



**UPSTREAM PARCELS REMOVAL ACTION
WORK PLAN
ADDENDUM NO. 1**

**GM POWERTRAIN BEDFORD FACILITY
105 GM DRIVE
BEDFORD, INDIANA**

EPA ID# IND006036099

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1.0 INTRODUCTION

This document presents an Addendum No.1 to the approved Upstream Parcels Removal Action Work Plan (Work Plan). This Addendum documents the investigation and planned removal activities associated with impacted materials in areas adjacent to an unnamed tributary to Bailey's Branch Creek that begins on GM property just east of the intersection of Breckenridge Road and GM Drive, at the upstream end of Pleasant Run Watershed ("Bailey's Branch Creek") in Lawrence County, Indiana (Site) and lies north of AOI 4. The Work Plan was developed as part of the Removal Action activities related to the General Motors Corporation (GM) Powertrain Bedford Plant (Facility) located in Bedford, Indiana.

The Upstream Parcels Site Location Plan is presented as Figure 1.1.

1.1 GENERAL

The purpose of this Addendum is to provide an overview of the current conditions and to provide details related to the implementation of the proposed removal of impacted fill material from Parcel 401 and for the cleaning and closure of an abandoned culvert located underneath GM Drive at Breckenridge Street, in the area known as the employee parking lot. The extensive fill material on Parcel 401 and the existence of the abandoned sewer were conditions identified during initial Removal Action activities for the area north of AOI 4 as part of the Upstream Parcels Removal Action.

This report includes the following Sections:

Section 2.0 - Investigations

- a summary of the Parcel 401 investigation;
- a summary of the culvert investigation;

Section 3.0 – Proposed Remedy

- a description of the proposed remedy for Parcel 401 and the culvert; and

Section 4.0 – Stockpile PCB Concentration Verification Procedures

- a description of the sampling methods to be implemented to confirm the PCB concentration of excavated materials prior to shipment off-Site for disposal.

2.0 INVESTIGATIONS

2.1 PARCEL 401 INVESTIGATION

Initial Removal Action activities for the Upstream Parcels identified fill on the property known as Parcel 401. Following the identification of the fill, additional review of historic drawings and aerial photographs of the area, as well as through discussions with the residents, identified the historical extension of the creek valley west of GM Drive, extending through the area of the employee parking lot towards, and through, a portion of Parcel 401. The resident of Parcel 401 was contacted and the limits of historic filling discussed with the resident. The resident identified that some of the fill had been delivered to Parcel 401 from the Facility, among many other sources. Based upon this information, GM initiated a supplemental investigation to determine the nature and extent of the fill on Parcel 401.

To determine the nature and extent of the fill material, test pits were installed on Parcel 401 as shown on Figure 2.1. Initially, two test pits were installed on September 24, 2003. Additional test pits were installed on Parcel 401 between September 30 and October 2, 2003. These test pits identified the presence and location of various fill material on Parcel 401 along the southern and southeastern property boundaries. It is estimated that a total of approximately 10,000 cubic yards of fill material is present on Parcel 401. Test pit preliminary (not yet validated) sampling results are summarized in Table 2.1 and are displayed on Figure 2.1. Test pit results indicate that greater than 50 mg/kg material will be encountered on the bank closest to the creek and that concentrations drop off going north away from the creek.

Based on the investigation, it is estimated that approximately 3,500 cubic yards of fill material with PCB concentrations exceeding the 1.8 mg/kg PCB cleanup criteria exists within the fill material on Parcel 401.

2.2 CULVERT INVESTIGATION

The culvert investigation was addressed consistent with the scope of work (SOW) presented in Addendum No. 3 to the RCRA Facility Investigation (RFI) Work Plan. The abandoned culvert was identified during excavation activities in September, 2003. A visual inspection of the culvert revealed that there was no water flowing and that it was partially filled with sediment.

A transition manhole, constructed from limestone blocks located in the southwest corner of Breckenridge Street and the western side of GM Drive was identified as the origin of the culvert. The transition manhole has a total depth of approximately 15 feet. The culvert invert is located at the bottom of the transition manhole. A partially blocked (with a concrete bulkhead), 24-inch diameter pipe with an invert 32 inches below ground surface (bgs) had an inlet on the south west side of the transition manhole.

During the evaluation of the transition manhole, sediment and a small amount of oily water were encountered in the bottom of the manhole. The oily water was observed to have seeped in to the manhole through the limestone walls of the catch basin.

The location of the culvert and manhole are presented on Figure 2.2. Sediment from inside the culvert was sampled on September 24, 2003; while sediment from the 24-inch diameter pipe and oily residue from the manhole were collected on November 5, 2003. The results of these samples are presented in Table 2.2. It should be noted that this data is preliminary and has not been subject to full validation at this time.

Additional investigation of the GM property west of GM drive and south of Breckenridge Road will be completed as part of the RFI for the Facility. The scope of work for this investigation will be submitted to U.S. EPA as an addendum to the RFI Work Plan.

3.0 PROPOSED REMEDY

3.1 PARCEL 401 REMEDY

The proposed modification to the remedy for Parcel 401 includes the following components, most of which are common to the Upstream Parcels Work Plan and were previously approved:

- excavation of material with PCB concentrations greater than or equal to 50 milligrams per kilogram (mg/kg);
- excavation of material with PCB concentrations greater than or equal to 1.8 mg/kg and less than 50 mg/kg;
- segregation of material not requiring removal;
- disposal of material with PCB concentrations greater than or equal to 1.8 mg/kg;
- verification sampling;
- backfilling with material not requiring removal and imported clean fill; and
- restoration of excavated area and any structures damaged/removed during the fill removal activities.

Excavation activities will commence with the removal of material with PCB concentrations greater than or equal to 50 mg/kg, based on the test pit sampling. Where limited excavation will be done on former test pits on the eastern side of the property a 5-point composite verification will be collected for each excavation. The approximate excavation limits for Parcel 401 are identified on Figure 3.1. This work will be conducted in accordance with the procedures outlined in the approved Work Plan. Once removal of the over 50 mg/kg material is complete, post-excavation verification samples will be taken to determine whether the greater than 50 mg/kg PCB material has been removed. Once this material has been removed, excavation will continue to remove the material between 1.8 and 50 mg/kg. This material will be stockpiled and sampled prior to disposal. Consistent with the Work Plan, at the end of excavation, 5-point composite samples will be collected for each 50 by 50-foot grid area of the Parcel.

It is anticipated that approximately 1,500 cubic yards of material with PCB concentrations greater than or equal to 50 mg/kg will be removed, and approximately 2,000 cubic yards of material with PCB concentrations less than 50 mg/kg will be removed.

Excavated material will be transferred to the soil staging pad located on AOI 4. This soil staging pad is constructed of 40 mil thick liner that has an integral berm around the perimeter. Staging pad details can be found in the Work Plan. Stockpile sampling prior to off-Site disposal will be conducted at the staging area by the methods described in Section 4.0.

Material with PCB concentrations greater than or equal to 50 mg/kg will be disposed off-Site at the Heritage landfill in Roachdale, Indiana. Material, with PCB concentrations greater than or equal to 1.8 mg/kg and less than 50 mg/kg, will be disposed of at Republic's Sycamore Ridge landfill. When approval of the verification samples has been received, the excavation will be backfilled with clean fill material and the surface restored to match existing conditions unless alternative restoration details are agreed to with the Property owner.

The fill material located on Parcel 401 contains large pieces of concrete, limestone block, and other miscellaneous material. Depending on the nature of the fill in the proximity of the existing garage on the Parcel, it may be necessary to demolish the garage. To accommodate this, a temporary storage facility will be provided prior to and during the remediation phase. The location and details of the temporary storage facility will be agreed to by the Parcel owner and the Site engineer. Should the existing garage need to be demolished to facilitate the work, a new garage, of similar dimensions will be constructed in approximately the same location as the existing garage, as part of the restoration.

3.2 CULVERT REMEDY

The culvert cleaning was completed on November 5, 2003 consistent with the memorandum entitled "Work Plan - Culvert Cleaning and Investigation North East Corner of Employee Parking Lot/GM Drive" (October 28, 2003). A copy of this document is included as Attachment A. This work completed included the following:

- vacuum/manual removal of sediment;
- disposal of material at the Heritage Roachdale Landfill facility;
- visual inspection of culvert and catch basin for cleanliness and possible connections;
- pressure washing culvert and manhole walls with potable water; and
- transfer of wastewater to the Facility wastewater treatment plant.

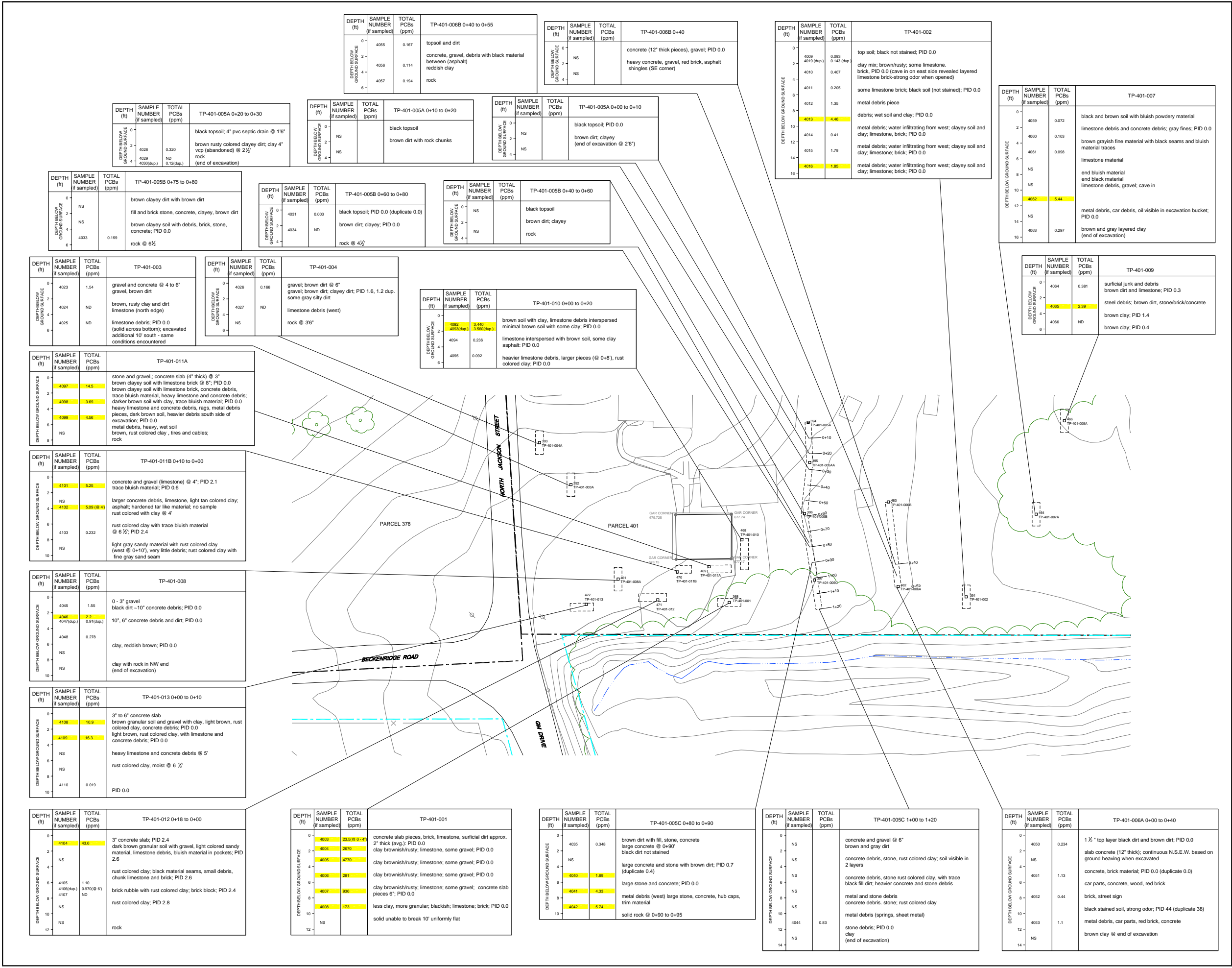
All material removed from the culvert and catch basin was disposed of as containing PCB concentrations greater than or equal to 50 mg/kg. This determination was made based on investigation sampling and the impracticality of segregating this material. All culvert sediment material was disposed of at the Heritage Roachdale Landfill facility.

No connections to the culvert were identified other than the previously bulkheaded 24-inch diameter inlet pipe to the transition manhole identified in Section 2.2. Final closure of the culvert will be completed by grouting the pipe with flowable fill from the catch basin to the outlet point in the area north of AOI 4. This work is scheduled to take place after U.S. EPA review and approval of this Addendum. Closure of the catch basin will be completed as part of the RCRA Corrective Action for the Facility, based on the results of the investigation of the employee parking lot. Until the employee parking area investigation is complete, and an appropriate Interim Measure for the area implemented, the catch basin will be inspected and any water/oil, which collects in the catch basin will be removed, characterized, and appropriately disposed.

4.0 STOCKPILE PCB CONCENTRATION VERIFICATION PROCEDURES

Soil and sediment identified to contain greater than 1.8 mg/kg total PCB concentrations (or 5.3 mg/kg total PCB concentration for the industrial parcels), but less than 50 mg/kg total PCB, will be excavated, staged, sampled and then loaded for waste disposal. The staging may occur within the excavation limits or at a specially constructed soil staging pad. The staged material will be sampled at the rate of one 5-point composite sample per every 500 tons (or less) of soil to verify disposal requirements. This procedure will also apply to all future material excavated as part of the Removal Action, in areas believed to be below 50 mg/kg (if the material comes from an area believed to be greater than 50 mg/kg, direct loading and trucking to the Heritage Roachdale Facility may occur instead of stockpiling and sampling).

Once the verification sampling results have confirmed the removal of all material over the cleanup criteria, and the staged material analytical results are within the acceptable range, the stockpiled soil will be loaded and transported from the Site for disposal. For excavated material with an initial PCB concentration of less than 50 mg/kg, should either the staged material sample or any of the associated post excavation verification samples indicate a concentration equal to or greater than 50 mg/kg total PCBs, then the entire staged material stockpile will be disposed of as material containing a concentration of PCBs equal to or greater than 50 mg/kg.



Nº	Revision	Date	Initial

LEGEND

- APPROXIMATE GM PROPERTY BOUNDARY
- - - APPROXIMATE PROPERTY BOUNDARY
- - - - - LIMIT OF TEST PIT TRENCH EXCAVATION
- TEST PIT SAMPLE LOCATION
- NS NOT SAMPLED
- ND NOT DETECTED
- 5.44 SAMPLE RESULT MORE THAN 1.8 ppm

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

SCALE VERIFICATION

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

Approved

DRAFT

DRAWING STATUS			
Status		Date	Initial

GM POWERTRAIN BEDFORD PLANT BEDFORD, INDIANA

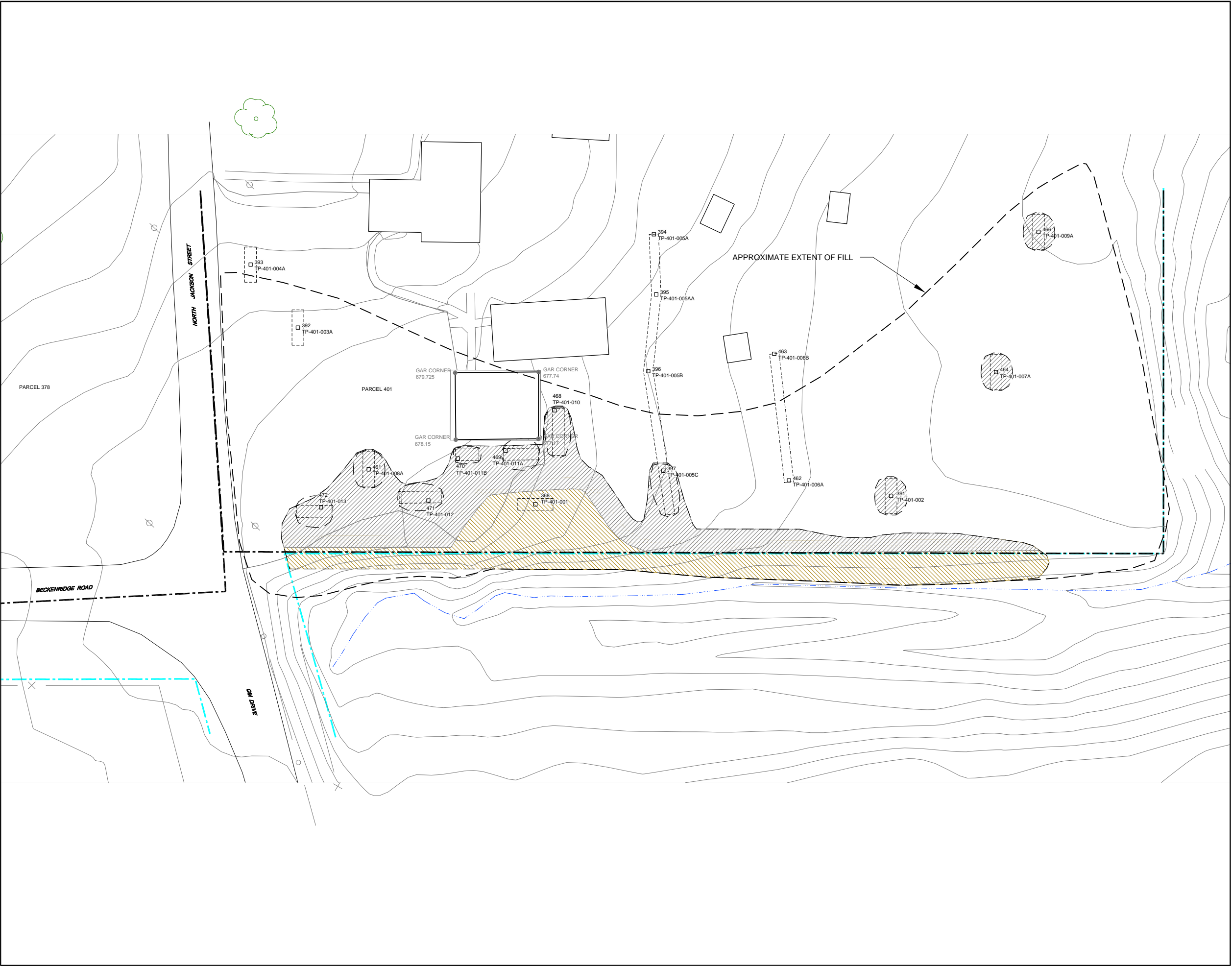
PRELIMINARY TEST PIT RESULTS PARCEL 401, AS OF OCTOBER 29, 2003

CONESTOGA-ROVERS & ASSOCIATES
INC.

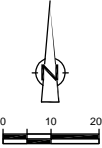
Source Reference:
BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001

Project Manager: J.M.	Reviewed By: M.K.	Date: OCTOBER 2003
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Scale: AS SHOWN	Project N°: 13968-00	Report N°: 074	Drawing N°: 2.1
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NQ	Revision	Date	Initial



- LEGEND
- APPROXIMATE GM PROPERTY BOUNDARY
 - APPROXIMATE PROPERTY BOUNDARY
 - TEST PIT SAMPLE LOCATION
 - INITIAL EXCAVATION LIMIT
 - SOIL/WASTE <50 mg/kg PCB
 - SOIL/WASTE >50 mg/kg PCB

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

SCALE VERIFICATION

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



Approved

DRAFT

DRAWING STATUS

Status	Date	Initial

GM POWERTRAIN BEDFORD PLANT
BEDFORD, INDIANA

APPROXIMATE EXCAVATION LIMITS
PARCEL 401



CONESTOGA-ROVERS & ASSOCIATES

Source Reference: BASE MAP COMPLETED BY AIR-LAND SURVEYS, FLINT, MI. APRIL 2001			
Project Manager: J.M.	Reviewed By: M.K.	Date: NOVEMBER 2003	
Scale: AS SHOWN	Project N°: 13968-00	Report N°: 074	Drawing N°: 3.1

TABLE 2.1
SUMMARY OF PRELIMINARY SOIL ANALYTICAL RESULTS
PARCEL 401
BEDFORD, INDIANA

<i>Sample Location:</i>		4003	4004	4005	4006	4007	4008	4009	4010	4011	4012	4013
<i>Sample ID:</i>		S-401-092403-KB-4003	S-401-092403-KB-4004	S-401-092403-KB-4005	S-401-092403-KB-4006	S-401-092403-KB-4007	S-401-092403-KB-4008	S-401-092403-KB-4009	S-401-092403-KB-4010	S-401-092403-KB-4011	S-401-092403-KB-4012	S-401-092403-KB-4013
<i>Sample Date:</i>		9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/24/2003
<i>Parameters</i>	<i>Units</i>											
PCBs												
Aroclor-1016 (PCB-1016)	µg/kg	ND(3700)	ND(2200000)	ND(2200000)	ND(40000)	ND(210000)	ND(40000)	ND(40)	ND(40)	ND(39)	ND(74)	ND(450)
Aroclor-1221 (PCB-1221)	µg/kg	ND(3700)	ND(2200000)	ND(2200000)	ND(40000)	ND(210000)	ND(40000)	ND(40)	ND(40)	ND(39)	ND(74)	ND(450)
Aroclor-1232 (PCB-1232)	µg/kg	ND(3700)	ND(2200000)	ND(2200000)	ND(40000)	ND(210000)	ND(40000)	ND(40)	ND(40)	ND(39)	ND(74)	ND(450)
Aroclor-1242 (PCB-1242)	µg/kg	ND(3700)	ND(2200000)	ND(2200000)	ND(40000)	ND(210000)	ND(40000)	ND(40)	ND(40)	ND(39)	ND(74)	ND(450)
Aroclor-1248 (PCB-1248)	µg/kg	20000	2300000	4200000	250000	850000	150000	55	330	150	940	3900
Aroclor-1254 (PCB-1254)	µg/kg	ND(3700)	ND(2200000)	ND(2200000)	ND(40000)	ND(210000)	ND(40000)	ND(40)	ND(40)	ND(39)	ND(74)	ND(450)
Aroclor-1260 (PCB-1260)	µg/kg	3500 J	370000 J	570000 J	31000 J	86000 J	23000 J	38 J	77	55	410	560
Total PCBs	µg/kg	23500	2670000	4770000	281000	936000	173000	93	407	205	1350	4460

TABLE 2.1
SUMMARY OF PRELIMINARY SOIL ANALYTICAL RESULTS
PARCEL 401
BEDFORD, INDIANA

<i>Sample Location:</i>		4014	4015	4016	4019	4023	4024	4025	4026	4027	4028	4029	4030
<i>Sample ID:</i>		S-401-092403-KB-4014	S-401-092403-KB-4015	S-401-092403-KB-4016	S-401-092403-KB-4019	S-093003-KB-4023	S-093003-KB-4024	S-093003-KB-4025	S-093003-KB-4026	S-093003-KB-4027	S-093003-KB-4028	S-093003-KB-4029	S-093003-KB-4030
<i>Sample Date:</i>		9/24/2003	9/24/2003	9/24/2003	9/24/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003
<i>Parameters</i>	<i>Units</i>												
<i>PCBs</i>													
Aroclor-1016 (PCB-1016)	µg/kg	ND(42)	ND(220)	ND(240)	ND(41)	ND(190)	ND(42)	ND(42)	ND(39)	ND(45)	ND(39)	ND(43)	ND(44)
Aroclor-1221 (PCB-1221)	µg/kg	ND(42)	ND(220)	ND(240)	ND(41)	ND(190)	ND(42)	ND(42)	ND(39)	ND(45)	ND(39)	ND(43)	ND(44)
Aroclor-1232 (PCB-1232)	µg/kg	ND(42)	ND(220)	ND(240)	ND(41)	ND(190)	ND(42)	ND(42)	ND(39)	ND(45)	ND(39)	ND(43)	ND(44)
Aroclor-1242 (PCB-1242)	µg/kg	ND(42)	ND(220)	ND(240)	ND(41)	ND(190)	ND(42)	ND(42)	ND(39)	ND(45)	ND(39)	ND(43)	ND(44)
Aroclor-1248 (PCB-1248)	µg/kg	310	1500	1600	89	1300	ND(42)	ND(42)	100	ND(45)	ND(39)	ND(43)	ND(44)
Aroclor-1254 (PCB-1254)	µg/kg	ND(42)	ND(220)	ND(240)	ND(41)	ND(190)	ND(42)	ND(42)	ND(39)	ND(45)	320	ND(43)	120
Aroclor-1260 (PCB-1260)	µg/kg	100	290	250	54	240	ND(42)	ND(42)	66	ND(45)	ND(39)	ND(43)	ND(44)
<i>Total PCBs</i>	µg/kg	410	1790	1850	143	1540	ND	ND	166	ND	320	ND	120

TABLE 2.1
SUMMARY OF PRELIMINARY SOIL ANALYTICAL RESULTS
PARCEL 401
BEDFORD, INDIANA

Sample Location:	4031	4033	4034	4035	4040	4041	4042	4044	4045	4046	4047	4048	
Sample ID:	S-093003-KB-4031	S-093003-KB-4033	S-093003-KB-4034	S-093003-KB-4035	S-401-093003-KB-4040	S-401-093003-KB-4041	S-401-093003-KB-4042	S-401-100103-KB-4044	S-401-100103-KB-4045	S-401-100103-KB-4046	S-401-100103-KB-4047	S-401-100103-KB-4048	
Sample Date:	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	9/30/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	
Parameters	Units												
PCBs													
Aroclor-1016 (PCB-1016)	µg/kg	ND(42)	ND(44)	ND(43)	ND(40)	ND(180)	ND(390)	ND(780)	ND(87)	ND(190)	ND(380)	ND(73)	ND(42)
Aroclor-1221 (PCB-1221)	µg/kg	ND(42)	ND(44)	ND(43)	ND(40)	ND(180)	ND(390)	ND(780)	ND(87)	ND(190)	ND(380)	ND(73)	ND(42)
Aroclor-1232 (PCB-1232)	µg/kg	ND(42)	ND(44)	ND(43)	ND(40)	ND(180)	ND(390)	ND(780)	ND(87)	ND(190)	ND(380)	ND(73)	ND(42)
Aroclor-1242 (PCB-1242)	µg/kg	ND(42)	ND(44)	ND(43)	ND(40)	ND(180)	ND(390)	ND(780)	ND(87)	ND(190)	ND(380)	ND(73)	ND(42)
Aroclor-1248 (PCB-1248)	µg/kg	ND(42)	130	ND(43)	260	1700	3900	5200	700	1300	2000	750	240
Aroclor-1254 (PCB-1254)	µg/kg	2.7 J	ND(44)	ND(43)	ND(40)	ND(180)	ND(390)	ND(780)	ND(87)	ND(190)	ND(380)	ND(73)	ND(42)
Aroclor-1260 (PCB-1260)	µg/kg	ND(42)	29 J	ND(43)	88	190	430	540 J	130	250	200 J	160	38 J
Total PCBs	µg/kg	3	159	ND	348	1890	4330	5740	830	1550	2200	910	278

TABLE 2.1
SUMMARY OF PRELIMINARY SOIL ANALYTICAL RESULTS
PARCEL 401
BEDFORD, INDIANA

<i>Sample Location:</i>		4050	4051	4052	4053	4055	4056	4057	4059	4060	4061	4062
<i>Sample ID:</i>		S-401-100103-KB-4049	S-401-100103-KB-4050	S-401-100103-KB-4051	S-401-100103-KB-4052	S-401-100103-KB-4055	S-401-100103-KB-4056	S-401-100103-KB-4057	S-401-100103-KB-4059	S-401-100103-KB-4060	S-401-100103-KB-4061	S-401-100103-KB-4062
<i>Sample Date:</i>		10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003	10/1/2003
<i>Parameters</i>	<i>Units</i>											
<i>PCBs</i>												
Aroclor-1016 (PCB-1016)	µg/kg	ND(44)	ND(80)	ND(41)	ND(210)	ND(42)	ND(42)	ND(42)	ND(42)	ND(37)	ND(39)	ND(730)
Aroclor-1221 (PCB-1221)	µg/kg	ND(44)	ND(80)	ND(41)	ND(210)	ND(42)	ND(42)	ND(42)	ND(42)	ND(37)	ND(39)	ND(730)
Aroclor-1232 (PCB-1232)	µg/kg	ND(44)	ND(80)	ND(41)	ND(210)	ND(42)	ND(42)	ND(42)	ND(42)	ND(37)	ND(39)	ND(730)
Aroclor-1242 (PCB-1242)	µg/kg	ND(44)	ND(80)	ND(41)	ND(210)	ND(42)	ND(42)	ND(42)	ND(42)	ND(37)	ND(39)	ND(730)
Aroclor-1248 (PCB-1248)	µg/kg	200	960	220	880	150	92	160	56	75	71	5000
Aroclor-1254 (PCB-1254)	µg/kg	ND(44)	ND(80)	ND(41)	ND(210)	ND(42)	ND(42)	ND(42)	ND(42)	ND(37)	ND(39)	ND(730)
Aroclor-1260 (PCB-1260)	µg/kg	34 J	170	220	220	17 J	22 J	34 J	16 J	28 J	27 J	440 J
<i>Total PCBs</i>	µg/kg	234	1130	440	1100	167	114	194	72	103	98	5440

TABLE 2.1
SUMMARY OF PRELIMINARY SOIL ANALYTICAL RESULTS
PARCEL 401
BEDFORD, INDIANA

<i>Sample Location:</i>		4063	4064	4065	4066	4092	4093	4094	4095	4097	4098	4099
<i>Sample ID:</i>		S-401-100103-KB-4063	S-401-100203-KB-4064	S-401-100203-KB-4065	S-401-100203-KB-4066	S-401-101603-KB-4092	S-401-101603-KB-4093	S-401-101603-KB-4094	S-401-101603-KB-4095	S-401-101603-KB-4097	S-401-101603-KB-4098	S-401-101603-KB-4099
<i>Sample Date:</i>		10/1/2003	10/2/2003	10/2/2003	10/2/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003	10/16/2003
<i>Parameters</i>	<i>Units</i>											
<i>PCBs</i>												
Aroclor-1016 (PCB-1016)	µg/kg	ND(43)	ND(41)	ND(200)	ND(39)	ND(210)	ND(190)	ND(38)	ND(41)	ND(820)	ND(370)	ND(410)
Aroclor-1221 (PCB-1221)	µg/kg	ND(43)	ND(41)	ND(200)	ND(39)	ND(210)	ND(190)	ND(38)	ND(41)	ND(820)	ND(370)	ND(410)
Aroclor-1232 (PCB-1232)	µg/kg	ND(43)	ND(41)	ND(200)	ND(39)	ND(210)	ND(190)	ND(38)	ND(41)	ND(820)	ND(370)	ND(410)
Aroclor-1242 (PCB-1242)	µg/kg	ND(43)	ND(41)	ND(200)	ND(39)	ND(210)	ND(190)	ND(38)	ND(41)	ND(820)	ND(370)	ND(410)
Aroclor-1248 (PCB-1248)	µg/kg	270	310	1900	ND(39)	3100	3100	190	80	13000	3300	3600
Aroclor-1254 (PCB-1254)	µg/kg	ND(43)	ND(41)	ND(200)	ND(39)	ND(210)	ND(190)	ND(38)	ND(41)	ND(820)	ND(370)	ND(410)
Aroclor-1260 (PCB-1260)	µg/kg	27 J	71	490	ND(39)	340	460	46	12 J	1500	390	960
<i>Total PCBs</i>	µg/kg	297	381	2390	ND	3440	3560	236	92	14500	3690	4560

TABLE 2.1
SUMMARY OF PRELIMINARY SOIL ANALYTICAL RESULTS
PARCEL 401
BEDFORD, INDIANA

<i>Sample Location:</i>		4101	4102	4103	4104	4105	4106	4107	4108	4109	4110
<i>Sample ID:</i>		S-401-101703-KB-4101	S-401-101703-KB-4102	S-401-101703-KB-4103	S-401-101703-KB-4104	S-401-101703-KB-4105	S-401-101703-KB-4106	S-401-101703-KB-4107	S-401-101703-KB-4108	S-401-101703-KB-4109	S-401-101703-KB-4110
<i>Sample Date:</i>		10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003	10/17/2003
<i>Parameters</i>	<i>Units</i>										
PCBs											
Aroclor-1016 (PCB-1016)	µg/kg	ND(350)	ND(42)	ND(430)	ND(3800)	ND(210)	ND(80)	ND(41)	ND(1800)	ND(4200)	ND(43)
Aroclor-1221 (PCB-1221)	µg/kg	ND(350)	ND(42)	ND(430)	ND(3800)	ND(210)	ND(80)	ND(41)	ND(1800)	ND(4200)	ND(43)
Aroclor-1232 (PCB-1232)	µg/kg	ND(350)	ND(42)	ND(430)	ND(3800)	ND(210)	ND(80)	ND(41)	ND(1800)	ND(4200)	ND(43)
Aroclor-1242 (PCB-1242)	µg/kg	ND(350)	ND(42)	ND(430)	ND(3800)	ND(210)	ND(80)	ND(41)	ND(1800)	ND(4200)	ND(43)
Aroclor-1248 (PCB-1248)	µg/kg	4600	190	4200	39000	1100	800	ND(41)	9600	15000	19 J
Aroclor-1254 (PCB-1254)	µg/kg	ND(350)	ND(42)	ND(430)	ND(3800)	ND(210)	ND(80)	ND(41)	ND(1800)	ND(4200)	ND(43)
Aroclor-1260 (PCB-1260)	µg/kg	650	42	890	4600	ND(210)	170	ND(41)	1300 J	1300 J	ND(43)
Total PCBs	µg/kg	5250	232	5090	43600	1100	970	ND	10900	16300	19

TABLE 2.2

**SUMMARY OF PRELIMINARY ANALYTICAL RESULTS
TRANSITION MANHOLE SAMPLES
BEDFORD, INDIANA**

<i>Sample Location:</i>		<i>MH43</i>	<i>MH43</i>	<i>MH43</i>
<i>Sample ID:</i>		<i>S-MH43-110503-KB-4133</i>	<i>S-MH43-110503-KB-4134 (Lower Layer)</i>	<i>S-MH43-110503-KB-4133 (Upper Layer)</i>
<i>Sample Date:</i>		<i>11/05/2003</i>	<i>11/05/2003</i>	<i>11/05/2003</i>
<i>Parameters</i>	<i>Units</i>			
PCBs				
Aroclor-1016 (PCB-1016)	µg/kg	ND(7400000)	ND(410)	ND(1000)
Aroclor-1221 (PCB-1221)	µg/kg	ND(7400000)	ND(410)	ND(1000)
Aroclor-1232 (PCB-1232)	µg/kg	ND(7400000)	ND(410)	ND(1000)
Aroclor-1242 (PCB-1242)	µg/kg	ND(7400000)	ND(410)	ND(1000)
Aroclor-1248 (PCB-1248)	µg/kg	58000000	4800	ND(1000)
Aroclor-1254 (PCB-1254)	µg/kg	ND(7400000)	ND(410)	120 J
Aroclor-1260 (PCB-1260)	µg/kg	5800000 J	2400	ND(1000)
Total PCBs	µg/kg	63800000	7200	120

APPENDIX A

CULVERT CLEANING WORK PLAN (CRA - OCTOBER 28, 2003)



**CONESTOGA-ROVERS
& ASSOCIATES**

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FACSIMILE

DATE: October 28, 2003
TO: Brad Stimple, On-scene Coordinator
United States Environmental Agency
FROM: Jeroen Winterink

REFERENCE NO.: 13968
FACSIMILE NO.: 440-250-1750

Total Pages (Including Cover Page) _____

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MESSAGE

Re: Work Plan - Culvert Cleaning and Investigation
North East Corner of Employee Parking Lot/ GM Drive
General Motors Powertrain Facility Removal Action
Bedford, Indiana

This memorandum presents the Work Plan for the removal of sediments found in an existing culvert that is located under GM drive. The culvert formerly drained the area now known as the employee parking lot, prior to the installation of the present day storm water collection system. Sediments will be removed through the use of a truck-mounted high-powered vacuum. The removed sediments will be transferred to the soil staging pad that is located on AOI4. The sediments will be disposed of as waste material containing PCBs over 50 mg/kg at the Heritage facility in Roachdale, Indiana.

After the sediments have been removed, the interior of the culvert will be visually inspected for both cleanliness and any connections with other sewers/ culverts. To gain access to the interior to conduct the inspection, confined space entry procedures will be utilized, that include the posting of a confined space entry permit. If necessary, the interior will be flushed with potable water, with the wash water recovered and transferred to the GMPT wastewater treatment facility.

Once the inside has been washed (if needed), the ends of the culvert will be blocked with either sandbags, fill or bricks, and the interior will be filled with a low strength concrete mix (50 psi flowable fill).

The cleaning work will start during the week of October 28, 2002. Please let me know if any questions or comments.

Distribution:

John Gunter - IDEM
Cheryl Hiatt - GM
Ed Peterson - GM
Glenn Turchan - CRA

Jim McGuigan - CRA
Jeff Daniel - CRA
Jim Pazderski - Severson

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