	B-X143Y193BM	B-X143Y193BM	B-X143Y193BM	B-X143Y193BN	
Sample ID:	S-012005-KMIV-980	S-012005-KMIV-981	S-012005-KMIV-982	S-012005-KMIV-983	S-012405-KMIV-984	S-012405-KMIV-985	S-012405-KMIV-986	S-012405-KMIV-987	S-012405-KMIV-988	S-012405-KMIV-989	S-012405-KMIV-990	S-012405-KMIV-991	S-012405-KMIV-992	
Sample Date:	1/20/2005	1/20/2005	1/20/2005	1/20/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	
Sample Depth:	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(6-8) ft (Duplicate)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(6-8) ft (Duplicate)	(8-10) ft (orig)	(10-12) ft (orig)	(0-0.5) ft (orig)	
Parameters	Units													
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	0.042 U	0.04 U	0.044 U	0.045 U	0.41 U	0.043 U	0.043 U	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.089 U
Aroclor-1221 (PCB-1221)	mg/kg	0.042 U	0.04 U	0.044 U	0.045 U	0.41 U	0.043 U	0.043 U	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.089 U
Aroclor-1232 (PCB-1232)	mg/kg	0.042 U	0.04 U	0.044 U	0.045 U	0.41 U	0.043 U	0.043 U	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.089 U
Aroclor-1242 (PCB-1242)	mg/kg	0.042 U	0.04 U	0.044 U	0.045 U	0.41 U	0.043 U	0.043 U	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.089 U
Aroclor-1248 (PCB-1248)	mg/kg	0.042 U	0.0066 J	0.0096 J	0.013 J	2.1	0.24	0.081	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.53
Aroclor-1254 (PCB-1254)	mg/kg	0.042 U	0.04 U	0.044 U	0.045 U	0.41 U	0.043 U	0.043 U	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.089 U
Aroclor-1260 (PCB-1260)	mg/kg	0.042 U	0.04 U	0.044 U	0.045 U	0.13 J	0.043 U	0.043 U	0.044 U	0.042 U	0.042 U	0.043 U	0.041 U	0.092
<b>General Chemistry</b>														
Total Solids	%	78.2	82.7	74.5	73.3	81.1	77.0	76.7	75.5	77.9	78.7	77.0	81.3	74.5
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	
Sample Location:	B-X143Y193L	B-X143Y193L	B-X143Y193L	B-X143Y193M	B-X143Y193M	B-X143Y193M	B-X143Y193M	B-X143Y193N	B-X143Y193N	B-X143Y193N	B-X143Y193N	B-X143Y193O	B-X143Y193O	
Sample ID:	S-102704-JC-389	S-102704-JC-390	S-102704-JC-391	S-102704-JC-394	S-102704-JC-395	S-102704-JC-396	S-102704-JC-397	S-102804-JC-400	S-102804-JC-401	S-102804-JC-402	S-102804-JC-403	S-102804-JC-404	S-102804-JC-405	
Sample Date:	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	
Sample Depth:	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	
Parameters	Units													
<b>PCBs</b>														
Aroclor-1016 (PCB-1016)	mg/kg	0.76 U	0.8 U	2 U	1.8 U	0.78 U	0.38 U	7.8 U	1.9 U	0.79 U	0.83 U	0.2 UJ	1.8 U	1.9 U
Aroclor-1221 (PCB-1221)	mg/kg	0.76 U	0.8 U	2 U	1.8 U	0.78 U	0.38 U	7.8 U	1.9 U	0.79 U	0.83 U	0.2 UJ	1.8 U	1.9 U
Aroclor-1232 (PCB-1232)	mg/kg	0.76 U	0.8 U	2 U	1.8 U	0.78 U	0.38 U	7.8 U	1.9 U	0.79 U	0.83 U	0.2 UJ	1.8 U	1.9 U
Aroclor-1242 (PCB-1242)	mg/kg	0.76 U	0.8 U	2 U	1.8 U	0.78 U	0.38 U	89	1.9 U	0.79 U	0.83 U	0.2 UJ	1.8 U	1.9 U
Aroclor-1248 (PCB-1248)	mg/kg	12	6	19	12	6.7	2.2	7.8 U	15	9.6	7	2.9	15	18
Aroclor-1254 (PCB-1254)	mg/kg	0.76 U	0.8 U	2 U	1.8 U	0.78 U	0.38 U	7.8 U	1.9 U	0.79 U	0.83 U	0.2 UJ	1.8 U	1.9 U
Aroclor-1260 (PCB-1260)	mg/kg	1.2	0.64 J	1.3 J	0.92 J	0.43 J	0.38 U	4.6 J	1.9 U	0.79 U	0.83 U	0.2 UJ	1.8	1.6 J
<b>General Chemistry</b>														
Total Solids	%	86.6	82.8	83.3	91.2	84.9	86.4	84.3	84.8	83.4	79.7	82.4	90.3	85.8



TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BN	B-X143Y193BN	B-X143Y193BN	B-X143Y193BN	B-X143Y193BN	B-X143Y193BO	B-X143Y193BO	B-X143Y193BO	B-X143Y193BO	B-X143Y193BO	B-X143Y193BO	B-X143Y193BO	B-X143Y193BP
Sample ID:	S-012405-KMV-993	S-012405-KMV-994	S-012405-KMV-995	S-012405-KMV-996	S-012405-KMV-997	S-012405-KMV-998	S-012405-KMV-999	S-012405-KMV-1000	S-012405-KMV-1001	S-012405-KMV-1002	S-012405-KMV-1003	S-012405-KMV-1004	
Sample Date:	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	
Sample Depth:	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-0.5) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	0.04 U	0.045 U	0.044 U	0.043 U	0.042 U	2.1 U	0.041 U	0.043 U	0.044 U	0.039 U	0.039 U	0.38 U
Aroclor-1221 (PCB-1221)	mg/kg	0.04 U	0.045 U	0.044 U	0.043 U	0.042 U	2.1 U	0.041 U	0.043 U	0.044 U	0.039 U	0.039 U	0.38 U
Aroclor-1232 (PCB-1232)	mg/kg	0.04 U	0.045 U	0.044 U	0.043 U	0.042 U	2.1 U	0.041 U	0.043 U	0.044 U	0.039 U	0.039 U	0.38 U
Aroclor-1242 (PCB-1242)	mg/kg	0.04 U	0.045 U	0.044 U	0.043 U	0.042 U	2.1 U	0.041 U	0.043 U	0.044 U	0.039 U	0.039 U	0.38 U
Aroclor-1248 (PCB-1248)	mg/kg	0.04 U	0.012 J	0.044 U	0.043 U	0.042 U	14	0.062	0.043 U	0.044 U	0.039 U	0.039 U	2.7
Aroclor-1254 (PCB-1254)	mg/kg	0.04 U	0.045 U	0.044 U	0.043 U	0.042 U	2.1 U	0.041 U	0.043 U	0.044 U	0.039 U	0.039 U	0.38 U
Aroclor-1260 (PCB-1260)	mg/kg	0.04 U	0.045 U	0.044 U	0.043 U	0.042 U	1.5 J	0.041 U	0.043 U	0.044 U	0.039 U	0.039 U	0.39
<b>General Chemistry</b>													
Total Solids	%	81.5	73.9	75.8	77.1	78.2	78.4	80.3	76.2	75.6	85.4	84.5	85.8
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193O	B-X143Y193O	B-X143Y193O	B-X143Y193O	B-X143Y193P	B-X143Y193P	B-X143Y193P	B-X143Y193P	B-X143Y193P	B-X143Y193P	B-X143Y193Q	B-X143Y193Q	B-X143Y193Q
Sample ID:	S-102804-JC-406	S-102804-JC-407	S-102804-JC-408	S-102804-JC-409	S-102804-JC-410	S-102804-JC-411	S-102804-JC-412	S-102804-JC-413	S-102804-JC-414	S-102804-JC-415	S-111604-KMV-586	S-111604-KMV-587	
Sample Date:	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	10/28/2004	11/16/2004	11/16/2004	
Sample Depth:	(2-4) ft (Duplicate)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(8-10) ft (Duplicate)	(0-2) ft (orig)	(2-4) ft (orig)	
Parameters	Units												
<b>PCBs</b>													
Aroclor-1016 (PCB-1016)	mg/kg	39 U	0.2 U	0.4 UJ	0.041 UJ	0.38 U	0.19 U	0.78 U	19 UJ	0.041 UJ	0.04 UJ	1.9 U	0.77 U
Aroclor-1221 (PCB-1221)	mg/kg	39 U	0.2 U	0.4 UJ	0.041 UJ	0.38 U	0.19 U	0.78 U	19 UJ	0.041 UJ	0.04 UJ	1.9 U	0.77 U
Aroclor-1232 (PCB-1232)	mg/kg	39 U	0.2 U	0.4 UJ	0.041 UJ	0.38 U	0.19 U	0.78 U	19 UJ	0.041 UJ	0.04 UJ	1.9 U	0.77 U
Aroclor-1242 (PCB-1242)	mg/kg	39 U	0.2 U	0.4 UJ	0.048	0.38 U	0.19 U	0.78 U	130	0.015 J	0.016 J	1.9 U	0.77 U
Aroclor-1248 (PCB-1248)	mg/kg	300	1.2	3.8	0.041 UJ	3.2	2.3	9.2	19 UJ	0.041 UJ	0.04 UJ	17	4.7
Aroclor-1254 (PCB-1254)	mg/kg	39 U	0.2 U	0.4 UJ	0.041 UJ	0.38 U	0.19 U	0.78 U	19 UJ	0.041 UJ	0.04 UJ	1.9 U	0.77 U
Aroclor-1260 (PCB-1260)	mg/kg	39	0.085 J	0.4 UJ	0.041 UJ	0.3 J	0.17 J	1	10 J	0.041 UJ	0.04 UJ	1.9 U	0.77 U
<b>General Chemistry</b>													
Total Solids	%	85.5	81.0	82.9	81.0	86.6	86.3	84.6	85.2	80.8	81.8	88.2	85.2

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	
Sample Location:	B-X143Y193BP	B-X143Y193BP	B-X143Y193BP	B-X143Y193BP	B-X143Y193BP	B-X143Y193BP	B-X143Y193BP	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BQ	
Sample ID:	S-012405-KMV-1005	S-012405-KMV-1006	S-012405-KMV-1007	S-012405-KMV-1008	S-012405-KMV-1009	S-012405-KMV-1010	S-012505-KMV-1011	S-012505-KMV-1012	S-012505-KMV-1013	S-012505-KMV-1014	S-012505-KMV-1015	
Sample Date:	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/24/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	
Sample Depth:	(1-2) ft	(2-4) ft	(4-6) ft	(4-6) ft	(6-8) ft	(8-10) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft	(6-8) ft	
	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.043 U	0.042 U	0.043 U	0.043 U	0.041 U	0.042 U	0.39 U	0.2 U	0.2 U	3.9 U	0.2 U
Aroclor-1221 (PCB-1221)	mg/kg	0.043 U	0.042 U	0.043 U	0.043 U	0.041 U	0.042 U	0.39 U	0.2 U	0.2 U	3.9 U	0.2 U
Aroclor-1232 (PCB-1232)	mg/kg	0.043 U	0.042 U	0.043 U	0.043 U	0.041 U	0.042 U	0.39 U	0.2 U	0.2 U	3.9 U	0.2 U
Aroclor-1242 (PCB-1242)	mg/kg	0.043 U	0.042 U	0.043 U	0.043 U	0.041 U	0.042 U	0.39 U	0.2 U	0.2 U	3.9 U	0.2 U
Aroclor-1248 (PCB-1248)	mg/kg	0.4 J	0.086	0.043 U	0.043 U	0.041 U	0.042 U	3.8	1.2	0.6	24	2
Aroclor-1254 (PCB-1254)	mg/kg	0.043 U	0.042 U	0.043 U	0.043 U	0.041 U	0.042 U	0.39 U	0.2 U	0.2 U	3.9 U	0.2 U
Aroclor-1260 (PCB-1260)	mg/kg	0.029 J	0.042 U	0.043 U	0.043 U	0.041 U	0.042 U	0.44	0.19 J	0.11 J	1.5 J	0.27
<b>General Chemistry</b>												
Total Solids	%	76.2	77.9	76.6	76.0	80.0	78.0	84.4	83.6	84.4	83.7	83.0
<b>Sample Area:</b>												
<b>Sample Location:</b>												
<b>Sample ID:</b>												
<b>Sample Date:</b>												
<b>Sample Depth:</b>												
<b>Parameters</b>												
<b>Units</b>												
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.039 U	0.4 U	0.04 U	0.045 U	0.39 U	0.39 U	21 U	0.04 U	0.041 U	430 U	20 U
Aroclor-1221 (PCB-1221)	mg/kg	0.039 U	0.4 U	0.04 U	0.045 U	0.39 U	0.39 U	21 U	0.04 U	0.041 U	430 U	20 U
Aroclor-1232 (PCB-1232)	mg/kg	0.039 U	0.4 U	0.04 U	0.045 U	0.39 U	0.39 U	21 U	0.04 U	0.041 U	430 U	20 U
Aroclor-1242 (PCB-1242)	mg/kg	0.039 U	0.4 U	0.04 U	0.037 J	0.39 U	3.2	21 U	0.16	0.041 U	2400	20 U
Aroclor-1248 (PCB-1248)	mg/kg	0.37	2.2	0.032 J	0.045 U	2.7	0.39 U	220	0.04 U	0.032 J	430 U	83
Aroclor-1254 (PCB-1254)	mg/kg	0.039 U	0.4 U	0.04 U	0.045 U	0.39 U	0.39 U	21 U	0.04 U	0.041 U	430 U	20 U
Aroclor-1260 (PCB-1260)	mg/kg	0.039 U	0.4 U	0.04 U	0.045 U	0.3 J	0.33 J	21 U	0.04 U	0.041 U	370 J	10 J
<b>General Chemistry</b>												
Total Solids	%	83.8	82.7	82.4	73.9	84.5	85.0	79.7	82.8	79.9	77.2	84.2

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BQ	B-X143Y193BR	B-X143Y193BR	B-X143Y193BR	B-X143Y193BR	B-X143Y193BR	B-X143Y193BR
Sample ID:	S-012505-KMV-1016	S-012505-KMV-1017	S-012505-KMV-1018	S-012505-KMV-1019	S-012505-KMV-1020	S-012505-KMV-1021	S-012505-KMV-1022	S-012505-KMV-1023	S-012505-KMV-1024	S-012505-KMV-1025	S-012505-KMV-1026	S-012505-KMV-1026
Sample Date:	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005
Sample Depth:	(8-10) ft (orig)	(8-10) ft (Duplicate)	(10-12) ft (orig)	(12-14) ft (orig)	(14-16) ft (orig)	(0-5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(10-12) ft (orig)	(10-12) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	0.19 U	0.39 U	0.042 U	0.045 UJ
Aroclor-1221 (PCB-1221)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	0.19 U	0.39 U	0.042 U	0.045 UJ
Aroclor-1232 (PCB-1232)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	0.19 U	0.39 U	0.042 U	0.045 UJ
Aroclor-1242 (PCB-1242)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	0.19 U	0.39 U	0.042 U	0.045 UJ
Aroclor-1248 (PCB-1248)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	1	2.4	0.1	0.045 UJ
Aroclor-1254 (PCB-1254)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	0.19 U	0.39 U	0.042 U	0.045 UJ
Aroclor-1260 (PCB-1260)	mg/kg	0.043 UJ	0.041 UJ	0.042 UJ	0.042 UJ	0.041 UJ	0.044 UJ	0.04 UJ	0.29	0.43	0.016 J	0.045 UJ
<b>General Chemistry</b>												
Total Solids	%	77.4	81.3	78.9	77.7	80.2	74.9	83.1	84.7	84.4	78.9	73.4
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193S	B-X143Y193S	B-X143Y193S	B-X143Y193S	B-X143Y193S	B-X143Y193S	B-X143Y193T	B-X143Y193T	B-X143Y193T	B-X143Y193T	B-X143Y193T	B-X143Y193T
Sample ID:	S-111704-DD-605	S-111704-DD-606	S-111704-DD-607	S-111704-DD-608	S-111704-DD-609	S-111704-DD-614	S-111704-DD-615	S-111704-DD-616	S-111704-DD-617	S-111704-DD-618	S-111704-DD-619	S-111704-DD-619
Sample Date:	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004
Sample Depth:	(2-4) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(20-22) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(8-10) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	3.8 U	3.8 U	0.079 U	0.042 U	0.041 U	0.042 U	7.9 U	19 U	0.19 U	0.039 U	0.041 U
Aroclor-1221 (PCB-1221)	mg/kg	3.8 U	3.8 U	0.079 U	0.042 U	0.041 U	0.042 U	7.9 U	19 U	0.19 U	0.039 U	0.041 U
Aroclor-1232 (PCB-1232)	mg/kg	3.8 U	3.8 U	0.079 U	0.042 U	0.041 U	0.042 U	7.9 U	19 U	0.19 U	0.039 U	0.041 U
Aroclor-1242 (PCB-1242)	mg/kg	3.8 U	3.8 U	0.079 U	0.042 U	0.041 U	0.042 U	7.9 U	19 U	0.19 U	0.039 U	0.041 U
Aroclor-1248 (PCB-1248)	mg/kg	21	27	0.48	0.13	0.069	0.042 U	40	110	0.92	0.029 J	0.012 J
Aroclor-1254 (PCB-1254)	mg/kg	3.8 U	3.8 U	0.079 U	0.042 U	0.041 U	0.042 U	7.9 U	19 U	0.19 U	0.039 U	0.041 U
Aroclor-1260 (PCB-1260)	mg/kg	1.5 J	1.6 J	0.035 J	0.042 U	0.041 U	0.042 U	2.1 J	5.4 J	0.15 J	0.039 U	0.041 U
<b>General Chemistry</b>												
Total Solids	%	86.5	86.3	83.1	78.5	80.8	79.1	83.4	87.5	88.5	85.5	81.1

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	
Sample Location:	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BS	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT
Sample ID:	S-012505-KMV-1027	S-012505-KMV-1028	S-012505-KMV-1029	S-012505-KMV-1030	S-012505-KMV-1031	S-012505-KMV-1032	S-012505-KMV-1033	S-012505-KMV-1034	S-012505-KMV-1035	S-012505-KMV-1036	S-012505-KMV-1036	S-012505-KMV-1037
Sample Date:	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005
Sample Depth:	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft	(4-6) ft	(6-8) ft	(8-10) ft	(10-12) ft	(0-0.5) ft	(1-2) ft	(1-2) ft	(2-4) ft
	(orig)	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.039 U	0.041 U	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.18 U	0.04 U	0.042 U
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.039 U	0.041 U	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.18 U	0.04 U	0.042 U
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.039 U	0.041 U	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.18 U	0.04 U	0.042 U
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.039 U	0.041 U	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.18 U	0.04 U	0.042 U
Aroclor-1248 (PCB-1248)	mg/kg	0.21	0.059	0.041 U	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.8	0.014 J	0.014 J
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.039 U	0.015 J	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.18 U	0.04 U	0.042 U
Aroclor-1260 (PCB-1260)	mg/kg	0.06	0.024 J	0.041 U	0.041 U	0.041 U	0.042 U	0.04 U	0.042 U	0.09 J	0.04 U	0.042 U
<b>General Chemistry</b>												
Total Solids	%	80.4	84.2	80.1	81.3	81.3	78.4	82.4	77.7	90.4	82.5	77.9
<b>Sample Area:</b> A021-2												
<b>Sample Location:</b> B-X143Y193T												
<b>Sample ID:</b> S-111704-DD-620												
<b>Sample Date:</b> 11/17/2004												
<b>Sample Depth:</b> (10-12) ft												
<b>Units</b>												
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.044 U	0.38 U	0.4 U	0.04 U	0.41 U	0.039 U	0.04 U	0.043 U	0.044 U	0.86 U
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.044 U	0.38 U	0.4 U	0.04 U	0.41 U	0.039 U	0.04 U	0.043 U	0.044 U	0.86 U
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.044 U	0.38 U	0.4 U	0.04 U	0.41 U	0.039 U	0.04 U	0.043 U	0.044 U	0.86 U
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.044 U	0.38 U	0.4 U	0.04 U	0.41 U	0.039 U	0.04 U	0.043 U	0.044 U	0.86 U
Aroclor-1248 (PCB-1248)	mg/kg	0.041 U	0.044 U	1.7	1.3	0.26	3	0.051	0.43	0.0081 J	0.044 U	9
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.044 U	0.38 U	0.4 U	0.04 U	0.41 U	0.039 U	0.04 U	0.043 U	0.044 U	0.86 U
Aroclor-1260 (PCB-1260)	mg/kg	0.041 U	0.044 U	0.16 J	0.12 J	0.023 J	0.41 U	0.039 U	0.069	0.043 U	0.044 U	1.8
<b>General Chemistry</b>												
Total Solids	%	80.0	75.4	87.1	82.6	82.2	81.2	85.3	82.3	76.9	74.9	76.8

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT	B-X143Y193BT	B-X143Y193BU	B-X143Y193BU	B-X143Y193BU	B-X143Y193BU
Sample ID:	S-012505-KMV-1038	S-012505-KMV-1039	S-012505-KMV-1040	S-012505-KMV-1041	S-012505-KMV-1042	S-012505-KMV-1043	S-012505-KMV-1044	S-012505-KMV-1044	S-012505-KMV-1045	S-012505-KMV-1046	S-012505-KMV-1047	S-012505-KMV-1048
Sample Date:	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005
Sample Depth:	(4-6) ft	(6-8) ft	(8-10) ft	(8-10) ft	(10-12) ft	(10-12) ft	(12-14) ft	(14-16) ft	(0-0.5) ft	(1-2) ft	(2-4) ft	(4-6) ft
	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.041 UJ	0.043 U	0.044 U	0.083 U
Aroclor-1221 (PCB-1221)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.041 UJ	0.043 U	0.044 U	0.083 U
Aroclor-1232 (PCB-1232)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.041 UJ	0.043 U	0.044 U	0.083 U
Aroclor-1242 (PCB-1242)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.041 UJ	0.043 U	0.044 U	0.083 U
Aroclor-1248 (PCB-1248)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.025 J	0.043 U	0.044 U	0.52
Aroclor-1254 (PCB-1254)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.041 UJ	0.043 U	0.044 U	0.083 U
Aroclor-1260 (PCB-1260)	mg/kg	0.043 U	0.042 U	0.04 U	0.039 U	0.039 U	0.045 U	0.042 U	0.041 UJ	0.043 U	0.044 U	0.024 J
<b>General Chemistry</b>												
Total Solids	%	77.1	78.5	82.4	85.4	84.1	73.7	78.1	81.3	76.3	75.1	79.3
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193V	B-X143Y193W	B-X143Y193W	B-X143Y193W
Sample ID:	S-111804-DD-647	S-111804-DD-648	S-111804-DD-649	S-111804-DD-650	S-111804-DD-651	S-111804-DD-652	S-111804-DD-652	S-111804-DD-655	S-111804-DD-657	S-111804-DD-634	S-111804-DD-635	S-111804-DD-636
Sample Date:	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004
Sample Depth:	(1-2) ft	(2-4) ft	(4-6) ft	(4-6) ft	(6-8) ft	(8-10) ft	(8-10) ft	(14-16) ft	(18-20) ft	(0-0.5) ft	(1-2) ft	(2-4) ft
	(orig)	(orig)	(orig)	(Duplicate)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)	(orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.78 U	0.2 U	8 U	4 U	2 U	0.79 U	0.04 U	0.042 U	0.85 U	0.038 U	0.039 U
Aroclor-1221 (PCB-1221)	mg/kg	0.78 U	0.2 U	8 U	4 U	2 U	0.79 U	0.04 U	0.042 U	0.85 U	0.038 U	0.039 U
Aroclor-1232 (PCB-1232)	mg/kg	0.78 U	0.2 U	8 U	4 U	2 U	0.79 U	0.04 U	0.042 U	0.85 U	0.038 U	0.039 U
Aroclor-1242 (PCB-1242)	mg/kg	0.78 U	0.2 U	28	17	15	0.79 U	0.04 U	0.042 U	0.85 U	0.038 U	0.039 U
Aroclor-1248 (PCB-1248)	mg/kg	5.2	0.84	8 U	4 U	2 U	4	0.17	0.042 U	9.7	0.24	0.26
Aroclor-1254 (PCB-1254)	mg/kg	0.78 U	0.2 U	8 U	4 U	2 U	0.79 U	0.04 U	0.042 U	0.85 U	0.038 U	0.039 U
Aroclor-1260 (PCB-1260)	mg/kg	0.58 J	0.2 U	8 U	4 U	2 U	0.79 U	0.04 U	0.042 U	1.9	0.038	0.029 J
<b>General Chemistry</b>												
Total Solids	%	84.5	83.8	82.6	82.7	83.4	83.4	82.0	78.8	77.5	86.0	85.2

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BU	B-X143Y193BU	B-X143Y193BU	B-X143Y193BU	B-X143Y193BU	B-X143Y193BU	B-X143Y193BV	B-X143Y193BV	B-X143Y193BV	B-X143Y193BV	B-X143Y193BV	B-X143Y193BV
Sample ID:	S-012505-KMV-1049	S-012505-KMV-1050	S-012505-KMV-1051	S-012505-KMV-1052	S-012505-KMV-1053	S-012505-KMV-1054	S-012505-KMV-1055	S-012505-KMV-1056	S-012505-KMV-1057	S-012505-KMV-1058	S-012505-KMV-1059	S-012505-KMV-1059
Sample Date:	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005	1/25/2005
Sample Depth:	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	(12-14) ft (orig)	(14-16) ft (orig)	(16-18) ft (orig)	(18-20) ft (orig)	(0-5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.035 U	0.043 U	0.046 U	0.043 U	0.045 U	0.35 U	0.039 U	0.042 U	0.042 U	0.042 U	0.038 U
Aroclor-1221 (PCB-1221)	mg/kg	0.035 U	0.043 U	0.046 U	0.043 U	0.045 U	0.35 U	0.039 U	0.042 U	0.042 U	0.042 U	0.038 U
Aroclor-1232 (PCB-1232)	mg/kg	0.035 U	0.043 U	0.046 U	0.043 U	0.045 U	0.35 U	0.039 U	0.042 U	0.042 U	0.042 U	0.038 U
Aroclor-1242 (PCB-1242)	mg/kg	0.035 U	0.043 U	0.046 U	0.043 U	0.045 U	0.35 U	0.039 U	0.042 U	0.042 U	0.042 U	0.038 U
Aroclor-1248 (PCB-1248)	mg/kg	0.035 U	0.018 J	0.046 U	0.043 U	0.0068 J	1.8	0.011 J	0.0069 J	0.042 U	0.042 U	0.038 U
Aroclor-1254 (PCB-1254)	mg/kg	0.035 U	0.043 U	0.046 U	0.043 U	0.045 U	0.35 U	0.039 U	0.042 U	0.042 U	0.042 U	0.038 U
Aroclor-1260 (PCB-1260)	mg/kg	0.035 U	0.043 U	0.046 U	0.043 U	0.045 U	0.35 U	0.039 U	0.042 U	0.042 U	0.042 U	0.038 U
<b>General Chemistry</b>												
Total Solids	%	93.7	77.4	72.4	76.4	72.9	94.2	84.8	79.4	78.9	77.7	86.7
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193W	B-X143Y193W	B-X143Y193W	B-X143Y193W	B-X143Y193W	B-X143Y193W	B-X143Y193X	B-X143Y193X	B-X143Y193X	B-X143Y193X	B-X143Y193X	B-X143Y193X
Sample ID:	S-111804-DD-637	S-111804-DD-638	S-111804-DD-639	S-111804-DD-640	S-111804-DD-644	S-111804-DD-645	S-111804-DD-658	S-111804-DD-659	S-111804-DD-660	S-111804-DD-661	S-111804-DD-662	S-111804-DD-662
Sample Date:	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004
Sample Depth:	(4-6) ft (orig)	(4-6) ft (Duplicate)	(6-8) ft (orig)	(8-10) ft (orig)	(16-18) ft (orig)	(18-20) ft (orig)	(0-5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(6-8) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.041 U	0.04 U	0.19 U	0.041 U	0.045 U	0.42 U	0.39 U	0.79 U	0.21 U	0.41 U
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.041 U	0.04 U	0.19 U	0.041 U	0.045 U	0.42 U	0.39 U	0.79 U	0.21 U	0.41 U
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.041 U	0.04 U	0.19 U	0.041 U	0.045 U	0.42 U	0.39 U	0.79 U	0.21 U	0.41 U
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.041 U	0.04 U	0.19 U	0.041 U	0.045 U	0.42 U	0.39 U	0.79 U	0.21 U	0.41 U
Aroclor-1248 (PCB-1248)	mg/kg	0.09	0.031 J	0.0089 J	1.4	0.041 U	0.045 U	4.8	5.3	9	2.6	6.8
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.041 U	0.04 U	0.19 U	0.041 U	0.045 U	0.42 U	0.39 U	0.79 U	0.21 U	0.41 U
Aroclor-1260 (PCB-1260)	mg/kg	0.03 J	0.041 U	0.04 U	0.14 J	0.041 U	0.045 U	1.3	1.4	0.79 U	0.21 U	0.41 U
<b>General Chemistry</b>												
Total Solids	%	81.1	81.3	81.9	86.4	80.5	73.0	78.3	84.3	83.9	80.4	81.1

TABLE 2.4

**AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA**

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193BV	B-X143Y193BV	B-X143Y193D	B-X143Y193D	B-X143Y193D	B-X143Y193D	B-X143Y193D	B-X143Y193D	B-X143Y193D	B-X143Y193F	B-X143Y193F	B-X143Y193F
Sample ID:	S-012505-KMV-1060	S-012505-KMV-1061	S-102604-JC-350	S-102604-JC-351	S-102604-JC-352	S-102604-JC-353	S-102604-JC-354	S-102604-JC-355	S-102604-JC-356	S-102704-JC-357	S-102704-JC-357	S-102704-JC-358
Sample Date:	1/25/2005	1/25/2005	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004
Sample Depth:	(10-12) ft (orig)	(10-12) ft (Duplicate)	(0-2) ft (orig)	(2-4) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(4-6) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.045 U	0.044 U	0.82 U	0.38 U	1.9 U	2 U	0.037 UJ	0.04 UJ	0.75 U	1.9 U	4 U
Aroclor-1221 (PCB-1221)	mg/kg	0.045 U	0.044 U	0.82 U	0.38 U	1.9 U	2 U	0.037 UJ	0.04 UJ	0.75 U	1.9 U	4 U
Aroclor-1232 (PCB-1232)	mg/kg	0.045 U	0.044 U	0.82 U	0.38 U	1.9 U	2 U	0.037 UJ	0.04 UJ	0.75 U	1.9 U	4 U
Aroclor-1242 (PCB-1242)	mg/kg	0.045 U	0.044 U	0.82 U	0.38 U	1.9 U	2 U	0.15	0.26	0.75 U	1.9 U	33
Aroclor-1248 (PCB-1248)	mg/kg	0.0082 J	0.044 U	10	3.4	16	16	0.037 UJ	0.04 UJ	6.8	13	4 U
Aroclor-1254 (PCB-1254)	mg/kg	0.045 U	0.044 U	0.82 U	0.38 U	1.9 U	2 U	0.037 UJ	0.04 UJ	0.75 U	1.9 U	4 U
Aroclor-1260 (PCB-1260)	mg/kg	0.045 U	0.044 U	1	0.27 J	1.4 J	2 U	0.025 J	0.018 J	0.61 J	0.92 J	1.8 J
<b>General Chemistry</b>												
Total Solids	%	73.7	75.3	80.5	86.5	85.6	83.2	88.3	81.8	87.6	86.5	81.8
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193X	B-X143Y193X	B-X143Y193X	B-X143Y193X	B-X143Y193Y	B-X143Y193Y	B-X143Y193Y	B-X143Y193Y	B-X143Y193Y	B-X143Y193Y	B-X143Y193Y	B-X143Y193Y
Sample ID:	S-111804-DD-663	S-111804-DD-664	S-111804-DD-666	S-111804-DD-669	S-111904-DD-670	S-111904-DD-671	S-111904-DD-672	S-111904-DD-675	S-111904-DD-673	S-111904-DD-674	S-111904-DD-674	S-111904-DD-676
Sample Date:	11/19/2004	11/19/2004	11/18/2004	11/18/2004	11/19/2004	11/19/2004	11/19/2004	11/19/2004	11/19/2004	11/19/2004	11/19/2004	11/19/2004
Sample Depth:	(8-10) ft (orig)	(8-10) ft (Duplicate)	(12-14) ft (orig)	(18-20) ft (orig)	(0-0.5) ft (orig)	(1-2) ft (orig)	(2-4) ft (orig)	(2-4) ft (Duplicate)	(4-6) ft (orig)	(6-8) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.8 U	0.79 U	0.041 U	0.044 U	20 U	19 U	0.8 U	2 U	2 U	3.9 U	8.2 U
Aroclor-1221 (PCB-1221)	mg/kg	0.8 U	0.79 U	0.041 U	0.044 U	20 U	19 U	0.8 U	2 U	2 U	3.9 U	8.2 U
Aroclor-1232 (PCB-1232)	mg/kg	0.8 U	0.79 U	0.041 U	0.044 U	20 U	19 U	0.8 U	2 U	2 U	3.9 U	8.2 U
Aroclor-1242 (PCB-1242)	mg/kg	0.8 U	0.79 U	0.2	0.044 U	20 U	19 U	0.8 U	2 U	2 U	3.9 U	8.2 U
Aroclor-1248 (PCB-1248)	mg/kg	10	13	0.041 U	0.044 U	140	170	5.4	16	13	19	71
Aroclor-1254 (PCB-1254)	mg/kg	0.8 U	0.79 U	0.041 U	0.044 U	20 U	19 U	0.8 U	2 U	2 U	3.9 U	8.2 U
Aroclor-1260 (PCB-1260)	mg/kg	0.8 U	0.79 U	0.041 U	0.044 U	24	28	0.56 J	2 U	0.73 J	1.7 J	3 J
<b>General Chemistry</b>												
Total Solids	%	82.5	83.1	80.2	75.1	83.4	86.7	82.1	84.2	81.2	85.4	80.5

TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193G	B-X143Y193G	B-X143Y193G	B-X143Y193G	B-X143Y193G	B-X143Y193G	B-X143Y193G	B-X143Y193H	B-X143Y193H	B-X143Y193H	B-X143Y193H	B-X143Y193I
Sample ID:	S-102704-JC-361	S-102704-JC-362	S-102704-JC-363	S-102704-JC-364	S-102704-JC-365	S-102704-JC-366	S-102704-JC-367	S-102704-JC-368	S-102704-JC-369	S-102704-JC-370	S-102704-JC-371	S-102704-JC-373
Sample Date:	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004	10/27/2004
Sample Depth:	(0-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(4-6) ft (Duplicate)	(6-8) ft (orig)	(8-10) ft (orig)	(4-6) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(4-6) ft (orig)	(2-4) ft (orig)	(0-2) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	1.9 U	3.9 U	40 U	40 U	0.04 UJ	0.042 UJ	0.19 U	20 U	0.39 U	0.44 U	0.38 U
Aroclor-1221 (PCB-1221)	mg/kg	1.9 U	3.9 U	40 U	40 U	0.04 UJ	0.042 UJ	0.19 U	20 U	0.39 U	0.44 U	0.38 U
Aroclor-1232 (PCB-1232)	mg/kg	1.9 U	3.9 U	40 U	40 U	0.04 UJ	0.042 UJ	0.19 U	20 U	0.39 U	0.44 U	0.38 U
Aroclor-1242 (PCB-1242)	mg/kg	1.9 U	3.9 U	40 U	40 U	0.32	0.042 UJ	0.19 U	20 U	0.39 U	0.44 U	0.38 U
Aroclor-1248 (PCB-1248)	mg/kg	14	36	770	590	0.04 UJ	0.14	1.1	350	3.8	1.5	3.6
Aroclor-1254 (PCB-1254)	mg/kg	1.9 U	3.9 U	40 U	40 U	0.04 UJ	0.042 UJ	0.19 U	20 U	0.39 U	0.44 U	0.38 U
Aroclor-1260 (PCB-1260)	mg/kg	1 J	3.9 U	62	42	0.065	0.012 J	0.29	14 J	0.38 J	0.26 J	0.46
<b>General Chemistry</b>												
Total Solids	%	86.2	84.8	82.4	83.1	82.8	79.4	85.5	84.1	84.3	75.2	85.9
Sample Area:	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193Y	B-X143Y193Y	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z	B-X143Y193Z
Sample ID:	S-111904-DD-678	S-111904-DD-679	S-112204-DD-680	S-112204-DD-689	S-112204-DD-681	S-112204-DD-682	S-112204-DD-683	S-112204-DD-684	S-112204-DD-685	S-112204-DD-686	S-112204-DD-688	S-112204-DD-688
Sample Date:	11/19/2004	11/19/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004	11/22/2004
Sample Depth:	(12-14) ft (orig)	(16-18) ft (orig)	(0-0.5) ft (orig)	(0-0.5) ft (Duplicate)	(1-2) ft (orig)	(2-4) ft (orig)	(4-6) ft (orig)	(6-8) ft (orig)	(8-10) ft (orig)	(10-12) ft (orig)	(14-16) ft (orig)	(14-16) ft (orig)
Parameters	Units											
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	0.083 U	0.044 U	0.4 U	1.9 U	0.19 U	0.39 U	0.41 U	0.4 U	0.039 U	0.04 U	0.043 U
Aroclor-1221 (PCB-1221)	mg/kg	0.083 U	0.044 U	0.4 U	1.9 U	0.19 U	0.39 U	0.41 U	0.4 U	0.039 U	0.04 U	0.043 U
Aroclor-1232 (PCB-1232)	mg/kg	0.083 U	0.044 U	0.4 U	1.9 U	0.19 U	0.39 U	0.41 U	0.4 U	0.039 U	0.04 U	0.043 U
Aroclor-1242 (PCB-1242)	mg/kg	0.12	0.044 U	0.4 U	1.9 U	0.19 U	0.39 U	0.41 U	0.4 U	0.039 U	0.04 U	0.043 U
Aroclor-1248 (PCB-1248)	mg/kg	0.083 U	0.044 U	5	10	1.3	4.4	2.4	3.9	0.084	0.023 J	0.012 J
Aroclor-1254 (PCB-1254)	mg/kg	0.083 U	0.044 U	0.4 U	1.9 U	0.19 U	0.39 U	0.41 U	0.4 U	0.039 U	0.04 U	0.043 U
Aroclor-1260 (PCB-1260)	mg/kg	0.083 U	0.044 U	1.1	2.5	0.19 U	0.39 U	0.41 U	0.4 U	0.039 U	0.04 U	0.043 U
<b>General Chemistry</b>												
Total Solids	%	79.5	75.5	82.4	84.9	86.0	85.5	81.5	81.7	84.2	82.5	77.2



TABLE 2.4

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area: A021-2  
 Sample Location: B-X143Y193I  
 Sample ID: S-102704-JC-374  
 Sample Date: 10/27/2004  
 Sample Depth: (2-4) ft  
 (orig)

Parameters	Units	
<b>PCBs</b>		
Aroclor-1016 (PCB-1016)	mg/kg	19 U
Aroclor-1221 (PCB-1221)	mg/kg	19 U
Aroclor-1232 (PCB-1232)	mg/kg	19 U
Aroclor-1242 (PCB-1242)	mg/kg	19 U
Aroclor-1248 (PCB-1248)	mg/kg	200
Aroclor-1254 (PCB-1254)	mg/kg	19 U
Aroclor-1260 (PCB-1260)	mg/kg	21
<b>General Chemistry</b>		
Total Solids	%	86.5

Sample Area:  
 Sample Location:  
 Sample ID:  
 Sample Date:  
 Sample Depth:

Parameters	Units	
<b>PCBs</b>		
Aroclor-1016 (PCB-1016)	mg/kg	
Aroclor-1221 (PCB-1221)	mg/kg	
Aroclor-1232 (PCB-1232)	mg/kg	
Aroclor-1242 (PCB-1242)	mg/kg	
Aroclor-1248 (PCB-1248)	mg/kg	
Aroclor-1254 (PCB-1254)	mg/kg	
Aroclor-1260 (PCB-1260)	mg/kg	
<b>General Chemistry</b>		
Total Solids	%	

TABLE 2.5

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY - VOCs, SVOCs, AND METALS  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AH	B-X143Y193B	B-X143Y193B	B-X143Y193B
Sample ID:	S-120104-DD-771	S-040704-JC-047	S-040704-JC-048	S-040704-JC-049
Sample Date:	12/1/2004	4/7/2004	4/7/2004	4/7/2004
Sample Depth:	(12.5-14.5) ft (orig)	(0-2) ft (orig)	(6-8) ft (orig)	(27-29.4) ft (orig)
Parameters	Units			
<i>Volatile Organic Compounds</i>				
1,1,1-Trichloroethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,1,2-Trichloroethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,1-Dichloroethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,1-Dichloroethene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg 0.012 U	0.0096 U	0.0094 U	0.011 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,2-Dichlorobenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,2-Dichloroethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,2-Dichloropropane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,3-Dichlorobenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
1,4-Dichlorobenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg 0.0068 J	0.019 U	0.0023 J	0.0021 J
2-Hexanone	mg/kg 0.024 U	0.019 U	0.019 U	0.023 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg 0.024 U	0.019 U	0.019 U	0.023 U
Acetone	mg/kg 0.024 U	0.019 U	0.01 J	0.011 J
Benzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Bromodichloromethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Bromoform	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Carbon disulfide	mg/kg 0.0059 U	0.0048 U	0.0011 J	0.0057 U
Carbon tetrachloride	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Chlorobenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Chloroethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Chloroform (Trichloromethane)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg 0.003 U	0.0024 U	0.0023 U	0.0013 J
cis-1,3-Dichloropropene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Cyclohexane	mg/kg 0.012 U	0.0096 U	0.0094 U	0.011 U
Dibromochloromethane	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Dichlorodifluoromethane (CFC-12)	mg/kg 0.0059 UJ	0.0048 U	0.0047 U	0.0057 U
Ethylbenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Isopropylbenzene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Methyl acetate	mg/kg 0.012 U	0.0096 U	0.0094 U	0.011 U
Methyl cyclohexane	mg/kg 0.012 U	0.0096 U	0.0094 U	0.011 U
Methyl Tert Butyl Ether	mg/kg 0.024 U	0.019 U	0.019 U	0.023 U
Methylene chloride	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Styrene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Tetrachloroethene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Toluene	mg/kg 0.00075 J	0.0048 U	0.0047 U	0.0057 U
trans-1,2-Dichloroethene	mg/kg 0.003 U	0.0024 U	0.0023 U	0.0028 U
trans-1,3-Dichloropropene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Trichloroethene	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Trichlorofluoromethane (CFC-11)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Trifluorotrichloroethane (Freon 113)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Vinyl chloride	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
Xylene (total)	mg/kg 0.0059 U	0.0048 U	0.0047 U	0.0057 U
<i>Semi-Volatile Organic Compounds</i>				
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg 0.42 U	0.39 U	0.38 U	0.41 U
2,4,5-Trichlorophenol	mg/kg 0.42 U	0.39 U	0.38 U	0.41 U

TABLE 2.5

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY - VOCs, SVOCs, AND METALS  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AH	B-X143Y193B	B-X143Y193B	B-X143Y193B
Sample ID:	S-120104-DD-771	S-040704-JC-047	S-040704-JC-048	S-040704-JC-049
Sample Date:	12/1/2004	4/7/2004	4/7/2004	4/7/2004
Sample Depth:	(12.5-14.5) ft	(0-2) ft	(6-8) ft	(27-29.4) ft
	(orig)	(orig)	(orig)	(orig)
Parameters	Units			
2,4,6-Trichlorophenol	mg/kg	0.42 U	0.39 U	0.38 U
2,4-Dichlorophenol	mg/kg	0.42 U	0.39 U	0.38 U
2,4-Dimethylphenol	mg/kg	0.42 U	0.39 U	0.38 U
2,4-Dinitrophenol	mg/kg	2 U	1.9 U	1.9 U
2,4-Dinitrotoluene	mg/kg	0.42 U	0.39 U	0.38 U
2,6-Dinitrotoluene	mg/kg	0.42 U	0.39 U	0.38 U
2-Chloronaphthalene	mg/kg	0.42 U	0.39 U	0.38 U
2-Chlorophenol	mg/kg	0.42 U	0.39 U	0.38 U
2-Methylnaphthalene	mg/kg	0.42 U	0.39 U	0.38 U
2-Methylphenol	mg/kg	0.42 U	0.39 U	0.38 U
2-Nitroaniline	mg/kg	2 UJ	1.9 U	1.9 U
2-Nitrophenol	mg/kg	0.42 U	0.39 U	0.38 U
3,3'-Dichlorobenzidine	mg/kg	2 U	1.9 U	1.9 U
3-Nitroaniline	mg/kg	2 U	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	mg/kg	2 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	mg/kg	0.42 U	0.39 U	0.38 U
4-Chloro-3-methylphenol	mg/kg	0.42 U	0.39 U	0.38 U
4-Chloroaniline	mg/kg	0.42 U	0.39 U	0.38 U
4-Chlorophenyl phenyl ether	mg/kg	0.42 U	0.39 U	0.38 U
4-Methylphenol	mg/kg	0.42 U	0.39 U	0.38 U
4-Nitroaniline	mg/kg	2 U	1.9 U	1.9 U
4-Nitrophenol	mg/kg	2 U	1.9 U	1.9 U
Acenaphthene	mg/kg	0.42 U	0.39 U	0.38 U
Acenaphthylene	mg/kg	0.42 U	0.39 U	0.38 U
Acetophenone	mg/kg	0.42 U	0.39 U	0.38 U
Anthracene	mg/kg	0.42 U	0.39 U	0.38 U
Atrazine	mg/kg	0.42 U	0.39 U	0.38 U
Benzaldehyde	mg/kg	0.42 U	0.39 U	0.38 UJ
Benzo(a)anthracene	mg/kg	0.42 U	0.39 U	0.38 U
Benzo(a)pyrene	mg/kg	0.42 U	0.39 U	0.083 J
Benzo(b)fluoranthene	mg/kg	0.42 U	0.39 U	0.38 UJ
Benzo(g,h,i)perylene	mg/kg	0.42 U	0.39 U	0.38 U
Benzo(k)fluoranthene	mg/kg	0.42 U	0.39 U	0.38 U
Biphenyl	mg/kg	0.42 U	0.39 U	0.38 U
bis(2-Chloroethoxy)methane	mg/kg	0.42 U	0.39 U	0.38 U
bis(2-Chloroethyl)ether	mg/kg	0.42 U	0.39 U	0.38 U
bis(2-Ethylhexyl)phthalate	mg/kg	0.42 U	0.39 U	0.38 U
Butyl benzylphthalate	mg/kg	0.42 U	0.39 U	0.38 U
Caprolactam	mg/kg	0.42 U	0.39 U	0.38 U
Carbazole	mg/kg	0.42 U	0.39 U	0.38 U
Chrysene	mg/kg	0.42 U	0.39 U	0.38 U
Dibenz(a,h)anthracene	mg/kg	0.42 U	0.39 U	0.38 U
Dibenzofuran	mg/kg	0.42 U	0.39 U	0.38 U
Diethyl phthalate	mg/kg	0.42 U	0.39 U	0.38 U
Dimethyl phthalate	mg/kg	0.42 U	0.39 U	0.38 U
Di-n-butylphthalate	mg/kg	0.42 U	0.39 U	0.38 U
Di-n-octyl phthalate	mg/kg	0.42 U	0.39 U	0.38 U
Fluoranthene	mg/kg	0.025 J	0.085 J	0.38 U
Fluorene	mg/kg	0.42 U	0.39 U	0.38 U
Hexachlorobenzene	mg/kg	0.42 U	0.39 U	0.38 U
Hexachlorobutadiene	mg/kg	0.42 U	0.39 U	0.38 U
Hexachlorocyclopentadiene	mg/kg	2 UJ	1.9 U	1.9 U
Hexachloroethane	mg/kg	0.42 U	0.39 U	0.38 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.42 U	0.39 U	0.38 U
Isophorone	mg/kg	0.42 U	0.39 U	0.38 U
Naphthalene	mg/kg	0.42 U	0.39 U	0.38 U

TABLE 2.5

AOI 21 AREA 2 SOIL ANALYTICAL RESULTS SUMMARY - VOCs, SVOCs, AND METALS  
GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA

Sample Area:	A021-2	A021-2	A021-2	A021-2
Sample Location:	B-X143Y193AH	B-X143Y193B	B-X143Y193B	B-X143Y193B
Sample ID:	S-120104-DD-771	S-040704-JC-047	S-040704-JC-048	S-040704-JC-049
Sample Date:	12/1/2004	4/7/2004	4/7/2004	4/7/2004
Sample Depth:	(12.5-14.5) ft (orig)	(0-2) ft (orig)	(6-8) ft (orig)	(27-29.4) ft (orig)
<b>Parameters</b>				
	<b>Units</b>			
Nitrobenzene	mg/kg	0.42 U	0.39 U	0.38 U
N-Nitrosodi-n-propylamine	mg/kg	0.42 U	0.39 U	0.38 U
N-Nitrosodiphenylamine	mg/kg	0.42 U	0.39 U	0.38 U
Pentachlorophenol	mg/kg	0.42 U	0.39 U	0.38 U
Phenanthrene	mg/kg	0.42 U	0.39 U	0.38 U
Phenol	mg/kg	0.42 U	0.39 U	0.38 U
Pyrene	mg/kg	0.021 J	0.07 J	0.38 U
<b>Metals</b>				
Aluminum	mg/kg	8970	13600	6860
Antimony	mg/kg	R	0.95 J	0.28 J
Arsenic	mg/kg	6.4 J	6.3	3.6
Barium	mg/kg	98.8 J	54.1	31.9
Beryllium	mg/kg	0.91 U	0.59 U	0.58 U
Cadmium	mg/kg	0.64 UJ	0.73	0.43 J
Chromium Total	mg/kg	20.3	64.5 J	23.1 J
Cobalt	mg/kg	15.9 J	128	20.3
Copper	mg/kg	10.1	198 J	101 J
Iron	mg/kg	20300	17100	9010
Lead	mg/kg	23.4 J	67.2	34.9
Manganese	mg/kg	1700	503 J	222 J
Mercury	mg/kg	0.27 U	0.63	0.20
Nickel	mg/kg	10.7	183	38.9
Selenium	mg/kg	0.64 UJ	0.59 U	0.58 U
Silver	mg/kg	1.3 UJ	1.2 U	1.2 U
Thallium	mg/kg	1.3 UJ	1.2 U	0.57 J
Vanadium	mg/kg	24.9	25.2	12.8
Zinc	mg/kg	41.9 J	97.8	61.7
<b>General Chemistry</b>				
Cyanide (amenable)	mg/kg	-	0.59 U	0.58 U
Cyanide (total)	mg/kg	-	0.59 U	0.58 U

APPENDIX A

STREAMLINED HUMAN HEALTH RISK ASSESSMENT

## CONTENTS

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## A1 INTRODUCTION

A streamlined human health risk assessment was performed to support a determination of whether interim measures (IM) are warranted within the West Plant Area. Where IM were determined to be warranted, additional risk calculations were performed to estimate the risk reduction that would be achieved by the IM alternatives identified in Section 4.

The determination of whether environmental media at the West Plant Area warrant IM is discussed in Section A2. The additional risk calculations performed to estimate risk reduction associated with specific IM alternatives are discussed in Section A3. References cited in this appendix are listed in Section A4.

## A2 BASELINE RISK ASSESSMENT

A streamlined baseline risk assessment was conducted to evaluate the significance of reasonable maximum exposure (RME) to environmental media at the West Plant Area under current and reasonably expected future land use. Estimates of site-related cumulative cancer and noncancer risks for the MRE were developed using exposure scenarios that are consistent with current and reasonably expected future land use at the West Plant Area along with conservative assumptions and methodologies based on U.S. EPA risk assessment guidance. The estimates of site-related cumulative cancer risk and noncancer hazard indices (HI) were then compared with U.S. EPA-established levels for triggering remedial actions under RCRA, which are  $10^{-4}$  and 1, respectively (U.S. EPA 1991; U.S. EPA 1996).

### A2.1 BASELINE EXPOSURE SCENARIOS

Because current land use at the West Plant Area is industrial and future land use is expected to remain industrial, the potentially exposed populations at the West Plant Area under current and reasonably expected future land uses include routine workers, construction workers, and trespassers.

Potential exposure of these receptor populations to environmental media under current conditions at AOIs within the West Plant Area was evaluated as part of the RCRA Corrective Action Environmental Indicators (EI) determination of whether current human exposures are under control (CA725). The evaluation and its results are presented in the RCRA EI CA725 Report (ENVIRON, 2005). As discussed in the CA725 Report, certain locations within the West Plant Area were identified as having media with concentrations of hazardous constituents that should be further considered for IM, even though they do not currently pose significant risk. GM has restricted access in these areas to ensure that

no significant exposures would occur at these locations while planning the IM for the West Plant Area.

The hypothetical exposures for the receptor populations evaluated in the baseline risk assessment are discussed below.

### **Routine Workers**

The largest receptor population at the West Plant Area would be expected to consist of workers who are engaged in routine industrial activities that generally take place indoors. During limited time outdoors, some workers could contact surface soil. In this risk assessment, it is conservatively assumed that workers could have daily contact with surface soil at all the AOIs in the West Plant Area, except for the two small parts of AOI 21-2 that are within approximately 30 feet of GM Drive and outside the facility's security fence where routine worker activities are not reasonably expected. These two parts of AOI 21-2 are designated as A021-2\_RoadEast and A021-2\_RoadWest. Potential routes of exposure to surface soil would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

Exposure of routine workers via groundwater use was not evaluated because groundwater is not used as a potable or non-potable water supply at the West Plant Area or in the vicinity, and future potable or non-potable use is not reasonably expected.

### **Construction Workers**

A small fraction of the workers at the West Plant Area are expected to conduct occasional subsurface construction or maintenance activities, which could put them in contact with surface and subsurface soil in the West Plant Area, including A021-2\_RoadEast and A021-2\_RoadWest. Under GM operations, these subsurface activities are expected to be of limited size and duration (e.g., installation or repair of underground utilities, or removal or repair of pavement). Potential routes of exposure to surface and subsurface soil under these scenarios would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

During subsurface construction activities, workers could also contact shallow groundwater (within 10 ft bgs) and spring water. There is no contamination in the shallow groundwater and spring water at the West Plant Area with the exception of two springs. However, these springs have been contained as part of the Site Source Control (CRA 2003). Therefore, there is no complete exposure pathway to groundwater and spring water at the West Plant Area.



### Trespassers

Fencing and security personnel control access to most portions of the Facility, so that trespassing is unlikely, and if to occur, would be possible only at limited locations and for short periods. Trespassers in the West Plant Area could come into contact with soil that is exposed, if any, including at A021-2\_RoadEast and A021-2\_RoadWest. Potential routes of exposure would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

Exposure factors for calculating chemical intakes for the three receptor populations discussed above are shown in the Attachment to this appendix. There are the same as those used in the EI CA725 determination and were discussed in the Appendix B2 of the RCRA EI CA725 Report (ENVIRON, 2005), and therefore, are not repeated here.

### **A2.2**      BASELINE RISK ESTIMATES

The significance of potential exposures of the receptors discussed above were evaluated by estimating the cumulative cancer and noncancer risks under each exposure scenario using conservative exposure assumptions from U.S. EPA risk assessment guidance or similarly conservative assumptions based on professional judgment where guidance is not available. The methods used in the risk evaluation are discussed in the RCRA EI CA725 Report (ENVIRON, 2005), and therefore, are not repeated here. The supporting risk calculations are included in the attachment to this Appendix. The risk estimates from these calculations are discussed below for each receptor.

### Routine Workers

Potential exposure of routine workers to surface soil was evaluated using U.S. EPA-recommended standard default exposure factors for estimating RME risks under generic commercial/industrial settings, as discussed in Appendix B of the RCRA EI CA725 Report (ENVIRON, 2005). Table A.1 shows the bounding estimates of site-related cumulative cancer risks and noncancer hazard indices (HI) using these conservative exposure assumptions and the highest detected concentrations at any depth in soil at each AOI in the West Plant Area. The estimates of cumulative cancer risks and noncancer HIs for routine workers are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for AOIs 9, 18, 21-1, 21-2 (the area west of the GM drive including A021-2\_RoadWest [A021-2] and the area west of the GM drive and within the security fencing [A021-2\_InFence]), 21-4, and 22. For these AOIs, the estimates were refined by using the highest detected concentrations in surface soil and 95% upper confidence limits (UCL) for key constituents (PCBs for AOIs 18, 21-1, 21-2, and 21-4 and antimony for AOI 22).

As shown on Table A.2, the refined cancer risk estimates are acceptable for all the AOIs, but the refined noncancer HIs still exceed the U.S. EPA-established limit of 1 for AOIs 18, 21-1 and 21-2. As discussed in the RCRA EI CA725 Report (ENVIRON, 2005), these upper-bound and refined risk estimates are based on the highly conservative assumptions that workers spend the entire workday in contact with soil at each AOI. As such, they overstate the risks associated with reasonable maximum exposures under current conditions at the Facility where the workers are unlikely to spend an entire day in contact with soil at one area. However, to address the potential for significant future exposures at AOIs 18, 21-1 and 21-2, additional risk calculations were performed for surface soil at these areas in Section A3 to estimate the risk reduction that would be achieved by the IM alternatives identified in Section 4 of this Work Plan. The predominant constituent contributing to these risk estimates is PCBs, and the most significant routes of exposure are ingestion and dermal contact.

### **Construction Workers**

Potential exposure of construction workers to surface and subsurface soil was evaluated for workers conducting occasional subsurface construction or maintenance activities in the West Plant Area, as discussed above. U.S. EPA-recommended exposure factors for estimating RME risks were used for contact rates, as discussed in Appendix B2.3.3 of the RCRA EI CA725 Report (ENVIRON, 2005), and exposure was assumed to occur on average of 5 days/year for 10 years. The expected maximum depth of excavation is 10 ft. It should be noted that the number of days of exposure represent the number of days that workers have intensive contact with soil (e.g., during excavation work) rather than the number of days of construction work which typically includes days without intensive soil contact.

Table A.1 shows the bounding estimates of site-related cumulative cancer risks and noncancer hazard indices (HI) for the construction workers using the highest detected concentrations at any depth in soil at each AOI in the West Plant Area. The estimates of cumulative cancer risks and noncancer HIs are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for AOIs 9 and 21-2 (at A021-2, A021-2\_InFence, and A021-2\_RoadWest). For these areas, the estimates were refined by using the highest detected concentrations at the 0-10 ft interval in soil and 95% UCLs for PCBs. As shown on Table A.3, the refined cancer and noncancer risk estimates are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively.

### **Trespassers**

Potential exposure of trespassers to surface soil was evaluated using site-specific exposure factors for estimating RME for adolescents between ages 9 to 18. The exposure factors for this receptor are discussed in Appendix B2.3.4 of the RCRA EI CA725 Report (ENVIRON, 2005). Table A.1 shows the upper-bound estimates of site-related

cumulative cancer risks and noncancer hazard indices (HI) using these conservative exposure assumptions and the highest detected concentrations at any depth in soil at each AOI in the West Plant Area. The estimates of cumulative cancer risks and noncancer HIs for trespassers are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for AOI 21-2 (at A021-2, A021-2\_InFence, and A021-2\_RoadWest). For these areas, the estimates were refined by using the highest detected concentrations in surface soil and 95% upper confidence limits (UCL) for PCBs. As shown on Table A.2, the refined cancer risk estimates are within the U.S. EPA-acceptable limits for these areas.

#### **Exposure to Lead**

USEPA (2003) evaluates the significance of lead exposures using blood lead level as an index of exposure, rather than in terms of cancer risks or noncancer HQs. For evaluating adult exposure to soil lead, USEPA has recommended a blood lead modeling methodology for deriving a criterion that is protective of routine worker exposure to lead in soil. Criterion derived using this methodology can range from approximately 750 mg/kg to 1,750 mg/kg (USEPA 2003). As USEPA discussed in the regulations at 40 CFR Part 745, the soil lead screening level should be compared with the arithmetic mean concentration of lead within the area where potential exposures are assumed to occur in order to be consistent with the principles underlying the blood lead modeling approaches used in deriving the screening level. Table A.4 shows the mean lead concentrations in surface soil (0 to 2 feet bgs) and the depth-averaged subsurface soil column (0 to 10 feet bgs) with the soil screening criterion at each AOI in the West Plant Area. The mean lead concentration estimates for surface and subsurface soils at these AOIs are below or within the USEPA-recommended acceptable range of screening criterion for worker exposure to lead in soil.

### **A3 POST-IM RISK ASSESSMENT**

The baseline risk assessment showed that surface soil at certain locations in AOIs 18, 21-1 and 21-2 warrant IM, as discussed in Section A2.2. To support an evaluation of the IM alternatives for addressing surface soil, additional risk calculations were performed to estimate risk reduction associated with the proposed IM discussed in Section 4 of this Work Plan.

At AOIs 18, 21-1 and 21-2, concentrations of PCBs in surface soil at some locations are high enough that they had to be removed from the risk calculations in order for the cumulative cancer and noncancer risk estimates for routine workers to be within the acceptable limits. The locations and corresponding concentrations that were removed from the risk calculations are listed on Table A.5. Further action (e.g., capping) is proposed to restrict or eliminate access to these locations, as discussed in Section A2.2.

As shown on Table A.6, after excluding the concentrations shown on Table A.5, the high-end estimates of cumulative cancer risk and HI for routine workers at these AOIs do not exceed  $10^{-4}$  or 1, respectively, using the highest detected concentrations in surface soil and 95% UCLs for PCBs. This means that once the proposed IM is implemented at the locations specified on Table A.6, there would be no unacceptable exposure of routine workers to surface soil at the West Plant Area.

#### A4 REFERENCES

- Conestoga-Rovers & Associates (CRA). 2003. Site Source Control Work Plan, GM Powertrain Bedford Facility, Bedford, Indiana. November.
- ENVIRON International Corporation. 2005. Resource Conservation and Recovery Act Environmental Indicator CA725 Report: Determination of Current Human Exposures Under Control, GM Powertrain Bedford Facility, Bedford, Indiana. January.
- United States Environmental Protection Agency (USEPA). 1991. Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions. Memorandum from Don R. Clay to Regional Directors. OSWER Directive 9355.0-30. April 22.
- United States Environmental Protection Agency (USEPA). 1996. 61 FR 19432, May 1.
- United States Environmental Protection Agency (USEPA). 2003. Office of Solid Waste and Emergency Response (OSWER). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil. December.

ATTACHMENT

SUPPORTING RISK CALCULATIONS

**Table A.1: Upper-Bound Estimates of Cumulative Cancer Risks and HIs for Soil Based on Highest Concentrations West Plant Area, GM Powertrain Bedford Facility, Bedford, Indiana**

AOI	Routine Worker Risk	Routine Worker HI	Construction Worker Risk	Construction Worker HI	Trespasser Cumulative Risk	Trespasser HI
A001	9E-06	2E-01	3E-07	7E-02	1E-07	8E-03
A002	3E-06	3E-01	1E-07	5E-02	4E-08	1E-02
A009	5E+04	4E+01	9E-06	2E+00	6E-06	9E-01
A011	6E-06	3E-01	9E-08	1E-02	7E-08	9E-03
A012	N/A	6E-02	N/A	5E-03	N/A	3E-03
A013	3E-07	6E-02	2E-09	2E-03	6E-09	4E-03
A017	4E-06	3E-01	2E-07	4E-02	5E-08	8E-03
A018	2E-04	1E+01	4E-06	5E-01	2E-06	3E-01
A019	N/A	6E-07	N/A	2E-08	N/A	4E-08
A020	N/A	3E-04	N/A	2E-05	N/A	4E-05
A021	2E-05	6E-01	6E-07	5E-02	2E-07	2E-02
A021-1	8E-05	6E+00	1E-06	2E-01	1E-06	1E-01
A021-2	1E-02	8E+02	2E-04	3E+01	2E-04	2E+01
A021-2_InFence	1E-02	8E+02	2E-04	3E+01	1E-04	2E+01
A021-2_RoadEast	N/A	N/A	3E-08	6E-03	3E-08	3E-03
A021-2_RoadWest	N/A	N/A	2E-04	3E+01	2E-04	2E+01
A021-3	2E-06	1E+00	6E-07	5E-02	3E-08	7E-02
A021-4	4E-05	2E+00	6E-07	1E-01	4E-07	6E-02
A022	7E-06	2E+00	2E-07	2E-01	1E-07	9E-02
A024	1E-07	7E-02	8E-08	6E-03	1E-09	3E-03
GMPT_LaSalle	2E-08	4E-02	3E-08	6E-03	4E-10	1E-03
P002	1E-06	1E-01	2E-08	1E-02	1E-08	3E-03
Plant_Boundary	6E-05	3E-01	1E-06	1E-02	7E-07	9E-03

**Notes:**

The bounding risk estimates are based on the highest concentrations in soil at any depth; only data within the West Plant Area area used in the risk estimates. Concentrations in field duplicate pairs were averaged before use in risk calculations.

N/A for A012, A019, and A020 indicates no carcinogens were detected at that area.

N/A for A021-2\_RoadEast and A021-2\_RoadWest indicates routine worker risk estimates are not appropriate in these areas.

The data in A021-2 are evaluated in the following areas within AOI 21-2 because of the security fence and roadway:

- A021-2 includes all data in A021-2 west of GM Drive.
- A021-2\_InFence includes all data in A021-2 west of GM Drive and inside the security fence.
- A021-2\_RoadEast includes data from boring locations B-X143Y193BT, BU, and BV located east of GM Drive.
- A021-2\_RoadWest includes all data in A021-2 west of GM Drive and outside the security fence.
- Plant\_Boundary includes all data collected from the West Plant Area but are not assigned to any AOI.

**Table A.2: High-End Estimates of Cumulative Cancer Risks and HIs for Routine Workers and Trespassers Based on 95% UCLs and Highest Concentrations in Surface Soil  
West Plant Area, GM Powertrain Bedford Facility, Bedford, Indiana**

AOI	Routine Worker Cumulative Risk	Routine Worker HI	Trespasser Cumulative Risk	Trespasser HI
A009	3E-06	1E-01	N/A	N/A
A018	6E-05	4E+00	N/A	N/A
A021-1	3E-05	2E+00	N/A	N/A
A021-2	9E-05	6E+00	1E-06	2E-01
A021-2_InFence	1E-04	7E+00	1E-06	2E-01
A021-2_RoadWest	N/A	N/A	1E-06	1E-01
A021-4	2E-05	1E+00	N/A	N/A
A022	7E-06	8E-01	N/A	N/A
<b>Note:</b>				
UCLs were calculated on PCBs (total) and used in the risk estimates except for A009 where the highest concentrations in surface soil were used, and for A022, for which the UCL was calculated for antimony.				
N/A for A009, A018, A021-2, A021-4, and A022 indicates trespasser risk estimates need not be refined.				
N/A for A021-2_RoadWest indicates routine worker risk estimates are not appropriate in these areas.				

**Table A.3: High-End Estimates of Cumulative Cancer Risks and HIs for  
Construction Workers Based on 95% UCLs and Highest Concentrations in Soil  
from 0-10 ft.  
West Plant Area, GM Powertrain Bedford Facility, Bedford, Indiana**

AOI	Construction Worker Cumulative Risk	Construction Worker HI
A009	2E-06	4E-01
A021-2	3E-06	6E-01
A021-2_InFence	3E-06	6E-01
A021-2_RoadWest	2E-06	3E-01
<b>Note:</b>		
UCLs were calculated on PCBs (total) and used in the risk estimates.		



**Table A.4: Lead Concentrations in Soil**  
**West Plant Area, GM Powertrain Bedford Facility, Bedford, Indiana**

AOI	Mean Conc in Surface Soil (mg/kg)	Mean of Conc in Subsurface Soil (mg/kg)
A001	8.47E+01	9.79E+01
A002	2.11E+01	3.31E+01
A009	2.80E+00	7.09E+00
A011	2.54E+01	5.29E+01
A012	1.25E+01	1.25E+01
A017	1.97E+01	2.37E+01
A018	7.07E+01	8.12E+01
A020	N/A	2.70E+00
A021	3.09E+01	3.55E+01
A021-1	3.71E+01	3.71E+01
A021-2_InFence	4.60E+01	4.60E+01
A021-2_RoadWest	5.18E+01	5.18E+01
A021-3	1.50E+02	1.62E+02
A021-4	4.20E+01	4.44E+01
A022	9.84E+02	1.21E+03
A024	2.20E+00	7.20E+00
GMPT_LaSalle	N/A	1.54E+01
Plant_Boundary	2.03E+01	2.18E+01
<b>Notes:</b>		
The mean concentration in subsurface soil was calculated using the highest concentration at any depth above 10 feet at a location.		
All mean concentrations of lead in soil are within or below the range of USEPA lead criterion (750-1,750 mg/kg).		
N/A: No surface lead data was collected at A020 or GMPT_LaSalle.		

**Table A.5: Concentrations Removed from Post-IM Risk Estimates  
West Plant Area, GM Powertrain Bedford Facility, Bedford, Indiana**

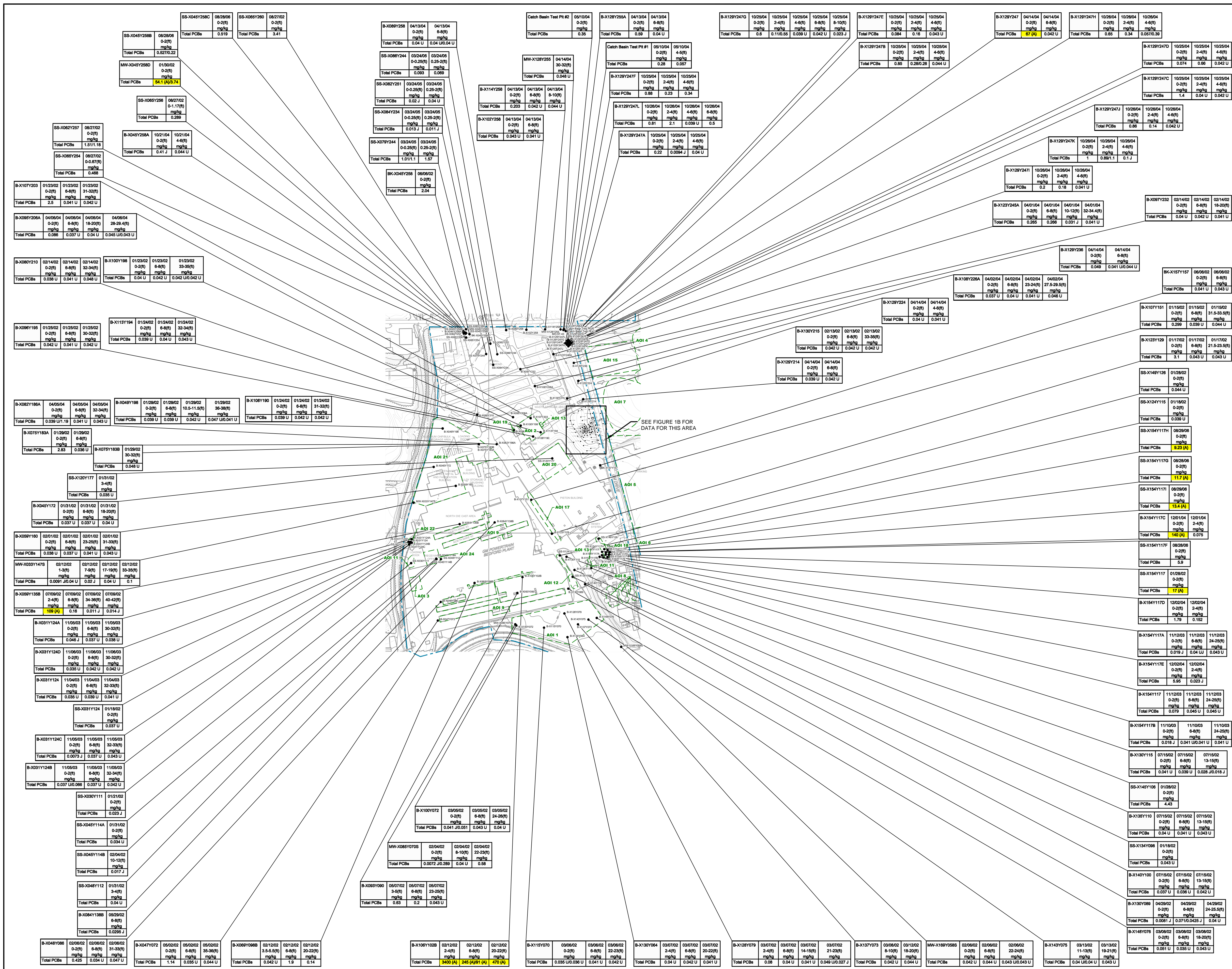
Area	Location ID	Top Depth	Bottom		Chemical	Conc
			Depth	Depth		
A018	B-X154Y117C	0	2		PCBs (total)	1.52E+02
A021-1	B-X129Y247	0	2		PCBs (total)	7.99E+01
A021-2_InFence	B-X143Y193AA	0	0.5		PCBs (total)	1.61E+02
A021-2_InFence	B-X143Y193AD	0	0.5		PCBs (total)	3.24E+02
A021-2_InFence	B-X143Y193AV	0	0.5		PCBs (total)	8.01E+02
A021-2_InFence	B-X143Y193S	0	2		PCBs (total)	1.04E+02
A021-2_InFence	B-X143Y193Y	0	0.5		PCBs (total)	1.75E+02
A021-2_InFence	B-X143Y193Y	1	2		PCBs (total)	2.08E+02
A021-2_RoadWest	B-X143Y193BJ	0	0.5		PCBs (total)	1.94E+02
<b>Note:</b>						
All locations removed from A021-2_InFence were also removed from the evaluations of A021-2.						

**Table A.6: Post-IM Estimates of Cumulative Cancer Risks and HIs for  
Routine Worker Exposure to Surface Soil  
West Plant Area, GM Powertrain Bedford Facility, Bedford, Indiana**

AOI	Routine Worker Cumulative Risk	Routine Worker HI
A018	1E-05	9E-01
A021-1	1E-06	2E-01
A021-2	2E-05	1E+00
A021-2_InFence	2E-05	1E+00
<b>Note:</b>		
The concentrations shown on Table A.5 are removed from the Post-IM Risk estimates.		

APPENDIX B

DATABOX FIGURES



**LEGEND**

- APPROXIMATE GM PROPERTY BOUNDARY
- STREAMS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- SOIL SAMPLE LOCATION

**SAMPLE LOCATION IDENTIFIER**

SS-X154Y117G 8/28/06 0-2(R) 0-2(R) 0.04 U

Total PCBs 11.7 (A)

DATE SAMPLE TAKEN  
SAMPLE DEPTH IN FEET BELOW GROUND SURFACE  
CONCENTRATION  
CHEMICAL NAME

**RESULT EXCEEDS CRITERIA**

1.51/18 PARENT SAMPLE VALUE/DUPLICATE SAMPLE VALUE

J THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE

LU NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT

R REJECTED

(A) RESULTS ARE HIGHLIGHTED WHERE SITE-RELATED CONCENTRATIONS EXCEED REGION 9 INDUSTRIAL PROCES (2004) AT A TARGET CANCER RISK OF 10-6 AND NON-CANCER HQ OF 1

Chemical Name	Criteria (mg/kg)
Total PCBs	7.44E+00

**AOI SUMMARY**

AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 2	Waste Storage Area
AOI 3	PCB Storage Area
AOI 4	Former North Disposal Area
AOI 5	Former East Sand Disposal Area
AOI 6	Former Sludge Disposal and Fire Training Area
AOI 7	Former North Lagoon and Outfall 001
AOI 8	Former South Lagoons and Outfall 002
AOI 9	Service Tunnels
AOI 10	Existing Stormwater Lagoon and Outfall 003
AOI 11	Aboveground Storage Tanks
AOI 12	Area Affected by the Remediated Hydraulic Fluid Release
AOI 13	Underground Storage Tanks
AOI 14	Middle Area Disposal Area
AOI 15	Former Equipment Storage Area
AOI 17	Piston Building Oil Accumulations
AOI 18	Area Affected by the Heavy System Discharge
AOI 19	Area Affected by Paint and Thinner Spill
AOI 20	Northern Portion of the Floor Building
AOI 21	Filled Ravine North of the Cast Building
AOI 21-1	Former Drainage Valley Under Heavy Parking Lot
AOI 21-2	Former Drainage Valley Northeast of Fray and Office Buildings
AOI 21-3	Surface Water Ditches Located Along GM Drive and Beckenridge Road
AOI 21-4	Former Drainage Valley East of Electrical Sub-Station, Beckenridge Road
AOI 22	Tool Room Annex Dock Release
AOI 23	Area Affected by the 1998 Wastewater Treatment Filter Cake Release
AOI 24	Area Affected by the June 2000 Die Lub 5150 Release
AOI 25	Off-Site Fill Area - Parcel 39B
AOI 26	Off-Site Fill Area - Parcel 38A & 38B
AOI 27	Off-Site Fill Area - Parcel 381 & 382
AOI 28	Off-Site Fill Area - Parcel 401
AOI 29	Off-Site Fill Area - Parcel 39

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM POWERTRAIN BEDFORD FACILITY  
BEDFORD, INDIANA**

**WEST PLANT AREA INTERIM MEASURE**

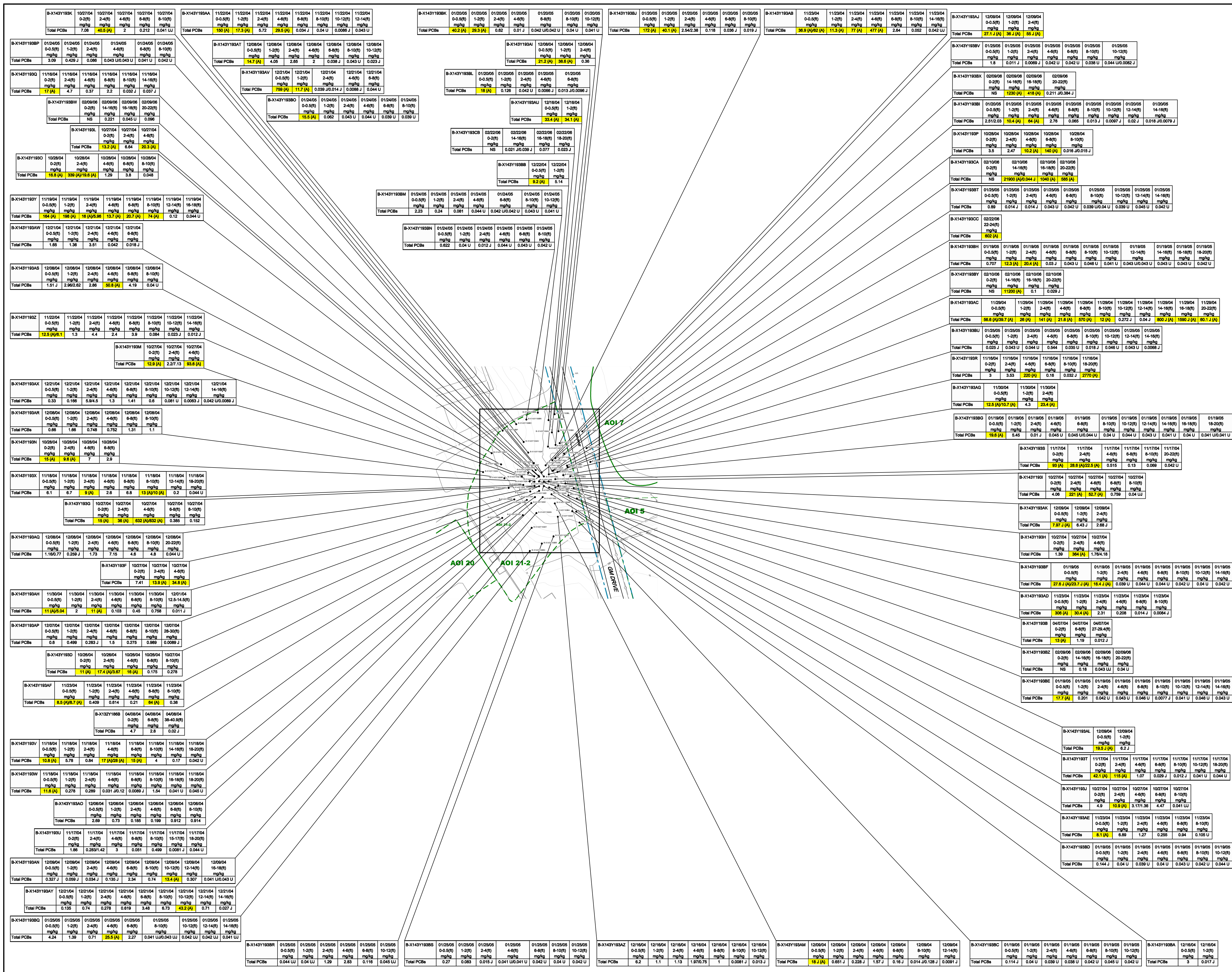
**ANALYTICAL DATA - PCBs  
WEST PLANT AREA**

**CONESTOGA-ROVERS & ASSOCIATES**

Source Reference:  
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001  
AND CERA SURVEYS 2002 - 2005

Project Manager: J.M.	Reviewed By: M.K.	Date: APRIL 2007
Scale: AS SHOWN	Project No: 13968-00	Report No: 119
		Drawing No: 1A

13968-00(119)GN-WA070 MAY 14/2007



**LEGEND**

- AOI BOUNDARY
- APPROXIMATE GM PROPERTY BOUNDARY
- STREAMS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- SOIL SAMPLE LOCATION

**AOI SUMMARY**

AOI ID	Description
AOI 5	Former East Sand Disposal Area
AOI 7	Former North Lagoon and Outfall 001
AOI 20	Northern Portion of the Piston Building
AOI 21-2	Former Drainage Valley Northeast of Piston and Office Buildings

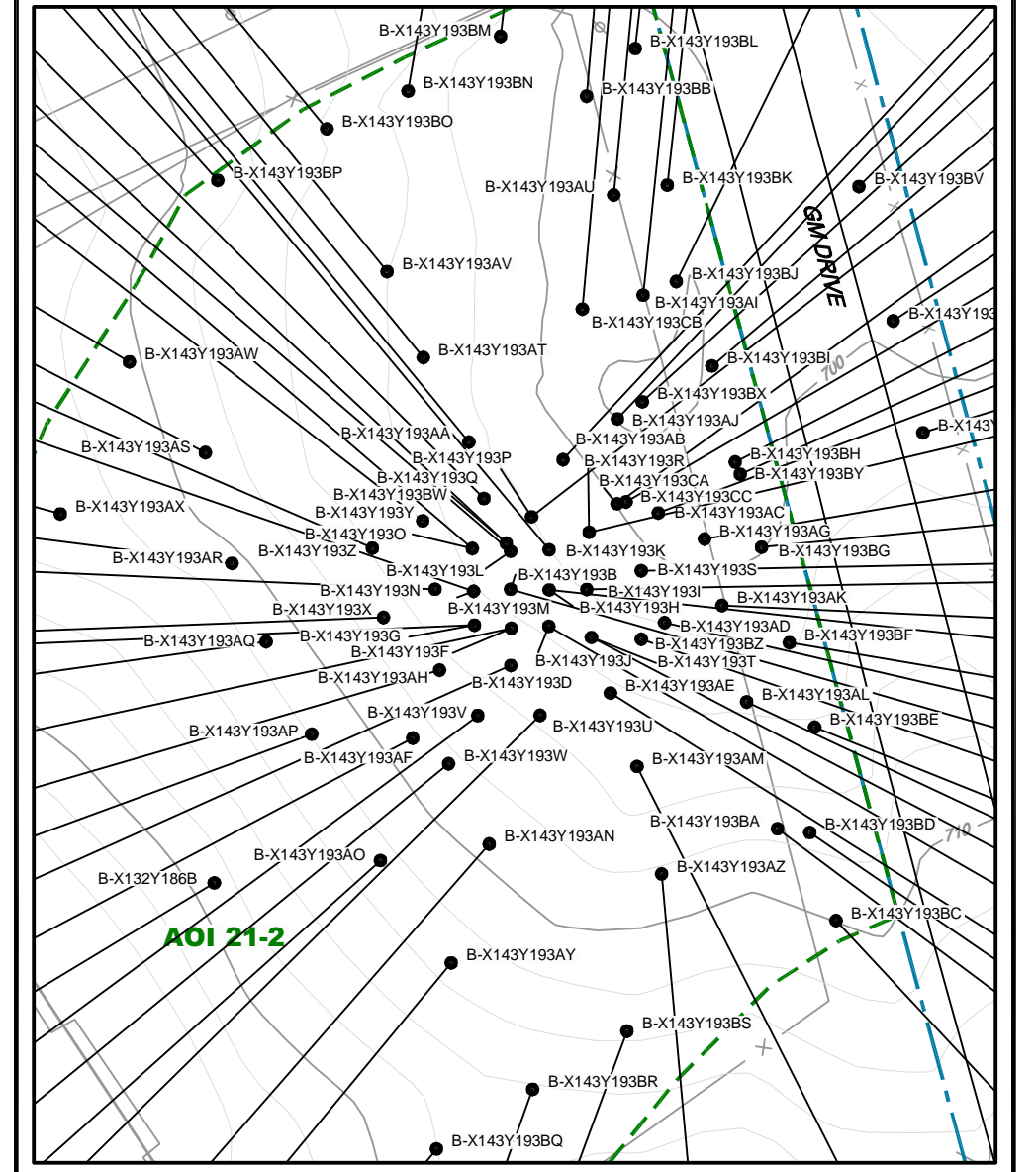
**SAMPLE LOCATION IDENTIFIER**

DATE SAMPLE TAKEN  
 SAMPLE DEPTH IN FEET BELOW REPORTING LINE  
 CONCENTRATION

**CHEMICAL NAME**

RESULT EXCEEDS CRITERIA  
 2,27,13 PARENT SAMPLE VALUE/DUPLICATE SAMPLE VALUE  
 NS NOT SAMPLED  
 J THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY  
 U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE  
 W NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT  
 (A) RESULTS ARE HIGHLIGHTED WHERE SITE-RELATED CONCENTRATIONS EXCEED REGION 9 INDUSTRIAL PROS (2004) AT A TARGET CANCER RISK OF 10-6 AND NONCANCER HQ OF 1

Chemical Name	Criteria (mg/kg)
Total PCBs	7.4E+00



**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**GM POWERTRAIN BEDFORD FACILITY  
 BEDFORD, INDIANA**

**WEST PLANT AREA INTERIM MEASURE**

**ANALYTICAL DATA - PCBs**

**AOI 21 - 2 AREA**

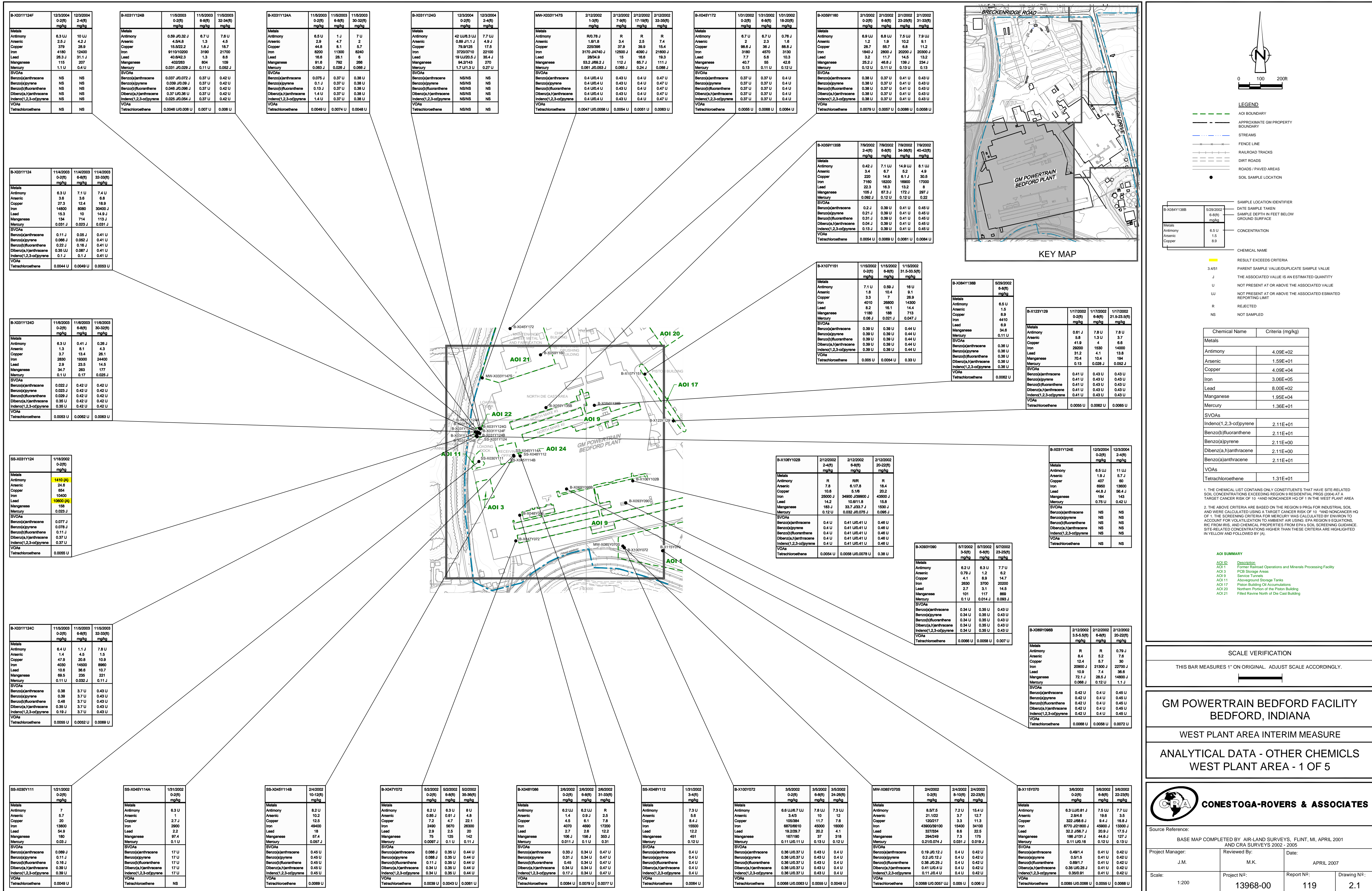
**CRA CONESTOGA-ROVERS & ASSOCIATES**

SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001.

Source Reference:  
 BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001  
 AND CRA SURVEYS 2002 - 2005

Project Manager: J.M.	Reviewed By: M.K.	Date: MAY 2007
Scale: AS SHOWN	Project No. #: 13968-00	Report No. #: 119
		Drawing No. #: 1B

13968-00(119)GN-WA071 MAY 14/2007



**LEGEND**

- AOI BOUNDARY
- APPROXIMATE GM PROPERTY BOUNDARY
- STREAMS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- SOL SAMPLE LOCATION

**KEY MAP**

**SCALE VERIFICATION**

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**CHEMICAL NAME**

**RESULT EXCEEDS CRITERIA**

**3.451** PARENT SAMPLE VALUE/DUPLICATE SAMPLE VALUE

**J** THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

**U** NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT

**UU** NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT

**R** REJECTED

**NS** NOT SAMPLED

Chemical Name	Criteria (mg/kg)
Metals	
Antimony	4.09E+02
Arsenic	1.59E+01
Copper	4.09E+04
Iron	3.06E+05
Lead	8.00E+02
Manganese	1.95E+04
Mercury	1.36E+01
SVOAs	
Indeno(1,2,3-cd)pyrene	2.11E+01
Benzo(b)fluoranthene	2.11E+01
Benzo(a)pyrene	2.11E+00
Dibenz(a,h)anthracene	2.11E+00
Benzo(a)anthracene	2.11E+01
VOCs	
Tetrachloroethene	1.31E+01

**AOI SUMMARY**

AOI ID	Description
AOI 1	Former Railroad Operations and Minerals Processing Facility
AOI 1	PCR Storage Area
AOI 9	Service Turntable
AOI 11	Adjacent Storage Tanks
AOI 17	Piston Building Oil Accumulations
AOI 20	Northern Portion of the Piston Building
AOI 21	Filled Ravine North of the Cast Building

**GM POWERTRAIN BEDFORD FACILITY**

**BEDFORD, INDIANA**

**WEST PLANT AREA INTERIM MEASURE**

**ANALYTICAL DATA - OTHER CHEMICALS**

**WEST PLANT AREA - 1 OF 5**

**CONESTOGA-ROVERS & ASSOCIATES**

Source Reference: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001 AND CRA SURVEYS 2002 - 2005

Project Manager: J.M.      Reviewed By: M.K.      Date: APRIL 2007

Scale: 1:200      Project No: 13968-00      Report No: 119      Drawing No: 2.1

13968-00(119)GM-WA062 JUN 07/2007

B-X08Y258D	1/30/2002 0-20" mg/kg
Metals	
Antimony	0.77 U/85 J
Arsenic	6.29 J
Copper	490/363
Iron	17400/2800
Lead	45.6/207 J
Manganese	243 J/181 J
Mercury	0.18/0.14
SVOAs	
Benzo(a)anthracene	0.39 U/0.39 U
Benzo(a)pyrene	0.39 U/0.39 U
Benzo(b)fluoranthene	0.39 U/0.39 U
Dibenz(a,h)anthracene	0.39 U/0.39 U
Indeno(1,2,3-cd)pyrene	0.39 U/0.39 U
VOCs	
Tetrachloroethene	0.0055 U/0.0048 U

B-X08Y258	4/13/2004 0-20" mg/kg	4/13/2004 6-8" mg/kg
Metals		
Antimony	7.3 U	7.3 U/7.3 U
Arsenic	2.4	3/1.9
Copper	24.7 J	6.9 J/6.4 J
Iron	3340	8650/4370
Lead	5.2	5.2/5
Manganese	135	126/4.2 J
Mercury	0.12 U	0.03 U/0.0088 J
SVOAs		
Benzo(a)anthracene	0.4 U	0.4 U/0.4 U
Benzo(a)pyrene	0.4 U	0.4 U/0.4 U
Benzo(b)fluoranthene	0.4 U	0.4 U/0.4 U
Dibenz(a,h)anthracene	0.4 U	0.4 U/0.4 U
Indeno(1,2,3-cd)pyrene	0.4 U	0.4 U/0.4 U
VOCs		
Tetrachloroethene	0.0053 U	0.0053 U/0.0051 U

B-X10Y258B	10/22/2004 0-20" mg/kg
Metals	
Antimony	7.4 U
Arsenic	7.9
Copper	10.4
Iron	15100
Lead	12.7 J
Manganese	284
Mercury	0.064 J
SVOAs	
Benzo(a)anthracene	NS
Benzo(a)pyrene	NS
Benzo(b)fluoranthene	NS
Dibenz(a,h)anthracene	NS
Indeno(1,2,3-cd)pyrene	NS
VOCs	
Tetrachloroethene	NS

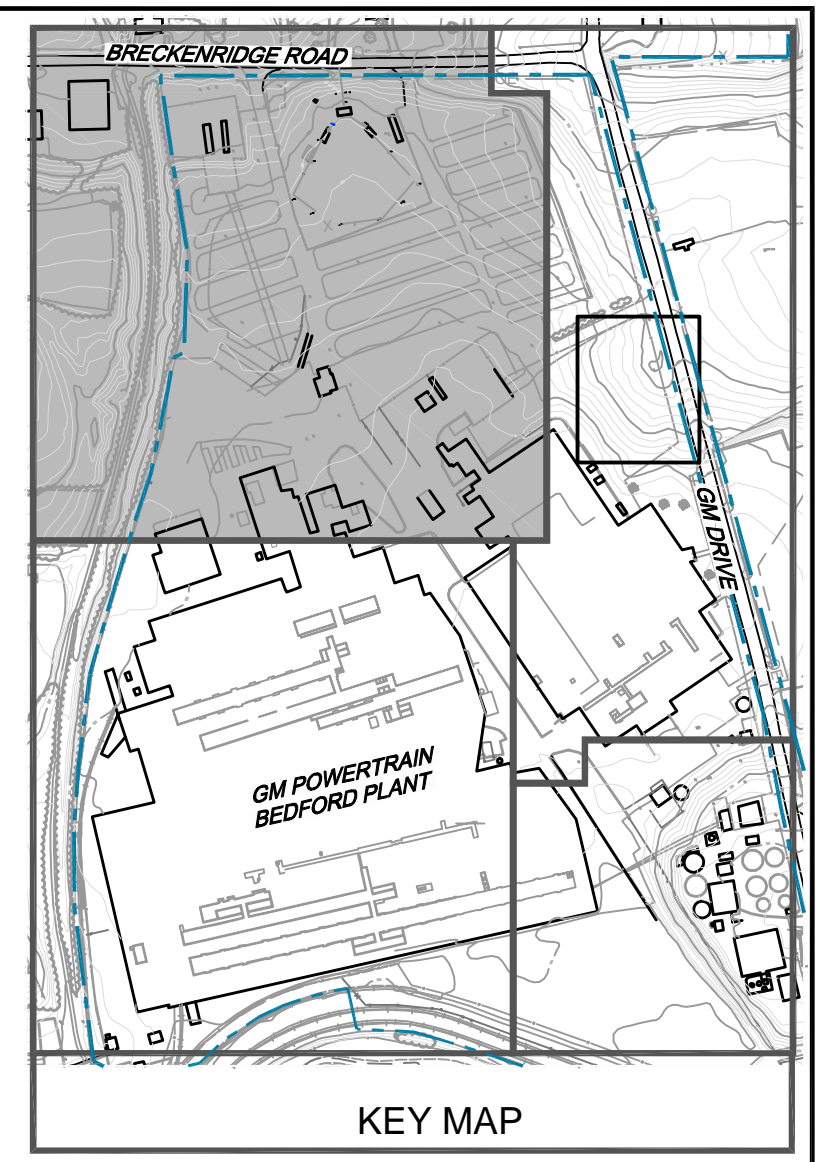
B-X10Y258A	10/22/2004 0-20" mg/kg
Metals	
Antimony	7.3 U
Arsenic	8.4
Copper	9.1 J
Iron	14900
Lead	12.7 J
Manganese	151
Mercury	0.027 J
SVOAs	
Benzo(a)anthracene	NS
Benzo(a)pyrene	NS
Benzo(b)fluoranthene	NS
Dibenz(a,h)anthracene	NS
Indeno(1,2,3-cd)pyrene	NS
VOCs	
Tetrachloroethene	NS

B-X10Y258	4/13/2004 0-20" mg/kg	4/13/2004 6-8" mg/kg
Metals		
Antimony	7.7 U	7.5 U
Arsenic	7.3	14.4
Copper	37.7 J	13.4 J
Iron	34200	38100
Lead	19.0/14	18.7
Manganese	572	278
Mercury	1.6	0.11 J
SVOAs		
Benzo(a)anthracene	0.17 J	0.41 U
Benzo(a)pyrene	0.22 J	0.41 U
Benzo(b)fluoranthene	0.28 J	0.41 U
Dibenz(a,h)anthracene	0.43 U	0.41 U
Indeno(1,2,3-cd)pyrene	0.11 J	0.41 U
VOCs		
Tetrachloroethene	0.007 U	0.0051 U

B-X10Y258C	10/22/2004 0-20" mg/kg
Metals	
Antimony	0.36 J
Arsenic	10.2
Copper	23.9 J
Iron	28600
Lead	19.3 J
Manganese	148
Mercury	0.46
SVOAs	
Benzo(a)anthracene	NS
Benzo(a)pyrene	NS
Benzo(b)fluoranthene	NS
Dibenz(a,h)anthracene	NS
Indeno(1,2,3-cd)pyrene	NS
VOCs	
Tetrachloroethene	NS

B-X10Y258D	10/22/2004 0-20" mg/kg
Metals	
Antimony	7.2 U
Arsenic	7.3
Copper	10.8 J
Iron	16700
Lead	17.3 J
Manganese	412
Mercury	7
SVOAs	
Benzo(a)anthracene	NS
Benzo(a)pyrene	NS
Benzo(b)fluoranthene	NS
Dibenz(a,h)anthracene	NS
Indeno(1,2,3-cd)pyrene	NS
VOCs	
Tetrachloroethene	NS

B-X10Y258A	4/2/2004 0-20" mg/kg	4/2/2004 6-8" mg/kg	4/2/2004 18-20" mg/kg	4/2/2004 28-29.5" mg/kg
Metals				
Antimony	6.8 U	7.3 U	7.4 U	8.3 U
Arsenic	7.8	4.9	2.7	10.4
Copper	10.5	16.6	60.7	22.1
Iron	23300	14700	4400	24500
Lead	12.1	15.6	6.7	20.7
Manganese	130	83.4	101	653
Mercury	0.044 J	0.05 J	0.12 U	0.17
SVOAs				
Benzo(a)anthracene	0.37 U	0.4 U	0.41 U	0.46 U
Benzo(a)pyrene	0.35 U	0.4 U	0.41 U	0.46 U
Benzo(b)fluoranthene	0.37 U	0.4 U	0.41 U	0.46 U
Dibenz(a,h)anthracene	0.37 U	0.4 U	0.41 U	0.46 U
Indeno(1,2,3-cd)pyrene	0.37 U	0.4 U	0.41 U	0.46 U
VOCs				
Tetrachloroethene	0.005 U	0.005 U	0.0051 U	0.006 U



**LEGEND**

- AOI BOUNDARY
- - - APPROXIMATE GM PROPERTY BOUNDARY
- STREAMS
- FENCE LINE
- RAILROAD TRACKS
- DIRT ROADS
- ROADS / PAVED AREAS
- SOIL SAMPLE LOCATION

**CONCENTRATION**

Metals	7.2 U
Antimony	10.8 J

**CHEMICAL NAME**

RESULT EXCEEDS CRITERIA

18.4/15.1 PARENT SAMPLE VALUE/DUPLICATE SAMPLE VALUE

18.4/15.1 THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE

UJ NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT

R REJECTED

NS NOT SAMPLED

**Chemical Name Criteria (mg/kg)**

Antimony	4.09E+02
Arsenic	1.59E+01
Copper	4.09E+04
Iron	3.06E+05
Lead	8.00E+02
Manganese	1.95E+04
Mercury	1.36E+01
Indeno(1,2,3-cd)pyrene	2.11E+01
Benzo(b)fluoranthene	2.11E+01
Benzo(a)pyrene	2.11E+00
Dibenz(a,h)anthracene	2.11E+00
Benzo(a)anthracene	2.11E+01
Tetrachloroethene	1.31E+01

B-X08Y258A	10/21/2004 0-20" mg/kg	10/21/2004 4-6" mg/kg
Metals		
Antimony	0.6 J	15.9 U
Arsenic	3.3	9.6
Copper	1020	21.9
Iron	7170	26000
Lead	421	28.3
Manganese	175	285
Mercury	0.26	0.077 J
SVOAs		
Benzo(a)anthracene	0.51	0.44 U
Benzo(a)pyrene	0.67	0.44 U
Benzo(b)fluoranthene	0.86	0.44 U
Dibenz(a,h)anthracene	0.13 U	0.44 U
Indeno(1,2,3-cd)pyrene	0.43	0.44 U
VOCs		
Tetrachloroethene	0.0047 U	0.0062 U

B-X08Y232	2/14/2002 0-20" mg/kg	2/14/2002 6-8" mg/kg	2/14/2002 18-20" mg/kg
Metals			
Antimony	0.84 J	7.8 U	7.5 U
Arsenic	10.8	9	4.4
Copper	15.1	18.5	8.4
Iron	39900	32700	18300
Lead	13.4	20.9	8.9
Manganese	248	83	135
Mercury	0.083 J	0.018 J	0.028 J
SVOAs			
Benzo(a)anthracene	0.4 U	0.42 U	0.41 U
Benzo(a)pyrene	0.4 U	0.42 U	0.41 U
Benzo(b)fluoranthene	0.4 U	0.42 U	0.41 U
Dibenz(a,h)anthracene	0.4 U	0.42 U	0.41 U
Indeno(1,2,3-cd)pyrene	0.4 U	0.42 U	0.41 U
VOCs			
Tetrachloroethene	0.0065 U	0.0055 U	0.0068 U

B-X08Y210	2/14/2002 0-20" mg/kg	2/14/2002 6-8" mg/kg	2/14/2002 32-34" mg/kg
Metals			
Antimony	7 U	7.5 U	8.7 U
Arsenic	1.8	4.9	2.2
Copper	88.3	8.3	8.9
Iron	5560	12200	19500
Lead	10.2	19.8	4.2
Manganese	48	169	440
Mercury	0.027 J	0.048 J	0.028 J
SVOAs			
Benzo(a)anthracene	0.38 U	0.41 U	0.48 U
Benzo(a)pyrene	0.38 U	0.41 U	0.48 U
Benzo(b)fluoranthene	0.38 U	0.41 U	0.48 U
Dibenz(a,h)anthracene	0.38 U	0.41 U	0.48 U
Indeno(1,2,3-cd)pyrene	0.38 U	0.41 U	0.48 U
VOCs			
Tetrachloroethene	0.0068 U	0.0053 U	0.0059 U

B-X08Y198	1/29/2002 0-20" mg/kg	1/29/2002 6-8" mg/kg	1/29/2002 10.5-11.5" mg/kg	1/29/2002 36-38" mg/kg
Metals				
Antimony	7.2 U	7 U	7.8 U	8.8 U/7.4 U
Arsenic	1.4	1.6	6.9	29 (A)8.1
Copper	15.2	3.7	9.4	8.8/0
Iron	2990	3050	17300	24300/12000
Lead	3.2	3.9	13.4	8.9/5
Manganese	83.7	72.8	520	637/229
Mercury	0.12 U	0.046 J	0.019 J	0.14 U/0.12 U
SVOAs				
Benzo(a)anthracene	0.39 U	0.39 U	0.42 U	0.47 U/0.097 J
Benzo(a)pyrene	0.39 U	0.39 U	0.42 U	0.47 U/0.41 U
Benzo(b)fluoranthene	0.39 U	0.39 U	0.42 U	0.47 U/0.41 U
Dibenz(a,h)anthracene	0.39 U	0.39 U	0.42 U	0.47 U/0.41 U
Indeno(1,2,3-cd)pyrene	0.39 U	0.39 U	0.42 U	0.47 U/0.41 U
VOCs				
Tetrachloroethene	0.0073 U	0.007 U	0.0068 U	0.0076 U/0.0064 U

B-X08Y172	1/31/2002 0-20" mg/kg	1/31/2002 6-8" mg/kg	1/31/2002 23-25" mg/kg	1/31/2002 31-33" mg/kg
Metals				
Antimony	6.7 U	6.7 U	7.5 U	7.9 U
Arsenic	2	2.3	1.8	5.5
Copper	86.6 J	39.1	88.3 J	12.8
Iron	3180	4570	3130	20300
Lead	7.7	5.6	10.3	13.2
Manganese	40.7	55	42.8	319
Mercury	0.13	0.11 U	0.12 U	0.087 J
SVOAs				
Benzo(a)anthracene	0.37 U	0.37 U	0.4 U	0.48 U
Benzo(a)pyrene	0.37 U	0.37 U	0.4 U	0.48 U
Benzo(b)fluoranthene	0.37 U	0.37 U	0.4 U	0.48 U
Dibenz(a,h)anthracene	0.37 U	0.37 U	0.4 U	0.48 U
Indeno(1,2,3-cd)pyrene	0.37 U	0.37 U	0.4 U	0.48 U
VOCs				
Tetrachloroethene	0.0055 U	0.0068 U	0.0064 U	0.0056 U

B-X08Y160	2/1/2002 0-20" mg/kg	2/1/2002 6-8" mg/kg	2/1/2002 23-25" mg/kg	2/1/2002 31-33" mg/kg
Metals				
Antimony	6.9 U	6.8 U	7.5 U	7.9 U
Arsenic	1.2	3.9	10.2	9.1
Copper	28.7	55.7	6.8	11.2
Iron	1840 J	2800 J	20200 J	20300
Lead	3.2	11.7	14.5	13.2
Manganese	25.2 J	45.8 J	139 J	224 J
Mercury	0.12 U	0.11 U	0.13 U	0.13
SVOAs				
Benzo(a)anthracene	0.38 U	0.37 U	0.41 U	0.43 U
Benzo(a)pyrene	0.38 U	0.37 U	0.41 U	0.43 U
Benzo(b)fluoranthene	0.38 U	0.37 U	0.41 U	0.43 U
Dibenz(a,h)anthracene	0.38 U	0.37 U	0.41 U	0.43 U
Indeno(1,2,3-cd)pyrene	0.38 U	0.37 U	0.41 U	0.43 U
VOCs				
Tetrachloroethene	0.0079 U	0.0057 U	0.0068 U	0.0059 U

B-X07Y183B	1/29/2002 0-20" mg/kg	1/29/2002 6-8" mg/kg
Metals		
Antimony	6.8 U	6.8 U
Arsenic	0.73 J	6.5 U
Copper	27.1	2.5
Iron	3711500	12.9
Lead	4290	3720
Mercury	38.4	10.7
Manganese	69100	95.1
Mercury	0.12 U	0.076 J
SVOAs		
Benzo(a)anthracene	0.39 U	0.38 U
Benzo(a)pyrene	0.39 U	0.38 U
Benzo(b)fluoranthene	0.39 U	0.38 U
Dibenz(a,h)anthracene	0.39 U	0.38 U
Indeno(1,2,3-cd)pyrene	0.39 U	0.38 U
VOCs		
Tetrachloroethene	0.0075 U	0.0059 U

B-X07Y183A	1/29/2002 0-20" mg/kg	1/29/2002 6-8" mg/kg
Metals		
Antimony	6.8 U	6.8 U
Arsenic	0.73 J	6.5 U
Copper	27.1	2.5
Iron	3711500	12.9
Lead	4290	3720
Mercury	38.4	10.7
Manganese	69100	95.1
Mercury	0.12 U	0.076 J
SVOAs		
Benzo(a)anthracene	0.39 U	0.38 U
Benzo(a)pyrene	0.39 U	0.38 U
Benzo(b)fluoranthene	0.39 U	0.38 U
Dibenz(a,h)anthracene	0.39 U	0.38 U
Indeno(1,2,3-cd)pyrene	0.39 U	0.38 U
VOCs		
Tetrachloroethene	0.0075 U	0.0059 U

B-X08Y186A	4/5/2004 0-20" mg/kg	4/5/2004 6-8" mg/kg	4/5/2004 32-34" mg/kg
Metals			
Antimony	7.1 U/8.8 U	7.4 U	7.9 U
Arsenic	21.7	8.2	9.9
Copper	3711500	12.9	16.1 J
Iron	4300/2950	2070	38900 J
Lead	11,677.6	10.7	13.8 J
Manganese	69100	95.1	608 J
Mercury	0.12 U/0.83	0.076 J	0.1 J
SVOAs			
Benzo(a)anthracene	0.39 U/0.38 U	0.41 U	0.43 U
Benzo(a)pyrene	0.39 U/0.38 U	0.41 U	0.43 U
Benzo(b)fluoranthene	0.39 U/0.38 U</		



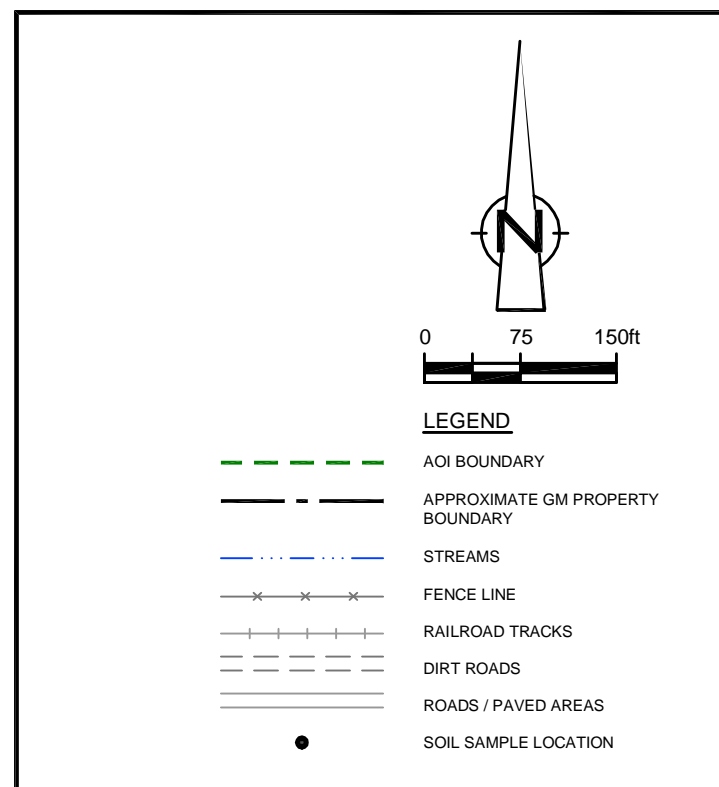
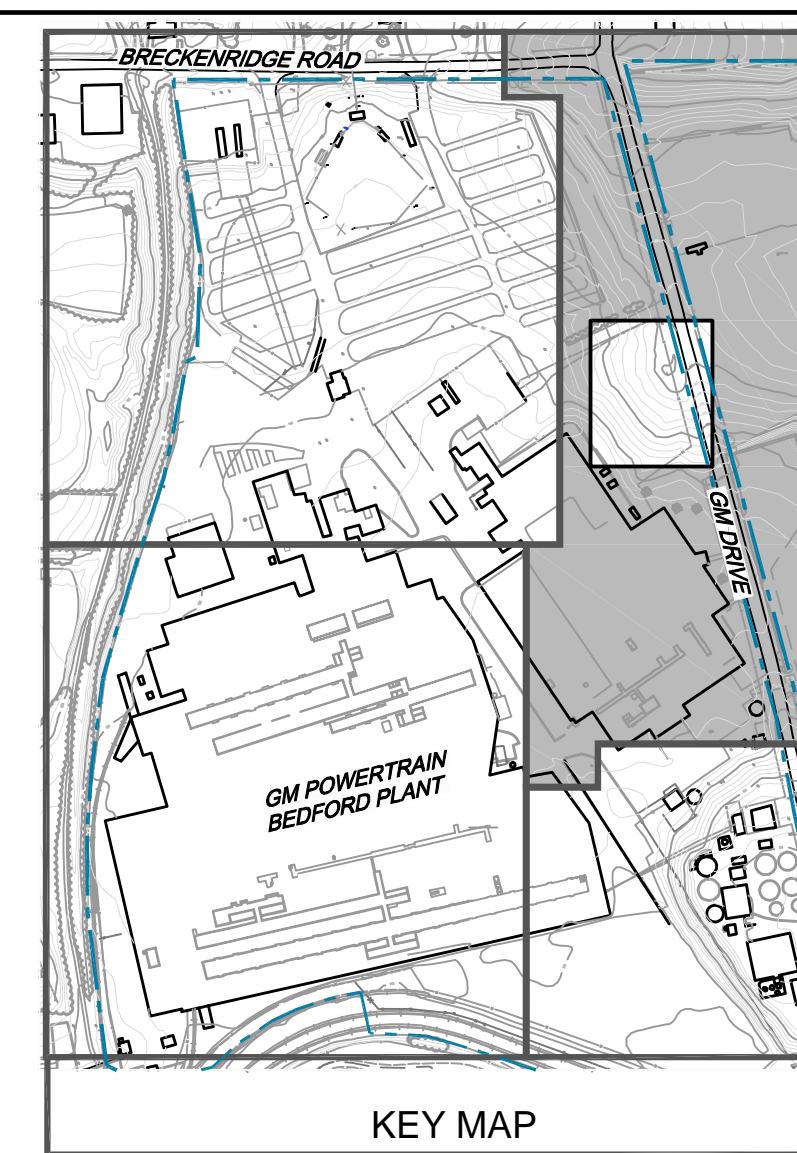
B-X114Y258B	10/22/2004 0-2(ft) mg/kg	
Metals		
Antimony	7.5 U/6.7 UJ	
Arsenic	0.93 J/1.7	
Copper	43.8 J/60.8 J	
Iron	2660/5880	
Lead	37.4 J/32.4 J	
Manganese	40.1/59.6	
Mercury	5.8/6.7	
SVOAs		
Benzo(a)anthracene	NS/NS	
Benzo(a)pyrene	NS/NS	
Benzo(b)fluoranthene	NS/NS	
Dibenz(a,h)anthracene	NS/NS	
Indeno(1,2,3-cd)pyrene	NS/NS	
VOAs		
Tetrachloroethene	NS/NS	

B-X114Y258A	10/22/2004 0-2(ft) mg/kg	
Metals		
Antimony	0.53 J	
Arsenic	1 J	
Copper	455 J	
Iron	2390	
Lead	49.2 J	
Manganese	37.9	
Mercury	18.7 (A)	
SVOAs		
Benzo(a)anthracene	NS	
Benzo(a)pyrene	NS	
Benzo(b)fluoranthene	NS	
Dibenz(a,h)anthracene	NS	
Indeno(1,2,3-cd)pyrene	NS	
VOAs		
Tetrachloroethene	NS	

B-X114Y258D	10/22/2004 0-2(ft) mg/kg	
Metals		
Antimony	0.32 J	
Arsenic	0.84 J	
Copper	91.9 J	
Iron	2500	
Lead	42.5 J	
Manganese	28.6	
Mercury	16 (A)	
SVOAs		
Benzo(a)anthracene	NS	
Benzo(a)pyrene	NS	
Benzo(b)fluoranthene	NS	
Dibenz(a,h)anthracene	NS	
Indeno(1,2,3-cd)pyrene	NS	
VOAs		
Tetrachloroethene	NS	

MW-X128Y255	4/14/2004 30-32(ft) mg/kg	
Metals		
Antimony	8.7 U	
Arsenic	1.4	
Copper	22.2	
Iron	38400	
Lead	19.9	
Manganese	441	
Mercury	0.13 J	
SVOAs		
Benzo(a)anthracene	0.48 U	
Benzo(a)pyrene	0.48 U	
Benzo(b)fluoranthene	0.48 U	
Dibenz(a,h)anthracene	0.48 U	
Indeno(1,2,3-cd)pyrene	0.48 U	
VOAs		
Tetrachloroethene	0.0084 U	

B-X128Y255A	4/13/2004 0-2(ft) mg/kg	4/13/2004 6-8(ft) mg/kg
Metals		
Antimony	6.5 UJ	7.2 UJ
Arsenic	1.4	0.66 J
Copper	75 J	6.6 J
Iron	3020	1170
Lead	23.8	11.7
Manganese	47.7	10.1
Mercury	8.1	0.12 U
SVOAs		
Benzo(a)anthracene	0.36 U	0.79 U
Benzo(a)pyrene	0.36 U	0.79 U
Benzo(b)fluoranthene	0.36 U	0.79 U
Dibenz(a,h)anthracene	0.36 U	0.79 U
Indeno(1,2,3-cd)pyrene	0.36 U	0.79 U
VOAs		
Tetrachloroethene	0.0052 U	0.0051 U



SS-X120Y177	1/31/2002 3-4(ft) mg/kg	
Metals		
Antimony	6.4 U	
Arsenic	2.7	
Concentration		
Chemical Name		
Result Exceeds Criteria		
Parent Sample Value/Duplicate Sample Value		
The Associated Value is an Estimated Quantity		
U	NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE	
UJ	NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT	
R	REJECTED	
NS	NOT SAMPLED	

B-X114Y258	4/13/2004 0-2(ft) mg/kg	4/13/2004 6-8(ft) mg/kg	4/13/2004 8-10(ft) mg/kg
Metals			
Antimony	6.7 UJ	7.6 UJ	8 UJ
Arsenic	1.2	9.6	13.1
Copper	64.4 J	11.9 J	16.7 J
Iron	3630	25200	37300
Lead	36.3	14.9	17
Manganese	95.4	143	117
Mercury	104 (A)	1.4	0.11 J
SVOAs			
Benzo(a)anthracene	0.37 U	0.42 U	0.44 U
Benzo(a)pyrene	0.063 J	0.42 U	0.44 U
Benzo(b)fluoranthene	0.065 J	0.42 U	0.44 U
Dibenz(a,h)anthracene	0.37 U	0.42 U	0.44 U
Indeno(1,2,3-cd)pyrene	0.37 U	0.42 U	0.44 U
VOAs			
Tetrachloroethene	0.0054 U	0.0055 U	0.0061 U

B-X114Y258C	10/22/2004 0-2(ft) mg/kg	
Metals		
Antimony	0.43 J	
Arsenic	3.4	
Copper	120 J	
Iron	7520	
Lead	43.9 J	
Manganese	58.5	
Mercury	18.4 (A)	
SVOAs		
Benzo(a)anthracene	NS	
Benzo(a)pyrene	NS	
Benzo(b)fluoranthene	NS	
Dibenz(a,h)anthracene	NS	
Indeno(1,2,3-cd)pyrene	NS	
VOAs		
Tetrachloroethene	NS	

B-X130Y215	2/13/2002 0-2(ft) mg/kg	2/13/2002 6-8(ft) mg/kg	2/13/2002 33-35(ft) mg/kg
Metals			
Antimony	7.6 UJ	7.6 UJ	7.6 UJ
Arsenic	8.3	7.4	2.7
Copper	12.2	11.5	4.4
Iron	20000	28000	7440
Lead	17.9	12.9	5.6
Manganese	405	27.7	164
Mercury	0.077 J	0.13 U	0.085 J
SVOAs			
Benzo(a)anthracene	0.42 U	0.42 U	0.42 U
Benzo(a)pyrene	0.42 U	0.42 U	0.42 U
Benzo(b)fluoranthene	0.42 U	0.42 U	0.42 U
Dibenz(a,h)anthracene	0.42 U	0.42 U	0.42 U
Indeno(1,2,3-cd)pyrene	0.42 U	0.42 U	0.42 U
VOAs			
Tetrachloroethene	0.0063 U	0.0066 U	0.0064 U

SS-X120Y177	1/31/2002 3-4(ft) mg/kg	
Metals		
Antimony	6.4 U	
Arsenic	2.7	
Copper	6.8 J	
Iron	7800	
Lead	2.7	
Manganese	377	
Mercury	0.11 U	
SVOAs		
Benzo(a)anthracene	0.35 U	
Benzo(a)pyrene	0.35 U	
Benzo(b)fluoranthene	0.35 U	
Dibenz(a,h)anthracene	0.35 U	
Indeno(1,2,3-cd)pyrene	0.35 U	
VOAs		
Tetrachloroethene	0.0055 U	

B-X107Y151	1/15/2002 0-2(ft) mg/kg	1/15/2002 6-8(ft) mg/kg	1/15/2002 31.5-33.5(ft) mg/kg
Metals			
Antimony	7.1 U	0.59 J	16 U
Arsenic	1.8	10.4	9.1
Copper	3.3	7	26.9
Iron	4010	26800	14300
Lead	8.2	16.1	14.4
Manganese	1180	188	713
Mercury	0.06 J	0.021 J	0.047 J
SVOAs			
Benzo(a)anthracene	0.39 U	0.39 U	0.44 U
Benzo(a)pyrene	0.39 U	0.39 U	0.44 U
Benzo(b)fluoranthene	0.39 U	0.39 U	0.44 U
Dibenz(a,h)anthracene	0.39 U	0.39 U	0.44 U
Indeno(1,2,3-cd)pyrene	0.39 U	0.39 U	0.44 U
VOAs			
Tetrachloroethene	0.005 U	0.0054 U	0.33 U

B-X123Y129	1/17/2002 0-2(ft) mg/kg	1/17/2002 6-8(ft) mg/kg	1/17/2002 21.5-23.5(ft) mg/kg
Metals			
Antimony	0.61 J	7.8 U	7.8 U
Arsenic	5.8	1.3 U	3.7
Copper	41.9	4	6.6
Iron	29200	1530	14000
Lead	31.2	4.1	13.8
Manganese	70.4	10.4	194
Mercury	0.13	0.028 J	0.052 J
SVOAs			
Benzo(a)anthracene	0.41 U	0.43 U	0.43 U
Benzo(a)pyrene	0.41 U	0.43 U	0.43 U
Benzo(b)fluoranthene	0.41 U	0.43 U	0.43 U
Dibenz(a,h)anthracene	0.41 U	0.43 U	0.43 U
Indeno(1,2,3-cd)pyrene	0.41 U	0.43 U	0.43 U
VOAs			
Tetrachloroethene	0.0055 U	0.0062 U	0.0065 U

SS-X124Y115	1/18/2002 0-2(ft) mg/kg	
Metals		
Antimony	7.2 U	
Arsenic	5.5	
Copper	7.3	
Iron	20700	
Lead	11.4	
Manganese	118	
Mercury	0.029 J	
SVOAs		
Benzo(a)anthracene	0.39 U	
Benzo(a)pyrene	0.39 U	
Benzo(b)fluoranthene	0.39 U	
Dibenz(a,h)anthracene	0.39 U	
Indeno(1,2,3-cd)pyrene	0.39 U	
VOAs		
Tetrachloroethene	0.0051 U	

B-X130Y115	7/15/2002 0-2(ft) mg/kg	7/15/2002 6-8(ft) mg/kg	7/15/2002 13-15(ft) mg/kg
Metals			
Antimony	7.5 U	R	7.8 U/7.6 U
Arsenic	8.4	7.3	7.3/6.5
Copper	21.6	7.8	25.5/27.4
Iron	22000	35300	31700/28500
Lead	17	13.7	14.3/13.3
Manganese	291	120	79.8/75.2
Mercury	0.063 J	0.12 U	0.13 U/0.13 U
SVOAs			
Benzo(a)anthracene	0.053 J	0.39 U	0.43 U/0.42 U
Benzo(a)pyrene	0.11 J	0.39 U	0.43 U/0.42 U
Benzo(b)fluoranthene	0.14 J	0.049 J	0.43 U/0.42 U
Dibenz(a,h)anthracene	0.41 U	0.39 U	0.43 U/0.42 U
Indeno(1,2,3-cd)pyrene	0.049 J	0.39 U	0.43 U/0.42 U
VOAs			
Tetrachloroethene	0.0056 U	0.0058 U	0.0056 U/0.0062 U

SS-X149Y126	1/28/2002 0-2(ft) mg/kg	
Metals		
Antimony	1.2 J	
Arsenic	11.3	
Copper	14.2	
Iron	53200	
Lead	24.4	
Manganese	43.3	
Mercury	0.13 U	
SVOAs		
Benzo(a)anthracene	0.44 U	
Benzo(a)pyrene	0.41 U	
Benzo(b)fluoranthene	0.44 U	
Dibenz(a,h)anthracene	0.41 U	
Indeno(1,2,3-cd)pyrene	0.44 U	
VOAs		
Tetrachloroethene	0.0079 U	

B-X129Y236	4/14/2004 0-2(ft) mg/kg	4/14/2004 6-8(ft) mg/kg
Metals		
Antimony	7.4 U	7.5 U/7.9 U
Arsenic	5.5	8/11.9
Copper	46.9	11.8/18.2
Iron	11600	21300/41900
Lead	29.1	16.7/21
Manganese	724	312/47.8
Mercury	1.2	0.023 J/0.11 J
SVOAs		
Benzo(a)anthracene	0.41 U	0.41 U/0.44 U
Benzo(a)pyrene	0.41 U	0.41 U/0.44 U
Benzo(b)fluoranthene	0.025 J	0.41 U/0.44 U
Dibenz(a,h)anthracene	0.41 U	0.41 U/0.44 U
Indeno(1,2,3-cd)pyrene	0.41 U	0.41 U/0.44 U
VOAs		
Tetrachloroethene	0.0053 U	0.0054 U/0.0062 U

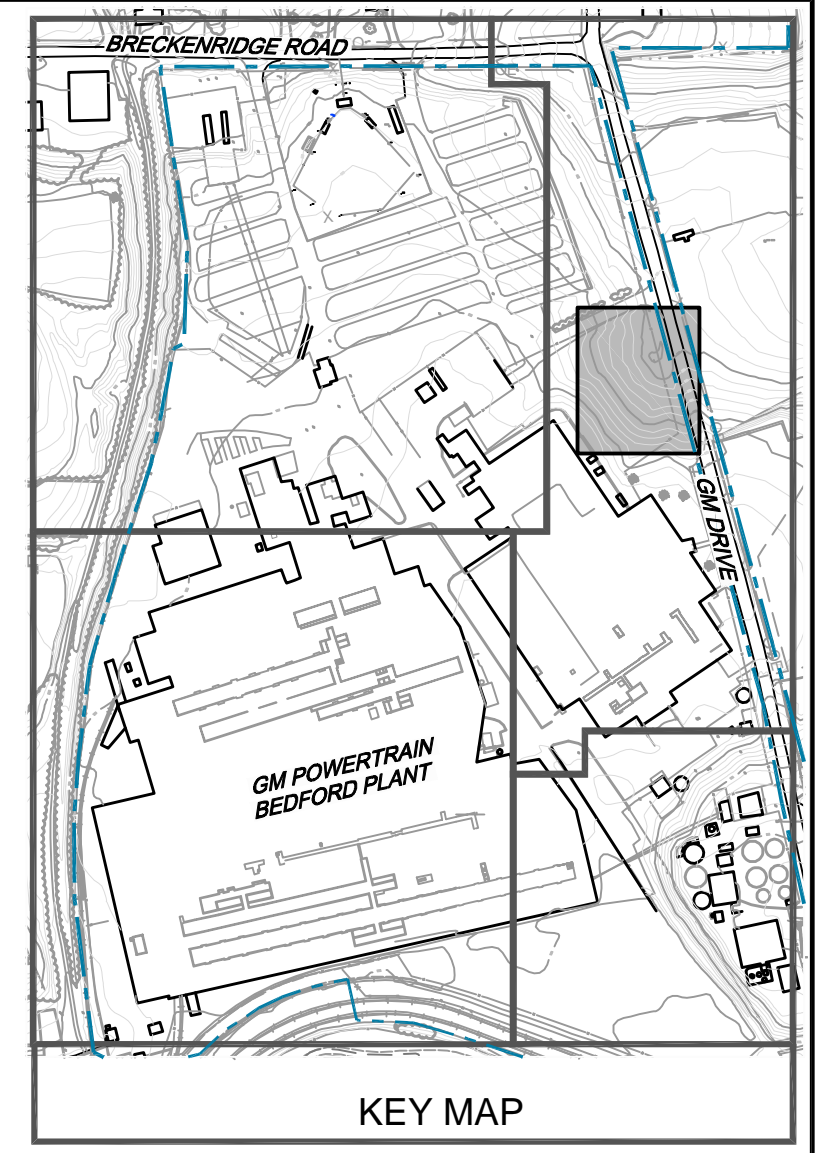
B-X129Y224	4/14/2004 0-2(ft) mg/kg	4/14/2004 4-6(ft) mg/kg
Metals		
Antimony	7.4 U	7.5 U
Arsenic	6.6	7.5
Copper	13.6	101
Iron	24600	25600
Lead	12.9	17.9
Manganese	173	107
Mercury	0.094 J	0.094 J
SVOAs		
Benzo(a)anthracene	0.4 U	0.41 U
Benzo(a)pyrene	0.4 U	0.41 U
Benzo(b)fluoranthene	0.4 U	0.41 U
Dibenz(a,h)anthracene	0.4 U	0.41 U
Indeno(1,2,3-cd)pyrene	0.4 U	0.41 U
VOAs		
Tetrachloroethene	0.0054 U	0.0053 U

B-X129Y214	4/14/2004 0-2(ft) mg/kg	4/14/2004 6-8(ft) mg/kg
Metals		
Antimony	7.2 U	7.7 U
Arsenic	4.2	5
Copper	16.4	15.6
Iron	19200	25800
Lead	12.2	14.7
Manganese	36	113
Mercury	0.038 J	0.048 J
SVOAs		
Benzo(a)anthracene	0.39 U	0.42 U
Benzo(a)pyrene	0.39 U	0.42 U

B-X143Y193BW	2/9/2006 0-2(ft) mg/kg	2/9/2006 14-16(ft) mg/kg	2/9/2006 16-18(ft) mg/kg	2/9/2006 20-22(ft) mg/kg
<b>Metals</b>				
Antimony	0.84 J	8.1 UJ	NS	NS
Arsenic	6.6	9.1	NS	NS
Copper	154	17.3	NS	NS
Iron	17700	33900	NS	NS
Lead	49.2	14.3	NS	NS
Manganese	285 J	137 J	NS	NS
Mercury	0.21	0.14	NS	NS
<b>SVOAs</b>				
Benzo(a)anthracene	NS	NS	NS	NS
Benzo(a)pyrene	NS	NS	NS	NS
Benzo(b)fluoranthene	NS	NS	NS	NS
Dibenz(a,h)anthracene	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NS	NS	NS	NS
<b>VOAs</b>				
Tetrachloroethene	NS	NS	NS	NS

B-X143Y193CB	2/22/2006 0-2(ft) mg/kg	2/22/2006 14-16(ft) mg/kg	2/22/2006 16-18(ft) mg/kg	2/22/2006 18-20(ft) mg/kg
<b>Metals</b>				
Antimony	7.5 UJ	15.5 UJ/8.1 UJ	NS	NS
Arsenic	7.1	8.7/10.3	NS	NS
Copper	22.3 J	15.9 J/17.4 J	NS	NS
Iron	32900	29900/27400	NS	NS
Lead	16.8	21.9/18.9	NS	NS
Manganese	201 J	333 J/102 J	NS	NS
Mercury	0.099 J	0.031 J/0.21	NS	NS
<b>SVOAs</b>				
Benzo(a)anthracene	NS	NS/NS	NS	NS
Benzo(a)pyrene	NS	NS/NS	NS	NS
Benzo(b)fluoranthene	NS	NS/NS	NS	NS
Dibenz(a,h)anthracene	NS	NS/NS	NS	NS
Indeno(1,2,3-cd)pyrene	NS	NS/NS	NS	NS
<b>VOAs</b>				
Tetrachloroethene	NS	NS/NS	NS	NS

B-X143Y193BX	2/9/2006 0-2(ft) mg/kg	2/9/2006 14-16(ft) mg/kg	2/9/2006 16-18(ft) mg/kg	2/9/2006 20-22(ft) mg/kg
<b>Metals</b>				
Antimony	0.61 J	8.9 UJ	NS	NS/NS
Arsenic	7.1	9	NS	NS/NS
Copper	150	15.9	NS	NS/NS
Iron	20800	37800	NS	NS/NS
Lead	62.4	15	NS	NS/NS
Manganese	5350 J	82.9 J	NS	NS/NS
Mercury	0.15	0.11 J	NS	NS/NS
<b>SVOAs</b>				
Benzo(a)anthracene	NS	NS	NS	NS/NS
Benzo(a)pyrene	NS	NS	NS	NS/NS
Benzo(b)fluoranthene	NS	NS	NS	NS/NS
Dibenz(a,h)anthracene	NS	NS	NS	NS/NS
Indeno(1,2,3-cd)pyrene	NS	NS	NS	NS/NS
<b>VOAs</b>				
Tetrachloroethene	NS	NS	NS	NS/NS



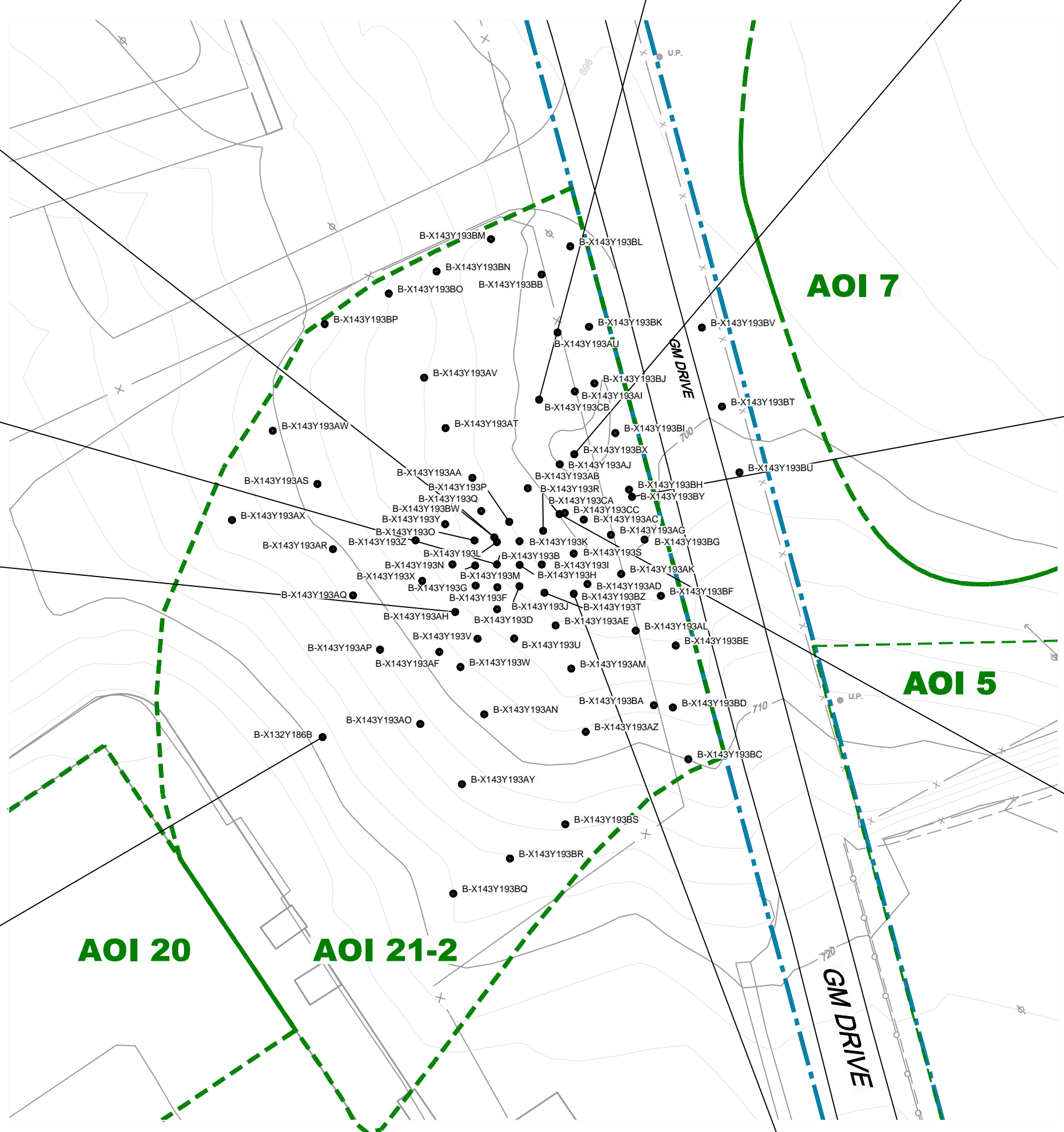
B-X132Y186B	4/8/2004 0-2(ft) mg/kg	4/8/2004 6-8(ft) mg/kg	4/8/2004 27-29.4(ft) mg/kg
<b>Metals</b>			
Antimony	6.7 U	7 U	7.5 UJ
Arsenic	4.8	5.1	3.9
Copper	32.5	31.7	11.8 J
Iron	17100	9010	12700
Lead	67.2	34.9	11.2
Manganese	503 J	222 J	136 J
Mercury	0.63	0.2	0.027 J
<b>SVOAs</b>			
Benzo(a)anthracene	0.39 U	0.38 U	0.41 U
Benzo(a)pyrene	0.39 U	0.083 J	0.41 U
Benzo(b)fluoranthene	0.39 U	0.38 UJ	0.41 U
Dibenz(a,h)anthracene	0.39 U	0.38 U	0.41 U
Indeno(1,2,3-cd)pyrene	0.39 U	0.38 U	0.41 U
<b>VOAs</b>			
Tetrachloroethene	0.0048 U	0.0047 U	0.0057 U

8.710.3 PARENT SAMPLE VALUE/DUPLICATE SAMPLE VALUE  
 J THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY  
 U NOT PRESENT AT OR ABOVE THE ASSOCIATED VALUE  
 NS NOT PRESENT AT OR ABOVE THE ASSOCIATED ESTIMATED REPORTING LIMIT  
 R REJECTED  
 NS NOT SAMPLED

B-X143Y193B	4/7/2004 0-2(ft) mg/kg	4/7/2004 6-8(ft) mg/kg	4/7/2004 27-29.4(ft) mg/kg
<b>Metals</b>			
Antimony	0.95 J	0.28 J	7.5 UJ
Arsenic	6.3	3.6	3.9
Copper	198 J	101 J	11.8 J
Iron	17100	9010	12700
Lead	67.2	34.9	11.2
Manganese	503 J	222 J	136 J
Mercury	0.63	0.2	0.027 J
<b>SVOAs</b>			
Benzo(a)anthracene	0.39 U	0.38 U	0.41 U
Benzo(a)pyrene	0.39 U	0.083 J	0.41 U
Benzo(b)fluoranthene	0.39 U	0.38 UJ	0.41 U
Dibenz(a,h)anthracene	0.39 U	0.38 U	0.41 U
Indeno(1,2,3-cd)pyrene	0.39 U	0.38 U	0.41 U
<b>VOAs</b>			
Tetrachloroethene	0.0048 U	0.0047 U	0.0057 U

B-X143Y193AH	11/30/2004 0-0.5(ft) mg/kg	11/30/2004 1-2(ft) mg/kg	11/30/2004 2-4(ft) mg/kg	11/30/2004 4-6(ft) mg/kg	11/30/2004 6-8(ft) mg/kg	11/30/2004 8-10(ft) mg/kg	12/1/2004 12.5-14.5(ft) mg/kg
<b>Metals</b>							
Antimony	NS/NS	NS	NS	NS	NS	NS	R
Arsenic	NS/NS	NS	NS	NS	NS	NS	6.4 J
Copper	NS/NS	NS	NS	NS	NS	NS	10.1
Iron	NS/NS	NS	NS	NS	NS	NS	20300
Lead	NS/NS	NS	NS	NS	NS	NS	23.4 J
Manganese	NS/NS	NS	NS	NS	NS	NS	1700
Mercury	NS/NS	NS	NS	NS	NS	NS	0.27 U
<b>SVOAs</b>							
Benzo(a)anthracene	NS/NS	NS	NS	NS	NS	NS	0.42 U
Benzo(a)pyrene	NS/NS	NS	NS	NS	NS	NS	0.42 U
Benzo(b)fluoranthene	NS/NS	NS	NS	NS	NS	NS	0.42 U
Dibenz(a,h)anthracene	NS/NS	NS	NS	NS	NS	NS	0.42 U
Indeno(1,2,3-cd)pyrene	NS/NS	NS	NS	NS	NS	NS	0.42 U
<b>VOAs</b>							
Tetrachloroethene	NS/NS	NS	NS	NS	NS	NS	0.0059 U

B-X132Y186B	4/8/2004 0-2(ft) mg/kg	4/8/2004 6-8(ft) mg/kg	4/8/2004 38-40.9(ft) mg/kg
<b>Metals</b>			
Antimony	6.7 U	7 U	8.2 U
Arsenic	4.8	5.1	6.7
Copper	32.5	31.7	20
Iron	12700	15600	31200
Lead	25.6	32.4	18.2
Manganese	137	176	249
Mercury	0.11	0.13	0.07 J
<b>SVOAs</b>			
Benzo(a)anthracene	0.096 J	0.7 J	0.45 U
Benzo(a)pyrene	0.12 J	0.78	0.45 U
Benzo(b)fluoranthene	0.15 J	0.83 J	R
Dibenz(a,h)anthracene	0.027 J	0.11 J	0.45 U
Indeno(1,2,3-cd)pyrene	0.078 J	0.43 J	0.45 U
<b>VOAs</b>			
Tetrachloroethene	0.23 U	0.0048 U	0.0071 U



AOI 7

AOI 5

AOI 20

AOI 21-2

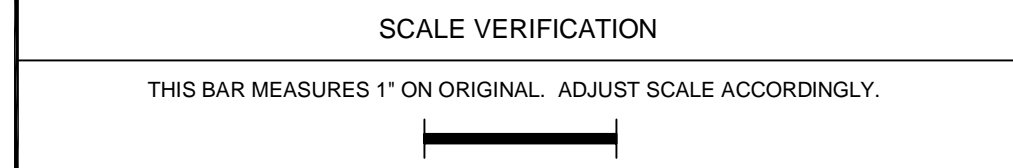
B-X143Y193BZ	2/9/2006 0-2(ft) mg/kg	2/9/2006 14-16(ft) mg/kg	2/9/2006 16-18(ft) mg/kg	2/9/2006 20-22(ft) mg/kg
<b>Metals</b>				
Antimony	0.85 J	7.8 UJ	NS	NS
Arsenic	5.3	12	NS	NS
Copper	163	17.7	NS	NS
Iron	14800	32400	NS	NS
Lead	50.9	14.7	NS	NS
Manganese	234 J	126 J	NS	NS
Mercury	0.23	0.11 J	NS	NS
<b>SVOAs</b>				
Benzo(a)anthracene	NS	NS	NS	NS
Benzo(a)pyrene	NS	NS	NS	NS
Benzo(b)fluoranthene	NS	NS	NS	NS
Dibenz(a,h)anthracene	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NS	NS	NS	NS
<b>VOAs</b>				
Tetrachloroethene	NS	NS	NS	NS

B-X143Y193BY	2/10/2006 0-2(ft) mg/kg	2/10/2006 14-16(ft) mg/kg	2/10/2006 16-18(ft) mg/kg	2/10/2006 20-22(ft) mg/kg
<b>Metals</b>				
Antimony	7.2 UJ	8 UJ	NS	NS
Arsenic	3.5	4.4	NS	NS
Copper	317 J	13 J	NS	NS
Iron	10500	12900	NS	NS
Lead	86.6 J	27.7 J	NS	NS
Manganese	225 J	470 J	NS	NS
Mercury	0.094 J	0.056 J	NS	NS
<b>SVOAs</b>				
Benzo(a)anthracene	NS	NS	NS	NS
Benzo(a)pyrene	NS	NS	NS	NS
Benzo(b)fluoranthene	NS	NS	NS	NS
Dibenz(a,h)anthracene	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NS	NS	NS	NS
<b>VOAs</b>				
Tetrachloroethene	NS	NS	NS	NS

Chemical Name	Criteria (mg/kg)
<b>Metals</b>	
Antimony	4.09E+02
Arsenic	1.59E+01
Copper	4.09E+04
Iron	3.06E+05
Lead	8.00E+02
Manganese	1.95E+04
Mercury	1.36E+01
<b>SVOAs</b>	
Indeno(1,2,3-cd)pyrene	2.11E+01
Benzo(b)fluoranthene	2.11E+01
Benzo(a)pyrene	2.11E+00
Dibenz(a,h)anthracene	2.11E+00
Benzo(a)anthracene	2.11E+01
<b>VOAs</b>	
Tetrachloroethene	1.31E+01

1. THE CHEMICAL LIST CONTAINS ONLY CONSTITUENTS THAT HAVE SITE-RELATED SOIL CONCENTRATIONS EXCEEDING REGION 9 RESIDENTIAL PRESS 2004 AT A TARGET CANCER RISK OF 10 \*AND NONCANCER RISK OF 1 IN THE WEST PLANT AREA.  
 2. THE ABOVE CRITERIA ARE BASED ON THE REGION 9 PROS FOR INDUSTRIAL SOIL AND WERE CALCULATED USING A TARGET CANCER RISK OF 10 \*AND NONCANCER RISK OF 1. THE SCREENING CRITERIA FOR MERCURY WAS CALCULATED BY ENVIRON TO ACCOUNT FOR VOLATILIZATION TO AMBIENT AIR USING EPA REGION 9 EQUATIONS, RfC FROM RfS, AND CHEMICAL PROPERTIES FROM EPA'S SOIL SCREENING GUIDANCE. SITE-RELATED CONCENTRATIONS HIGHER THAN THESE CRITERIA ARE HIGHLIGHTED IN YELLOW AND FOLLOWED BY (A).

AOI ID	Description
AOI 5	Former East Sand Disposal Area
AOI 7	Former North Lagoon and Outfall 011
AOI 20	Northern Portion of the Piston Building
AOI 21-2	Farmers Drainage Valley Northside of Piston and Office Buildings



**GM POWERTRAIN BEDFORD FACILITY  
 BEDFORD, INDIANA  
 WEST PLANT AREA INTERIM MEASURE  
 ANALYTICAL DATA - OTHER CHEMICALS  
 WEST PLANT AREA - 4 OF 5**

**CRA CONESTOGA-ROVERS & ASSOCIATES**

SOURCE: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001.

Source Reference:  
 BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI, APRIL 2001  
 AND CRA SURVEYS 2002 - 2005

Project Manager: J.M.	Reviewed By: M.K.	Date: MAY 2007
Scale: 1:50	Project N°: 13968-00	Report N°: 119
		Drawing N°: 2.4



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## **A1 INTRODUCTION**

A streamlined human health risk assessment was performed to support a determination of whether interim measures (IM) are warranted within the West Plant Area. Where IM were determined to be warranted, additional risk calculations were performed to estimate the risk reduction that would be achieved by the IM alternatives identified in Section 4.

The determination of whether environmental media at the West Plant Area warrant IM is discussed in Section A2. The additional risk calculations performed to estimate risk reduction associated with specific IM alternatives are discussed in Section A3. References cited in this appendix are listed in Section A4.

## **A2 BASELINE RISK ASSESSMENT**

A streamlined baseline risk assessment was conducted to evaluate the significance of reasonable maximum exposure (RME) to environmental media at the West Plant Area under current and reasonably expected future land use. Estimates of site-related cumulative cancer and noncancer risks for the MRE were developed using exposure scenarios that are consistent with current and reasonably expected future land use at the West Plant Area along with conservative assumptions and methodologies based on U.S. EPA risk assessment guidance. The estimates of site-related cumulative cancer risk and noncancer hazard indices (HI) were then compared with U.S. EPA-established levels for triggering remedial actions under RCRA, which are  $10^{-4}$  and 1, respectively (U.S. EPA 1991; U.S. EPA 1996).

### **A2.1 BASELINE EXPOSURE SCENARIOS**

Because current land use at the West Plant Area is industrial and future land use is expected to remain industrial, the potentially exposed populations at the West Plant Area under current and reasonably expected future land uses include routine workers, construction workers, and trespassers.

Potential exposure of these receptor populations to environmental media under current conditions at AOIs within the West Plant Area was evaluated as part of the RCRA Corrective Action Environmental Indicators (EI) determination of whether current human exposures are under control (CA725). The evaluation and its results are presented in the RCRA EI CA725 Report (ENVIRON, 2005). As discussed in the CA725 Report, certain locations within the West Plant Area were identified as having media with concentrations of hazardous constituents that should be further considered for IM, even though they do not currently pose significant risk. GM has restricted access in these areas to ensure that

no significant exposures would occur at these locations while planning the IM for the West Plant Area.

The hypothetical exposures for the receptor populations evaluated in the baseline risk assessment are discussed below.

### **Routine Workers**

The largest receptor population at the West Plant Area would be expected to consist of workers who are engaged in routine industrial activities that generally take place indoors. During limited time outdoors, some workers could contact surface soil. In this risk assessment, it is conservatively assumed that workers could have daily contact with surface soil at all the AOIs in the West Plant Area, except for the two small parts of AOI 21-2 that are within approximately 30 feet of GM Drive and outside the facility's security fence where routine worker activities are not reasonably expected. These two parts of AOI 21-2 are designated as A021-2\_RoadEast and A021-2\_RoadWest. Potential routes of exposure to surface soil would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

Exposure of routine workers via groundwater use was not evaluated because groundwater is not used as a potable or non-potable water supply at the West Plant Area or in the vicinity, and future potable or non-potable use is not reasonably expected.

### **Construction Workers**

A small fraction of the workers at the West Plant Area are expected to conduct occasional subsurface construction or maintenance activities, which could put them in contact with surface and subsurface soil in the West Plant Area, including A021-2\_RoadEast and A021-2\_RoadWest. Under GM operations, these subsurface activities are expected to be of limited size and duration (e.g., installation or repair of underground utilities, or removal or repair of pavement). Potential routes of exposure to surface and subsurface soil under these scenarios would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

During subsurface construction activities, workers could also contact shallow groundwater (within 10 ft bgs) and spring water. There is no contamination in the shallow groundwater and spring water at the West Plant Area with the exception of two springs. However, these springs have been contained as part of the Site Source Control (CRA 2003). Therefore, there is no complete exposure pathway to groundwater and spring water at the West Plant Area.

### **Trespassers**

Fencing and security personnel control access to most portions of the Facility, so that trespassing is unlikely, and if to occur, would be possible only at limited locations and for short periods. Trespassers in the West Plant Area could come into contact with soil that is exposed, if any, including at A021-2\_RoadEast and A021-2\_RoadWest. Potential routes of exposure would include incidental ingestion, dermal contact, and inhalation of soil vapor and airborne particulates.

Exposure factors for calculating chemical intakes for the three receptor populations discussed above are shown in the Attachment to this appendix. There are the same as those used in the EI CA725 determination and were discussed in the Appendix B2 of the RCRA EI CA725 Report (ENVIRON, 2005), and therefore, are not repeated here.

## **A2.2 BASELINE RISK ESTIMATES**

The significance of potential exposures of the receptors discussed above were evaluated by estimating the cumulative cancer and noncancer risks under each exposure scenario using conservative exposure assumptions from U.S. EPA risk assessment guidance or similarly conservative assumptions based on professional judgment where guidance is not available. The methods used in the risk evaluation are discussed in the RCRA EI CA725 Report (ENVIRON, 2005), and therefore, are not repeated here. The supporting risk calculations are included in the attachment to this Appendix. The risk estimates from these calculations are discussed below for each receptor.

### **Routine Workers**

Potential exposure of routine workers to surface soil was evaluated using U.S. EPA-recommended standard default exposure factors for estimating RME risks under generic commercial/industrial settings, as discussed in Appendix B of the RCRA EI CA725 Report (ENVIRON, 2005). Table A.1 shows the bounding estimates of site-related cumulative cancer risks and noncancer hazard indices (HI) using these conservative exposure assumptions and the highest detected concentrations at any depth in soil at each AOI in the West Plant Area. The estimates of cumulative cancer risks and noncancer HIs for routine workers are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for AOIs 9, 18, 21-1, 21-2 (the area west of the GM drive including A021-2\_RoadWest [A021-2] and the area west of the GM drive and within the security fencing [A021-2\_InFence]), 21-4, and 22. For these AOIs, the estimates were refined by using the highest detected concentrations in surface soil and 95% upper confidence limits (UCL) for key constituents (PCBs for AOIs 18, 21-1, 21-2, and 21-4 and antimony for AOI 22).

As shown on Table A.2, the refined cancer risk estimates are acceptable for all the AOIs, but the refined noncancer HIs still exceed the U.S. EPA-established limit of 1 for AOIs 18, 21-1 and 21-2. As discussed in the RCRA EI CA725 Report (ENVIRON, 2005), these upper-bound and refined risk estimates are based on the highly conservative assumptions that workers spend the entire workday in contact with soil at each AOI. As such, they overstate the risks associated with reasonable maximum exposures under current conditions at the Facility where the workers are unlikely to spend an entire day in contact with soil at one area. However, to address the potential for significant future exposures at AOIs 18, 21-1 and 21-2, additional risk calculations were performed for surface soil at these areas in Section A3 to estimate the risk reduction that would be achieved by the IM alternatives identified in Section 4 of this Work Plan. The predominant constituent contributing to these risk estimates is PCBs, and the most significant routes of exposure are ingestion and dermal contact.

### **Construction Workers**

Potential exposure of construction workers to surface and subsurface soil was evaluated for workers conducting occasional subsurface construction or maintenance activities in the West Plant Area, as discussed above. U.S. EPA-recommended exposure factors for estimating RME risks were used for contact rates, as discussed in Appendix B2.3.3 of the RCRA EI CA725 Report (ENVIRON, 2005), and exposure was assumed to occur on average of 5 days/year for 10 years. The expected maximum depth of excavation is 10 ft. It should be noted that the number of days of exposure represent the number of days that workers have intensive contact with soil (e.g., during excavation work) rather than the number of days of construction work which typically includes days without intensive soil contact.

Table A.1 shows the bounding estimates of site-related cumulative cancer risks and noncancer hazard indices (HI) for the construction workers using the highest detected concentrations at any depth in soil at each AOI in the West Plant Area. The estimates of cumulative cancer risks and noncancer HIs are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for AOIs 9 and 21-2 (at A021-2, A021-2\_InFence, and A021-2\_RoadWest). For these areas, the estimates were refined by using the highest detected concentrations at the 0-10 ft interval in soil and 95% UCLs for PCBs. As shown on Table A.3, the refined cancer and noncancer risk estimates are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively.

### **Trespassers**

Potential exposure of trespassers to surface soil was evaluated using site-specific exposure factors for estimating RME for adolescents between ages 9 to 18. The exposure factors for this receptor are discussed in Appendix B2.3.4 of the RCRA EI CA725 Report (ENVIRON, 2005). Table A.1 shows the upper-bound estimates of site-related



cumulative cancer risks and noncancer hazard indices (HI) using these conservative exposure assumptions and the highest detected concentrations at any depth in soil at each AOI in the West Plant Area. The estimates of cumulative cancer risks and noncancer HIs for trespassers are within the U.S. EPA-established limits of  $10^{-4}$  and 1, respectively, except for AOI 21-2 (at A021-2, A021-2\_InFence, and A021-2\_RoadWest). For these areas, the estimates were refined by using the highest detected concentrations in surface soil and 95% upper confidence limits (UCL) for PCBs. As shown on Table A.2, the refined cancer risk estimates are within the U.S. EPA-acceptable limits for these areas.

### **Exposure to Lead**

USEPA (2003) evaluates the significance of lead exposures using blood lead level as an index of exposure, rather than in terms of cancer risks or noncancer HQs. For evaluating adult exposure to soil lead, USEPA has recommended a blood lead modeling methodology for deriving a criterion that is protective of routine worker exposure to lead in soil. Criterion derived using this methodology can range from approximately 750 mg/kg to 1,750 mg/kg (USEPA 2003). As USEPA discussed in the regulations at 40 CFR Part 745, the soil lead screening level should be compared with the arithmetic mean concentration of lead within the area where potential exposures are assumed to occur in order to be consistent with the principles underlying the blood lead modeling approaches used in deriving the screening level. Table A.4 shows the mean lead concentrations in surface soil (0 to 2 feet bgs) and the depth-averaged subsurface soil column (0 to 10 feet bgs) with the soil screening criterion at each AOI in the West Plant Area. The mean lead concentration estimates for surface and subsurface soils at these AOIs are below or within the USEPA-recommended acceptable range of screening criterion for worker exposure to lead in soil.

## **A3 POST-IM RISK ASSESSMENT**

The baseline risk assessment showed that surface soil at certain locations in AOIs 18, 21-1 and 21-2 warrant IM, as discussed in Section A2.2. To support an evaluation of the IM alternatives for addressing surface soil, additional risk calculations were performed to estimate risk reduction associated with the proposed IM discussed in Section 4 of this Work Plan.

At AOIs 18, 21-1 and 21-2, concentrations of PCBs in surface soil at some locations are high enough that they had to be removed from the risk calculations in order for the cumulative cancer and noncancer risk estimates for routine workers to be within the acceptable limits. The locations and corresponding concentrations that were removed from the risk calculations are listed on Table A.5. Further action (e.g., capping) is proposed to restrict or eliminate access to these locations, as discussed in Section A2.2.

As shown on Table A.6, after excluding the concentrations shown on Table A.5, the high-end estimates of cumulative cancer risk and HI for routine workers at these AOIs do not exceed  $10^{-4}$  or 1, respectively, using the highest detected concentrations in surface soil and 95% UCLs for PCBs. This means that once the proposed IM is implemented at the locations specified on Table A.6, there would be no unacceptable exposure of routine workers to surface soil at the West Plant Area.

#### **A4    REFERENCES**

Conestoga-Rovers & Associates (CRA). 2003. Site Source Control Work Plan, GM Powertrain Bedford Facility, Bedford, Indiana. November.

ENVIRON International Corporation. 2005. Resource Conservation and Recovery Act Environmental Indicator CA725 Report: Determination of Current Human Exposures Under Control, GM Powertrain Bedford Facility, Bedford, Indiana. January.

United States Environmental Protection Agency (USEPA). 1991. Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions. Memorandum from Don R. Clay to Regional Directors. OSWER Directive 9355.0-30. April 22.

United States Environmental Protection Agency (USEPA). 1996. 61 FR 19432, May 1.

United States Environmental Protection Agency (USEPA). 2003. Office of Solid Waste and Emergency Response (OSWER). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil. December.

**ATTACHMENT**

**SUPPORTING RISK CALCULATIONS**