

RCRA FACILITY INVESTIGATION

QUARTERLY PROGRESS REPORT #20

FIRST QUARTER 2006

GM POWERTRAIN - BEDFORD FACILITY

105 GM DRIVE

BEDFORD, INDIANA

EPA ID# IND006036099

Prepared For:

General Motors Corporation

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QUARTERLY PROGRESS REPORT

DISTRIBUTION LIST

U.S. EPA - Waste, Pesticide and Toxins Division, Project Manager	Peter Ramanauskas (2 copies)
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ENVIRON	C.Y. Jeng/Steve Song

1.0 INTRODUCTION

This Quarterly Progress Report is submitted in accordance with the Bedford Performance-Based Corrective Action Agreement (Agreement) between the United States Environmental Protection Agency (U.S. EPA) and General Motors Corporation (GM), executed on March 20, 2001, and modified on October 1, 2002. This report covers the period of the first calendar quarter of 2006 for the GM Powertrain - Bedford Facility (Facility), Bedford, Indiana. Some of the activities conducted as part of the overall Resource Conservation and Recovery Act (RCRA) Corrective Action (CA) work are being addressed under the CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) Removal Action Program, pursuant to the Administrative Order on Consent (AOC) between the U.S. EPA and GM (effective July 31, 2003). These activities are described in more detail within the CERCLA Monthly Progress Reports referred to herein.

The next quarterly progress report, covering the Second Quarter 2006, will be submitted on or before July 15, 2006.

2.0 LIST OF COMPLETED ACTIVITIES

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

- Conference calls were held with the U.S. EPA, Indiana Department of Environmental Management (IDEM), the Agency for Toxic Substance and Disease Registry (ATSDR) and Indiana State Department of Health (ISDH) on January 10, 2006, February 7 and 21, 2006, and March 7 and 28, 2006, to discuss project progress (United States Fish and Wildlife Service (USFWS) was also invited to attend the update calls);
- A web conference was held with the U.S. EPA regarding vault submittals on March 29, 2006. These technical review meetings will be held on an as-needed basis to facilitate response to U.S. EPA comments.;
- A meeting with the U.S. EPA and IDEM was held in Bedford, Indiana on January 25, 2006, to review the activities which took place in 2005 and to discuss the upcoming activities for 2006;
- A meeting with the U.S. EPA was held in Chicago on March 23, 2006 to discuss project progress and review proposals for expediting the schedule;
- East Plant Area Grading Areas 3 and 4 Pre-final (95%) Design drawings of were submitted to the U.S. EPA for review on January 4, 2006. Response to U.S. EPA comments on Grading Area 3 and 4 Design were submitted to the U.S. EPA on January 12, 2006. A conference call was held with U.S. EPA and IDEM on February 3, 2006 to discuss the Grading Area 3 and 4 Design. Approval for the use of Grading Areas 3 and 4 was given on February 28, 2006. A new design proposal to use Grading Area 4 as a ≥ 50 mg/kg PCB soil staging area was submitted to the U.S. EPA for review on March 29, 2006
- U.S. EPA gave approval to increase the volume of material stored in the East Plant Area Grading Area 2 by the proposed 11,000 cubic yards (c.y.) on January 17, 2006;
- Design of the East Plant Area Cover System was submitted to the U.S. EPA on January 9, 2005. A response to U.S. EPA comments was submitted on March 22, 2006;
- Analytical results summary of LNAPL sampled from the CH-5 corehole, located in the area of AOI -8, was submitted to the U.S. EPA on January 10, 2006. The waste will be characterized and disposal requirements will be determined prior to commencing removal of materials at Area of Interest (AOI) 8;

- Work on the Western Tributary and Northern Tributary Interim Measure (IM) Work Plans continued this quarter:
 - Responses to comments on the Western Tributary and Northern Tributary Interim Measure (IM) Work Plans were submitted to the U.S. EPA on January 10, 2006,
 - Revised Western Tributary and Northern Tributary Interim Measure (IM) Work Plans were submitted to the U.S. EPA on January 13, 2006,
 - Approval for the Western Tributary and Northern Tributary IM Work Plans was granted on February 14, 2006,
 - During February 2006, Parcel 2 (as part of the Western Tributary IM), was excavated and restored, and
 - The remaining work in the Western Tributary and Northern Tributary Work Plans will be scheduled for completion at a future date;
- A Technical Memorandum by Dr. Bernard Kueper documenting contaminant fate and transport conceptual model of the site was submitted to the U.S. EPA on January 27, 2006;
- Information sessions for the public were held on February 1 and 2, 2006 at the Facility. The Community Liaison Panel (CLP) met February 3, 2006.
- Additional samples were collected in the Plant area west of GM Drive under the RFI Work Plan Addendum No. 7 in February 2006;
- Additional samples were collected in the South Piston Yard under the RFI Work Plan No. 10 in February 2006;
- Drilling activities under the RFI Work Plan No. 12 were completed on approximately February 7, 2006;
- Slope stability calculations were submitted to the U.S. EPA on February 15, 2006, in response to U.S. EPA comments;
- A request for additional extension of bulk PCB remediation waste stored in the East Plant Area was submitted to the U.S. EPA on February 21, 2006. A notice granting approval for an extension was given by the U.S. EPA March 29, 2006;
- The Vault Development Plan was submitted to the U.S. EPA on February 28, 2006;
- The 2,000 gallons per minute (gpm) water treatment system was operated on March 12, 2006, through to March 14, 2006, during a storm event to prevent the stormwater pond from overflowing. An estimated 5.6 million gallons of water were treated;

- A data package containing communications (e.g., emails, responses to comments, correspondence) and report documents related to the Vault Design were submitted to the U.S. EPA on March 30, 2006, to facilitate the review process of the East Plant Area Vault approval application; and
- RCRA Facility Investigation Addendum No. 13 was submitted to the U.S. EPA on March 31, 2006.

GM also continued to evaluate specific sampling requests made by residents in this quarter and collected samples, where appropriate, based on knowledge and location of the property relative to the plant and/or contamination. These analytical results (once validated) have been included in the stream project data packages distributed to the residents, and to U.S. EPA and IDEM. GM will continue evaluating additional areas when requested by residents, and sampling, as appropriate, on a case-by-case basis, during the next reporting period

The December 2005, January 2006, and February 2006 CERCLA Removal Action Monthly Progress Reports were submitted during the 1st quarter of 2006.

3.0 SUMMARIES OF ALL CHANGES MADE IN THE CORRECTIVE ACTION (CA) DURING THE REPORTING PERIOD

The following changes were made to the CA during the reporting period:

- Submission of the East Plant Area Grading Areas 3 and 4 Pre-Final (95%) Design Report on January 4, 2006;
- Submission of the East Plant Area Cover System Design Report on January 9, 2005;
- Submission of the response to U.S. EPA comments on Grading Areas 3 and 4 Design Report on January 12, 2006;
- Submission of the East Plant Area Grading Area 3 and 4 Design Report January 12, 2006; approved for use on February 28, 2006;
- Submission of the analytical results summary of LNAPL sampled from the CH-5 corehole on January 10, 2006;
- Submission of the response to U.S. EPA comments on the Western Tributary and Northern Tributary IM Work Plans on January 10, 2006;
- Submission of the Western Tributary IM Work Plan on January 13, 2006; approved by the U.S. EPA on February 14, 2006;
- Submission of the Northern Tributary IM Work Plan on January 13, 2006; approved by the U.S. EPA on February 14, 2006;
- Approval for an expansion of Grading Area 2 was granted on January 17, 2006;
- Submission of the contaminant fate and transport site conceptual model, Technical Memorandum on January 27, 2006;
- Submission of the Vault Development Plan on February 28, 2006;
- Approval for use of Grading Area 3 and Grading Area 4 as temporary holding areas of creek <50 mg/kg was given by the U.S. EPA on February 28, 2006
- Filling of Grading Area 2 with <50 mg/kg PCB soil was completed on March 1, 2006 and filling of Grading Area 3 was completed on March 28, 2006;
- An approval for additional extension to the storage limit of bulk PCB remediation waste stored in the East Plant Area was granted by the U.S. EPA March 29, 2006;
- Submission of Vault Communication Documentation on March 30, 2006; and
- Submission of RFI Addendum No. 13 for review on March 31, 2006.

4.0 COMMUNITY RELATIONS

GM continues to maintain the toll free information telephone number. Individual meetings continue to be arranged to discuss sampling results with individual residents as requested.

Quarterly meetings to review project status, are held both with the neighbors along the creek and around the plant, as well as with the general public. Quarterly meetings were held during this reporting period on February 1 and 2, 2006, at the Facility. The February 1, and 2, 2006, meetings were held from 6:30 PM to 8:00 PM at the Bedford Facility as a regular information session with presentation boards available for review. Presentations for the meetings are posted on the web site at www.BedfordPowertrainCorrectiveAction.com.

Fact Sheet 13 was issued January 16, 2006.

The CLP meeting occurred in this quarter on February 3, 2006. The CLP was formed to provide additional communication avenues for the community and the meetings are currently being held at the GM Facility approximately every three months or more frequently if information on the project changes significantly. The CLP meeting minutes are posted on the GM website at www.BedfordPowertrainCorrectiveAction.com.

The Information Center, located at the plant lobby, is available by appointment through Ms. Becki Akers, GM Communications, at the project toll free number 866-223-0856. The repository located at the Bedford Public Library remains open at normal business hours. All data in the repository are also located on the aforementioned web site.

5.0 CHANGES IN PERSONNEL DURING THE REPORTING PERIOD

Mark Baker has taken over day-to-day duties of CRA's Safety Oversight for the project under the supervision of Jeff Maranciak from Russell Aylsworth. Also a number of field personnel have been rotated out of the field activities.

6.0 PROJECTED WORK FOR THE NEXT REPORTING PERIOD

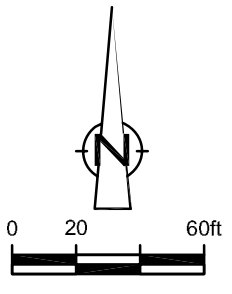
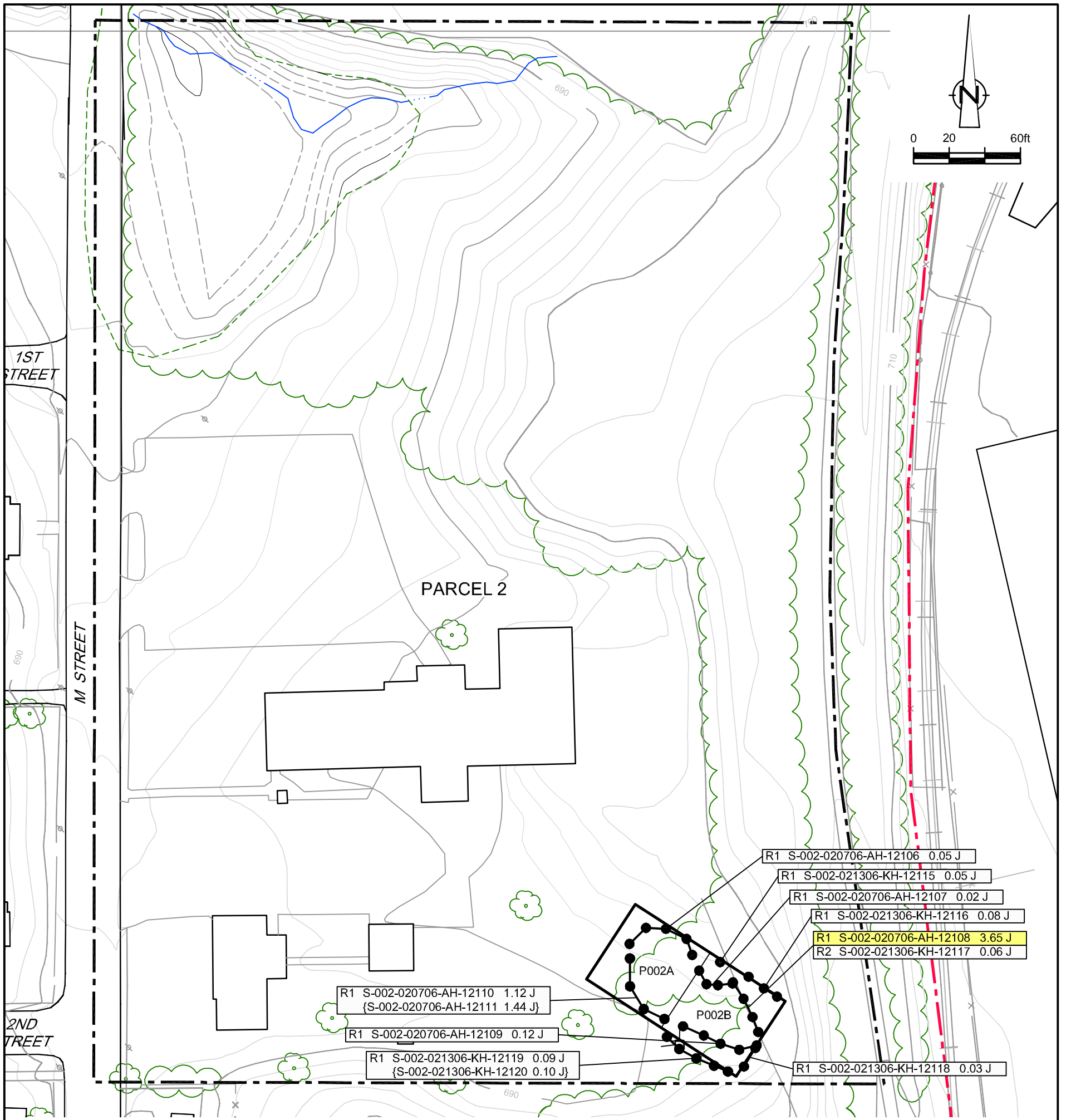
Work projected for the next reporting period includes:

- Conduct a general public information session on roads on April 27, 2006;
- Conduct a Community Liaison Panel Meeting on April 28, 2006;
- Conduct a neighborhood information session in May 2006;
- Conduct a general public information session in May 2006;
- Prepare and distribute Fact Sheet 14 in April 2006;
- Continue with Removal Action activities in Parcel 22 and downstream parcels;
- Continue monthly monitoring of groundwater elevation measurements;
- Continue the evaluation of RFI soil and groundwater data;
- Continue work on an IM Work Plan for the Plant property areas west of GM Drive;
- Continue work outlined in RFI Work Plan: Addendum No. 8 for the additional dye trace studies in the AOI 4 and AOI 6 areas in support of the East Plant Area IM;
- Submit the final logs and sampling results for RFI Work Plan: Addendum No. 12;
- Complete construction of the East Plant Area Vault;
- Implement Final (100%) East Plant Area Over 50 mg/kg PCB Soil Removal Design Report activities as soon as the construction of the vault is complete and approval is obtained from U.S. EPA;
- Submit Final (100%) East Plant Area Cover System Design to the U.S. EPA review and implement as soon as practical upon approval of the Draft Design;
- Submit a revised proposal for construction of East Plant Area Grading Areas 4 as a staging area for ≥ 50 mg/kg PCB soil excavations;
- Complete Pre-final (95%) East Plant Area Trench Design and submit for U.S. EPA review;
- Submit a design for the Source Removal System on AOI 8; and
- Continuation of placement of the < 50 mg/kg PCB Removal Action soils in the East Plant Area as grading fill. Commence placement as grading fill for the East Plant Area Cover System once the Cover System Design is approved.

**7.0 COPIES OF DAILY REPORTS, INSPECTION REPORTS,
LABORATORY/MONITORING DATA**

Figure 1 presents the verification sample results for work completed on Parcel 2 (analytical results are provided on Table 1).

Packages of analytical data from Creek remediation verification sampling have been submitted monthly as they become available, after validation, in the monthly reports, and will continue to be submitted during the next reporting period. Any other sampling data collected during the quarter will be submitted under separate cover once validation is completed.



LEGEND

- EXISTING GROUND SURFACE ELEVATION CONTOURS (feet AMSL)
- EXISTING VEGETATION
- EXISTING BUILDINGS
- FENCE LINE
- RAILROAD TRACKS
- ROADS / UNPAVED AREAS
- ROADS / PAVED AREAS
- APPROXIMATE SURFACE WATER LOCATION
- APPROXIMATE GM PROPERTY BOUNDARY
- APPROXIMATE PARCEL BOUNDARY
- SOIL VERIFICATION SAMPLING GRID

GENERAL NOTES:

- (1) Cleanup Criteria
 - a.) Soils to < 1.8 mg/kg.
 - If all results are < 5.0 mg/kg, the cleanup objective can be verified in the Verification Area (approximately 100ft x 200ft) by calculating the Upper Confidence Limit (UCL) of the average concentration using statistics, if the UCL is < 1.8 mg/kg the cleanup objective will be met for the given Verification Area. A value of 0 mg/kg is used in the UCL calculation for sample grids excavated to bedrock.
 - b.) Sediments to < 1 mg/kg.
- (2) Composite sidewall samples were collected in the location where the sidewall of the excavation exceeded 6 inches in height.
- (3) The surficial confirmation samples (8 composites per Verification Area except where bedrock is encountered) were collected after the soil/sediment removal was performed.
- (4) A value of 0 mg/kg is used for ND in the calculation of Total PCBs. [ENVIRON]
- (5) For UCL calculations, Aroclors 1016, 1221, and 1232 have been assigned a ND value of 0 mg/kg based upon their lack of presence in the data.
 - UCL calculations are performed on Aroclors 1242, 1248, 1254, and 1260 using the half the quantitation limit where ND results are reported. [ENVIRON]
 - UCL calculations included both floor and sidewall samples.
- (6) Data used for UCL calculation result shown are validated.
- (7) The sampling round (e.g. R1, R2, etc.) correlates to Verification Area grids or sidewalls where additional rounds of excavation were completed due to exceedances of the cleanup criteria.
- (8) Property boundary locations approximated from the Lawrence County survey plats. Locations may not accurately represent the true property boundaries.
- (9) The verification figure is presented to show progress for this reporting period. Excavation verification may not be complete as statistical analysis or further excavation may be required.

EXCAVATION FLOOR SAMPLE RESULTS

Verification Area	Grid	Sampling Round					
		Sample ID	Result (mg/kg)	Sample ID	Result (mg/kg)	Sample ID	Result (mg/kg)
P002	A	S-002-020706-AH-12112	0.91 J	-	-	S-002-020706-AH-12112	0.91 J
	B	S-002-020706-AH-12113	2.00 J	S-002-021306-KH-12114	0.15 J	S-002-021306-KH-12114	0.15 J
UCL Calculations		Not Required Based on Sample Results					

figure 1

**PARCEL 2 - WESTERN TRIBUTARY IM
VALIDATED COMPOSITE SAMPLE RESULTS
QUARTERLY PROGRESS REPORT FIRST QUARTER 2006
GM POWERTRAIN BEDFORD FACILITY
Bedford, Indiana**



TABLE 1
PARCEL 2 VERIFICATION VALIDATED SAMPLE ANALYTICAL RESULTS SUMMARY
GM POWERTRAIN BEDFORD FACILITY
BEDFORD, INDIANA

<i>Sample Location:</i>	002-12106		002-12107		002-12108		002-12109		002-12110	
<i>Sample ID:</i>	S-002-020706-AH-12106		S-002-020706-AH-12107		S-002-020706-AH-12108		S-002-020706-AH-12109		S-002-020706-AH-12110	
<i>Sample Date:</i>	2/7/2006		2/7/2006		2/7/2006		2/7/2006		2/7/2006	
<i>Parameters</i>	<i>Units</i>									
<i>PCBs</i>										
Aroclor-1016 (PCB-1016)	mg/kg	0.044 U	0.041 U	0.43 U	0.04 U	0.041 U	0.04 U	0.04 U	0.041 U	0.041 U
Aroclor-1221 (PCB-1221)	mg/kg	0.044 U	0.041 U	0.43 U	0.04 U	0.041 U	0.04 U	0.04 U	0.041 U	0.041 U
Aroclor-1232 (PCB-1232)	mg/kg	0.044 U	0.041 U	0.43 U	0.04 U	0.041 U	0.04 U	0.04 U	0.041 U	0.041 U
Aroclor-1242 (PCB-1242)	mg/kg	0.044 U	0.041 U	0.43 U	0.04 U	0.041 U	0.04 U	0.04 U	0.041 U	0.041 U
Aroclor-1248 (PCB-1248)	mg/kg	0.047 J	0.024 J	3.4 J	0.12 J	0.041 U	0.12 J	0.04 U	1 J	0.041 U
Aroclor-1254 (PCB-1254)	mg/kg	0.044 U	0.041 U	0.43 U	0.04 U	0.041 U	0.04 U	0.04 U	0.041 U	0.041 U
Aroclor-1260 (PCB-1260)	mg/kg	0.044 U	0.041 U	0.25 J	0.04 U	0.041 U	0.04 U	0.04 U	0.12	0.12
Total PCBs	mg/kg	0.047 J	0.024 J	3.65 J	0.12 J	0.041 U	0.12 J	0.04 U	1.12 J	0.041 U

J - Estimate result

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TABLE 1
PARCEL 2 VERIFICATION VALIDATED SAMPLE ANALYTICAL RESULTS SUMMARY
GM POWERTRAIN BEDFORD FACILITY
BEDFORD, INDIANA

<i>Sample Location:</i>	002-12110	002-12112	002-12113	002-12114	002-12115	
<i>Sample ID:</i>	S-002-020706-AH-12111	S-002-020706-AH-12112	S-002-020706-AH-12113	S-002-021306-KH-12114	S-002-021306-KH-12115	
<i>Sample Date:</i>	2/7/2006 (Duplicate)	2/7/2006	2/7/2006	2/13/2006	2/13/2006	
<i>Parameters</i>	<i>Units</i>					
<i>PCBs</i>						
Aroclor-1016 (PCB-1016)	mg/kg	0.042 U	0.043 U	0.051 U	0.042 U	0.039 U
Aroclor-1221 (PCB-1221)	mg/kg	0.042 U	0.043 U	0.051 U	0.042 U	0.039 U
Aroclor-1232 (PCB-1232)	mg/kg	0.042 U	0.043 U	0.051 U	0.042 U	0.039 U
Aroclor-1242 (PCB-1242)	mg/kg	0.042 U	0.043 U	0.051 U	0.042 U	0.039 U
Aroclor-1248 (PCB-1248)	mg/kg	1.3 J	0.82 J	1.8 J	0.12	0.03 J
Aroclor-1254 (PCB-1254)	mg/kg	0.042 U	0.043 U	0.051 U	0.042 U	0.039 U
Aroclor-1260 (PCB-1260)	mg/kg	0.14	0.093	0.2	0.03 J	0.016 J
Total PCBs	mg/kg	1.44 J	0.913 J	2 J	0.15 J	0.046 J

J - Estimate result

CRA 013968(196)

TABLE 1
PARCEL 2 VERIFICATION VALIDATED SAMPLE ANALYTICAL RESULTS SUMMARY
GM POWERTRAIN BEDFORD FACILITY
BEDFORD, INDIANA

<i>Sample Location:</i>	002-12116		002-12117		002-12118		002-12119		002-12119	
<i>Sample ID:</i>	S-002-021306-KH-12116		S-002-021306-KH-12117		S-002-021306-KH-12118		S-002-021306-KH-12119		S-002-021306-KH-12120	
<i>Sample Date:</i>	2/13/2006		2/13/2006		2/13/2006		2/13/2006		2/13/2006 <i>(Duplicate)</i>	
<i>Parameters</i>	<i>Units</i>									
<i>PCBs</i>										
Aroclor-1016 (PCB-1016)	mg/kg	0.041 U	0.039 U	0.041 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U
Aroclor-1221 (PCB-1221)	mg/kg	0.041 U	0.039 U	0.041 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U
Aroclor-1232 (PCB-1232)	mg/kg	0.041 U	0.039 U	0.041 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U
Aroclor-1242 (PCB-1242)	mg/kg	0.041 U	0.039 U	0.041 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U
Aroclor-1248 (PCB-1248)	mg/kg	0.045	0.043	0.031 J	0.066	0.066	0.066	0.066	0.066	0.073
Aroclor-1254 (PCB-1254)	mg/kg	0.041 U	0.039 U	0.041 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U
Aroclor-1260 (PCB-1260)	mg/kg	0.034 J	0.013 J	0.041 U	0.02 J	0.02 J	0.02 J	0.02 J	0.023 J	0.023 J
Total PCBs	mg/kg	0.079 J	0.056 J	0.031 J	0.086 J	0.086 J	0.086 J	0.086 J	0.096 J	0.096 J

J - Estimate result

CRA 013968(196)