

MAY 12, 2004

**UPSTREAM PARCELS REMOVAL ACTION
WORK PLAN
ADDENDUM NO. 3**

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

U.S. EPA ID No. IND006036099

MAY 2004

REF. NO. 13968 (92)

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1.0 INTRODUCTION

This document presents Addendum No. 3 to the approved Upstream Parcels Removal Action Work Plan (Work Plan). This Addendum No. 3 documents the investigation and planned Removal Action activities associated with impacted fill materials identified on Parcel 205 located at the upstream end of Pleasant Run Watershed ("Bailey's Branch Creek") in Lawrence County, Indiana (Site). Addendum No. 3 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 purpose of Addendum No. 3 is to summarize the current conditions and to provide details related to the implementation of the proposed removal of impacted fill material from Parcel 205. Parcel 205 is owned by GM and is contiguous with the East Plant Area.

The location of Parcel 205 is presented on Figure 1.1.

2.0 BACKGROUND INFORMATION

Sampling of surficial soils on the upland portion of Parcel 205 was initiated after the results of the post-excavation confirmation sidewall samples collected along the Parcel 3 and 205 boundary, collected in accordance with the Work Plan, indicated the presence of PCB impacted materials above the applicable cleanup criteria in the upland portion of Parcel 205. Given the higher elevation of this portion of Parcel 205 relative to the creek, historic discharges to the creek were eliminated as a source of contamination to the upland portion of Parcel 205. Further inspection of the soil on Parcel 205 indicated the presence of fill materials some of which are impacted by PCBs. The fill materials were most likely utilized to backfill a demolished residential structure as well as for general regrading of the parcel.

Figure 2.1 presents a summary of the PCB sampling results on the upland portion of Parcel 205. As shown on Figure 2.1, all of the samples containing PCBs at concentrations greater than 5.3 mg/kg are located at a distance greater than 25 feet from the centerline of the creek. The installation of a double-row silt fence, placed at the limit of the area of removal is sufficient to prevent sediment from this area from entering the creek, as stated in the Work Plan. While the double row of silt fence would address sediment transfer, however, the silt fence will require continued maintenance and removal of accumulated sediments. Therefore, alternative removal actions were considered for Parcel 205.

The PCB sampling analytical results are presented in Table 2.1.

3.0 PARCEL 205 REMOVAL ACTION APPROACH

The following section presents the proposed Removal Action for Parcel 205. As detailed in the following sections, any material with PCB concentrations greater than 5.3 mg/kg PCBs will be excavated and disposed off Site.

It should be noted that the majority of the side slope of Parcel 205 contains impacted fill materials. In addition, the remnants of a structure are also present on the side slope of Parcel 205. These remnants include a residential dwelling foundation that has been partially filled with demolition debris.

3.1 EXCAVATE SURFACE SOILS WITH PCB CONCENTRATIONS GREATER THAN 50 mg/kg

All material with PCB concentrations equal to or exceeding 50 mg/kg will be excavated and transported to the approved landfill in accordance with the procedures described in the Work Plan. Figure 3.1 presents the area with PCB concentrations greater than or equal to 50 mg/kg based on current sampling results. This area will be excavated and sampled to verify that all material over 50 mg/kg PCBs is removed. Approximately 100 cubic yards of material over 50 mg/kg PCBs is anticipated to be removed.

3.2 EXCAVATE SURFACE SOILS WITH PCB CONCENTRATIONS GREATER THAN 5.3 mg/kg

All material within the defined area shown on Figure 3.2 and the top 2 feet of the ground surface with PCB concentrations exceeding 5.3 mg/kg will be excavated and transported to the approved landfill in accordance with the procedures described in the Work Plan. The area shown on Figure 3.2 will be excavated to a depth of 2 feet. Following material removal, sampling will be completed in accordance with the verification sampling procedures in the Upstream Parcels Removal Action Work Plan. Samples will be collected from the excavation base and sides for information purposes. Approximately 660 cubic yards of PCB-impacted material, between 5.3 and 50 mg/kg PCBs, is anticipated to be removed.

This remedy also accommodates regrading the existing slopes where the existing grade is steeper than 3 to 1 to provide a stable side slope, as well as addressing the removal of the demolition debris and residential foundation. Following excavation of the surface soils, demolition debris and residential foundation, the area will be regraded and

backfill soil placed. Common fill will be placed to within 6 inches of final grade. The area will then be covered with 6 inches of topsoil and be revegetated consistent with the procedures established in the Work Plan.

This portion of Parcel 205 will be further evaluated as part of the East Plant Area to determine if any additional activities are warranted for the parcel.

4.0 **SCHEDULE**

This Addendum No. 3 will be implemented after approval by U.S. EPA and will be scheduled to allow temporary removal of the haul road on Parcel 205 without disrupting work activities in adjacent areas.

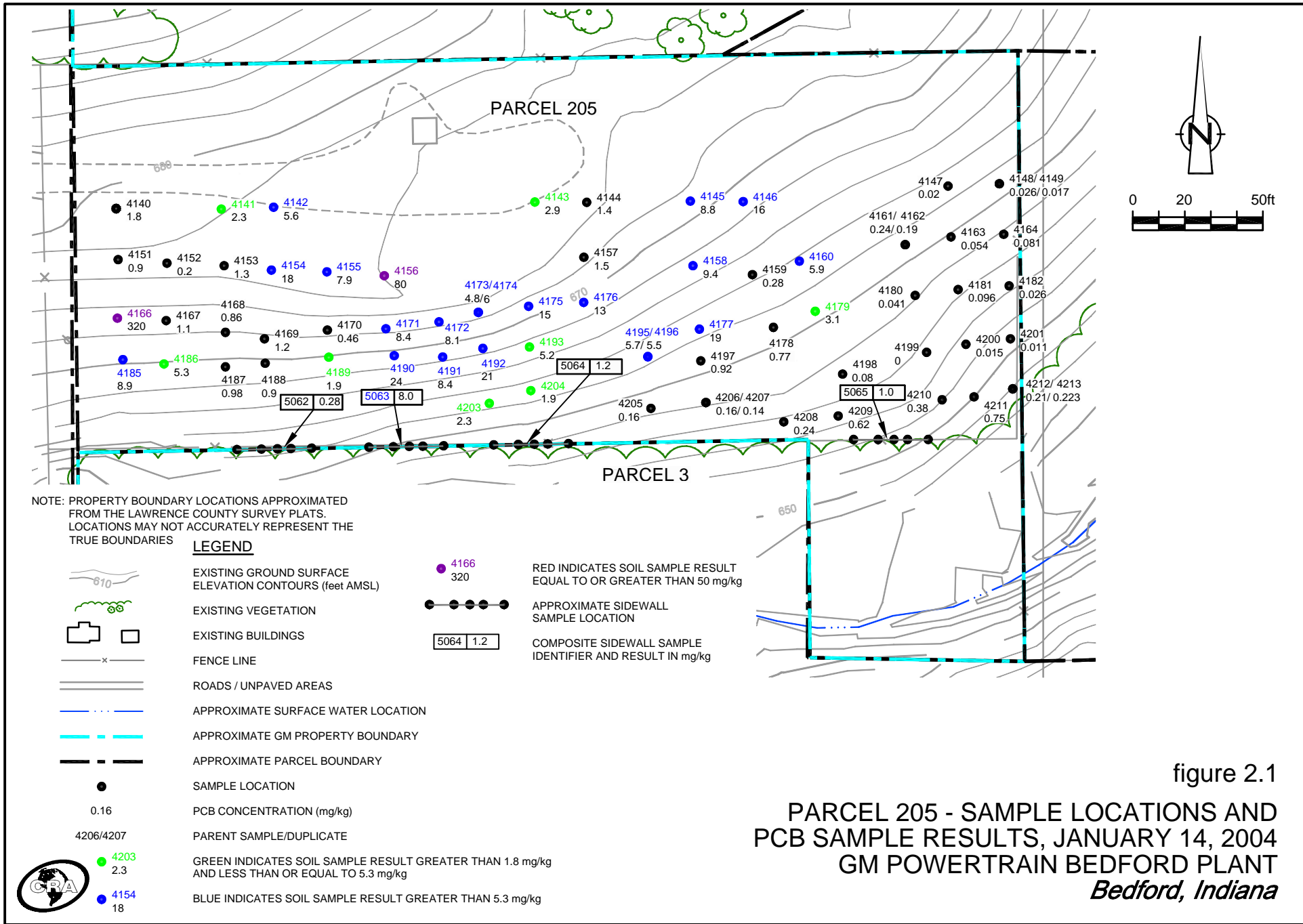


figure 2.1

PARCEL 205 - SAMPLE LOCATIONS AND PCB SAMPLE RESULTS, JANUARY 14, 2004
GM POWERTRAIN BEDFORD PLANT
Bedford, Indiana

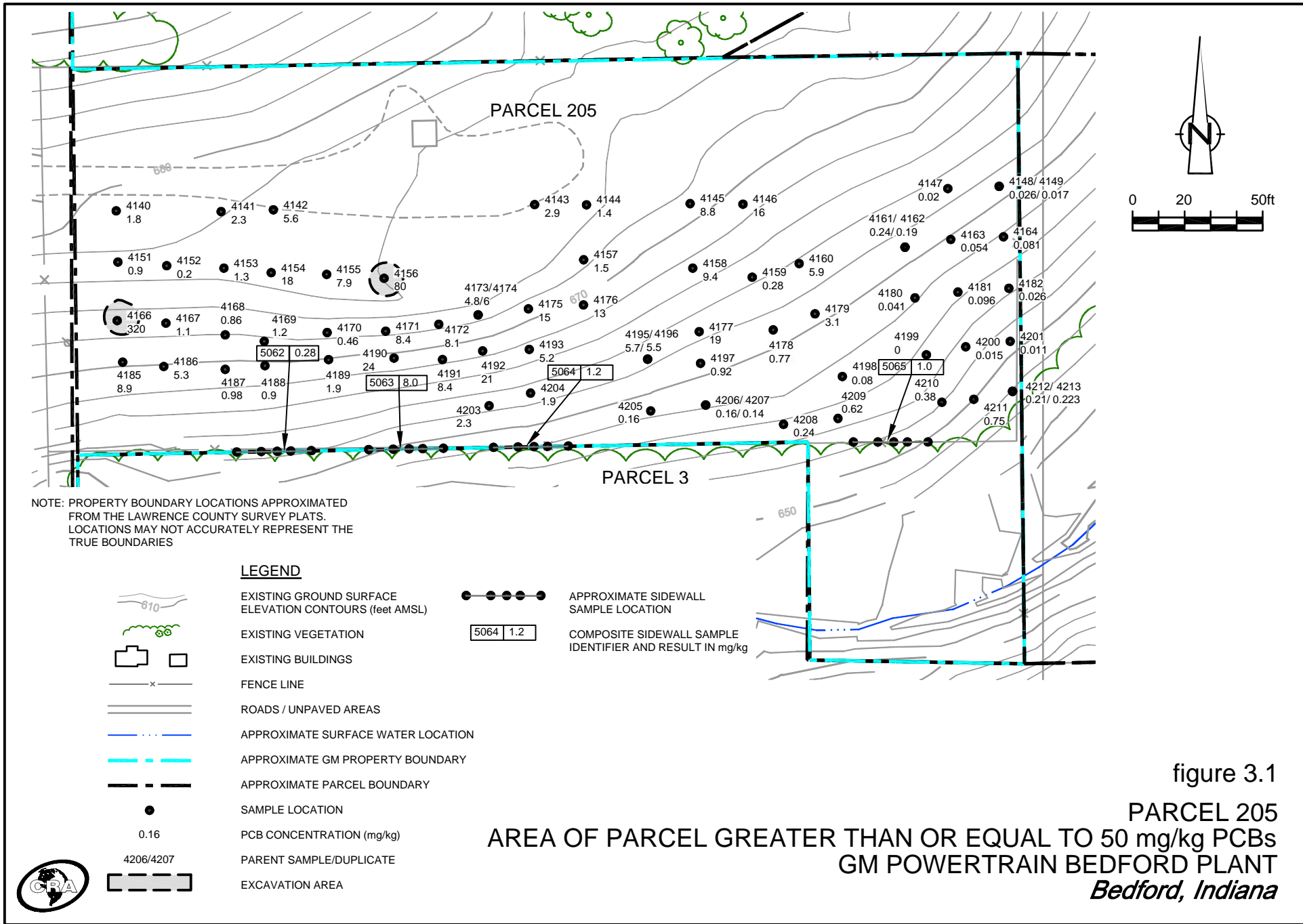


figure 3.1

PARCEL 205
AREA OF PARCEL GREATER THAN OR EQUAL TO 50 mg/kg PCBs
GM POWERTRAIN BEDFORD PLANT
Bedford, Indiana

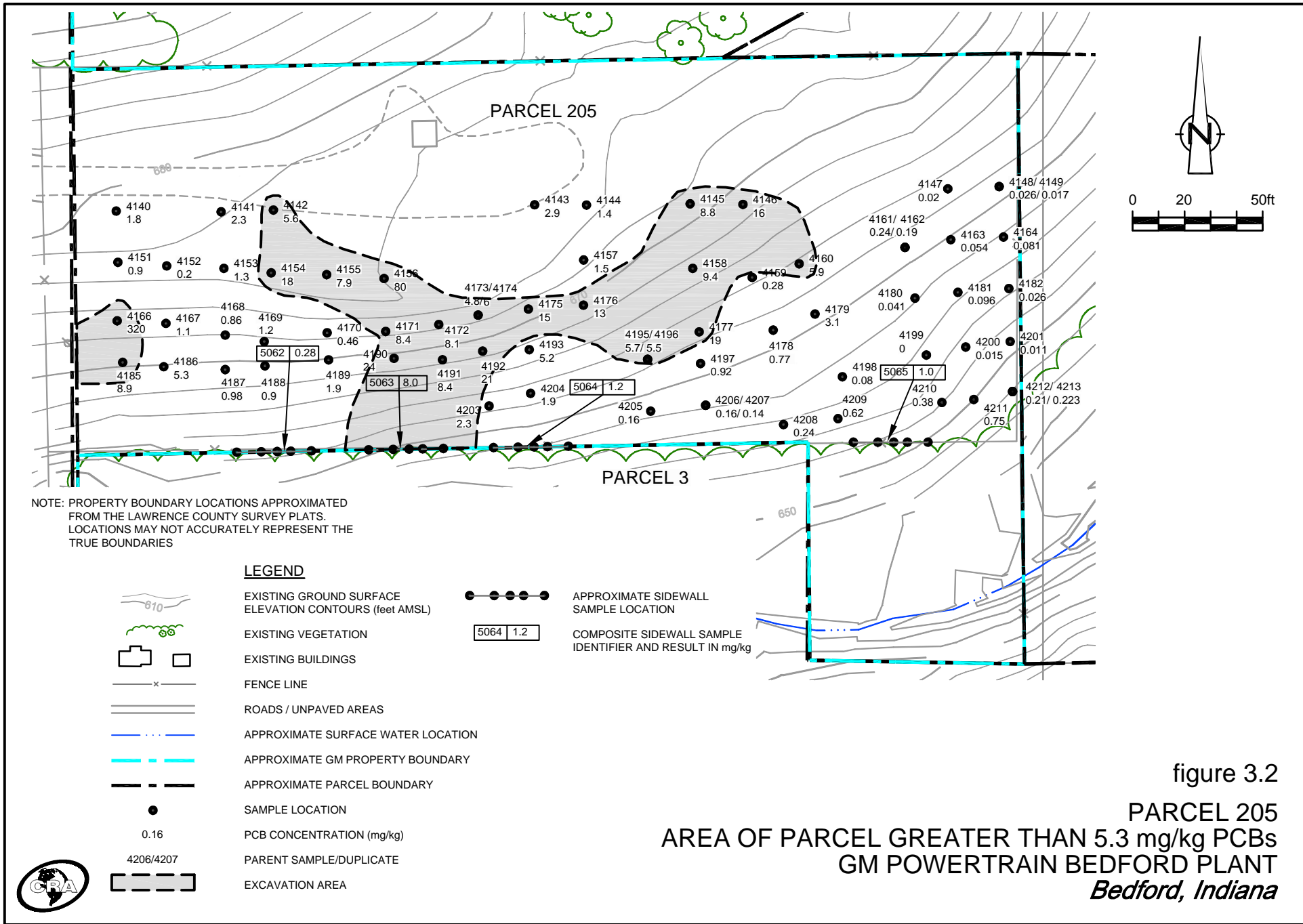


figure 3.2
PARCEL 205
AREA OF PARCEL GREATER THAN 5.3 mg/kg PCBs
GM POWERTRAIN BEDFORD PLANT
Bedford, Indiana



TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4140	205-4141	205-4142	205-4143	205-4145	205-4146	205-4147	205-4148	205-4148	205-4148
Sample ID:	S-205-011304-CH-4140	S-205-011304-CH-4141	S-205-011304-CH-4142	S-205-011304-CH-4143	S-205-011304-CH-4144	S-205-011304-CH-4146	S-205-011304-CH-4147	S-205-011304-CH-4148	S-205-011304-CH-4148	S-205-011304-CH-4149
Sample Date:	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)
Parameters	Units									
PCBs										
Aroclor-1016 (PCB-1016)	ND (210)	ND (410)	ND (530)	ND (560)	ND (210)	ND (1800)	ND (41)	ND (45)	ND (43)	ND (230)
Aroclor-1221 (PCB-1221)	ND (210)	ND (410)	ND (530)	ND (560)	ND (210)	ND (1800)	ND (41)	ND (45)	ND (43)	ND (230)
Aroclor-1232 (PCB-1232)	ND (210)	ND (410)	ND (530)	ND (560)	ND (210)	ND (1800)	ND (41)	ND (45)	ND (43)	ND (230)
Aroclor-1242 (PCB-1242)	ND (210)	ND (410)	ND (530)	ND (560)	ND (210)	ND (1800)	ND (41)	ND (45)	ND (43)	ND (230)
Aroclor-1248 (PCB-1248)	1800	2300	5600	2900	1400	8800	201	261	ND (43)	ND (230)
Aroclor-1254 (PCB-1254)	ND (210)	ND (410)	ND (530)	ND (560)	ND (210)	ND (1800)	ND (41)	261	ND (43)	900
Aroclor-1260 (PCB-1260)	ND (210)	ND (410)	ND (530)	ND (560)	ND (210)	ND (1800)	ND (41)	ND (45)	ND (43)	ND (230)
Sum of detected PCBs (ND=0)	1800	2300	5600	2900	1400	8800	201	261	171	900
Wet										
Total Solids	79.7	81.0	62.0	58.7	78.7	91.3	80.0	73.2	77.1	76.4

Notes:
J Estimated.

TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4152	205-4153	205-4154	205-4155	205-4156	205-4157	205-4158	205-4159	205-4160	205-4161	
Sample ID:	S-205-011304-CH-4152	S-205-011304-CH-4153	S-205-011304-CH-4154	S-205-011304-CH-4155	S-205-011304-CH-4156	S-205-011304-CH-4157	S-205-011304-CH-4158	S-205-011304-CH-4159	S-205-011304-CH-4160	S-205-011304-CH-4161	
Sample Date:	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	
Parameters	Units										
PCBs											
Aroclor-1016 (PCB-1016)	ND (41)	ND (410)	ND (4100)	ND (1900)	ND (19000)	ND (390)	ND (1900)	ND (86)	ND (2000)	ND (82)	
Aroclor-1221 (PCB-1221)	ND (41)	ND (410)	ND (4100)	ND (1900)	ND (19000)	ND (390)	ND (1900)	ND (86)	ND (2000)	ND (82)	
Aroclor-1232 (PCB-1232)	ND (41)	ND (410)	ND (4100)	ND (1900)	ND (19000)	ND (390)	ND (1900)	ND (86)	ND (2000)	ND (82)	
Aroclor-1242 (PCB-1242)	ND (41)	ND (410)	ND (4100)	ND (1900)	ND (19000)	ND (390)	ND (1900)	ND (86)	ND (2000)	ND (82)	
Aroclor-1248 (PCB-1248)	ND (41)	1300	18000	7900	80000	1500	9400	280	5900	240	
Aroclor-1254 (PCB-1254)	200 J	ND (410)	ND (4100)	ND (1900)	ND (19000)	ND (390)	ND (1900)	ND (86)	ND (2000)	ND (82)	
Aroclor-1260 (PCB-1260)	ND (41)	ND (410)	ND (4100)	ND (1900)	ND (19000)	ND (390)	ND (1900)	ND (86)	ND (2000)	ND (82)	
Sum of detected PCBs (ND=0)	200 J	1300	18000	7900	80000	1500	9400	280	5900	240	
Wet											
Total Solids	80.4	80.9	80.9	85.2	85.9	84.9	87.2	76.9	81.2	80.8	84.2

Notes:
J Estimated.

TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4163	205-4164	205-4180	205-4181	205-4182	205-4199	205-4200	205-4201	205-4209	205-4210	205-4211
Sample ID:	S-205-011304-CH-4163	S-205-011304-CH-4164	S-205-011304-CH-4180	S-205-011304-CH-4181	S-205-011304-CH-4182	S-205-011304-CH-4199	S-205-011304-CH-4200	S-205-011304-CH-4201	S-205-011304-CH-4209	S-205-011304-CH-4210	S-205-011304-CH-4211
Sample Date:	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)
Parameters	Units										
PCBs											
Aroclor-1016 (PCB-1016)	ND (42)	ND (47)	ND (41)	ND (40)	ND (45)	ND (41)	ND (41)	ND (42)	ND (81)	ND (43)	ND (220)
Aroclor-1221 (PCB-1221)	ND (42)	ND (47)	ND (41)	ND (40)	ND (45)	ND (41)	ND (41)	ND (42)	ND (81)	ND (43)	ND (220)
Aroclor-1232 (PCB-1232)	ND (42)	ND (47)	ND (41)	ND (40)	ND (45)	ND (41)	ND (41)	ND (42)	ND (81)	ND (43)	ND (220)
Aroclor-1242 (PCB-1242)	ND (42)	ND (47)	ND (41)	ND (40)	ND (45)	ND (41)	ND (41)	ND (42)	ND (81)	ND (43)	ND (220)
Aroclor-1248 (PCB-1248)	ND (42)	ND (47)	41	96	ND (45)	ND (41)	ND (41)	ND (42)	620 J	380	750
Aroclor-1254 (PCB-1254)	54	81	ND (41)	ND (40)	26 J	15 J	11 J	11 J	ND (81)	ND (43)	ND (220)
Aroclor-1260 (PCB-1260)	ND (42)	ND (47)	ND (41)	ND (40)	ND (45)	ND (41)	ND (41)	ND (42)	ND (81)	ND (43)	ND (220)
Sum of detected PCBs (ND=0)	54	81	41	96	26 J	15 J	11 J	11 J	620 J	380	750
Wet											
Total Solids	78.3	69.5	79.7	82.2	72.8	81.3	80.1	79.0	81.1	76.7	75.4

Notes:
J Estimated.

TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4212	205-4212	205-4167	205-4168	205-4169	205-4170	205-4171	205-4172	205-4173	205-4173	
Sample ID:	S-205-011304-CH-4212	S-205-011304-CH-4213	S-205-011304-CH-4166	S-205-011304-CH-4167	S-205-011304-CH-4168	S-205-011304-CH-4169	S-205-011304-CH-4170	S-205-011304-CH-4171	S-205-011304-CH-4172	S-205-011304-CH-4173	
Sample Date:	1/13/2004	1/13/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	
Parameters	Units										
PCBs											
Aroclor-1016 (PCB-1016)	ND (44)	ND (43)	ND (2100)	ND (210)	ND (210)	ND (210)	ND (40)	ND (2000)	ND (840)	ND (810)	ND (840)
Aroclor-1221 (PCB-1221)	ND (44)	ND (43)	ND (21000)	ND (210)	ND (210)	ND (40)	ND (40)	ND (2000)	ND (840)	ND (810)	ND (840)
Aroclor-1232 (PCB-1232)	ND (44)	ND (43)	ND (21000)	ND (210)	ND (210)	ND (40)	ND (40)	ND (2000)	ND (840)	ND (810)	ND (840)
Aroclor-1242 (PCB-1242)	ND (44)	ND (43)	ND (21000)	ND (210)	ND (210)	ND (40)	ND (40)	ND (2000)	ND (840)	ND (810)	ND (840)
Aroclor-1248 (PCB-1248)	210	190	ND (21000)	1100	860	460 J	8400	8400	8100	4800	6000
Aroclor-1254 (PCB-1254)	ND (44)	ND (43)	320000	ND (210)	ND (210)	ND (40)	ND (40)	ND (2000)	ND (840)	ND (810)	ND (840)
Aroclor-1260 (PCB-1260)	ND (44)	33 J	ND (21000)	ND (210)	ND (210)	ND (40)	ND (40)	ND (2000)	ND (840)	ND (810)	ND (840)
Sum of detected PCBs (ND=0)	210	223 J	320000	860	1200	460 J	8400	8400	8100	4800	6000
Wet											
Total Solids	%	75.9	77.1	78.4	80.2	81.5	84.3	84.3	78.6	81.0	78.2

Notes:
J Estimated.

TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4175	205-4176	205-4177	205-4178	205-4179	205-4185	205-4186	205-4187	205-4188	205-4189	205-4190
Sample ID:	S-205-011304-CH-4175	S-205-011304-CH-4176	S-205-011304-CH-4177	S-205-011304-CH-4178	S-205-011304-CH-4179	S-205-011304-CH-4185	S-205-011304-CH-4186	S-205-011304-CH-4187	S-205-011304-CH-4188	S-205-011304-CH-4189	S-205-011304-CH-4190
Sample Date:	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)
Parameters	Units										
PCBs											
Aroclor-1016 (PCBs-1016)	ND (810)	ND (2300)	ND (4100)	ND (210)	ND (420)	ND (890)	ND (860)	ND (220)	ND (200)	ND (600)	ND (2300)
Aroclor-1221 (PCBs-1221)	ND (810)	ND (2300)	ND (4100)	ND (210)	ND (420)	ND (890)	ND (860)	ND (220)	ND (200)	ND (600)	ND (2300)
Aroclor-1232 (PCBs-1232)	ND (810)	ND (2300)	ND (4100)	ND (210)	ND (420)	ND (890)	ND (860)	ND (220)	ND (200)	ND (600)	ND (2300)
Aroclor-1242 (PCBs-1242)	ND (810)	ND (2300)	ND (4100)	ND (210)	ND (420)	ND (890)	ND (860)	ND (220)	ND (200)	ND (600)	ND (2300)
Aroclor-1248 (PCBs-1248)	15000	13000	19000	770	3100	ND (890)	5300	980	900	1900	24000
Aroclor-1254 (PCBs-1254)	ND (810)	ND (2300)	ND (4100)	ND (210)	ND (420)	8900	ND (860)	ND (220)	ND (200)	ND (600)	ND (2300)
Aroclor-1260 (PCBs-1260)	ND (810)	ND (2300)	ND (4100)	ND (210)	ND (420)	ND (890)	ND (860)	ND (220)	ND (200)	ND (600)	ND (2300)
Sum of detected PCBs (ND=0)	15000	13000	19000	770	3100	8900	5300	980	900	1900	24000
Wet											
Total Solids	%	81.2	79.8	77.9	78.9	74.3	76.5	75.9	80.6	81.8	73.0

Notes:
J Estimated.

TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4191	205-4192	205-4195	205-4197	205-4198	205-4203	205-4204	205-4205	205-4206
Sample ID:	S-205-011304-CH-4191	S-205-011304-CH-4192	S-205-011304-CH-4195	S-205-011304-CH-4197	S-205-011304-CH-4198	S-205-011304-CH-4203	S-205-011304-CH-4204	S-205-011304-CH-4205	S-205-011304-CH-4206
Sample Date:	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004	1/14/2004
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)
Parameters	Units								
PCBs									
Aroclor-1016 (PCB-1016)	ND (780)	ND (4200)	ND (820)	ND (220)	ND (41)	ND (440)	ND (400)	ND (42)	R
Aroclor-1221 (PCB-1221)	ND (780)	ND (4200)	ND (820)	ND (220)	ND (41)	ND (440)	ND (400)	ND (42)	R
Aroclor-1232 (PCB-1232)	ND (780)	ND (4200)	ND (820)	ND (220)	ND (41)	ND (440)	ND (400)	ND (42)	R
Aroclor-1242 (PCB-1242)	ND (780)	ND (4200)	ND (820)	ND (220)	ND (41)	ND (440)	ND (400)	ND (42)	R
Aroclor-1248 (PCB-1248)	8400	21000	5700	920	80	2300	1900	160	160]
Aroclor-1254 (PCB-1254)	ND (780)	ND (4200)	ND (820)	ND (220)	ND (41)	ND (440)	ND (400)	ND (42)	R
Aroclor-1260 (PCB-1260)	ND (780)	ND (4200)	ND (820)	ND (220)	ND (41)	ND (440)	ND (400)	ND (42)	R
Sum of detected PCBs (ND=0)	8400	21000	5700	920	80	2300	1900	160	160]
Wet									
Total Solids	84.7	78.6	80.1	75.9	81.2	75.9	81.6	78.0	79.3

Notes:
J Estimated.

TABLE 2.1
SUMMARY OF SOIL ANALYTICAL RESULTS
PARCEL 205
BEDFORD, INDIANA

Sample Location:	205-4206	205-4208	003-5062	003-5063	003-5064	003-5065
Sample ID:	S-205-011304-CH-4207	S-205-011304-CH-4208	S-003-011304-CH-5062	S-003-011304-CH-5063	S-003-011304-CH-5064	S-003-011304-CH-5065
Sample Date:	1/14/2004	1/14/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004
Sample Depth:	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)	(0-0.5)
Parameters	Duplicate					
	Units					
PCBs						
Aroclor-1016 (PCB-1016)	ND (44)	ND (44)	ND (40)	ND (880)	ND (420)	ND (220)
Aroclor-1221 (PCB-1221)	ND (44)	ND (44)	ND (40)	ND (880)	ND (420)	ND (220)
Aroclor-1232 (PCB-1232)	ND (44)	ND (44)	ND (40)	ND (880)	ND (420)	ND (220)
Aroclor-1242 (PCB-1242)	ND (44)	ND (44)	ND (40)	8000	1200	ND (220)
Aroclor-1248 (PCB-1248)	140	240	280	ND (880)	ND (420)	1000
Aroclor-1254 (PCB-1254)	ND (44)	ND (44)	ND (40)	ND (880)	ND (420)	ND (220)
Aroclor-1260 (PCB-1260)	ND (44)	ND (44)	ND (40)	ND (880)	ND (420)	ND (220)
Sum of detected PCBs (ND=0)	140	240	280	8000	1200	1000
Wet						
Total Solids	%	74.5	75.1	81.6	74.8	77.9
						76.3

Notes:
J Estimated.