MELTING DEPARTMENT AREA INVESTIGATION AND REMEDIATION REPORT

General Motors Powertrain (GMPT) Group
Saginaw Malleable Iron (SMI) Plant
Saginaw, Michigan

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CONESTOGA-ROVERS & ASSOCIATES

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1.0 INTRODUCTION

1.1 PLANT BACKGROUND

The General Motors Powertrain Group (GM) Saginaw Malleable Iron (SMI) Plant (Facility) is located along the Saginaw River adjacent to the southern boundary of the City of Saginaw, Michigan, as shown on Figure 1.1. The facility consists of approximately 276 acres with the main manufacturing facility occupying an area of approximately 1 million square feet (Figure 1.2). Operations at the facility consist of activities associated with casting and heat-treating iron. Lake sand, bentonites, water and sea coal are mixed together and then compressed against a die to form a mold. The mold forms the outer shape of a casting. Sands are combined with resins to form cores, which form internal cavities of a casting; molten iron is then poured into the molds to produce a casting, allowed to cool, and then disassembled. The resultant castings are then heat treated and quenched to develop malleability.

The molten iron is supplied by the melting department. The Melting department areas under consideration in this report first began operation in approximately 1970-1975. Iron is melted by the use of electric induction melting furnaces. The melting department operates five separate power supplies and each is identified by a number (i.e., Power Supply 1, 2, 3, 4, 5). Several rooms are associated with each power supply and may include a control room, transformer room, generator room, hydraulic room, pit, BUSS tunnel to pit and BUSS tunnel. All the areas in the melting department are restricted access locations as defined in the Chapter 40 Section 761.123, of the U.S. Code of Federal Regulations (CFR) (40 CFR § 761.123). This report presents activities completed in the melting department area power supply rooms (control rooms, transformer rooms, generator rooms, hydraulic rooms, pit, BUSS tunnel to pits and BUSS tunnel).

The hydraulic systems for the induction or melting furnaces used hydraulic oils that contained PCBs for approximately five years, until the mid-1970s. Beginning in the mid-1970s, the systems were drained and refilled with non-PCB containing hydraulic oil. The hydraulic oil used in the melting furnace hydraulic system has been sampled and analyzed approximately once

per year since at least 1976. The results of these sampling efforts have consistently shown levels of PCB in the oil to be less than 50 parts per million (ppm) since at least 1976. These areas, therefore, are not subject to the Toxic Substances Control Act (TSCA) PCB regulations.

The capacitor rooms for the furnaces historically contained large PCB capacitors. As of December 1996, all large PCB capacitors in these capacitor rooms were removed and have been replaced with non-PCB capacitors. Available records indicate that only one transformer, in furnace transformer room Number 2, contained PCBs. Available analytical data for the fluid in this transformer indicate that it contains less than 50 ppm PCBs. The most recent sample from Transformer 2 was collected on November 17, 1995 and the results indicated 6.1 mg/kg PCB.

1.2 OBJECTIVES

The objective of the project presented in this report was to define the extent of PCB contamination in rooms associated with the five power supplies for four existing furnaces in the melting department area and perform remediation in these areas based on the potential for worker exposure and on protection of the environment. Each power supply may have as associated rooms, the following: control room, transformer room, generator room, hydraulic room, pit, BUSS tunnel to pit and BUSS tunnel.

1.3 SCOPE

This report summarizes the results of the PCB sampling and remediation program which have been completed in the rooms associated with the melting department area at the Facility.

1.4 REPORT ORGANIZATION

This report is organized as follows:

Section 2.0 - Initial Sampling Activities;
Section 3.0 - Power Supply 2 Activities Prior to Room Remediation Program;
Section 4.0 - Room Remediation Program;
Section 5.0 - Power Supply 1 Activities; and
Section 6.0 - Power Supply 2 Activities;
Section 7.0 - Power Supply 3 Activities;
Section 8.0 - Power Supply 4 Activities;
Section 9.0 - Power Supply 5 Activities; and
Section 10.0 - BUSS Tunnel Activities.

2.0 INITIAL SAMPLING ACTIVITIES

2.1 GM SAMPLING

In June 1993, GM collected ten wipe samples from the walls and floor in each of the five capacitor rooms. A summary of wipe sample results is presented in Table 2.1. The layout of the melting department area power supply rooms is presented on Figure 2.1.

2.2 BULK AND WIPE SAMPLING - PRIOR TO CLEANING

Bulk and wipe samples were collected from the remaining rooms associated with the five power supplies. Bulk and wipe samples were collected by Conestoga-Rovers & Associates (CRA). Wipe samples were collected using a 100 cm^2 standard size template and other procedures outlined in 40 CFR § 761.123. The rooms consist of a control room (except Power Supply 2), transformer room, hallway, generator room (except Power Supplies 2 and 3), hydraulic room, the room between the BUSS tunnel and the pit, and the pit. The BUSS tunnel connects the five power supply areas with high voltage copper bars along the ceiling. With the exception of the brick floors of the pits, samples were collected on November 11 and November 18, 1993 in these areas. On December 2, 1993, five brick samples were collected from the floor in Pits 1, 3 (two brick samples), 4, and 5. No sample was collected from the floor in Pit 2, since the pit contained an amount of water making it inaccessible. No additional samples were collected from the capacitor rooms as previous wipe sample data collected by GM had characterized PCBs potentially present in each of the five capacitor rooms.

Table 2.1 presents a summary of PCB detections, including previous capacitor room sampling. Sample locations are presented on Figures 2.1 to 2.28. The wipe sample results are presented in Table 2.2. The bulk sample results are presented in Table 2.3. The brick sample results are presented in Table 2.4. Analytical reports are presented in Attachment A. Attachment B presents the validation report for the laboratory data. The data validation indicates that the data are acceptable for use without qualification.

PCB wipe sample concentrations exceeding 100 µg/100 cm^2 were reported in the capacitor rooms for all five power supplies, in the transformer rooms for Power Supply 3 and 5, in the room between the BUSS tunnel and the pit for Power Supply 2, and in the BUSS tunnel.

The highest PCB concentration in bulk samples were found in the BUSS tunnel on the lower level.

Based on the results of the bulk and wipe sampling, GM initiated a room cleaning and verification sampling program. Rooms would be bulk cleaned (remove bulk solids from floor, wash walls and floor with high pressure water and low foaming non-ionic liquid alkaline cleaner, rinse, and containerize and dispose of bulk materials off-site and wash waters through an on-site carbon system) prior to collecting final wipe and concrete core samples from the floor and walls.

3.0 POWER SUPPLY 2 ACTIVITIES PRIOR TO REMEDIATION PROGRAM

Based on bulk and wipe sample results, GM made the determination to perform remedial activities. In addition, the capacitor rooms were scheduled to be retrofitted with non-PCB capacitors. Capacitor room 2 was the first room to be retrofitted; therefore, initial remedial activities were scheduled concurrent with the retrofit. Based upon information and experience obtained during remediation of Capacitor Room 2, GM developed and implemented an overall room remediation program, which is described later in this report (in Sections 4 through 9).

3.1 CAPACITOR ROOM 2 INVESTIGATION

Capacitor Room 2 has dimensions of 44 by 34 feet. The room originally consisted of a 10-inch thick concrete slab on soil. It has concrete block walls. Figure 3.1 presents a plan view of the room. The room contained six banks of capacitors. A hydraulic jack is located in the room. This hydraulic jack is used to operate an impact table on the melting department deck which is above the capacitor room.

The PCB capacitors were removed from Capacitor Room 2 in March 1994. These capacitors were disposed of by GM by incineration in accordance with TSCA regulations at Rollins-Aptus, Inc. in Coffeyville, Kansas. Following removal of the capacitors, the room (floor and walls) and capacitor racks were given a thorough bulk cleaning (remove bulk solids from floor, wash walls and floor with high pressure water and low foaming non-ionic liquid alkaline cleaner, rinse, and containerize and dispose of bulk materials off-site and wash waters through an on-site carbon system). Bulk materials were disposed of at Laidlaw at the Grassy Grayback facility in Tooele County, Utah. Following this bulk cleaning, core and wipe samples were collected from the walls and floor on March 23, 1994. The wipe samples were collected from areas of 100 cm^2 using a template provided by the laboratory.

The types of samples collected from the floors and walls of Capacitor Room 2 were as follows:

1) wipe samples from the floor and walls;

2) core samples from the inside face of the concrete block wall; and

3) core samples from the concrete floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval).

The March 1994 sampling consisted of six wipe samples and six core samples from the floor and two wipe samples and six core samples from the walls. Sample locations are presented on Figure 3.1 and analytical results are presented in Table 3.1. The analytical reports are presented in Attachment A. The data validation report is presented in Attachment B.

The PCB results from the wipe and core samples from the Capacitor Room 2 concrete block walls were all non-detect.

The wipe samples from the floors ranged from 760 $\mu g/100\ cm^2$ to 7,800 $\mu g/cm^2$.

The PCB results from the concrete cores through the floor ranged from:

1) 4.5 mg/kg to 450 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 74 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

As a result of the March 23, 1994 sampling results, GM determined that appropriate remedial actions for Capacitor Room 2 would include scarification of the top 1/2 inch of the concrete floor followed by encapsulation, if needed.

3.2 CAPACITOR ROOM 2 REMEDIATION

The top 1/2 inch of the concrete floor was scarified during the week of November 2, 1994. Following scarification, floor verification wipe samples were collected on November 11, 1994 at the locations presented on Figure 3.1. The wipe sample results ranged from 180 µg/100 cm^2 to 6,900 µg/100 cm^2 for PCBs as presented in Table 3.2. These results confirmed some reduction in the wipe sample concentrations; however, the wipe sample concentrations remained relatively high in some areas under the former capacitor racks which had not been previously sampled. As a result, an additional 1/2 inch of scarification was conducted during the week of November 28, 1994. Verification wipe samples were collected on December 5, 1994 after the additional scarification at the locations presented on Figure 3.1. The sample results ranged from <10 µg/100 cm^2 to 2,600 µg/100 cm^2 for PCBs as presented in Table 3.2.

Once again, significant reductions were obtained, but levels remained up to 2,600 µg/100 cm^2. An additional 1/2 inch of scarification was conducted during the week of December 12, 1994. The verification wipe samples collected on December 15, 1994 ranged from <10 to 440 µg/100 cm^2 as presented in Table 3.2. The wipe sample locations are presented on Figure 3.1.

Again, significant reductions were obtained; however, levels remained up to 440 µg/100 cm^2. One additional 1/2 inch of scarification was conducted during the week of December 19, 1994. The final verification wipe samples collected on December 19, 1994 ranged from 13 to 1,700 µg/100 cm^2 and are presented in Table 3.2. The wipe sample locations are presented on Figure 3.1. On December 23, 1994, five samples were recollected from adjacent locations and results ranged from 21 to 740 µg/100 cm^2 as presented in Table 3.2. The wipe sample locations are presented on Figure 3.1.

Since further PCB reductions were not realized by the fourth round of scarification, the floor was encapsulated under an epoxy grout (1/4 inch thick - 2 layers a different color for each). Following encapsulation, the PCB capacitors in Capacitor Room 2 were then replaced with non-PCB capacitors.

The final PCB wipe sample results show a significant reduction in PCB wipe sample concentrations, and the application of the epoxy grout ensured that worker exposure to PCBs from the floor would not occur. In addition, the capacitor room is in an extremely low access area and is locked due to the presence of high voltage electrical equipment. Notwithstanding the protection provided by these actions and their consistency with TSCA, as a further precaution, GM removed and replaced the floor in Capacitor Room 2 following remediation of the other rooms. Core samples taken in Capacitor Room 2 from the 5 to 10-inch segment in the concrete floor (prior to its removal) were non-detect for PCBs, confirming that PCBs did not migrate through the concrete floor.

In order to investigate and remediate the remaining rooms, the Room Remediation Program was developed to ensure the remaining rooms were addressed in a timely, consistent, and cost-effective manner. All of the remaining rooms are associated with active production processes (melting iron) and could not be addressed during production periods.

4.0 ROOM REMEDIATION PROGRAM

4.1 BACKGROUND

A description of the Room Remediation Program for the capacitor, transformer, control, generator, and hydraulic rooms and associated areas for Power Supplies 1, 3, 4, 5, and the remainder of 2, is presented in this section.

4.2 CAPACITOR ROOMS

The Room Remediation Program for the capacitor rooms consisted of removing PCB capacitors and racks in Capacitor Rooms No. 1, 3, 4, and 5. The rooms along with the hallway were bulk cleaned (removal of bulk solids from floor, washing of walls and floor with high pressure water and low foaming non-ionic liquid alkaline cleaner, rinse, and containerization and disposal of bulk materials off-site and wash waters through an on-site carbon system). GM determined, based upon the Capacitor Room 2 remediation, that the floor in each of the capacitor rooms would be completely removed and replaced. Core and wipe verification samples were collected following bulk cleaning as follows:

i) wipe samples from the walls (approximately six);

ii) core samples from the inside face of the concrete block wall at locations of wipe samples; and

iii) core samples from the concrete floor at approximately six locations (5 to 10-inch depth interval) to evaluate potential impact to soil below the concrete.

The sampling performed was consistent with sampling outlined in potentially applicable TSCA provisions (such as is outlined in 40 CFR §761.120 et seq.). The investigation of the rooms was biased towards areas of staining since spill locations, quantities, and events are unknown and historical

in nature. The biased sampling in combination with the quantity, types and locations of samples collected, is a conservative indicator of potential PCB impacts to the walls and floor in the rooms investigated.

The extent of impact, if any, on the walls was evaluated. If PCB wipe sample results did not exceed 10 µg/100 cm^2, wall remediation was not conducted. If wipe sample results were between 10 µg/100 cm^2 and 100 µg/100 cm^2, the walls were encapsulated. If wipe sample results exceeded 100 µg/100 cm^2, the associated core sample was analyzed. If wall core sample results exceeded 21 mg/kg, the extent of impact was evaluated and the impacted wall area was encapsulated or removed, if practicable. The 21 mg/kg criteria is the generic industrial direct contact value for PCBs presented in Part 201 of Act 451 for the State of Michigan's Natural Resources and Environmental Protection Act. This level is below the TSCA PCB spill cleanup level of 25 ppm for restricted access areas.

The concrete floor in each capacitor room was removed and replaced. Soil samples were collected below areas where floor core samples exceeded 21 mg/kg PCBs in the 5 to 10-inch interval. To the extent practicable, based on considerations such as structural integrity, soil was removed in areas where verification soil samples exceeded 21 mg/kg. The excavation, if any, was backfilled with clean fill then covered with new concrete, and the floor and racks were replaced. The capacitors were replaced with new non-PCB-containing capacitors.

A decision making flow chart for room remediation is presented on Figure 4.1 and the project schedule is presented on Figure 4.2.

4.3 TRANSFORMER, CONTROL, AND GENERATOR ROOMS

The Room Remediation Program for the transformer rooms, control rooms, and generator rooms associated with each power supply consisted of bulk cleaning concurrently with the capacitor room retrofit. Only one transformer, in the Transformer Room for Power Supply 2, is believed to have contained PCBs due to the receipt of PCB contaminated oil. Available

analytical data indicates that the fluid in this transformer contains less than 50 ppm PCBs. The most recent sample from Transformer 2 was collected on November 17, 1995 and the results indicated 6.1 mg/kg PCB. Verification core and wipe sampling was performed following bulk cleaning as follows:

i) wipe samples from the floors and walls (approximately six from floor and six from walls);

ii) core samples from the inside face of a concrete block wall or from 0 to 2-inch depth interval of a concrete wall at locations of wipe samples; and

iii) core samples from the concrete floor at locations of wipe samples (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval).

The sampling performed was consistent with sampling outlined in potentially applicable TSCA provisions (such as is outlined in 40 CFR §761.120 et seq). The investigation of the rooms was biased towards areas of staining since spill locations, quantities, and events are unknown and historical in nature. The biased sampling in combination with the quantity, types and locations of samples collected, is a conservative indicator of potential PCB impacts to the walls and floor in the rooms investigated.

Room remediation activities proceeded based on the results of the verification wipe and core sampling.

The extent of impact, if any, on the walls was evaluated. If PCB concentrations in the wipe samples did not exceed 10 µg/100 cm^2, wall remediation was not conducted. If wipe sample results were between 10 µg/100 cm^2 and 100 µg/100 cm^2, the walls were encapsulated. If wipe sample results exceeded 100 µg/100 cm^2, the associated core sample was analyzed. If wall core sample results exceeded 21 mg/kg, the extent of impact was evaluated and the impacted wall area was encapsulated or removed, if possible.

The extent of impact on the floors was evaluated. If PCB concentrations in the wipe samples did not exceed 10 µg/100 cm^2, floor remediation was not needed. If wipe sample results were between 10 µg/100 cm^2 and 100 µg/100 cm^2 the floors were encapsulated. If wipe sample results exceeded 100 µg/100 cm^2, the associated core sample was analyzed. If floor core sample results exceeded 21 mg/kg, the extent of impact was evaluated, and the floor was recleaned, partially removed, removed and replaced, or encapsulated depending on the extent of impact and other criteria (e.g., structural considerations). Partial removal of floors was performed; however, the entire floor depth was not penetrated. Core results, where applicable, were below 21 mg/kg for the 5 to 10-inch floor results.

A flow chart for room remediation activities is presented on Figure 4.3. A schedule for this work is presented on Figure 4.2. The room remediation activities for these rooms were completed concurrently with the capacitor room associated with the same furnace.

4.4 BUSS TUNNEL AND PITS

Room remediation activities in the BUSS tunnel and furnace pits proceeded on a separate schedule from remedial activities in the capacitor, transformer, control, generator and hydraulic rooms based on the results of the verification wipe and core sampling previously conducted.

The pit and BUSS tunnel to pit areas associated with Power Supplies 1, 3, 4, and 5 were bulk cleaned, and the walls and floors were encapsulated. In the furnace areas, the fire brick was removed and replaced with new brick.

The pit 2 area no longer houses a furnace. Following bulk cleaning of the pit area and the BUSS tunnel to pit area, a portion of the floor was removed, and the areas were filled with flowable fill. A concrete floor was placed on the fill.

A flow chart for room remediation activities is presented on Figure 4.3. A schedule for this work is presented on Figure 4.2.

4.5 HYDRAULIC ROOMS

The hydraulic rooms for Power Supplies 1, 3, 4, and 5 were bulk cleaned and sampled. No remediation activities were performed in Hydraulic Rooms (i.e., 1, 3, 4, and 5) because these rooms are isolated on the third floor and exposures are limited by the steel grate and the steel pan below. The hydraulic room for Power Supply 2 is discussed in Section 6.3.

The remaining sections present the investigation and remediation results for the rooms addressed using the room remediation program.

5.0 POWER SUPPLY ROOM 1 ACTIVITIES

5.1 PIT 1

5.1.1 Description of Pit 1

The pit has dimensions of approximately 40 by 16 feet by 5 feet deep. The floor consists of an 18-inch thick concrete slab on soil covered by fire bricks. The walls are concrete. No equipment is in the pit; however, a sump to collect water is present in the pit.

The room between the pit and BUSS tunnel has dimensions of approximately 44 by 28 feet. The walls and floor are concrete. The floor consists of a 12 to 18-inch thick slab on soil covered by fire bricks. Four columns extend from the floor and support the furnace above. The ceiling height is 12 feet.

5.1.2 Pit 1 Investigation

On July 8 and 9, 1994, concrete core and wipe samples were collected from the walls and floors of Pit 1, the BUSS tunnel, and the room between the BUSS tunnel and the pit.

Sampling was completed after a preliminary bulk cleaning of the rooms. The preliminary bulk cleaning was performed in July 1994 and included the BUSS tunnel, the pit and the room between the BUSS tunnel and the pit. Wipe and core samples were collected at each of these pit areas. Sample locations in each of these pit areas included representative samples from the walls and floors in the various rooms.

The types of samples collected from the floor and walls of the room included:

1) wipe samples using a 100 cm^2 template provided by the laboratory;

2) core samples from the inside face of the concrete wall at an approximate height of 5 feet above the floor (0 to 1/2-depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval); and

3) core samples from the floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval). In cases where fire brick was present, the brick was sampled and concrete cores were collected from 0 to 1/2-inch and 1/2 to 10-inch depths below the bottom of the fire brick.

The PCB results are presented in Table 5.1 and sample locations are presented on Figure 5.1.

The PCB wipe sample results from the concrete walls were non-detect.

The PCB results from the concrete cores from the walls ranged from:

1) 1.7 mg/kg to 150 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor were 18 µg/100 cm^2 and 20 µg/100 cm^2.

The PCB results for the concrete cores through the floor ranged from:

1) <0.33 mg/kg for the fire brick;

2) <0.33 mg/kg to 0.35 mg/kg for the concrete below the brick to 1/2-inch depth interval; and

3) <0.33 mg/kg for the 1/2 to 10-inch depth interval.

On December 16, 1996, five wipe samples were collected after an additional bulk cleaning of the area was completed.

Three wipe samples from the walls and two wipe samples from the floor were collected. The PCB results are presented in Table 5.1 and the sample locations are presented on Figure 5.1.

The PCB wipe sample results from the concrete walls ranged from 10 µg/100 cm^2 to 49 µg/100 cm^2.

The PCB wipe sample results from the floor ranged from 41 µg/100 cm^2 to 310 µg/100 cm^2.

5.1.3 Summary of Pit 1 Remediation

The Pit 1 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. In December 1996, the fire brick was removed from the Pit 1 area and this area was bulk cleaned a second time (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed). The walls and floors were encapsulated and the fire brick was replaced in December 1996.

5.1.4 Power Supply 1: BUSS Tunnel to Pit 1 Investigation

The PCB results are presented in Table 5.2 and sample locations are presented on Figure 5.2. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. One of the six cores was obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe sample results from the concrete walls ranged from 11 µg/100 cm^2 to 100 µg/100 cm^2.

The PCB results from the concrete cores into the walls ranged from:

1) <0.33 mg/kg to 12 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 0.47 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor ranged from 22 µg/100 cm^2 to 40 µg/100 cm^2.

The PCB results from the concrete cores through the floor ranged from:

1) <0.33 mg/kg to 14 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 73 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

On December 16, 1996, seven wipe samples were collected after an additional bulk cleaning of the area was completed.

Three wipe samples from the walls and four wipe samples from the floor were collected. The PCB results are presented in Table 5.2 and sample locations are presented on Figure 5.2.

The PCB wipe sample results from the concrete walls were non-detect.

The PCB wipe sample results from the floor ranged from 12 µg/100 cm^2 to 70 µg/100 cm^2.

5.1.5 Summary of BUSS Tunnel to Pit 1 Remediation

The BUSS tunnel to Pit 1 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. In December 1996, the fire brick was removed from the BUSS tunnel to Pit 1 area and this area was bulk cleaned a second time (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed). The walls and floors were encapsulated and the fire brick was replaced in December 1996.

5.2 GENERATOR ROOM 1 ACTIVITIES

5.2.1 Description of Generator Room 1

Generator Room 1 has dimensions of approximately 28 by 9 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

5.2.2 Generator Room 1 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on November 26, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 5.3 and the sample locations are presented on Figure 5.3.

The PCB wipe sample results from the concrete walls were non-detect; therefore, analyses of the concrete wall cores were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 48 µg/100 cm^2; therefore analyses of the floor cores were canceled.

5.2.3 Summary of Generator Room 1 Remediation

The PCB wipe sample results for the walls were non-detect following bulk cleaning; therefore, no further wall remediation was performed. However, the walls were encapsulated as part of plant maintenance.

Since, following bulk cleaning, the PCB wipe sample results from the floor exceeded 10 µg/100 cm^2 but were less than 100 µg/100 cm^2, the floor was encapsulated.

5.3 TRANSFORMER ROOM 1 ACTIVITIES

5.3.1 Description of Transformer Room 1

Transformer Room 1 has dimensions of approximately 28 by 15 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 20 feet.

5.3.2 Transformer Room 1 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on November 26, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 5.4 and sample locations are presented on Figure 5.4. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. One of the six cores was obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 25 µg/100 cm^2; therefore, the analyses of the wall core samples were canceled.

The PCB wipe sample results from the floor ranged from 18 µg/100 cm^2 to 160 µg/100 cm^2; therefore floor core sample analyses were performed.

The core samples from the floor collected from the two wipe sample locations exceeding 100 µg/100 cm^2 were analyzed for PCB for three different intervals: 0 to 1/2 inch; 1/2 to 5 inch, and 5 to 10 inch, if practicable. The following results were obtained:

1) 11 mg/kg to 12 mg/kg for the 0 to 1/2-inch interval;

2) <1.0 mg/kg to 3 mg/kg for the 1/2 to 5-inch interval; and

3) 2.1 mg/kg for the 5 to 10-inch interval.

An additional six wipe samples from the floor were collected on December 26, 1996 following recleaning of the floor.

The PCB results are presented in Table 5.4 and sample locations are presented on Figure 5.4.

The December 26, 1996 PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 13 µg/100 cm^2.

5.3.3 Summary of Transformer Room 1 Remediation

Based on the PCB results of the wipe sampling following the initial bulk cleaning of Transformer Room 1, the room was cleaned a second time and additional wipe samples were collected on December 26, 1996. The

additional floor wipe sample results were less than 100 µg/100 cm^2; therefore, the floor was encapsulated as part of plant maintenance.

Since, following the second bulk cleaning, the PCB wipe sample results from the walls exceeded 10 µg/100 cm^2 but were less than 100 µg/100 cm^2, the walls were encapsulated.

5.4 CONTROL ROOM 1 ACTIVITIES

5.4.1 Description of Control Room 1

Control Room 1 has dimensions of approximately 28 by 17 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

5.4.2 Control Room 1 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on November 26, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 5.5 and the locations are presented on Figure 5.5.

The PCB wipe samples results from the concrete walls were non-detect; therefore, analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 33 µg/100 cm^2; therefore, analyses of the concrete floor core samples were canceled.

5.4.3 Summary of Control Room 1 Remediation

Following bulk cleaning, the PCB wipe sample results from the walls were non-detect; therefore, no further wall cleaning was performed. However, the walls were encapsulated as part of plant maintenance.

Since, following bulk cleaning, the PCB wipe sample results from the floor exceeded 10 µg/100 cm^2 but were less than 100 µg/100 cm^2, the floor was encapsulated.

5.5 CAPACITOR ROOM 1 ACTIVITIES

5.5.1 Description of Capacitor Room 1

Capacitor Room 1 has dimensions of approximately 42 by 33 feet. The room consists of a 10-inch thick concrete slab on soil and has concrete block walls. The room contains 14 banks of capacitors. The ceiling height is 15 feet.

5.5.2 Capacitor Room 1 Investigation

Six wipe and six core samples from the walls, six core samples from the floor, and six surface soil samples were collected on November 27, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 5.6 and the sample locations are presented on Figure 5.6.

The PCB wipe sample results from the walls ranged from 11 µg/100 cm^2 to 900 µg/100 cm^2; therefore the wall core sample analyses were performed.

The PCB core sample results from the two locations where the wall wipe sample results exceeded 100 µg/100 cm^2, ranged from 42 mg/kg to 430 mg/kg for the 0 to 1/2-inch interval (front face of concrete block).

The PCB core sample results from the floor ranged from 3.4 mg/kg to 2,300 mg/kg in the 5 to 10-inch depth interval .

The PCB results from the six investigative surface soil samples ranged from <1.0 mg/kg to 6.3 mg/kg.

5.5.3 Summary of Capacitor Room 1 Remediation

In addition to the bulk cleaning (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) which was performed in this room in December 1996, the following actions were taken.

The front face (approximately one inch deep by 60 square feet) of the concrete block wall containing the stained areas where the two wall wipe sample PCB results exceeded 100 µg/100 cm^2 was removed and replaced in December 1996. In addition, the walls were encapsulated.

The floor was removed and replaced.

Because the PCB soil sample results were less than 21 mg/kg, soil remediation was not needed. The results are presented in Table 5.6.

5.6 HYDRAULIC ROOM 1 ACTIVITIES

5.6.1 Description of Hydraulic Room 1

Hydraulic Room 1 has dimensions of approximately 16 by 15 feet. The floor consists of a 3-inch thick concrete slab underlain by sheet

metal. The walls are sheet metal. The ceiling height is 8 feet. This room is located on the third floor.

5.6.2 Hydraulic Room 1 Investigation

Six wipe samples from the walls, and six wipe and six core samples from the floor, were collected on March 18, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 5.7 and sample locations are presented on Figure 5.7.

The PCB wipe sample results from the sheet metal walls were non-detect.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 13 µg/100 cm^2.

The PCB results from the concrete cores through the floor ranged from:

1) 5.2 mg/kg to 81 mg/kg for the 0 to 1/2-inch depth interval; and

2) <1.0 mg/kg to 5.3 mg/kg for the 1/2 to 3-inch depth interval.

5.6.3 Summary of Hydraulic Room 1 Remediation

The PCB wipe sample results from the walls were non-detect; therefore no wall remediation beyond bulk cleaning was performed.

PCB wipe sample results from the floor were less than 100 µg/100 cm^2; therefore no remediation activities beyond bulk cleaning were performed.

6.0 POWER SUPPLY ROOM 2 ACTIVITIES

6.1 PIT 2

6.1.1 Description of Pit 2

The pit has dimensions of approximately 40 by 16 feet by 5 feet deep. The floor consists of a concrete slab ranging from 18 inches to 5 feet on soil covered by fire bricks. The walls are concrete. No equipment is in the pit; however, a sump to collect water is present in the pit.

The room between the pit and BUSS tunnel has dimensions of approximately 44 by 28 feet. The walls and floor are concrete. The floor consists of a 12 to 18-inch thick slab on soil covered by fire bricks. Two columns extend from the floor and support the furnace above (now out of service). The ceiling height is 12 feet.

6.1.2 Pit 2 Investigation

On July 9, 1994, concrete core and wipe samples were collected from the walls and floors of Pit 2, the BUSS tunnel, and the room between the BUSS tunnel and the pit.

Sampling was completed after a preliminary bulk cleaning of the rooms. The preliminary bulk cleaning was performed in July 1994 and included the BUSS tunnel, the pit and the room between the BUSS tunnel and the pit. Wipe and core samples were collected in each of these areas. Sample locations in each of these areas included representative samples from the walls and floors in the various rooms.

The types of samples collected from the floor and walls of the room include:

1) wipe samples using a 100 cm^2 template provided by the laboratory;

2) core samples from the inside face of the concrete wall at an approximate height of 5 feet above the floor (0 to 1/2-depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval); and

3) core samples from the floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval). In cases where fire brick was present, the brick was sampled and concrete cores were collected from 0 to 1/2-inch and 1/2 to 10-inch depths below the bottom of the fire brick.

The PCB results are presented in Table 6.1 and samples locations are presented on Figure 6.1. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. One of the four cores was obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe samples from the concrete walls ranged from 130 µg/100 cm^2 to 360 µg/100 cm^2.

The PCB results from the concrete cores from the walls ranged from:

1) 34 mg/kg to 39 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 0.43 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor ranged from 130 µg/100 cm^2 to 2,900 µg/100 cm^2.

The PCB results from the concrete cores through the floor ranged from:

1) 230 mg/kg to 1,100 mg/kg for the fire brick;

2) <0.33 mg/kg to 1,400 mg/kg for the concrete below the brick to 1/2-inch depth interval; and

3) 0.36 mg/kg to 1,100 mg/kg for the 1/2 to 10-inch depth interval.

On December 5, 1996, an additional bulk cleaning (remove fire brick, scrape, sweep) of the area was completed. No samples were collected.

6.1.3 Summary of Pit 2 Remediation

The Pit 2 area no longer contains a furnace. The Pit 2 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick was removed in December 1996 and the area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) a second time. In April 1997, a 2-foot by 2-foot section of the floor was removed to a depth of 10 inches in the area where analysis of the 5 to 10-inch depth cores indicated results of 1,100 mg/kg. The pit was then filled with flowable fill and capped with concrete in April 1997. Hence, in addition to the bulk cleaning which occurred, the floor area which showed elevated levels of PCB was removed and the entire pit covered with flowable fill. This remedy encapsulated the floor, effectively eliminating worker contact with potential remaining PCBs, and was necessary because the original floor elevation was below the water table. Penetrating the floor could have led to significant infiltration of groundwater and also raised structural integrity problems. Existing groundwater monitoring results from the site-wide Part 201 project downgradient of the melting department area are non-detect for PCBs and confirm that groundwater has not been impacted.

6.1.4 Power Supply 2: BUSS Tunnel to Pit 2 Investigation

The PCB results are presented in Table 6.2 and sample locations are presented on Figure 6.2. Where cores were taken, not all areas were

drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. One of the six cores was obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe sample results from the concrete walls ranged from 400 µg/100 cm^2 to 1,100 µg/100 cm^2.

The PCB results from the concrete cores into the walls ranged from:

1) 230 mg/kg to 500 mg/kg for the 0 to 1/2-inch depth interval;

2) 0.99 mg/kg to 92 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg to 0.92 mg/kg for the 5 to 10-inch depth interval.

The wipe sample results from the floor ranged from 350 µg/100 cm^2 to 800 µg/100 cm^2.

The PCB results for the concrete cores through the floor ranged from:

1) 50 mg/kg to 1,700 mg/kg for the 0 to 1/2-inch depth interval;

2) 24 mg/kg to 91 mg/kg for the 1/2 to 5-inch depth interval; and

3) 0.77 mg/kg to 130 mg/kg for the 5 to 10-inch depth interval.

On December 5, 1996, an additional bulk cleaning (remove fire brick, scrape, and sweep) of the area was completed. No samples were collected.

6.1.5 Summary of BUSS Tunnel to Pit 2 Remediation

The BUSS tunnel to Pit 2 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. In December 1996, the area was bulk cleaned a second time. In April 1997, a 2-foot by 2-foot section of the floor was removed to a depth of 10 inches in the area where analysis of the 5 to 10-inch depth core indicated results of 130 mg/kg. The BUSS tunnel to pit was then filled with flowable fill and capped with concrete in April 1997. Hence, in addition to the bulk cleaning which occurred, the floor area which showed elevated levels of PCB was removed and the entire BUSS tunnel to pit covered with flowable fill. This remedy encapsulated the floor, effectively eliminating worker contact with potential remaining PCBs, and was necessary because the original floor elevation was below the water table. Penetrating the floor could have led to significant infiltration of groundwater and also raised structural integrity problems. Existing groundwater monitoring results from the site-wide Part 201 project downgradient of the melting department area are non-detect for PCBs and confirm that groundwater has not been impacted.

6.2 TRANSFORMER ROOM 2 ACTIVITIES

6.2.1 Description of Transformer Room 2

Transformer Room 2 has dimensions of approximately 28 by 16 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 20 feet.

6.2.2 Transformer Room 2 Investigation

Six wipe samples from the wall, and six wipe samples from the floor were collected on February 25, 1997 following bulk cleaning of the room.

The results are presented in Table 6.3 and sample locations are presented on Figure 6.3.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the concrete wall core samples were canceled.

The PCB wipe sample results from the floor were non-detect; therefore, the analysis of the concrete floor core samples were canceled.

6.2.3 Summary of Transformer Room 2 Remediation

Because the PCB wipe sample results from the walls and floor were non-detect, no additional wall or floor remediation beyond bulk cleaning was performed. However, the walls and floor were encapsulated as part of plant maintenance.

6.3 HYDRAULIC ROOM 2 ACTIVITIES

6.3.1 Description of Hydraulic Room 2

Hydraulic Room 2 has dimensions of 19 by 9 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete. The ceiling height is 15 feet. This room is the only hydraulic room located on the ground floor.

6.3.2 Hydraulic Room 2 Investigation

On March 23, 1994, ten core samples and four wipe samples were collected from the walls and floor in Hydraulic Room 2 following equipment removal and bulk cleaning.

The samples collected from the floor and walls of the rooms were as follows:

1) wipe samples from the floors and walls;

2) core samples from the inside of the concrete wall; and

3) core samples from the concrete floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval).

The PCB results are presented in Table 6.4 and sample locations are presented on Figure 6.4.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 13 µg/100 cm^2.

The PCB results from the concrete wall core samples ranged from <0.33 mg/kg to 2.6 mg/kg in the 0 to 1/2-inch depth interval.

The PCB wipe sample results from the floor ranged from 490 µg/100 cm^2 to 950 µg/100 cm^2.

The PCB results from the concrete cores through the floor ranged from:

1) 100 mg/kg to 630 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 to 350 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 to 85 mg/kg for the 5 to 10-inch depth interval.

One soil sample was collected on June 17, 1996 near the control box due to the reported PCB concentration of 85 mg/kg in the 5- to 10-inch core sample from the floor. PCBs were reported at 210 mg/kg in this sample. As a result, twelve additional soil samples were collected from four locations to determine the extent of soil potentially impacted by PCBs. The samples were collected on June 20, 1996. The PCB results are presented in Table 6.4 and the sample locations are presented on Figure 6.5.

The PCB results from the soil samples ranged from:

1) 1.8 mg/kg to 50 mg/kg for the 6-inch depth;

2) 4.8 mg/kg to 220 mg/kg for the 1-foot depth; and

3) 1.4 mg/kg to 640 mg/kg for the 2-foot depth.

6.3.3 Summary of Hydraulic Room 2 Remediation

In addition to bulk cleaning, the following remedial actions were performed.

Since, following bulk cleaning, the PCB wipe sample results from the walls exceeded 10 µg/100 cm^2 but were less than 100 µg/100 cm^2, the walls were encapsulated.

The floor was removed and replaced.

To ensure protection of foundation and floorings, soil excavation was limited to a depth of approximately 5 feet. Excavated soil was replaced with clean backfill. Grab samples were collected in the soil to verify remaining PCBs, if any. The soil verification sample PCB results are presented in Table 6.4, and sample locations are presented on Figure 6.5. The verification sample PCB results from the bottom of the excavation ranged from 1.3 mg/kg to 41 mg/kg.

7.0 POWER SUPPLY ROOM 3 ACTIVITIES

7.1 PIT 3

7.1.1 Description of Pit 3

The pit has dimensions of approximately 40 by 16 feet by 5 feet deep. The floor consists of an 18-inch thick concrete slab on soil covered by fire bricks. The walls are concrete. No equipment is in the pit; however, a sump to collect water is present in the pit.

The room between the pit and BUSS tunnel has dimensions of approximately 44 by 28 feet. The walls and floor are concrete. The floor consists of a 12 to 18-inch thick slab on soil covered by fire bricks. Four columns extend from the floor and support the furnace above. The ceiling height is 12 feet.

7.1.2 Pit 3 Investigation

On July 8, 1994, concrete core and wipe samples were collected from the walls and floors of Pit 3, the BUSS tunnel, and the room between the BUSS tunnel and the furnace pit.

Sampling was completed after a preliminary bulk cleaning of the rooms. The preliminary bulk cleaning was performed in July 1994 and included the BUSS tunnel, the pit and the room between the BUSS tunnel and the pit. Wipe and core samples were collected in each of these areas. Sample locations in each of these areas included representative samples from the walls and floors.

The types of samples collected from the floor and walls of the room include:

1) wipe samples using a 100 cm^2 template provided by the laboratory;

2) core samples from the inside face of the concrete wall at an approximate height of 5 feet above the floor (0 to 1/2-depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval); and

3) core samples from the floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval). In cases where fire brick was present, the brick was sampled and concrete cores were collected from 0 to 1/2-inch and 1/2 to 10-inch depths below the bottom of the fire brick.

The PCB results are presented in Table 7.1 and sample locations are presented on Figure 7.1. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. Two of the four cores was obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe samples from the concrete walls ranged from <10 µg/100 cm^2 to 93 µg/100 cm^2.

The PCB results from the concrete cores from the walls ranged from:

1) <0.33 mg/kg to 4 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor ranged from 40 µg/100 cm^2 to 66 µg/100 cm^2.

The PCB results for the concrete cores through the floor ranged from:

1) <0.33 mg/kg to 3.7 mg/kg for the fire brick;

2) <0.33 mg/kg to 4.9 mg/kg for the concrete below the brick to 1/2-inch depth interval; and

3) <0.33 mg/kg for the 1/2 to 10-inch depth interval.

On December 27, 1996, four wipe samples were collected after an additional bulk cleaning of the area was completed.

Two wipe samples from the walls and two wipe samples from the floor were collected. The PCB results are presented in Table 7.1 and sample locations are presented on Figure 7.1.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 10 µg/100 cm^2.

The PCB wipe sample results from the floor ranged from 10 µg/100 cm^2 to 12 µg/100 cm^2.

7.1.3 Summary of Pit 3 Remediation

The Pit 3 area was bulk cleaned (floors and walls scraped, swept, scrubbed, powerwashed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick in the Pit 3 area was removed and the area was bulk cleaned (floors and walls scraped, swept, scrubbed, powerwashed, coated with "Less Than 10" cleaning solution and rinsed) for the second time in December 1996. The walls and floors were encapsulated and the fire brick was replaced in December 1996.

7.1.4 Power Supply 3: BUSS Tunnel to Pit 3 Investigation

The PCB results are presented in Table 7.2 and sample locations are presented on Figure 7.2.

The PCB wipe samples from the concrete walls ranged from <10 µg/100 cm^2 to 31 µg/100 cm^2.

The PCB results from the concrete cores into the walls ranged from:

1) <0.33 mg/kg to 16 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 0.54 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe samples from the floor ranged from <10 µg/100 cm^2 to 32 µg/100 cm^2.

The PCB results from the concrete cores through the floor ranged from:

1) <1.5 mg/kg to 4.4 mg/kg for the 0 to 1/2-inch depth interval;

2) <1.5 mg/kg to 3.3 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg to 0.39 mg/kg for the 5 to 10-inch depth interval.

On December 27, 1996, eight wipe samples were collected after additional bulk cleaning of the area was completed.

Four wipe samples from the walls and four wipe samples from the floor were collected. The PCB results are presented in Table 7.2 and sample locations are presented on Figure 7.2.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 83 µg/100 cm^2.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 520 µg/100 cm^2.

7.1.5 Summary of BUSS Tunnel to Pit 3 Remediation

The BUSS Tunnel to Pit 3 area was bulk cleaned (floors and walls scraped, swept, scrubbed, powerwashed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick in the BUSS tunnel to Pit 3 area was removed and the area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for a second time in December 1996. The walls and floors were encapsulated and the fire brick was replaced in December 1996. One floor wipe sample result exceeded 100 µg/100 cm^2; however, this sample was located in an exit corridor. The area of this sample was encapsulated.

7.2 TRANSFORMER ROOM 3 ACTIVITIES

7.2.1 Description of Transformer Room 3

Transformer Room 3 has dimensions of approximately 28 by 16 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 20 feet.

7.2.2 Transformer Room 3 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on September 4, 1996 following bulk cleaning of the room.

The PCB results of the samples are presented in Table 7.3 and sample locations are presented on Figure 7.3.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 11 µg/100 cm^2; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 43 µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

7.2.3 Summary of Transformer Room 3 Remediation

Since, following bulk cleaning, the PCB wipe sample results from the walls and floor were less than 100 µg/100 cm^2, the walls and floor were encapsulated.

7.3 CONTROL ROOM 3 ACTIVITIES

7.3.1 Description of Control Room 3

Control Room 3 has dimensions of approximately 28 by 17 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

7.3.2 Control Room 3 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on September 4, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 7.4 and sample locations are presented on Figure 7.4.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 10 µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

7.3.3 Summary of Control Room 3 Remediation

The PCB wipe sample results for the walls were non-detect following bulk cleaning; therefore, no further wall remediation was performed. However, the walls were encapsulated as part of plant maintenance.

Since, following bulk cleaning, one wipe sample PCB result from the floor equaled 10 µg/100 cm^2, the floor was encapsulated.

7.4 CAPACITOR ROOM 3 ACTIVITIES

7.4.1 Description of Capacitor Room 3

Capacitor Room 3 has dimensions of approximately 42 by 33 feet. The room consists of a 10-inch thick concrete slab on soil and has concrete block walls. The room contains 12 banks of capacitors. The ceiling height is 15 feet.

7.4.2 Capacitor Room 3 Investigation

Six wipe and six core samples from the walls, six core samples from the floor, and six surface soil samples from beneath the floor at the core sample locations were collected on September 4 and 5, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 7.5 and sample locations are presented on Figure 7.5.

The PCB wipe sample results from the walls ranged from <10/100 cm^2 to 61 µg/100 cm^2; therefore, the analyses of the wall core samples were canceled.

The PCB core sample results from the floor were non-detect in the 5 to 10-inch interval. However, the six surface soil sample PCB results below each core location ranged from 1.9 mg/kg to 650 mg/kg.

7.4.3 Summary of Capacitor Room 3 Remediation

Since, following bulk cleaning, the PCB wipe sample results from the walls exceeded 10 µg/100 cm^2 but were less than 100 µg/100 cm^2, the walls were encapsulated.

The floor was removed and replaced.

To ensure protection of foundations and footings, soil excavation was limited to depths ranging from 3 to 5 feet. Excavated soil was replaced with clean backfill. Grab samples were collected in the soil to verify remaining PCBs, if any. The soil verification sample results are presented in Table 7.5 and sample locations are presented on Figure 7.6. The verification sample PCB results ranged from <1.0 mg/kg to 1.0 mg/kg.

7.5 HYDRAULIC ROOM 3 ACTIVITIES

7.5.1 Description of Hydraulic Room 3

Hydraulic Room 3 has dimensions of approximately 16 by 15 feet. The floor consists of a 3-inch thick concrete slab underlain by sheet metal. The walls are sheet metal. The ceiling height is 8 feet. This room is located on the third floor.

7.5.2 Hydraulic Room 3 Investigation

Six wipe samples from the walls and six wipe and six core samples from the floor were collected on December 26, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 7.6 and sample locations are presented on Figure 7.7.

The PCB wipe sample results from the sheet metal walls were non-detect for PCBs.

The PCB wipe sample results from the floor ranged from <10 µg/100 m^2 to 110 µg/100 cm^2; therefore, core sample analyses were performed.

The core sample result from the floor at the only wipe sample location exceeding 100 µg/100 cm^2 was 115 mg/kg for the 0 to 3-inch interval. This core was only analyzed for the 0 to 3-inch interval because this room is located on the third floor and the floor is only 3 inches thick.

7.5.3 Summary of Hydraulic Room 3 Remediation

The PCB wipe sample results from the walls were non-detect; therefore, no wall remediation beyond bulk cleaning was performed.

PCB wipe sample results from the floor exceeded 100 µg/100 cm^2 and the core result was 115 mg/kg. No remediation activities are planned for this room because the room is isolated on the third floor and exposures to the floor are limited because of the steel grate and the steel pan below.

8.0 POWER SUPPLY ROOM 4 ACTIVITIES

8.1 PIT 4

8.1.1 Description of Pit 4

The pit has dimensions of approximately 40 by 16 feet by 5 feet deep. The floor consists of an 18-inch thick concrete slab on soil covered by fire bricks. The walls are concrete. No equipment is in the pit; however, a sump to collect water is present in the pit.

The room between the pit and BUSS tunnel has dimensions of approximately 44 by 28 feet. The walls and floor are concrete. The floor consists of a 12 to 18-inch thick slab on soil covered by fire bricks. Four columns extend from the floor and support the furnace above. The ceiling height is 12 feet.

8.1.2 Pit 4 Investigation

On July 8, 1994, concrete core and wipe samples were collected from the walls and floors of Pit 4, the BUSS tunnel, and the room between the BUSS tunnel and the pit.

Sampling was completed after a preliminary bulk cleaning of the rooms. The preliminary bulk cleaning was performed in July 1994 and included the BUSS tunnel, the pit and the room between the BUSS tunnel and the pit. Wipe and core samples were collected in each of these areas. Sample locations in each of these areas included representative samples from the walls and floors.

The types of samples collected from the floor and walls of the room include:

1) wipe samples using a 100 cm^2 template provided by the laboratory;

2) core samples from the inside face of the concrete wall at an approximate height of 5 feet above the floor (0 to 1/2-depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval); and

3) core samples from the floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval). In cases where fire brick was present, the brick was sampled and concrete cores were collected from 0 to 1/2-inch and 1/2 to 10-inch depths below the bottom of the fire brick.

The PCB results are presented in Table 8.1 and sample locations are presented on Figure 8.1. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. Two of the four cores was obtained to below the brick and one was obtained to 0.5 inches below the brick and the remaining cores were completed to 10 inches.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 42 µg/100 cm^2.

The PCB results from the concrete cores from the walls ranged from:

1) 1.1 mg/kg to 1.2 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor were all non-detect.

The PCB results from the concrete cores through the floor ranged from:

1) <0.33 mg/kg for the fire brick;

2) <0.33 mg/kg for the concrete below the brick to 1/2-inch depth interval; and

3) the 1/2 to 10-inch depth interval was not sampled due to core extraction problems.

On February 7, 1997, four wipe samples were collected after an additional bulk cleaning of the area was completed.

Two wipe samples from the wall and two wipe samples from the floor were collected. The results are presented in Table 8.1 and sample locations are presented on Figure 8.1.

The PCB wipe sample results from the concrete walls were non-detected.

The PCB wipe sample results from the floor ranged from 16 µg/100 cm^2 to 22 µg/100 cm^2.

8.1.3 Summary of Pit 4 Remediation

The Pit 4 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick was removed from the Pit 4 area and the area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the second time in February 1997. The walls and floors were encapsulated and the fire brick was replaced in February 1997.

8.1.4 Power Supply 4: BUSS Tunnel to Pit 4 Investigation

The PCB results are presented in Table 8.2 and sample locations are presented on Figure 8.2. Where cores were taken, not all areas were

drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. One of the six cores was obtained to 0.5 inches and the remaining cores were completed to 10 inches.

The PCB wipe samples results from the concrete walls ranged from <10 µg/100 cm^2 to 47 µg/100 cm^2.

The PCB results from the concrete cores into the walls ranged from:

1) <0.33 mg/kg to 5.1 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor were all non-detect.

The PCB results from the concrete cores through the floor ranged from:

1) <0.33 mg/kg to 1.7 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 6.7 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

On February 7, 1997, eight wipe samples were collected after an additional bulk cleaning of the area was completed.

Four wipe samples from the walls and four wipe samples from the floor were collected. The PCB results are presented in Table 8.2 and sample locations are presented on Figure 8.2.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 10 µg/100 cm^2.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 26 µg/100 cm^2.

8.1.5 Summary of BUSS Tunnel to Pit 4 Remediation

The BUSS tunnel to Pit 4 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick was removed from the BUSS tunnel to Pit 4 area and this area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the second time in February 1997. The walls and floor were encapsulated and the fire brick was replaced in February 1997.

8.2 GENERATOR ROOM 4 ACTIVITIES

8.2.1 Description of Generator Room 4

Generator Room 4 has dimensions of approximately 28 by 19 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

8.2.2 Generator Room 4 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on June 7, 1996 and June 10, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 8.3 and sample locations are presented on Figure 8.3.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor were non-detect with the exception of one result at 10 µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

8.2.3 Summary of Generator Room 4 Remediation

The PCB wipe sample results from the walls were non-detect following bulk cleaning; therefore, no wall remediation beyond the original bulk cleaning was needed. However, the walls were encapsulated as part of plant maintenance.

Because the PCB floor wipe sample did not exceed 10 µg/100 cm^2, no floor remediation beyond the original bulk cleaning was needed; therefore, no further floor remediation was performed. However, the floors were encapsulated as part of plant maintenance.

8.3 TRANSFORMER ROOM 4 ACTIVITIES

8.3.1 Description of Transformer Room 4

Transformer Room 4 has dimensions of approximately 28 by 13 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 20 feet.

8.3.2 Transformer Room 4 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on June 7, 1996 and June 10, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 8.4 and sample locations are presented on Figure 8.4.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 37 µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

8.3.3 Summary of Transformer Room 4 Remediation

The PCB wipe sample results from the walls were non-detect; therefore, no further wall remediation beyond the original bulk cleaning was needed. However, the walls were encapsulated as part of plant maintenance.

Since all of the PCB floor wipe were less than 100 µg/100 cm^2, the floor was encapsulated.

8.4 CONTROL ROOM 4 ACTIVITIES

8.4.1 Description of Control Room 4

Control Room 4 has dimensions of approximately 28 by 18 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

8.4.2 Control Room 4 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floors were collected on June 7, 1996 and June 10, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 8.5 and sample locations are presented on Figure 8.5.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 30 µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

8.4.3 Summary of Control Room 4 Remediation

The PCB wipe sample results from the walls were non-detect; therefore, no further wall remediation beyond the original bulk cleaning was needed. However, the walls were encapsulated as part of plant maintenance.

Because all of the PCB wipe sample results from the floor were less than 100 µg/100 cm^2, the floor was encapsulated.

8.5 CAPACITOR ROOM 4 ACTIVITIES

8.5.1 Description of Capacitor Room 4

Capacitor Room 4 has dimensions of approximately 42 by 33 feet. The room consists of a 10-inch thick concrete slab on soil and has concrete block walls. The room contained 14 banks of capacitors. The ceiling height is 15 feet.

8.5.2 Capacitor Room 4 Investigation

Six wipe and six core samples from the walls and six core samples from the floor were collected on June 7, 1996 and June 10, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 8.6 and the wipe sample locations are presented on Figure 8.6.

The PCB wipe sample results from the wall ranged from <10 µg/100 cm^2 to 90 µg/100 cm^2; therefore, the analyses of the wall core samples were canceled.

The PCB core sample results from the floor ranged from <1.0 mg/kg to 24 mg/kg for the 5 to 10-inch interval. One surface soil sample was then collected on June 17, 1996 from below the location of the 24 mg/kg core sample (location shown on Figure 8.6). PCBs were reported at 10 mg/kg in the soil sample. As a precaution, fifteen additional soil samples were collected from five locations to determine the extent of soil potentially impacted by PCBs (shown on Figure 8.6). Three samples from each of the five locations were collected on June 20, 1996. The results of the soil investigation are presented in Table 8.6.

The PCB soil sample results ranged from:

1) <1.0 to 96 mg/kg for the 6-inch depth;

2) <1.0 to 120 mg/kg for the 1-foot depth; and

3) <1.0 to 76 mg/kg for the 2-foot depth.

8.5.3 Summary of Capacitor Room 4 Remediation

In addition to bulk cleaning, the following remedial actions were performed.

Because all of the PCB wipe sample results from the walls were less than 100 µg/100 cm^2, the walls were encapsulated.

The floor was removed and replaced.

To ensure protection of foundations and footings, soil excavation was limited to depths ranging from 2 to 4 feet. Excavated soil was replaced with clean backfill. Grab samples were collected in the soil to verify remaining PCBs, if any. The soil verification sample results are presented in Table 8.6 and sample locations are presented on Figure 8.7. The verification sample results were non-detect for PCBs.

8.6 HYDRAULIC ROOM 4 ACTIVITIES

8.6.1 Description of Hydraulic Room 4

Hydraulic Room 4 has dimensions of approximately 16 by 15 feet. The floor consists of a 3-inch thick concrete slab underlain by sheet metal. The walls are sheet metal. The ceiling height is 8 feet. This room is located on the third floor.

8.6.2 Hydraulic Room 4 Investigation

Six wipe samples from the walls and six wipe and six core samples from the floor were collected on December 26, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 8.7 and the sample locations are presented on Figure 8.8.

The PCB wipe sample results from the sheet metal walls were non-detect.

The PCB wipe sample results from the floor were non-detect; therefore, the analyses of the concrete floor core samples were canceled.

8.6.3 Summary of Hydraulic Room 4 Remediation

The PCB wipe sample results for the walls and floor were non-detect following bulk cleaning; therefore, no further wall or floor remediation other than bulk cleaning was needed or performed.

9.0 POWER SUPPLY ROOM 5 ACTIVITIES

9.1 PIT 5 ACTIVITIES

9.1.1 Description of Pit 5

The pit has dimensions of approximately 40 by 16 feet by 5 feet deep. The floor consists of an 18-inch thick concrete slab on soil covered by fire bricks. The walls are concrete. No equipment is in the furnace pit; however, a sump to collect water is present in the pit.

The room between the pit and BUSS tunnel has dimensions of approximately 44 by 28 feet. The walls and floor are concrete. The floor consists of a 12 to 18-inch thick slab on soil covered by fire bricks. Four columns extend from the floor and support the furnace above. The ceiling height is 12 feet.

9.1.2 Pit 5 Investigation

On July 9, 1994, concrete core and wipe samples were collected from the walls and floors of Pit 5, the BUSS tunnel, and the room between the BUSS tunnel and the pit.

Sampling was completed after a preliminary bulk cleaning of the rooms. The preliminary bulk cleaning was performed in July 1994 and included the BUSS tunnel, the pit and the room between the BUSS tunnel and the pit. Wipe and core samples were collected in each of these areas. Sample locations in each of these areas included representative samples from the walls and floors.

The types of samples collected from the floor and walls of the room include:

1) wipe samples using a 100 cm^2 template provided by the laboratory;

2) core samples from the inside face of the concrete wall at an approximate height of 5 feet above the floor (0 to 1/2-depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval); and

3) core samples from the floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval). In cases where fire brick was present, the brick was sampled and concrete cores were collected from 0 to 1/2-inch and 1/2 to 10-inch depths below the bottom of the fire brick.

The PCB results are presented in Table 9.1 and sample locations are presented on Figure 9.1.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 12 µg/100 cm^2.

The PCB results from the concrete cores from the walls ranged from:

1) 2.1 mg/kg to 3.9 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 16 µg/100 cm^2.

The PCB results for the concrete cores through the floor ranged from:

1) <0.33 mg/kg to 1 mg/kg for the fire brick;

2) <0.33 mg/kg to 0.69 mg/kg for the concrete below the brick to 1/2-inch depth interval; and

3) <0.33 mg/kg for the 1/2 to 10-inch depth interval.

On November 27, 1996, five wipe samples were collected after an additional bulk cleaning of the area was completed.

Two wipe samples from the walls and three wipe samples from the floor were collected. The PCB results are presented in Table 9.1 and sample locations are presented on Figure 9.1.

The PCB wipe sample results from the concrete walls ranged from 11 µg/100 cm^2 to 70 µg/100 cm^2.

The PCB wipe samples results from the floor ranged from <10 µg/100 cm^2 to 17 µg/100 cm^2.

9.1.3 Summary of Pit 5 Remediation

The Pit 5 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick was removed from the Pit 5 area and this area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the second time in November 1996. The walls and floors were encapsulated and the fire brick was replaced in December 1996.

9.1.4 Power Supply 5 - BUSS Tunnel to Pit Investigation

The PCB results are presented in Table 9.2 and sample locations are presented on Figure 9.2. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. One of the six cores was obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 690 µg/100 cm^2.

The PCB results from the concrete cores into the walls ranged from:

1) 2.1 mg/kg to 130 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg to 6.2 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe sample results from the floor ranged from 12 µg/100 cm^2 to 15 µg/100 cm^2.

The PCB results for the concrete cores through the floor ranged from:

1) <0.33 mg/kg to 1.7 mg/kg for the 0 to 1/2-inch depth interval;

2) 0.38 mg/kg to 7.5 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

On November 27, 1996, seven wipe samples were collected after an additional bulk cleaning of the area was completed.

Four wipe samples from the walls and three wipe samples from the floor were collected. The PCB results are presented in Table 9.2 and sample locations are presented on Figure 9.2.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 270 µg/100 cm^2.

The PCB wipe samples results from the floor ranged from <10 µg/100 cm^2 to 39 µg/100 cm^2.

9.1.5 Summary of BUSS Tunnel to Pit 5 Remediation

The BUSS tunnel to Pit 5 area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994. The fire brick in the BUSS tunnel to Pit 5 area was removed, the area was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the second time and the walls and floors were encapsulated in November 1996. The fire brick was replaced in December 1996.

9.2 GENERATOR ROOM 5 ACTIVITIES

9.2.1 Description of Generator Room 5

Generator Room 5 has dimensions of approximately 28 by 9 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

9.2.2 Generator Room 5 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on March 13, 1996 and March 14, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 9.3 and sample locations are presented on Figure 9.3.

The PCB wipe sample results from the concrete walls were non-detect; therefore, analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 19 µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

9.2.3 Summary of Generator Room 5 Remediation

Because PCB wipe sample results from the walls were non-detect, no wall remediation other than bulk cleaning was needed. However, the walls were encapsulated as part of plant maintenance.

Because all of the PCB wipe sample results from the floor were less than 100 µg/100 cm^2, in addition to the original bulk cleaning, the floor was encapsulated.

9.3 TRANSFORMER ROOM 5 ACTIVITIES

9.3.1 Description of Transformer Room 5

Transformer Room 5 has dimensions of approximately 28 by 13 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 20 feet.

9.3.2 Transformer Room 5 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on March 13, 1996 and March 15, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 9.4 and sample locations are presented on Figure 9.4.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from 12 µg/100 cm^2 to 147 µg/100 cm^2.

The core sample from the floor at the only wipe sample location exceeding 100 µg/100 cm^2 was analyzed for three different intervals: 0 to 1/2 inch; 1/2 to 5 inch, and 5 to 10 inch. The following PCB results were obtained:

1) 2.1 mg/kg for the 0 to 1/2-inch interval;

2) <1.0 mg/kg for the 1/2 to 5-inch interval; and

3) <1.0 mg/kg for the 5 to 10-inch interval.

9.3.3 Summary of Transformer Room 5 Remediation

The PCB wipe sample results from the walls were non-detect; therefore, no wall remediation beyond bulk cleaning was needed. However, the walls were encapsulated as part of plant maintenance.

Since one of the six PCB wipe sample results from the floor exceeded 100 µg/100 cm^2, a portion of the floor (a 2-foot square visibly stained section) was removed and replaced prior to encapsulation of the entire floor.

The PCB core sample from the floor was non-detect in the 5 to 10-inch interval; therefore, no soil investigation was needed.

9.4 CONTROL ROOM 5 ACTIVITIES

9.4.1 Description of Control Room 5

Control Room 5 has dimensions of approximately 28 by 18 feet. The floor consists of a 10-inch thick concrete slab. The walls are concrete block. The ceiling height is 15 feet.

9.4.2 Control Room 5 Investigation

Six wipe and six core samples from the walls and six wipe and six core samples from the floor were collected on March 13, 1996 and March 15, 1996, respectively, following bulk cleaning of the room.

The PCB results are presented in Table 9.5 and sample locations are presented on Figure 9.5.

The PCB wipe sample results from the concrete walls were non-detect; therefore, the analyses of the concrete wall core samples were canceled.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 17µg/100 cm^2; therefore, the analyses of the concrete floor core samples were canceled.

9.4.3 Summary of Control Room 5 Remediation

The PCB wipe sample results from the walls were non-detect, therefore, no wall remediation beyond bulk cleaning was needed. However, the walls were encapsulated as part of plant maintenance.

Because all of the PCB wipe sample results from the floor were less than 100 µg/100 cm^2, the floor was encapsulated.

9.5 CAPACITOR ROOM 5 ACTIVITIES

9.5.1 Description of Capacitor Room 5

Capacitor Room 5 has dimensions of approximately 42 by 33 feet. The room consists of a 10-inch thick concrete slab on soil and has concrete block walls. The room contained 12 banks of capacitors. The ceiling height is 15 feet.

9.5.2 Capacitor Room 5 Investigation

Six wipe and six core samples from the walls and six core samples from the floor were collected on March 15, 1996 following bulk cleaning.

The PCB results are presented in Table 9.6 and sample locations are presented on Figure 9.6.

The PCB wipe sample results from the walls ranged from 15 µg/100 cm^2 to 77 µg/100 cm^2; therefore, the analyses of the wall core samples were canceled.

The PCB core sample results from the floor ranged from <1.0 mg/kg to 1.9 mg/kg for the 5 to 10-inch interval.

Since the results were less than 21 mg/kg no soil samples were collected.

9.5.3 Summary of Capacitor Room 5 Remediation

In addition to bulk cleaning the following remedial actions were performed.

Because all of the PCB wipe sample results from the walls exceeded were less than 100 µg/100 cm^2, the walls were encapsulated. The floor was removed and replaced.

9.6 HYDRAULIC ROOM 5 ACTIVITIES

9.6.1 Description of Hydraulic Room 5

Hydraulic Room 5 has dimensions of approximately 16 by 15 feet. The floor consists of a 3-inch thick concrete slab underlain by sheet metal. The walls are sheet metal. The ceiling height is 8 feet. This room is located on the third floor.

9.6.2 Hydraulic Room 5 Investigation

Six wipe samples from the walls and six wipe and six core samples from the floor were collected on June 11, 1996 following bulk cleaning of the room.

The PCB results are presented in Table 9.7 and sample locations are presented on Figure 9.7.

The PCB wipe sample results from the sheet metal walls were non-detect for PCBs.

The PCB wipe sample results from the floor were non-detect; therefore, the analyses of the concrete floor core samples were canceled.

9.6.3 Summary of Hydraulic Room 5 Remediation

The PCB wipe sample results from the walls and floor were non-detect; therefore no wall or floor remediation beyond bulk cleaning was needed or performed.

10.0 BUSS TUNNEL ACTIVITIES

10.1 DESCRIPTION OF BUSS TUNNEL AREA

The BUSS tunnel has dimensions of approximately 384 by 24 feet. The walls and floor are concrete. The floor consists of a 4 to 10-inch thick slab on soil. The metal grate ceiling height is 7 feet and the concrete ceiling height is 14 feet. No equipment is in the BUSS tunnel, except for two sumps and a metal grate that divides the passageway longitudinally. The BUSS tunnel connects the five power supply areas with high voltage copper bars along the ceiling.

10.2 BUSS TUNNEL INVESTIGATION

On July 9 and September 13, 1994, concrete core and wipe samples were collected from the walls and floors of the BUSS tunnel. Sampling was completed after a preliminary bulk cleaning of the tunnel. The preliminary bulk cleaning was performed between July 2, 1994 and July 9, 1994.

The samples collected from the floor and walls of the tunnel include:

1) wipe samples using a 100 cm^2 template provided by the laboratory;

2) core samples from the inside face of the concrete wall at an approximate height of 5 feet above the floor (0 to 1/2-depth interval, 1/2 to 5-inch depth interval, and 5 to 10-inch depth interval); and

3) core samples from the floor (0 to 1/2-inch depth interval, 1/2 to 5-inch depth interval and 5 to 10-inch depth interval).

The PCB results are presented in Table 10.1 and sample locations are presented on Figure 10.1. Where cores were taken, not all areas were drilled to a depth of 10 inches due to problems with recovery of the entire core length in areas where reinforcing steel was encountered. Three of the

eleven cores were obtained to 0.5 inches and three of the eleven cores were obtained to 5 inches and the remaining cores were completed to 10 inches.

The PCB wipe samples from the concrete walls ranged from <10 µg/100 cm^2 to 12 µg/100 cm^2.

The PCB results from the concrete cores into the wall ranged from:

1) <0.33 mg/kg to 0.72 mg/kg for the 0 -1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth interval; and

3) <0.33 mg/kg for the 5 to 10-inch depth interval.

The PCB wipe samples from the floor ranged from <10 µg/100 cm^2 to 170 µg/100 cm^2.

The PCB results from the concrete cores through the floor ranged from:

1) <0.33 mg/kg to 8.2 mg/kg for the 0 to 1/2-inch depth interval;

2) <0.33 mg/kg for the 1/2 to 5-inch depth; and

3) <0.33 mg/kg to 0.44 mg/kg for the 5 to 10-inch depth interval.

The BUSS tunnel was bulk cleaned a second time in July 1996 as part of plant maintenance. No additional samples were collected at that time.

On December 28, 1996, nine wipe and nine core samples were collected after a third bulk cleaning of the area was completed.

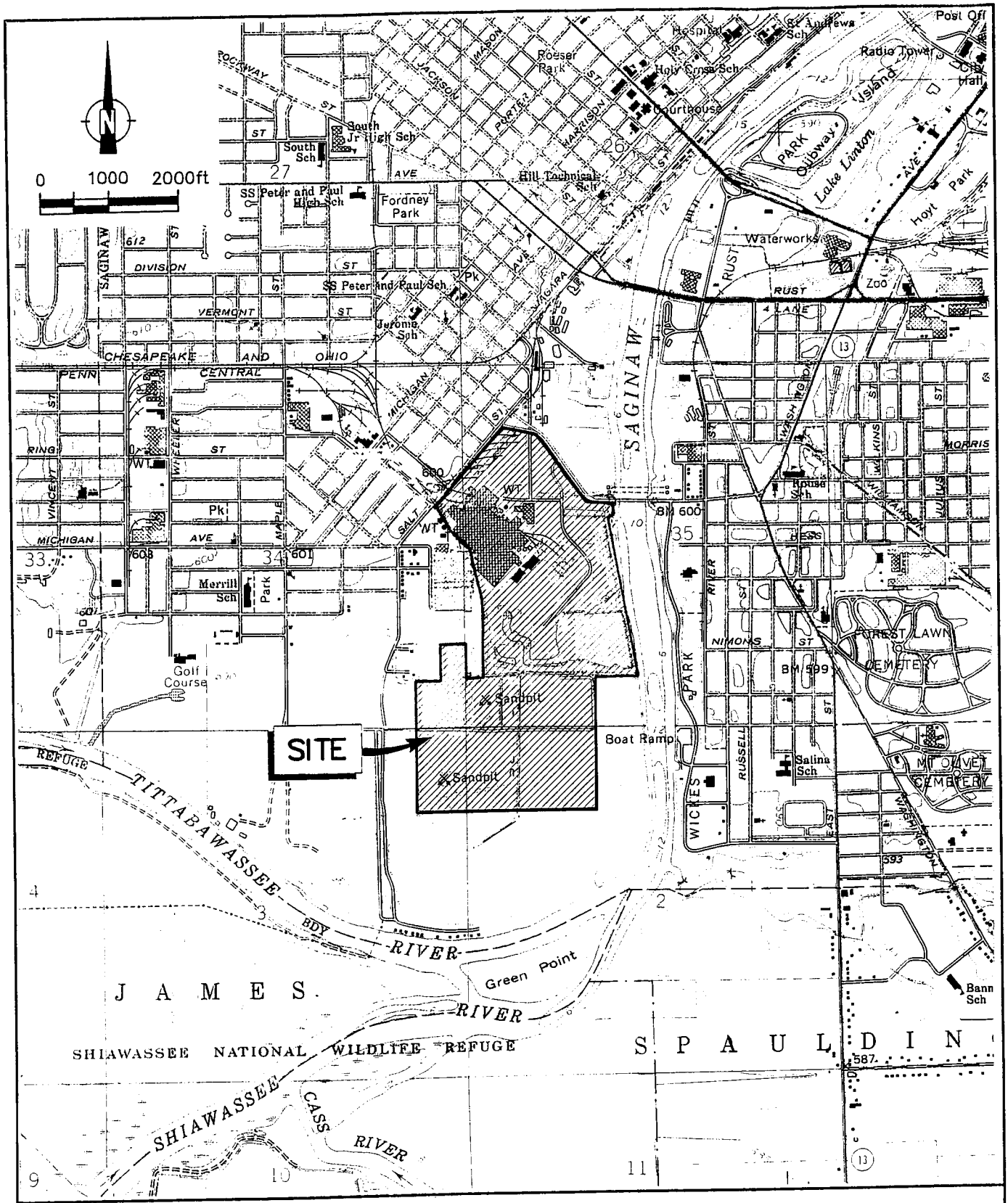
Three wipe samples from the wall and six wipe samples from the floor of the BUSS tunnel were collected. The PCB results are presented in Table 10.1 and the sample locations are presented on Figure 10.1.

The PCB wipe sample results from the concrete walls ranged from <10 µg/100 cm^2 to 960 µg/100 cm^2. Two of the wipe sample results exceeded 100 µg/100 cm^2.

The PCB wipe sample results from the floor ranged from <10 µg/100 cm^2 to 29 µg/100 cm^2.

10.3 SUMMARY OF BUSS TUNNEL REMEDIATION

The BUSS tunnel was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) for the first time in July 1994 and the second time in July 1996. The BUSS tunnel was bulk cleaned (floors and walls scraped, swept, scrubbed, power washed, coated with "Less Than 10" cleaning solution and rinsed) a third time in December 1996. Following bulk cleaning, cracks were patched and the walls and floor were encapsulated in January 1997.



SOURCE: USGS QUADRANGLE MAP;
SAGINAW, MICHIGAN

CRA

figure 1.1

SITE LOCATION

GMPT SAGINAW MALLEABLE IRON PLANT

Saginaw, Michigan

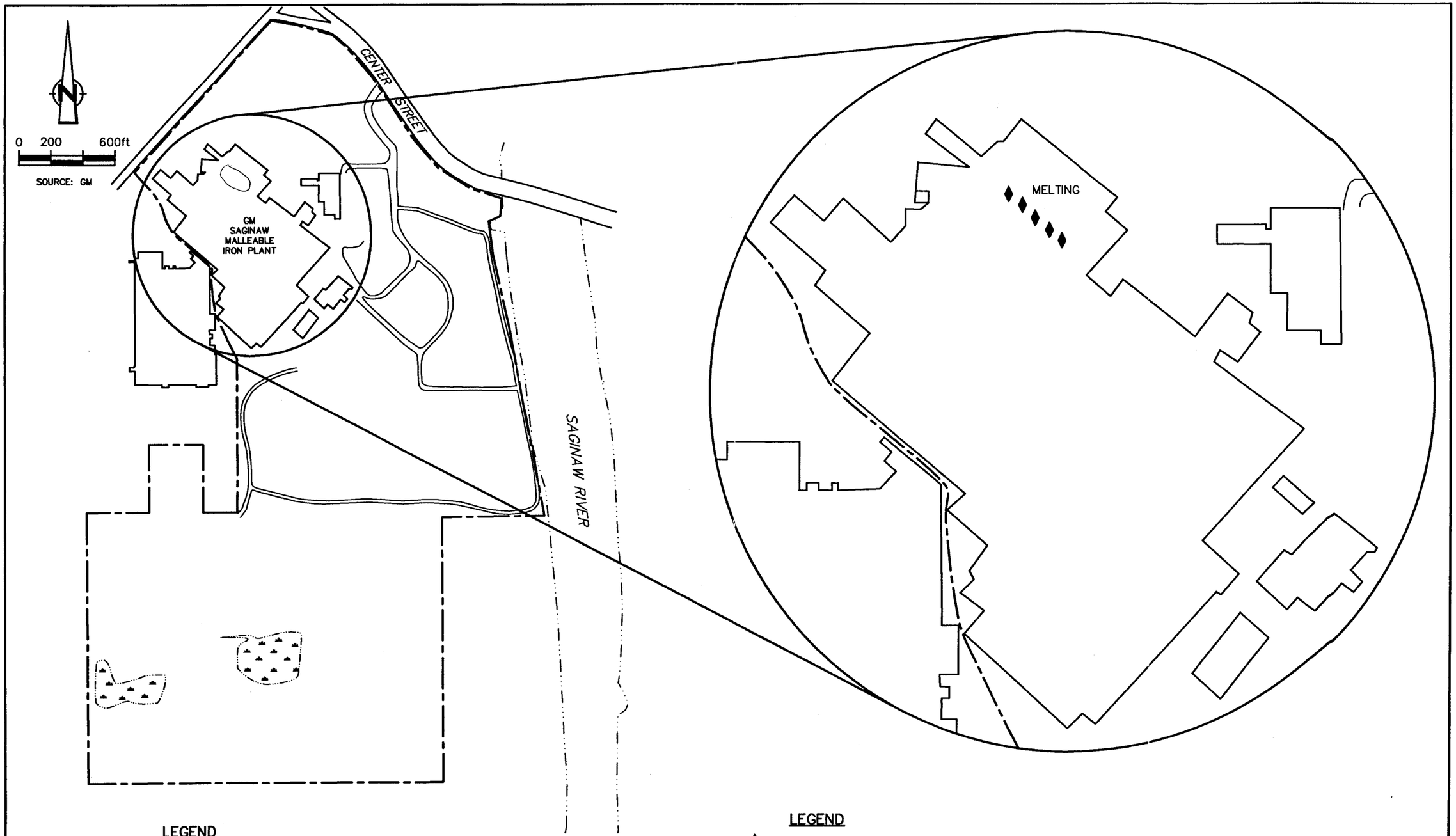


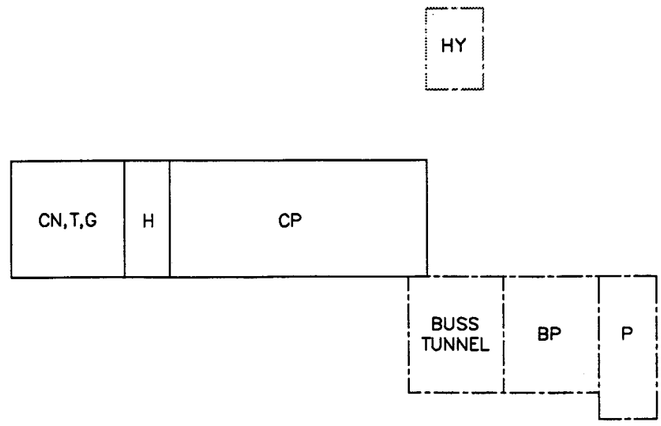
figure 1.2
SMI SITE PLAN
Saginaw, Michigan

CRA

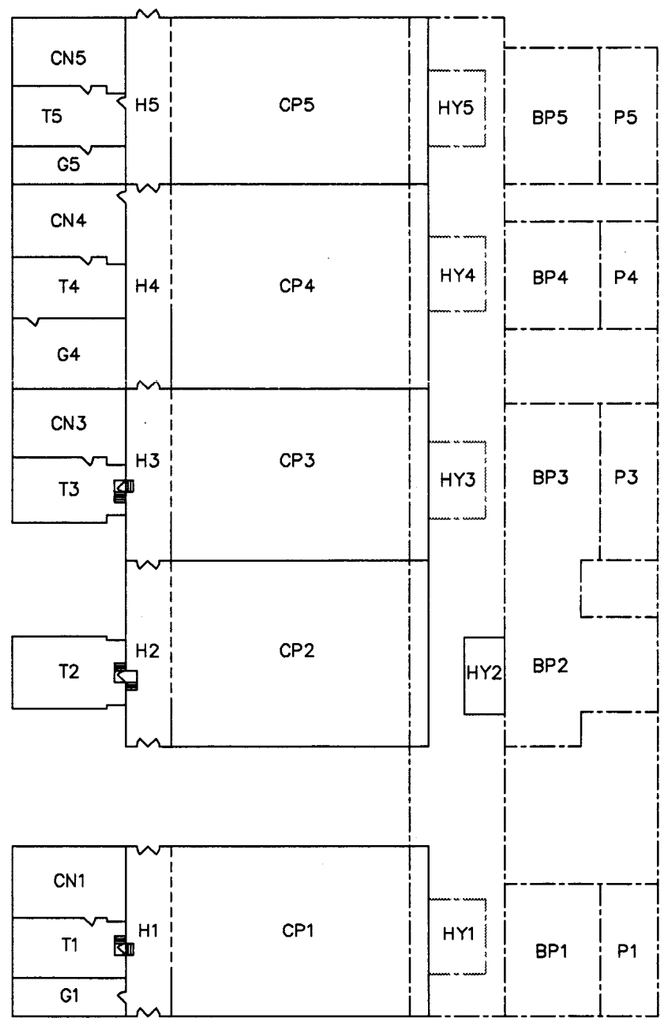
5579 (6) JAN 10/97(W) REV.0 (P-89)

0 20 40ft

SCALE: 1/8" = 5'-0"



PROFILE



PLAN VIEW

LEGEND

WALL MARKINGS:

- SCREEN
- ON LOWER LEVEL
- ON UPPER LEVEL
- ON MAIN LEVEL

ROOM DESIGNATIONS:

CP5	CAPACITOR ROOM 5
CN5	CONTROL ROOM 5
G5	GENERATOR ROOM 5
T5	TRANSFORMER ROOM 5
HY5	HYDRAULIC ROOM 5
BP5	BUSS TUNNEL TO PIT 5
P5	PIT 5
H5	HALL 5

figure 2.1

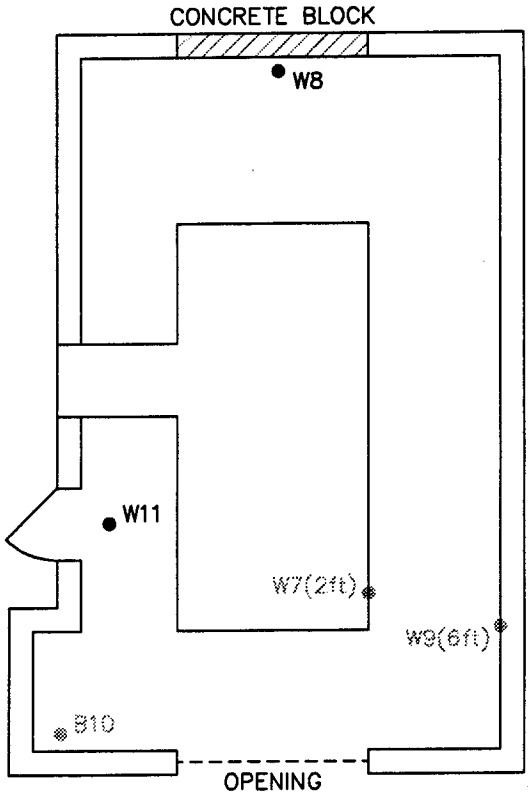
ROOM LOCATIONS
OVERVIEW PLAN
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
W7	<10μg/100cm²
W8	11μg/100cm²
W9	<10μg/100cm²
B10	<0.33mg/kg
W11	24μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.2

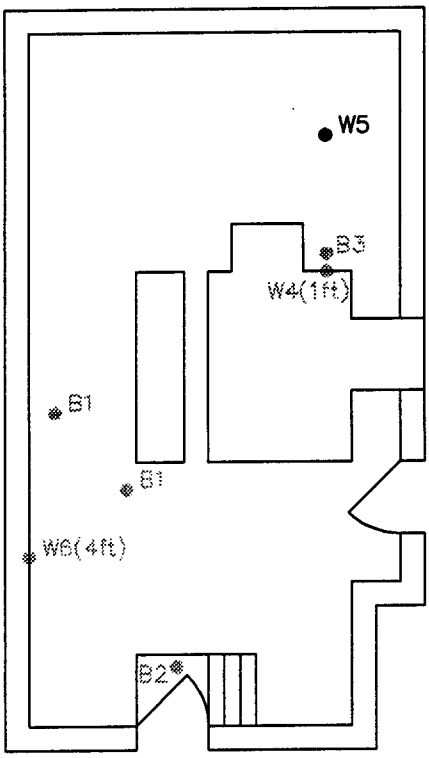
SAMPLE LOCATIONS
CONTROL ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P-91)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



SAMPLE ID	CONCENTRATION
B1	<0.33mg/kg
B2	<0.33mg/kg
B3	<0.33mg/kg
W4	<10μg/100cm^2
W5	46μg/100cm^2
W6	<10μg/100cm^2

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES
B2 TAKEN UNDER LANDING

figure 2.3

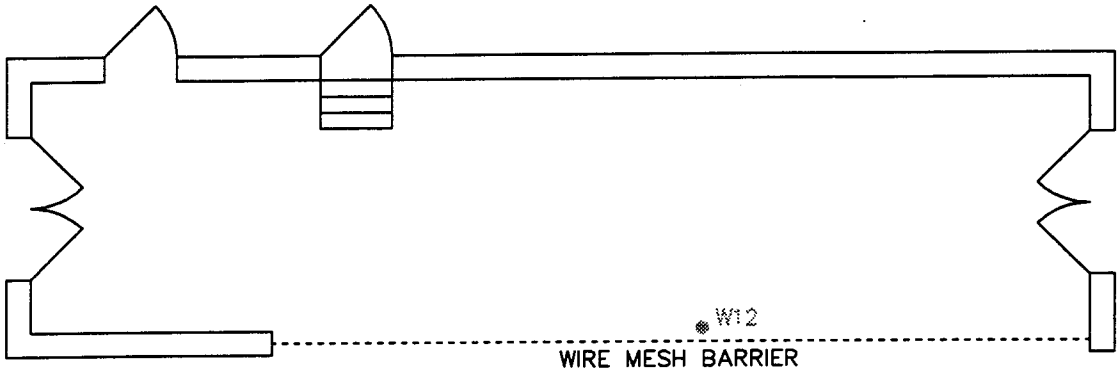
SAMPLE LOCATIONS
TRANSFORMER ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
W12	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
W=WIPE SAMPLES

figure 2.4

SAMPLE LOCATIONS
HALLWAY 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

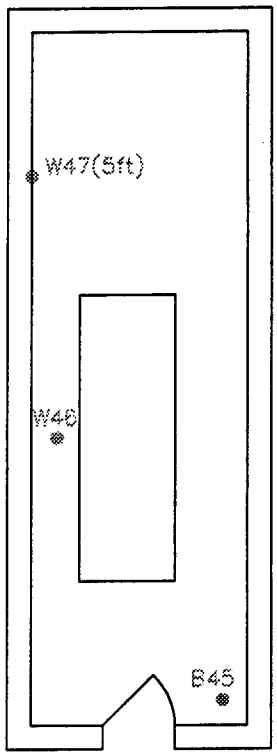
CRA

5579 (6) JAN 10/97(W) REV.0 (P-93)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
B45	<0.33mg/kg
W46	<10μg/100cm²
W47	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.5

SAMPLE LOCATIONS
GENERATOR ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

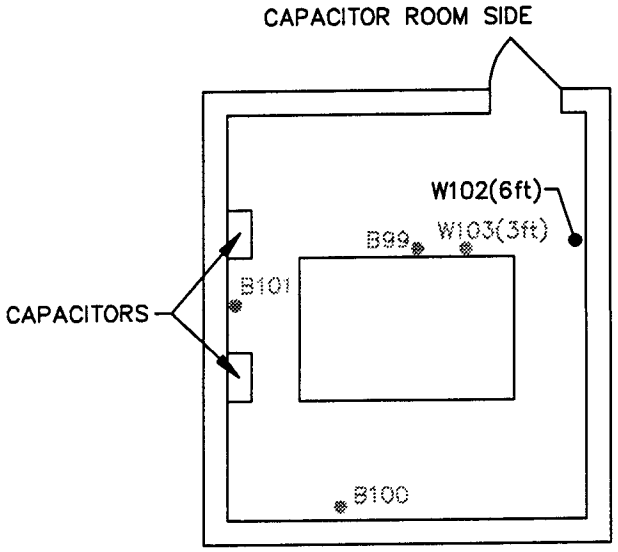
CRA

5579 (6) JAN 10/97(W) REV.0 (P-94)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



SAMPLE ID	CONCENTRATION
B99	<0.43mg/kg
B100	<0.33mg/kg
B101	<0.46mg/kg
W102	10μg/100cm^2
W103	<10μg/100cm^2

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.6

SAMPLE LOCATIONS
HYDRAULIC ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

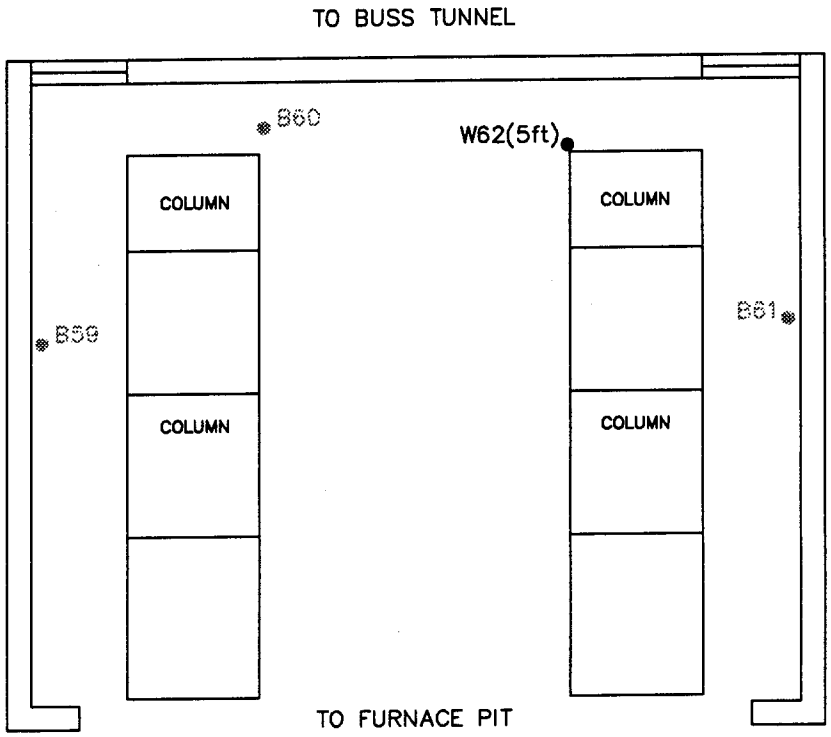
CRA

5579 (6) JAN 10/97(W) REV.0 (P-96)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 12'



SAMPLE ID	CONCENTRATION
B59	<0.33mg/kg
B60	<0.33mg/kg
B61	<0.33mg/kg
W62	29μg/100cm^2

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.7

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

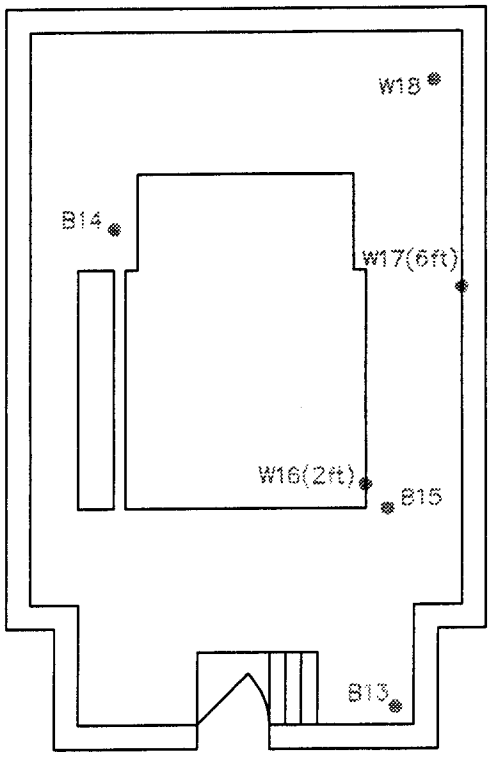
CRA

5579 (6) JAN 10/97(W) REV.0 (P-95)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



SAMPLE ID	CONCENTRATION
B13	<0.33mg/kg
B14	<0.33mg/kg
B15	<0.33mg/kg
W16	<10μg/100cm²
W17	<10μg/100cm²
W18	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.8

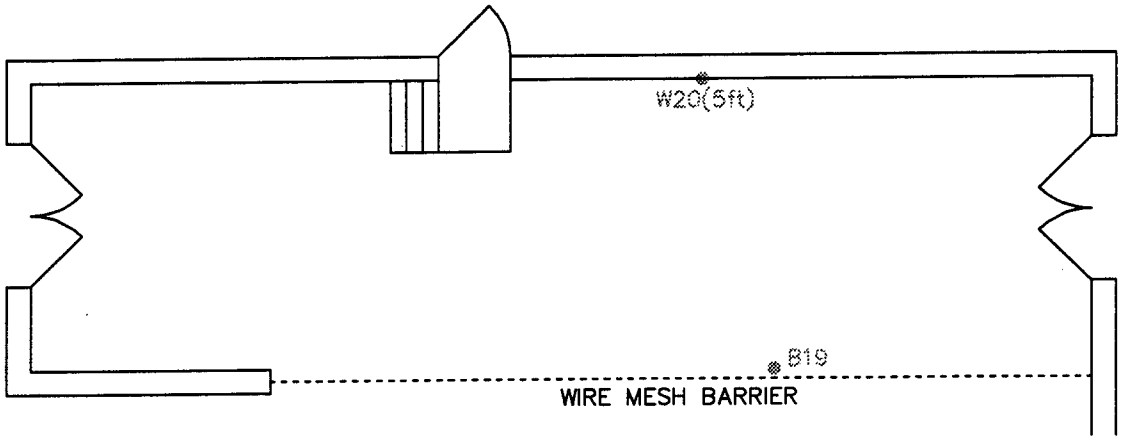
SAMPLE LOCATIONS
TRANSFORMER ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P-97)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
B19	<0.33mg/kg
W20	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.9

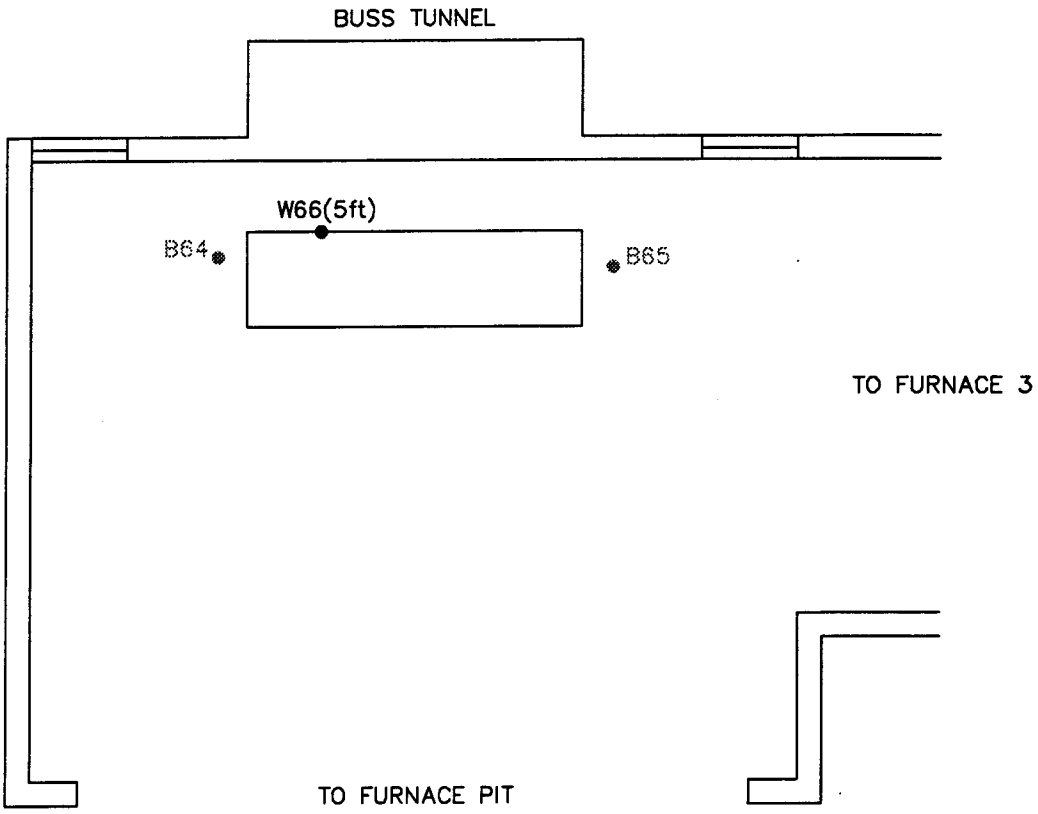
SAMPLE LOCATIONS
HALLWAY 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P-98)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 18'



SAMPLE ID	CONCENTRATION
B64	0.36mg/kg
B65	<0.46mg/kg
W66	400µg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.10

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

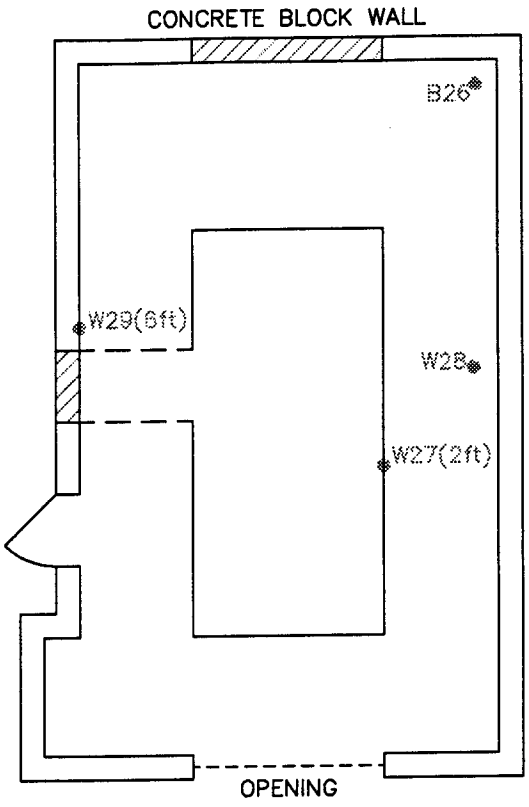
CRA

5579 (6) MAR 13/97(W) REV.0 (P-99)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
B26	<0.33mg/kg
W27	<10μg/100cm²
W28	<10μg/100cm²
W29	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.11

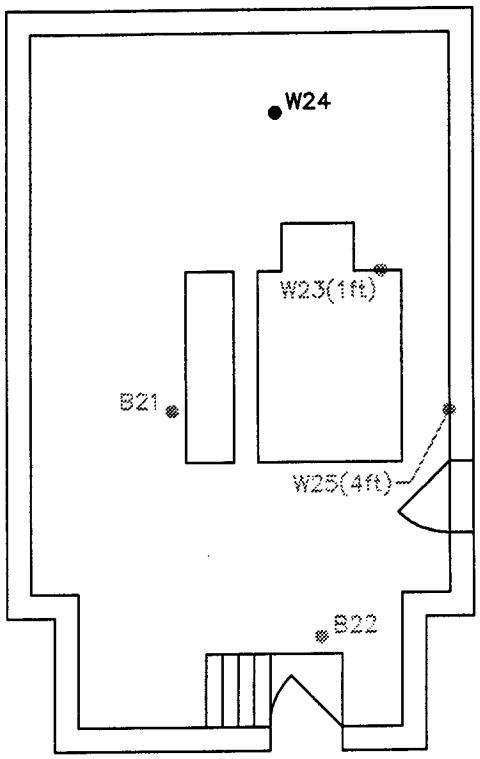
SAMPLE LOCATIONS
CONTROL ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



SAMPLE ID	CONCENTRATION
B21	<0.33mg/kg
B22	<0.33mg/kg
W23	<10μg/100cm^2
W24	130μg/100cm^2
W25	<10μg/100cm^2

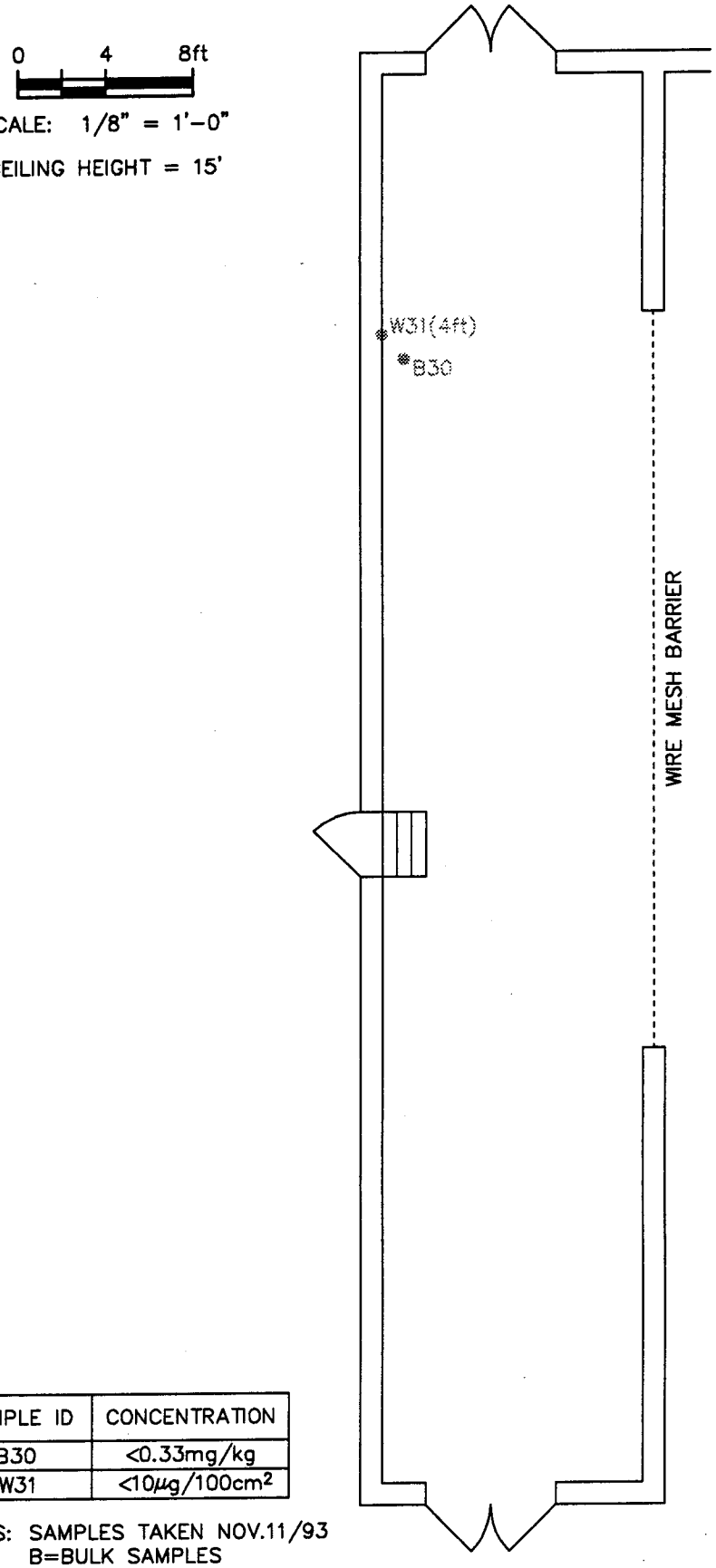
NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.12

SAMPLE LOCATIONS
TRANSFORMER ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P103)



SAMPLE ID	CONCENTRATION
B30	<0.33mg/kg
W31	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.13

SAMPLE LOCATIONS
HALLWAY 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

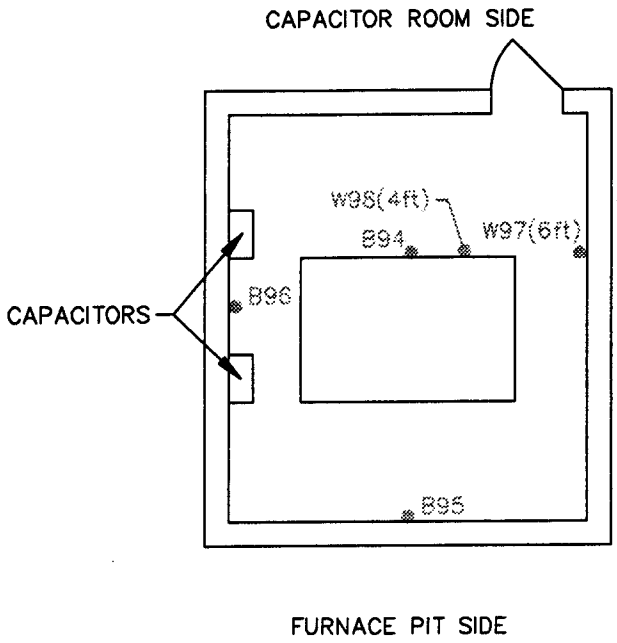
CRA

5579 (6) JAN 10/97(W) REV.0 (P104)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



SAMPLE ID	CONCENTRATION
B94	<0.36mg/kg
B95	<0.33mg/kg
B96	<0.56mg/kg
W97	<10μg/100cm^2
W98	<10μg/100cm^2

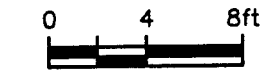
NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.14

SAMPLE LOCATIONS
HYDRAULIC ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

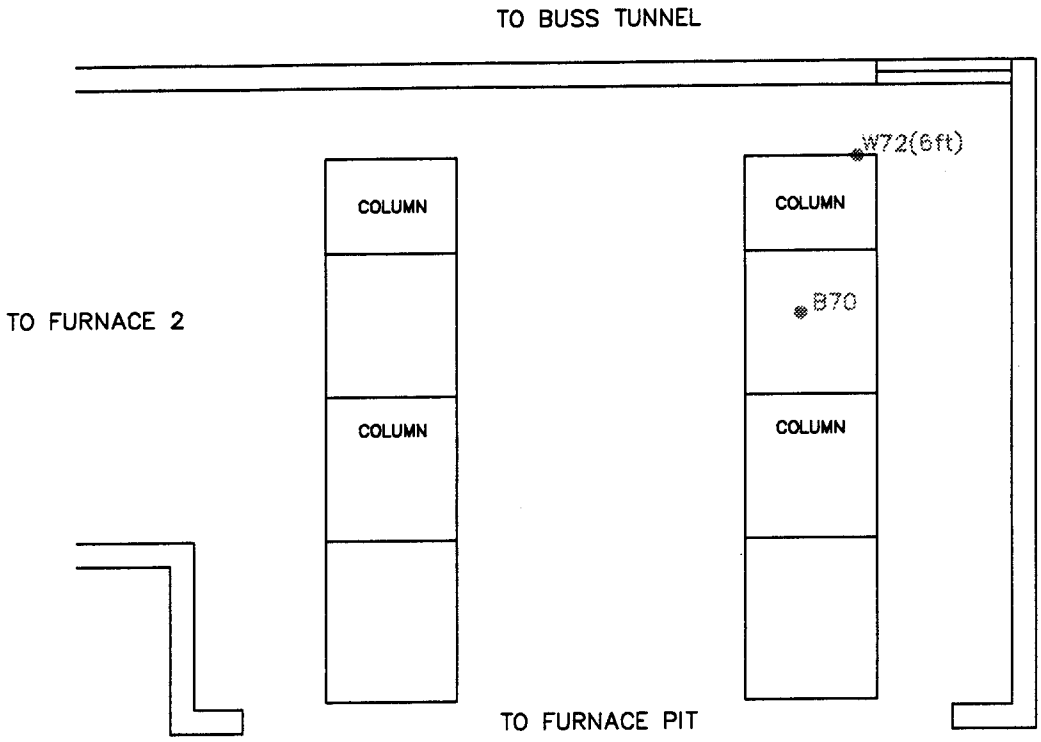
CRA

5579 (6) JAN 10/97(W) REV.0 (P106)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 12'



SAMPLE ID	CONCENTRATION
B70	<0.33mg/kg
W72	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.15

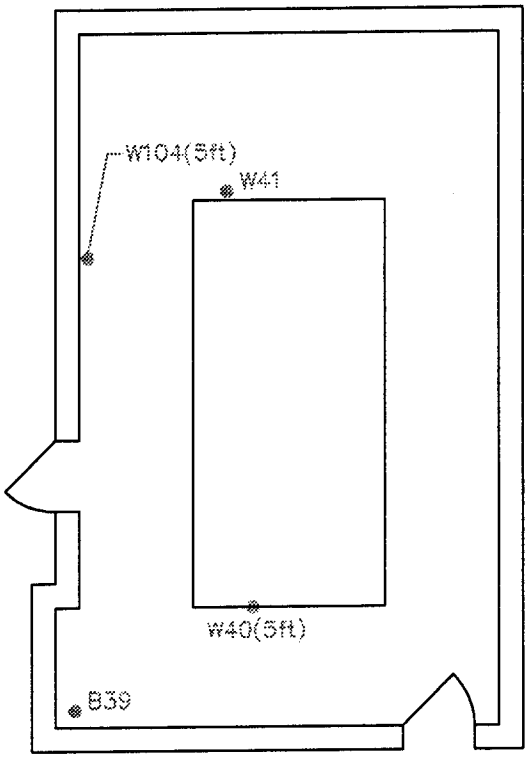
SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P105)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
B39	<0.33mg/kg
W40	<10μg/100cm²
W41	<10μg/100cm²
W104	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.16

SAMPLE LOCATIONS
CONTROL ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

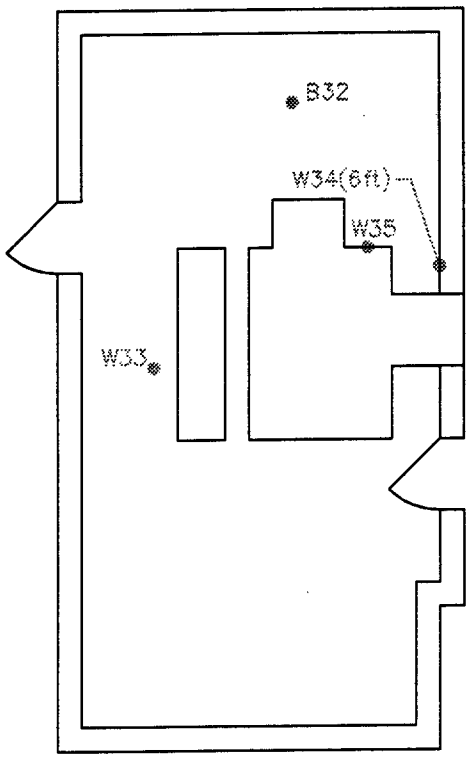
CRA

5579 (6) JAN 10/97(W) REV.0 (P107)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



SAMPLE ID	CONCENTRATION
B32	<0.33mg/kg
W33	<10μg/100cm²
W34	<10μg/100cm²
W35	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.17

SAMPLE LOCATIONS
TRANSFORMER ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

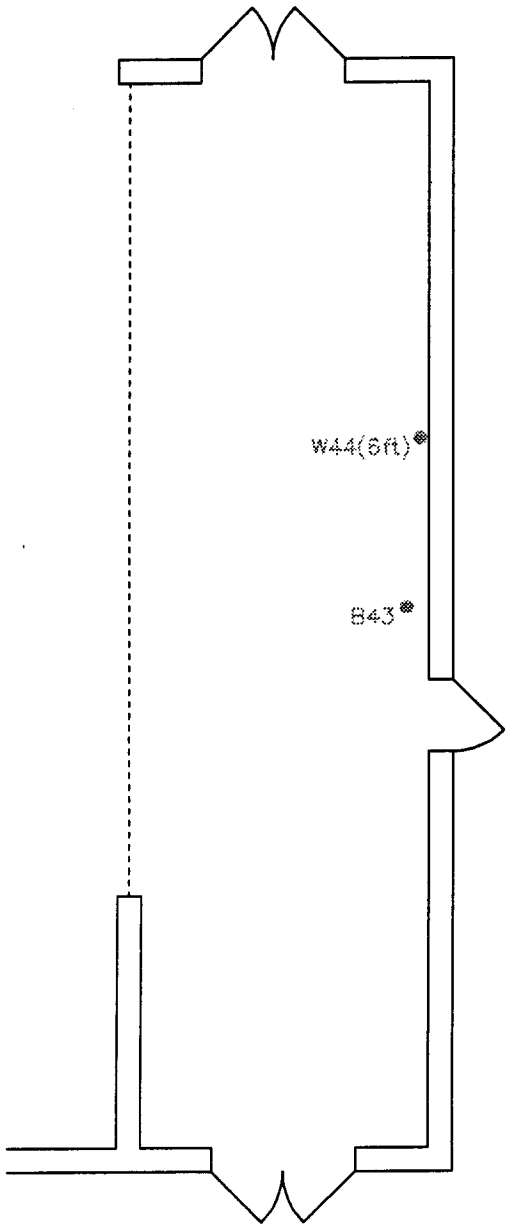
CRA

5579 (6) JAN 10/97(W) REV.0 (P108)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
W44	<10μg/100cm²
B43	<0.33mg/kg

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.18

SAMPLE LOCATIONS
HALLWAY 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

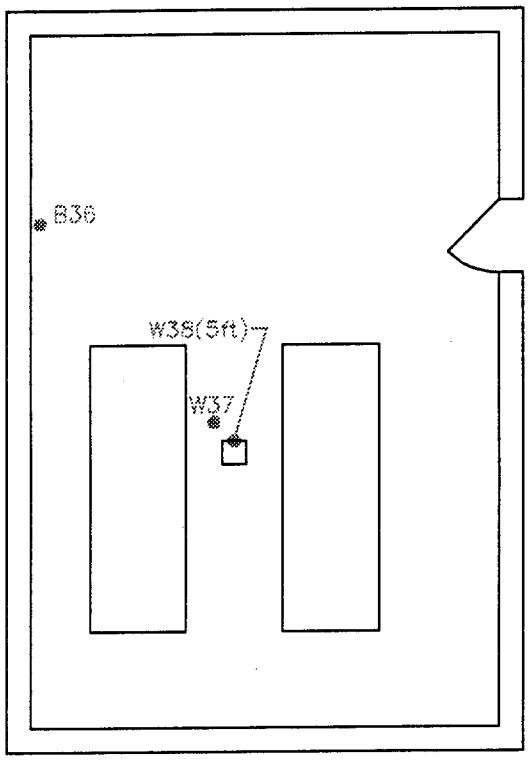
CRA

5579 (6) JAN 10/97(W) REV.0 (P110)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
B36	<0.33mg/kg
W37	<10μg/100cm²
W38	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.19

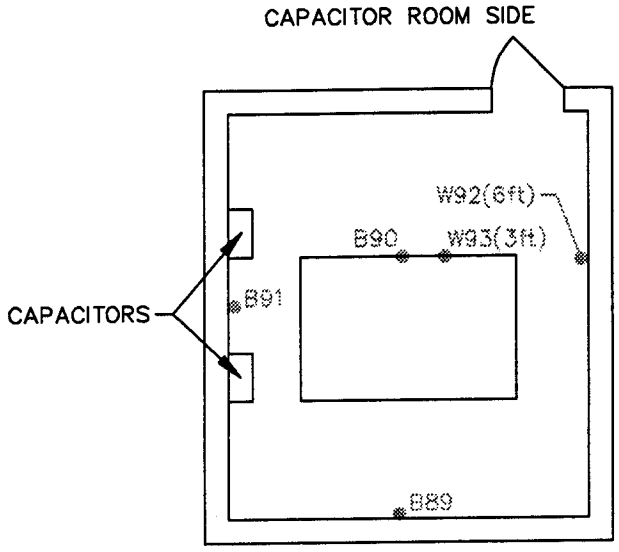
SAMPLE LOCATIONS
GENERATOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P109)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



SAMPLE ID	CONCENTRATION
B89	<0.33mg/kg
B90	<3.3mg/kg
B91	<0.89mg/kg
W92	<10μg/100cm^2
W93	<10μg/100cm^2

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.20

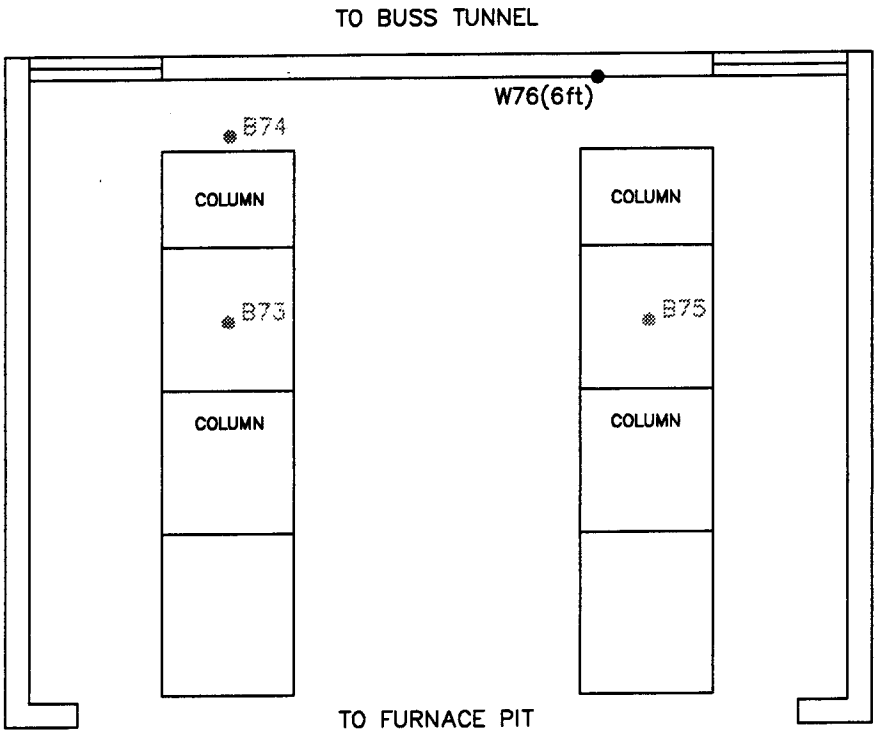
SAMPLE LOCATIONS
HYDRAULIC ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P112)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 12'



SAMPLE ID	CONCENTRATION
B73	<0.53mg/kg
B74	<0.33mg/kg
B75	<0.33mg/kg
W76	80μg/100cm^2

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.21

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

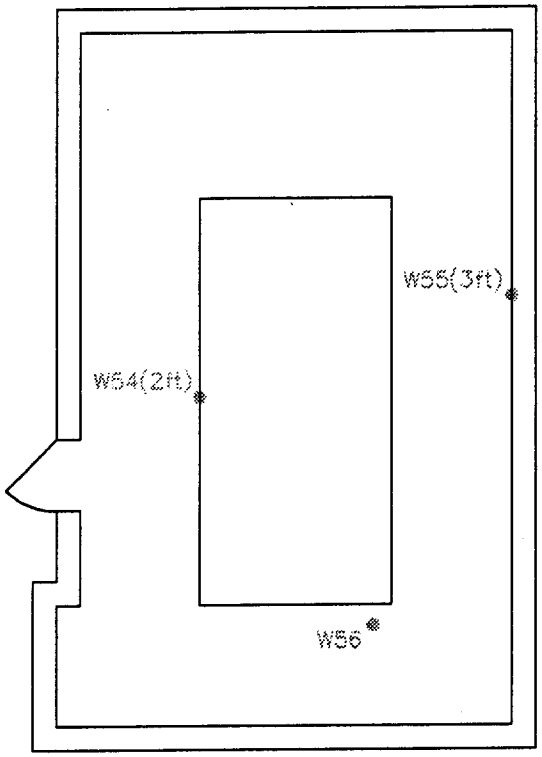
CRA

5579 (6) JAN 10/97(W) REV.0 (P111)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
W54	<10μg/100cm²
W55	<10μg/100cm²
W56	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
W=WIPE SAMPLES

figure 2.22

SAMPLE LOCATIONS
CONTROL ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

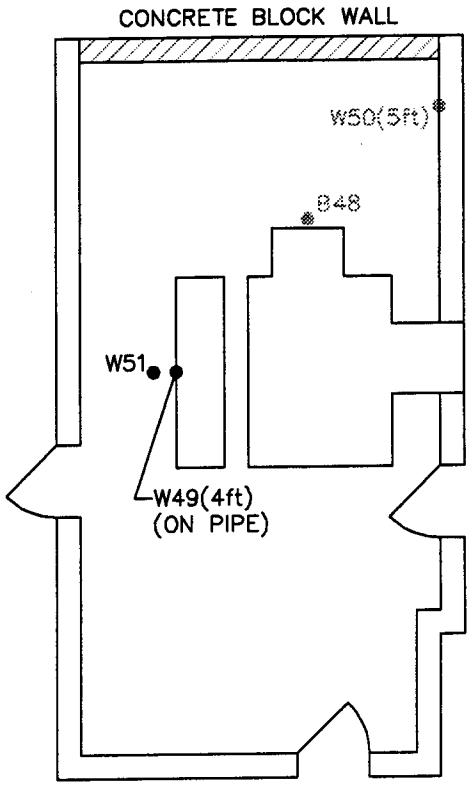
CRA

5579 (6) JAN 10/97(W) REV.0 (P113)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



SAMPLE ID	CONCENTRATION
B48	<0.33mg/kg
W49	840µg/100cm^2
W50	<10µg/100cm^2
W51	69µg/100cm^2

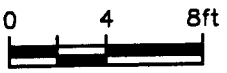
NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.23

SAMPLE LOCATIONS
TRANSFORMER ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

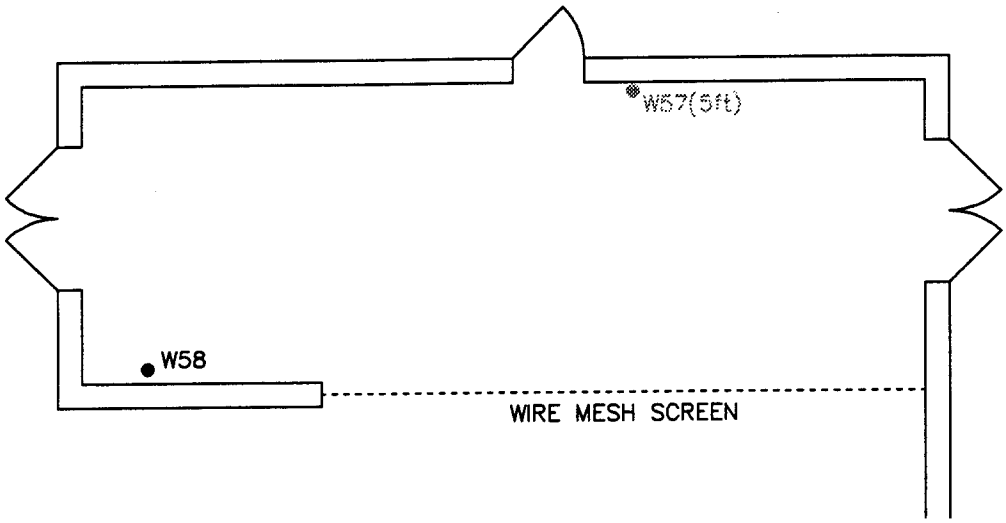
CRA

5579 (6) JAN 10/97(W) REV.0 (P114)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
W57	<10μg/100cm²
W58	13μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
W=WIPE SAMPLES

figure 2.24

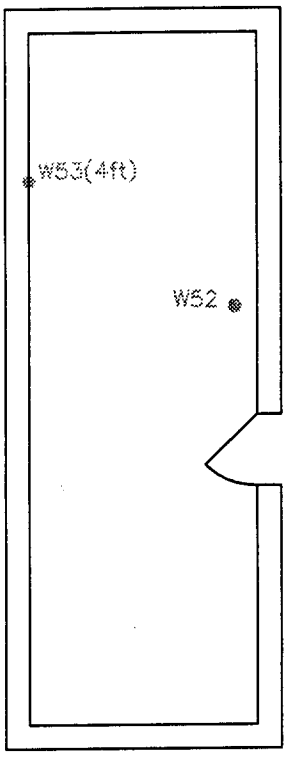
SAMPLE LOCATIONS
HALLWAY 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P116)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



SAMPLE ID	CONCENTRATION
W52	<10μg/100cm²
W53	<10μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
W=WIPE SAMPLES

figure 2.25

SAMPLE LOCATIONS
GENERATOR ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

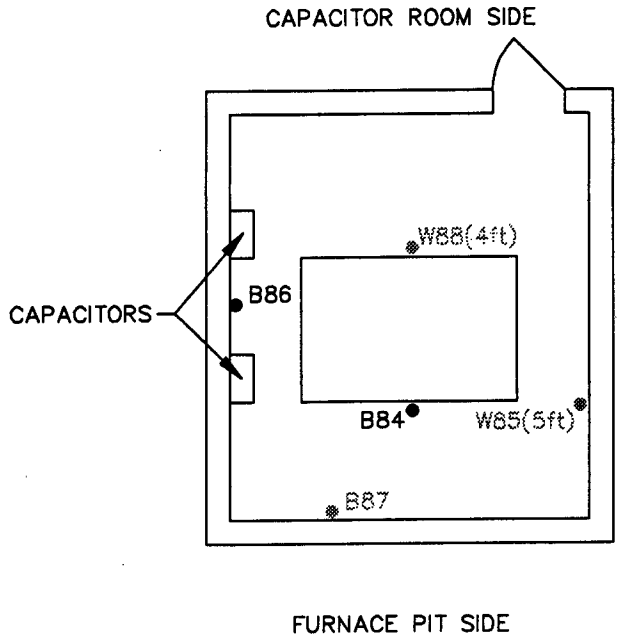
CRA

5579 (6) JAN 10/97(W) REV.0 (P115)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



SAMPLE ID	CONCENTRATION
B84*	1.6mg/kg
W85	<10μg/100cm²
B86*	1.4mg/kg
B87	<0.36mg/kg
W88	<10μg/100cm²

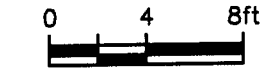
NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES
* = AROCLOR 1254

figure 2.26

SAMPLE LOCATIONS
HYDRAULIC ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

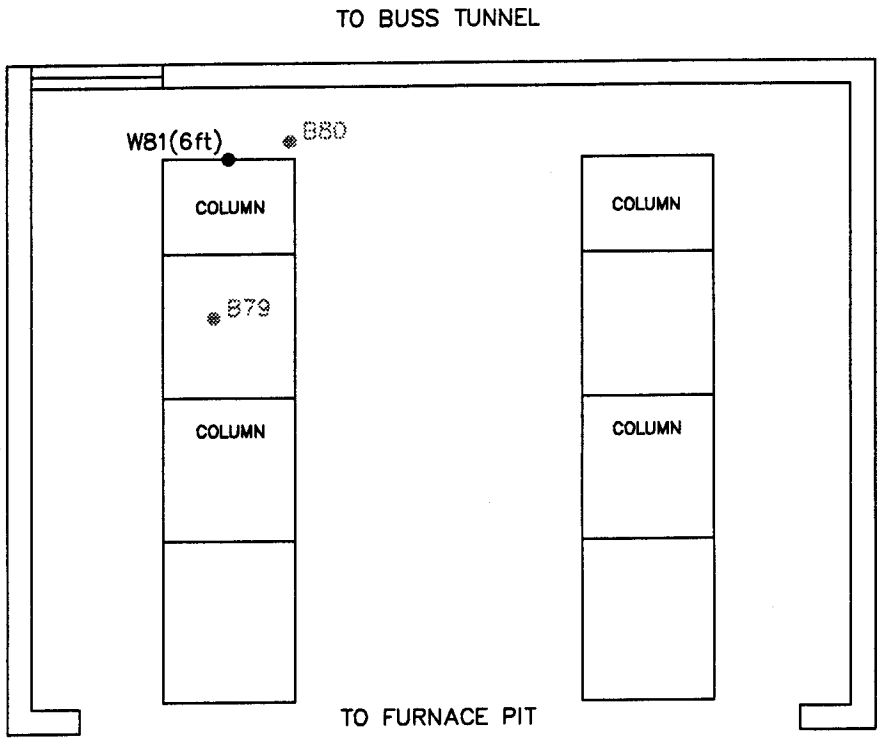
CRA

5579 (6) MAR 13/97(W) REV.0 (P118)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 12'



SAMPLE ID	CONCENTRATION
B79	<0.5mg/kg
B80	<0.33mg/kg
W81	26μg/100cm²

NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES

figure 2.27

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

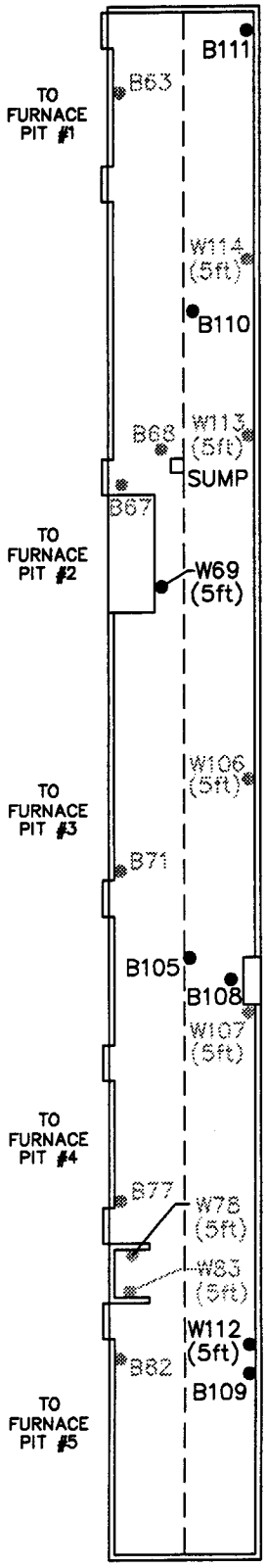
CRA

5579 (6) JAN 10/97(W) REV.0 (P117)

0 16 32ft

SCALE: 1/8" = 4'-0"

METAL CEILING HEIGHT = 7'
CONCRETE CEILING HEIGHT = 14'



SAMPLE ID	CONCENTRATION
B63	<0.33mg/kg
B67	<0.33mg/kg
B68	<0.33mg/kg
W69	31μg/100cm^2
B71	<0.33mg/kg
B77	<0.43mg/kg
W78	<10μg/100cm^2
B82	<0.33mg/kg
W83	<10μg/100cm^2
B105	190mg/kg
W106	<10μg/100cm^2
W107	<10μg/100cm^2
B108	36mg/kg
B109	510mg/kg
B110	330mg/kg
B111	570mg/kg
W112	19μg/100cm^2
W113	<10μg/100cm^2
W114	<10μg/100cm^2

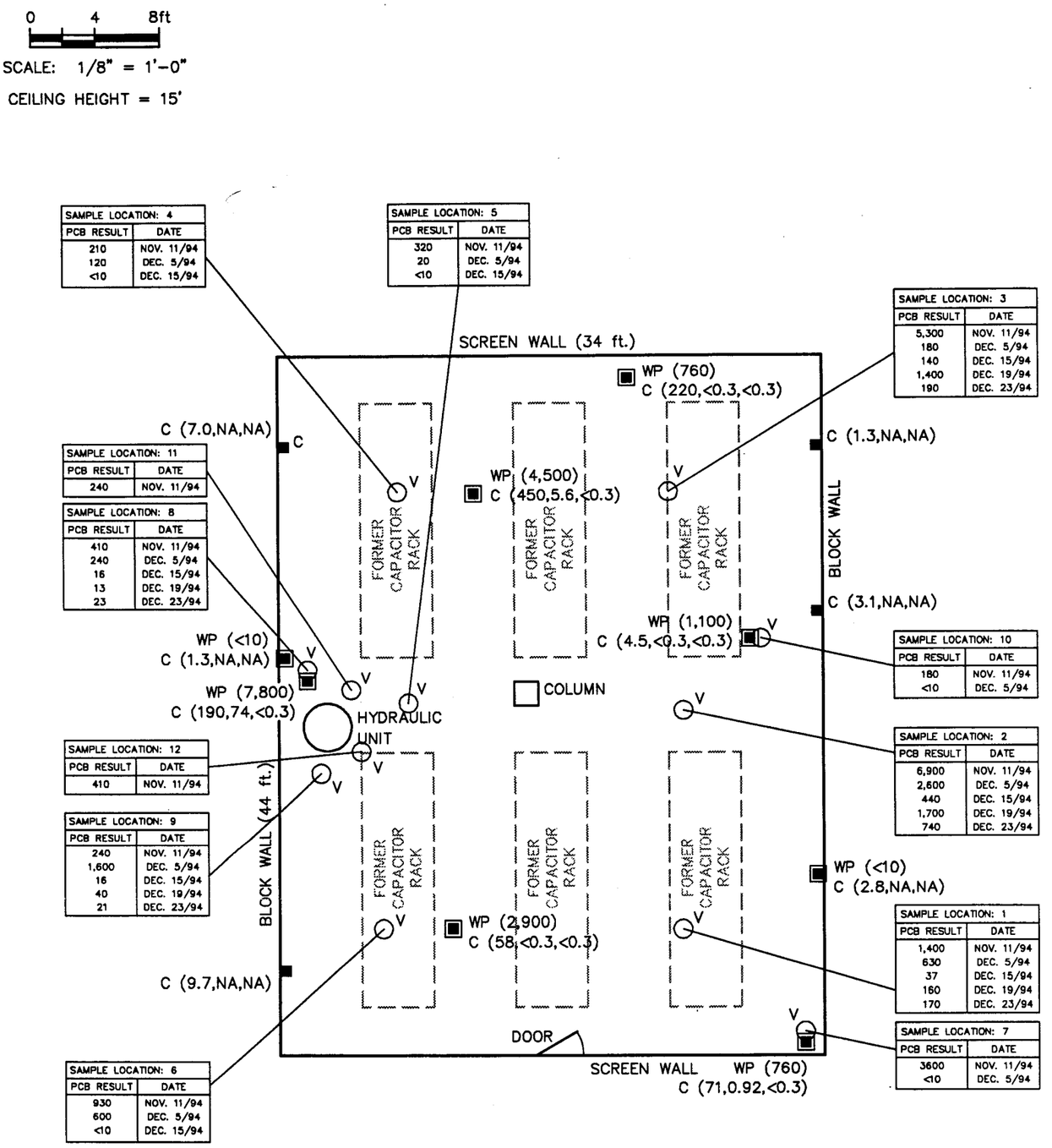
NOTES: SAMPLES TAKEN NOV.11/93
B=BULK SAMPLES
W=WIPE SAMPLES
VALUES FROM CORE SAMPLES ARE AROCLOR 1242

figure 2.28

SAMPLE LOCATIONS
BUSS TUNNEL
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P119)



LEGEND

- WP — WIPE SAMPLE – MAR. 23, 1994 (PCB RESULTS – ug/100cm²)
- C — CORE SAMPLES – MAR. 23, 1994 (PCB RESULTS – mg/kg – 0–½", ½"–5", 5"–10")
- V — VERIFICATION WIPE SAMPLE (PCB RESULTS – ug/100cm²)

figure 3.1

SAMPLE LOCATIONS AND ANALYTICAL RESULTS
FOR CAPACITOR ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P120)

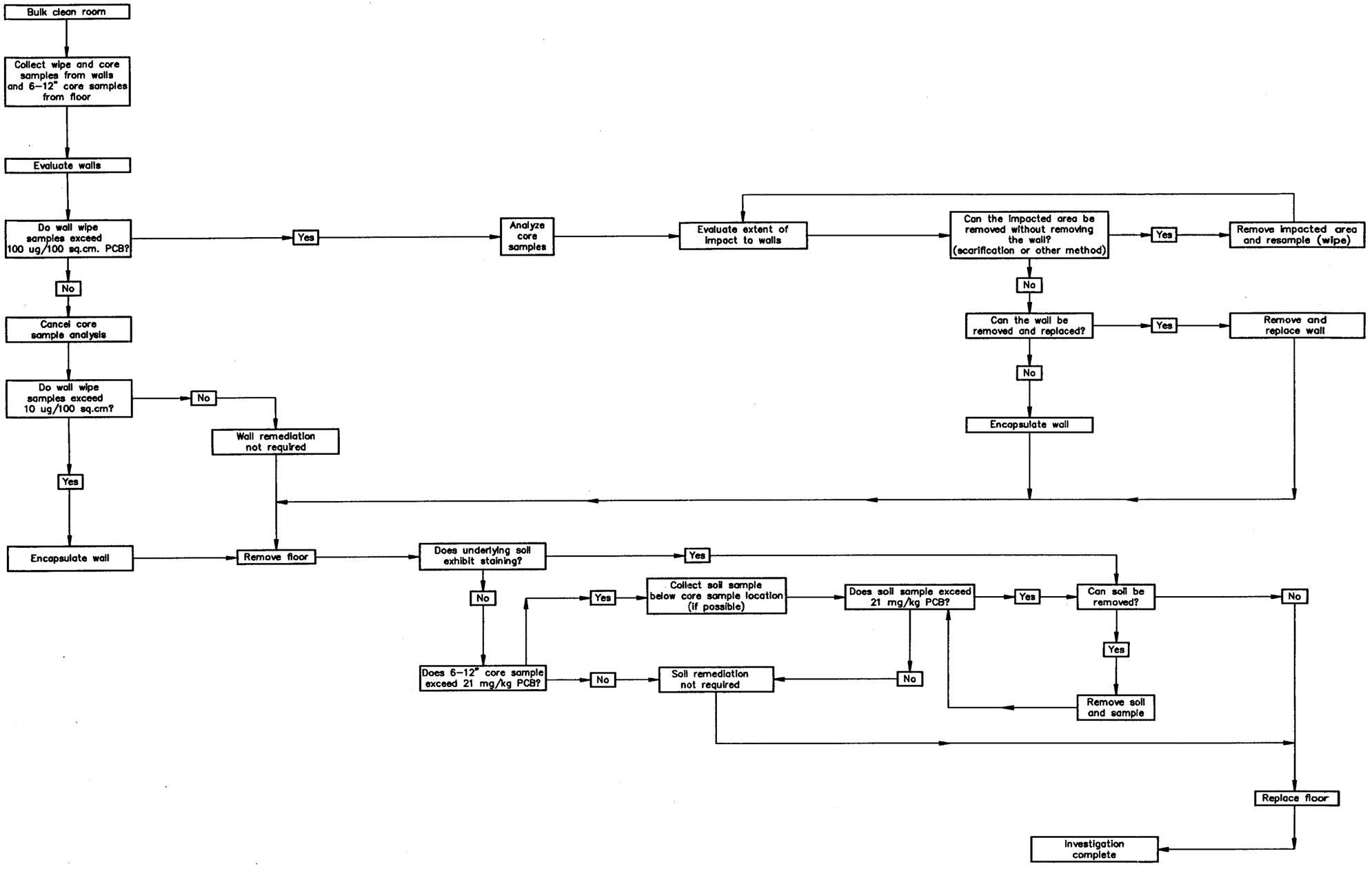
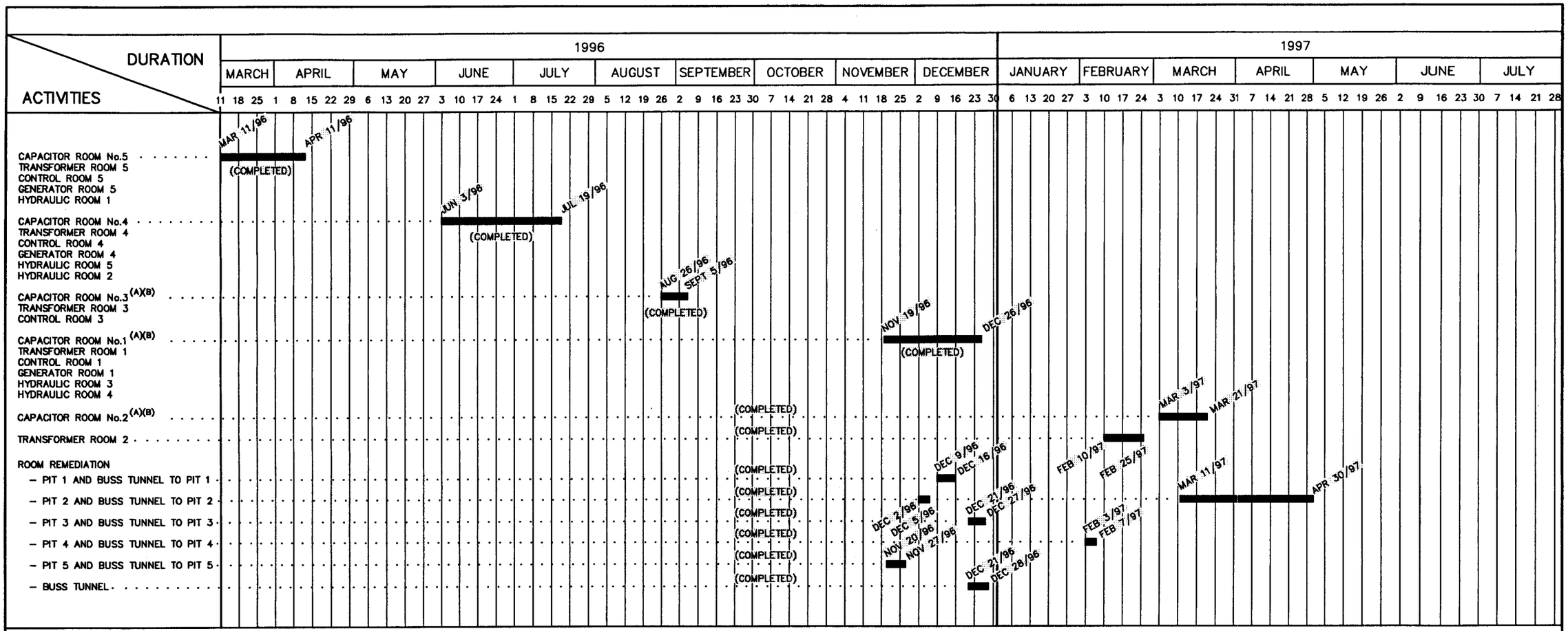


figure 4.1

REMEDIATION ACTIVITY FLOW CHART – CAPACITOR ROOMS
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (C–04)



LEGEND

CONTINUOUS ACTIVITY
CONSISTING OF THE FOLLOWING TASKS:

- ROOM CLEANING
- CONCRETE REHABILITATION/REPLACEMENT
- SAMPLING AND ANALYSIS

NOTES:
(A) FLOOR WILL BE REMOVED AND REPLACED.
(B) ORDER OF WORK WILL DEPEND ON GM PLANT PRODUCTION SCHEDULE.
(C) ROOMS ASSOCIATED WITH A FURNACE (TRANSFORMER, CONTROL, GENERATOR, HYDRAULIC) MUST BE COMPLETED WITH ASSOCIATED CAPACITOR ROOM.

figure 4.2

PROJECT SCHEDULE
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) APR 11/97(W) REV.0 (S-07)

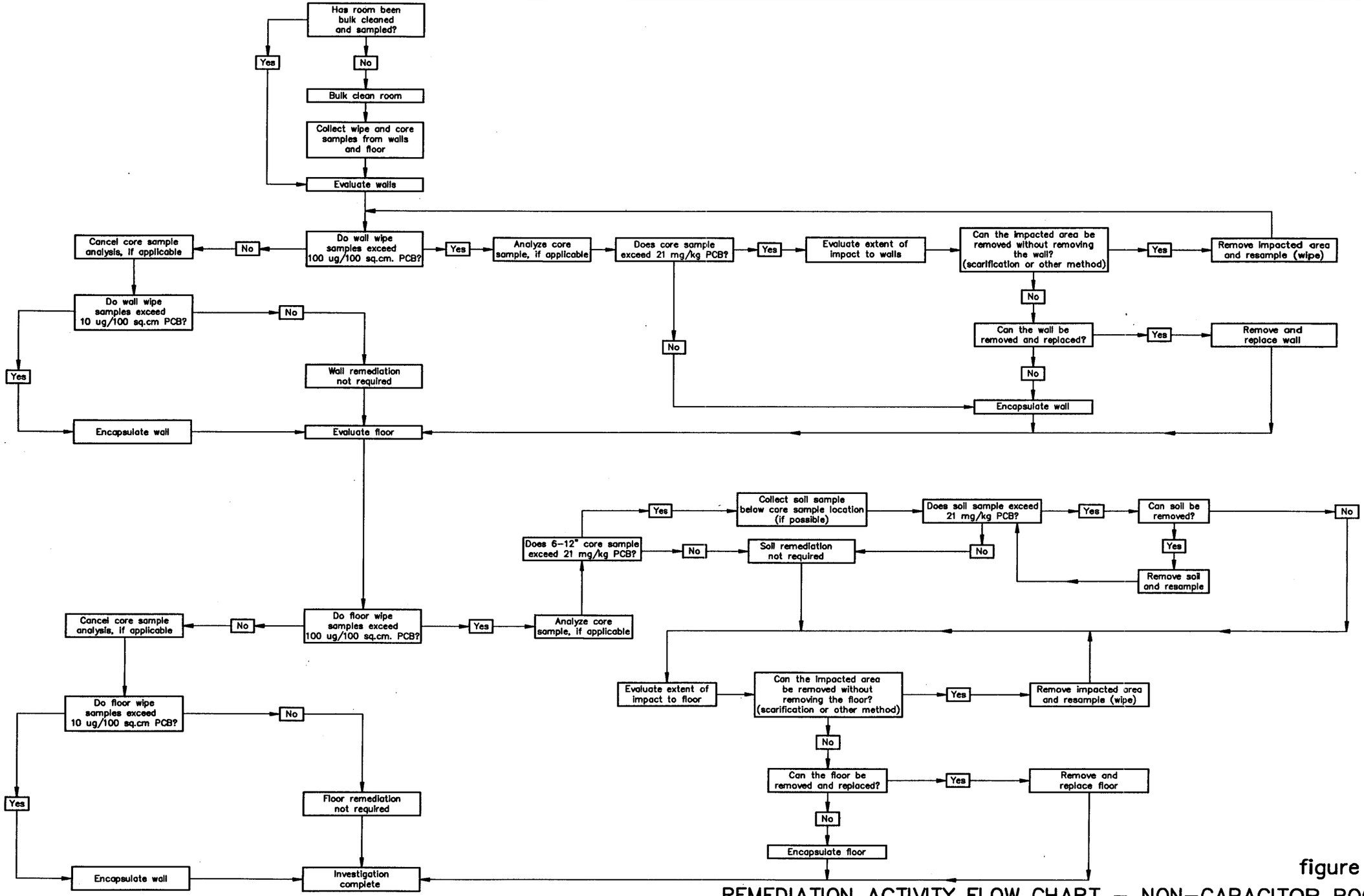
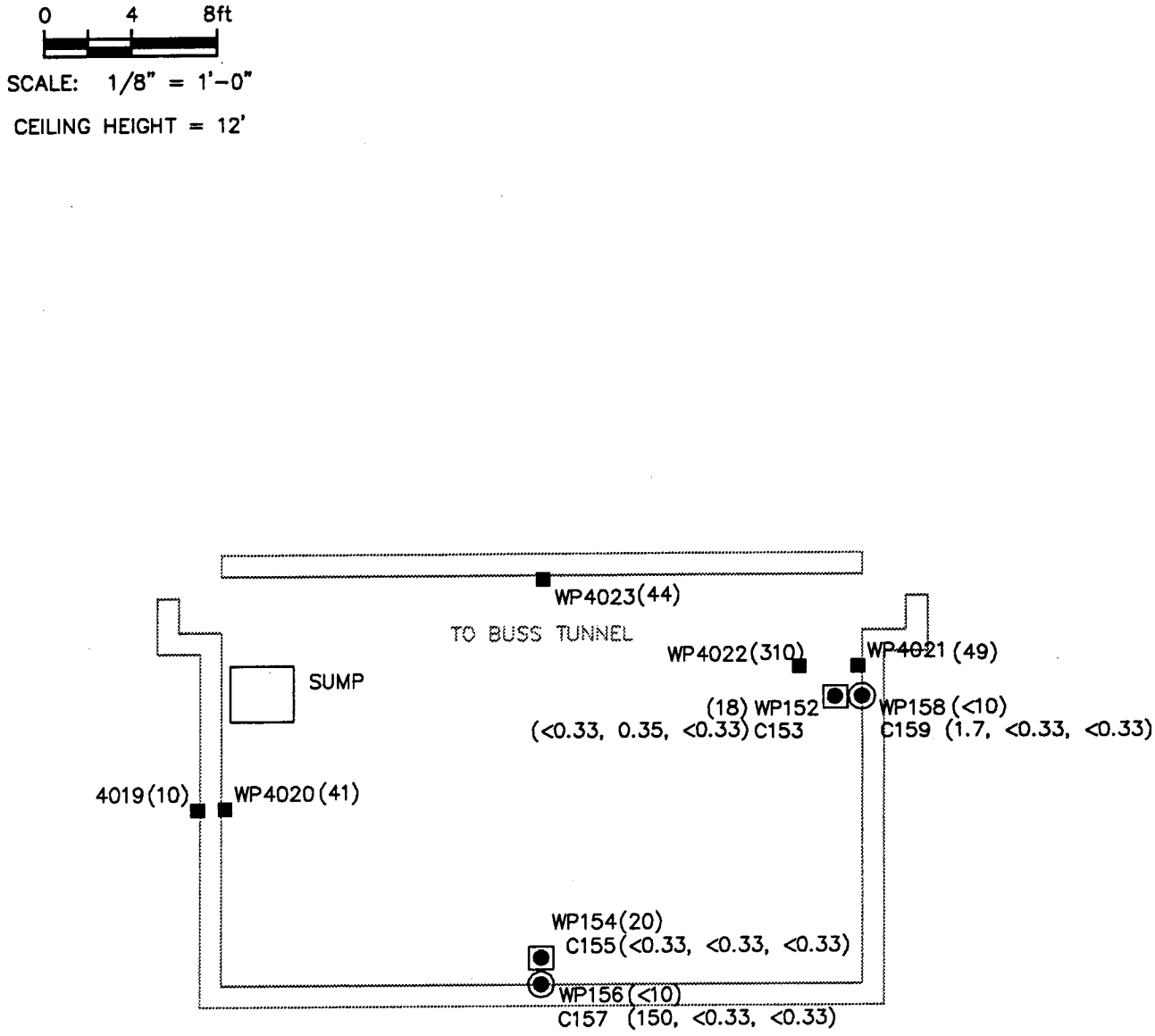


figure 4.3

REMEDIATION ACTIVITY FLOW CHART – NON-CAPACITOR ROOMS
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (C-05)



LEGEND

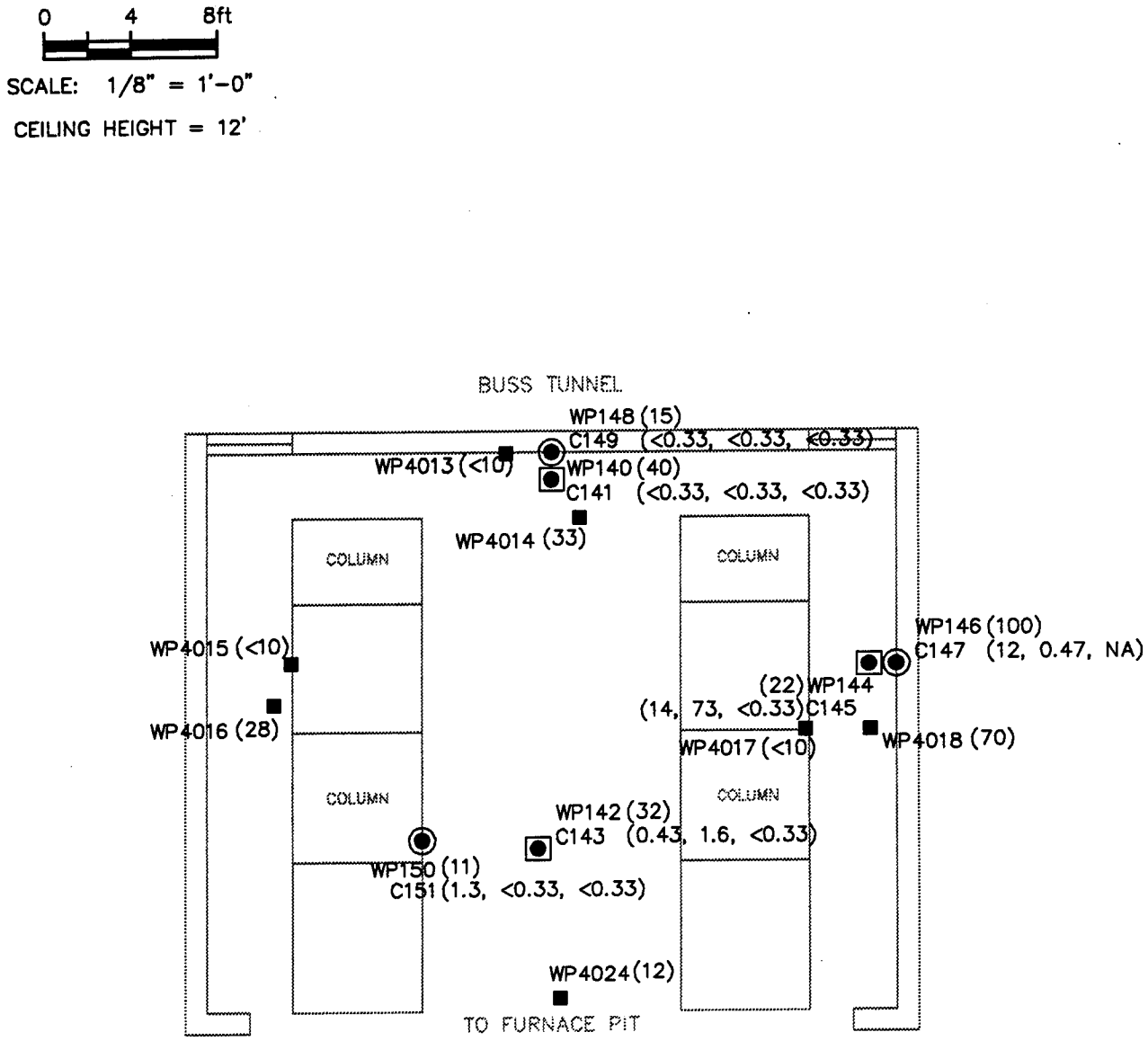
- WP4020 WIPE SAMPLES (PCB RESULTS–μg/100cm^2, DECEMBER 16/96)
- WP140 WIPE SAMPLES (PCB RESULTS– g/100cm^2, JULY 8/94, JULY 9/94)
- C157 WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 9/94)
- C155 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg BRICK, BRICK–1/2", 1/2"–10", JULY 8/94)

figure 5.1

SAMPLE LOCATIONS
PIT 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P121)



LEGEND

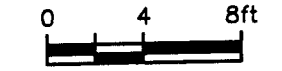
■ WP4024	WIPE SAMPLES (PCB RESULTS–μg/100cm^2, DECEMBER 16/96)
● WP140	WIPE SAMPLES (PCB RESULTS–μg/100cm^2, JULY 9/94)
○ C193	WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 8/94)
□ C195	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 8/94)
NA	NOT AVAILABLE

figure 5.2

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

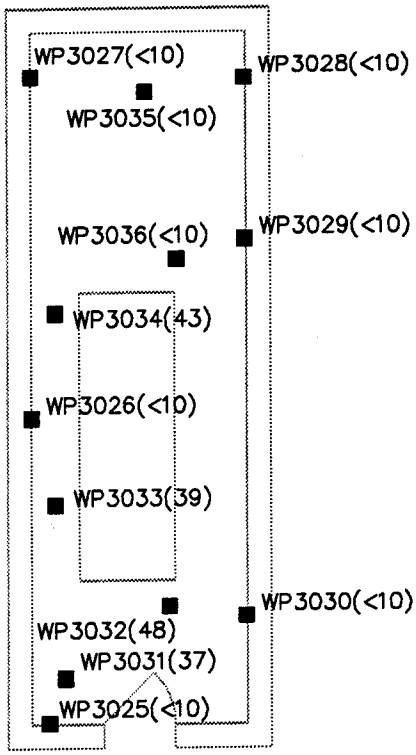
CRA

5579 (6) MAR 13/97(W) REV.0 (P122)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



LEGEND

■ WP3025 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

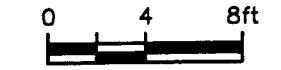
NOTES: SAMPLES TAKEN NOVEMBER 26/96

figure 5.3

SAMPLE LOCATIONS
GENERATOR ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

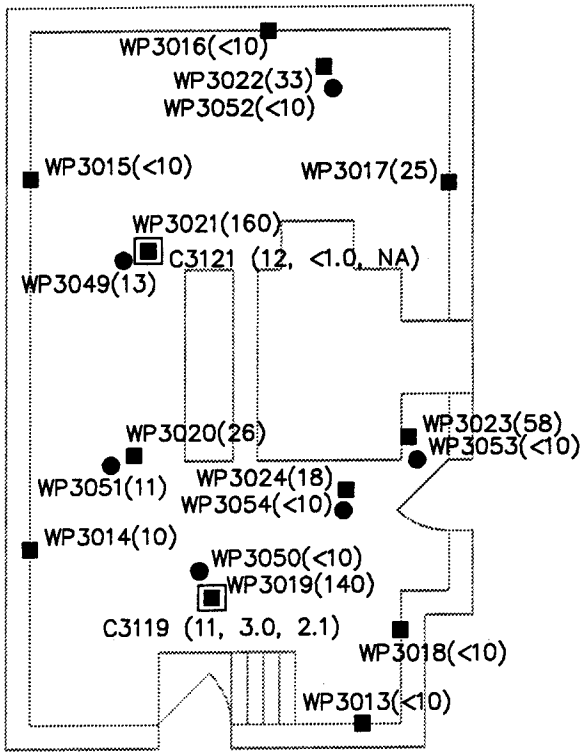
CRA

5579 (6) JAN 10/97(W) REV.0 (P150)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



LEGEND

■ WP3017	WIPE SAMPLES (PCB RESULTS– $\mu g/100cm^2$, NOVEMBER 26/96)
□ C3119	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", NOVEMBER 26/96)
● WP3050	VERIFICATION WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$, DECEMBER 26/96)
NA	NOT AVAILABLE

figure 5.4

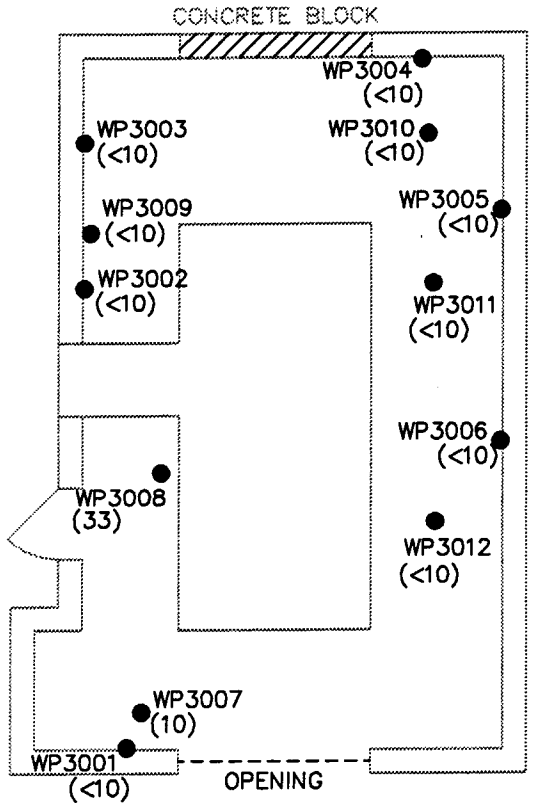
SAMPLE LOCATIONS
TRANSFORMER ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P151)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



LEGEND

● WP3001 WIPE SAMPLES (PCB RESULTS-$\mu g/100cm^2$)

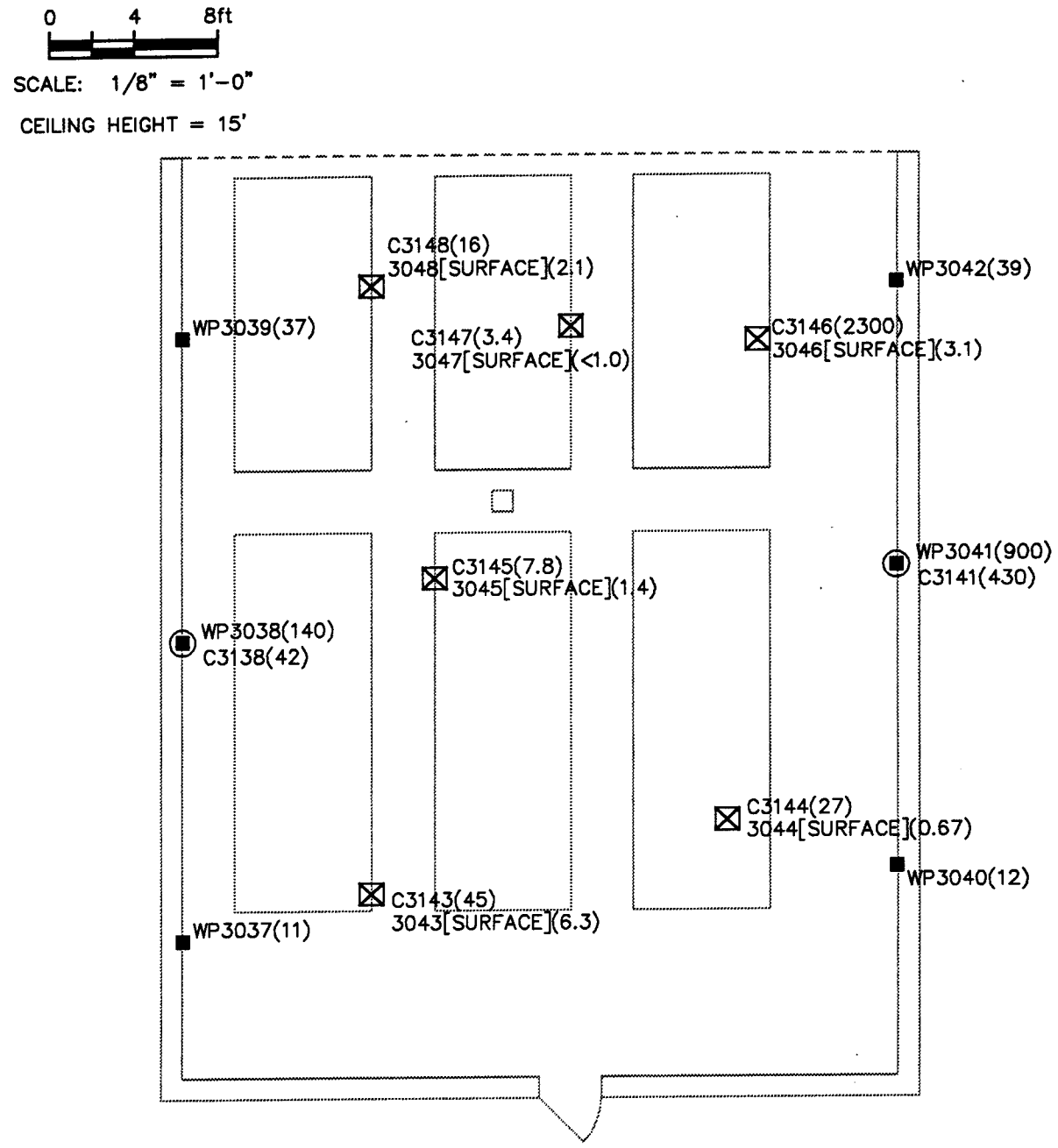
NOTE: SAMPLES TAKEN NOV.26/96

figure 5.5

SAMPLE LOCATIONS
CONTROL ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P149)



LEGEND

- ■ WP3037 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
- ◯ C3138 WALL CORE SAMPLES (PCB RESULTS–mg/kg 0"–1/2")
- □ C3143 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 5"–10")
- ✕ 3043 SOIL SAMPLES [DEPTH OF SAMPLE] (PCB RESULTS–mg/kg)

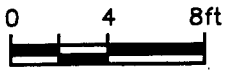
NOTES: SAMPLES TAKEN NOVEMBER 27/96

figure 5.6

SAMPLE LOCATIONS
CAPACITOR ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

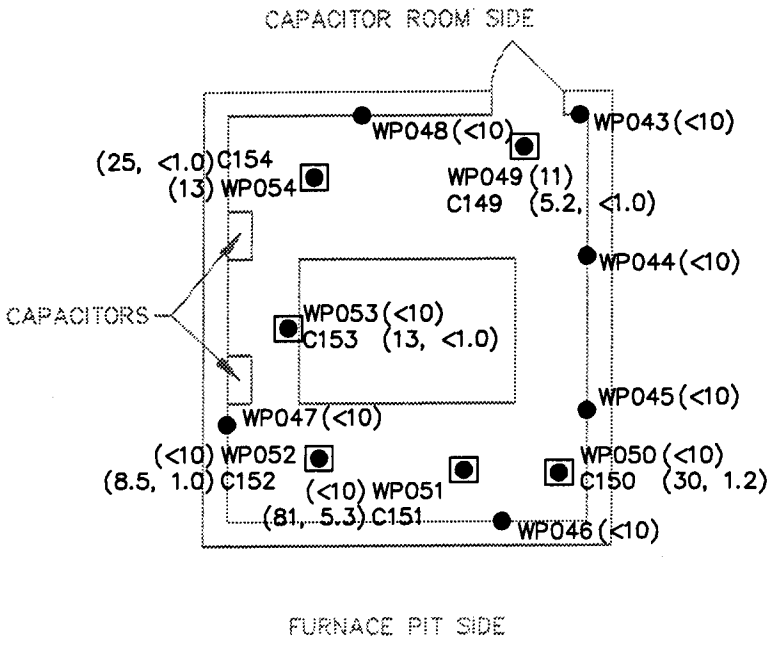
CRA

5579 (6) MAR 13/97(W) REV.0 (P152)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



LEGEND

- ● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
- □ C195 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–3")

NOTES: SAMPLES TAKEN MAR 18/96

figure 5.7

SAMPLE LOCATIONS
HYDRAULIC ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

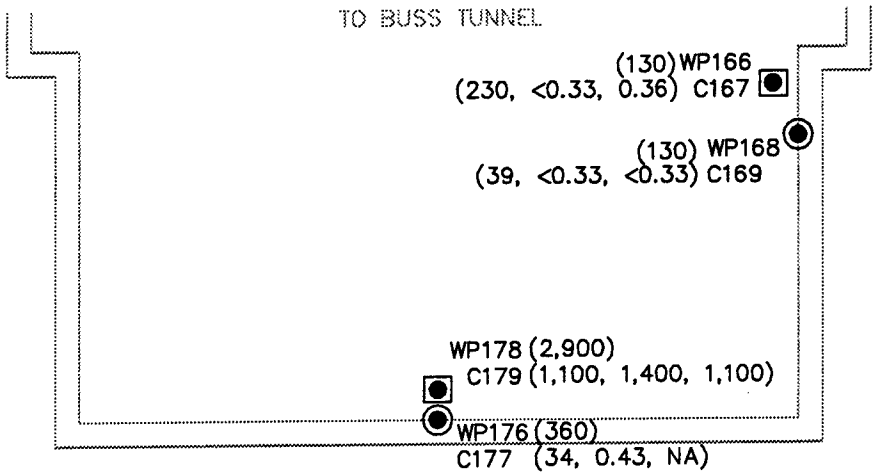
CRA

5579 (6) JAN 10/97(W) REV.0 (P138)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 18'



LEGEND

● WP140	WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
○ C177	WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")
□ C179	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg BRICK, BRICK–1/2", 1/2"–10")
NA	NOT AVAILABLE

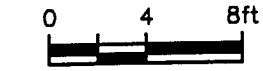
NOTES: SAMPLES TAKEN JULY 9/94

figure 6.1

SAMPLE LOCATIONS
PIT 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

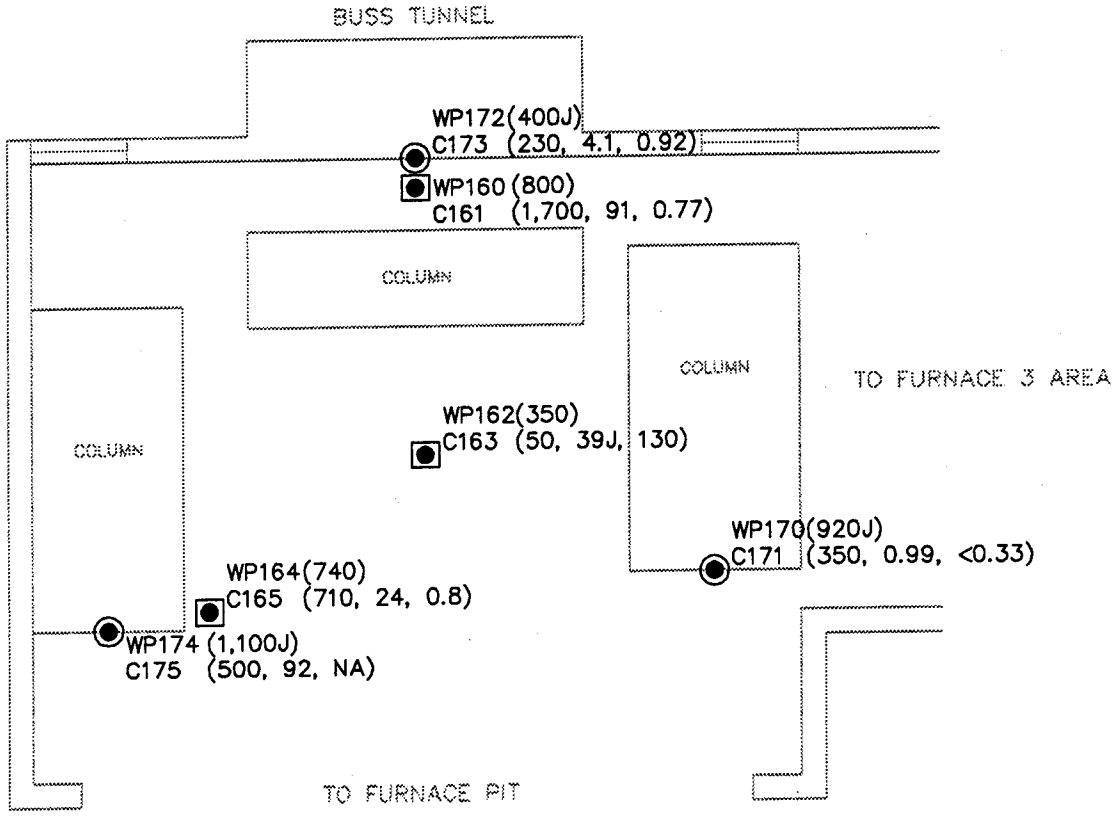
CRA

5579 (6) JAN 10/97(W) REV.0 (P123)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 18'



LEGEND

● WP140	WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
○ C193	WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")
□ C195	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")
NA	NOT AVAILABLE
J	ESTIMATED VALUE

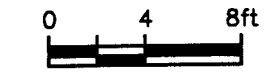
NOTES: SAMPLES TAKEN JULY 9/94

figure 6.2

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

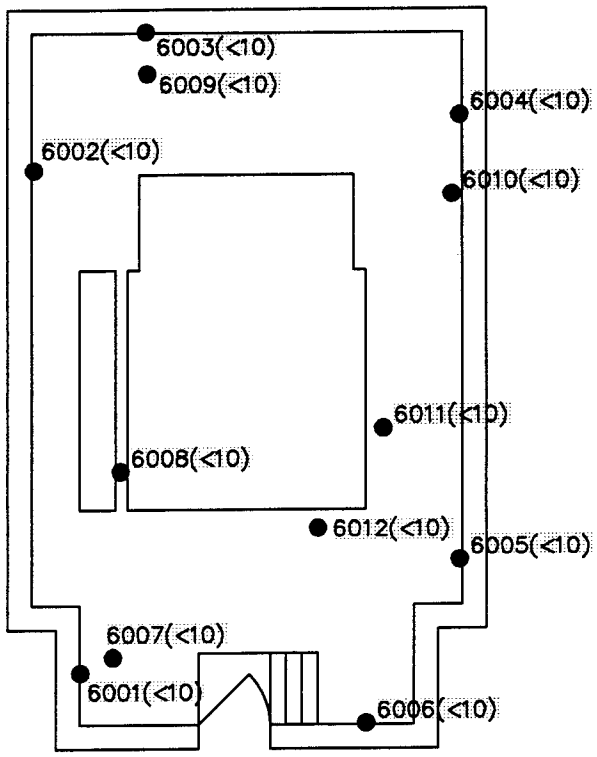
CRA

5579 (6) JAN 10/97(W) REV.0 (P124)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



LEGEND

●6001 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$, JULY 9/94)

NOTES: SAMPLES TAKEN FEB. 25/97

figure 6.3

SAMPLE LOCATIONS
TRANSFORMER ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

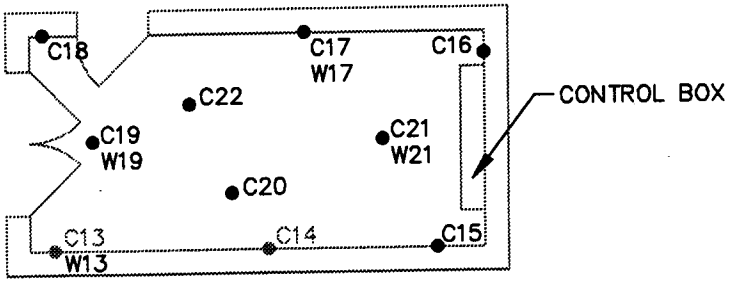
CRA

5579 (6) MAR 13/97(W) REV.0 (P155)

0 4 8ft

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



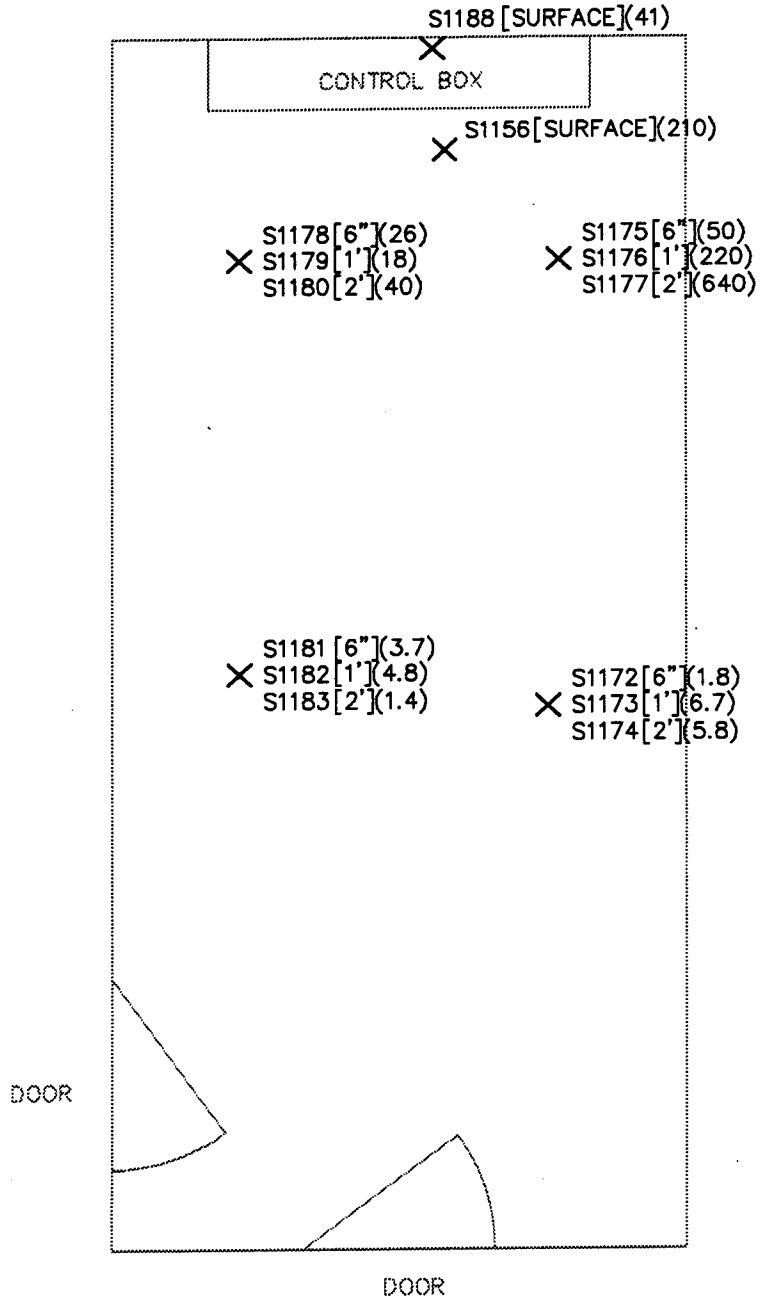
SAMPLE ID	CONCENTRATION
W13	<10μg/100cm²
C13	<0.33mg/kg(0–1/2")
C14	<0.33mg/kg(0–1/2")
C15	1.0mg/kg (0–1/2")
C16	0.5mg/kg (0–1/2")
W17	13μg/100cm²
C17	<0.33mg/kg(0–1/2")
C18	2.6mg/kg (0–1/2")
W19	950μg/100cm²
C19	100,<0.33,<0.33mg/kg (0–1/2", 1/2"–5", 5–10)
C20	630,310,85mg/kg (0–1/2", 1/2"–5", 5–10")
W21	490μg/100cm²
C21	150,<0.33,<0.33mg/kg (0–1/2", 1/2"–5", 5–10")
C22	160,350,<0.3mg/kg (0–1/2", 1/2"–5", 5–10")

NOTES: SAMPLES TAKEN MARCH 23/94
W=WIPE
C=CORE
(VALUES FROM CORE SAMPLES ARE AROCLOR 1242)

figure 6.4

SAMPLE LOCATIONS
HYDRAULIC ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA



LEGEND

× SOIL SAMPLES [DEPTH OF SAMPLE] (PCB RESULTS–mg/kg)

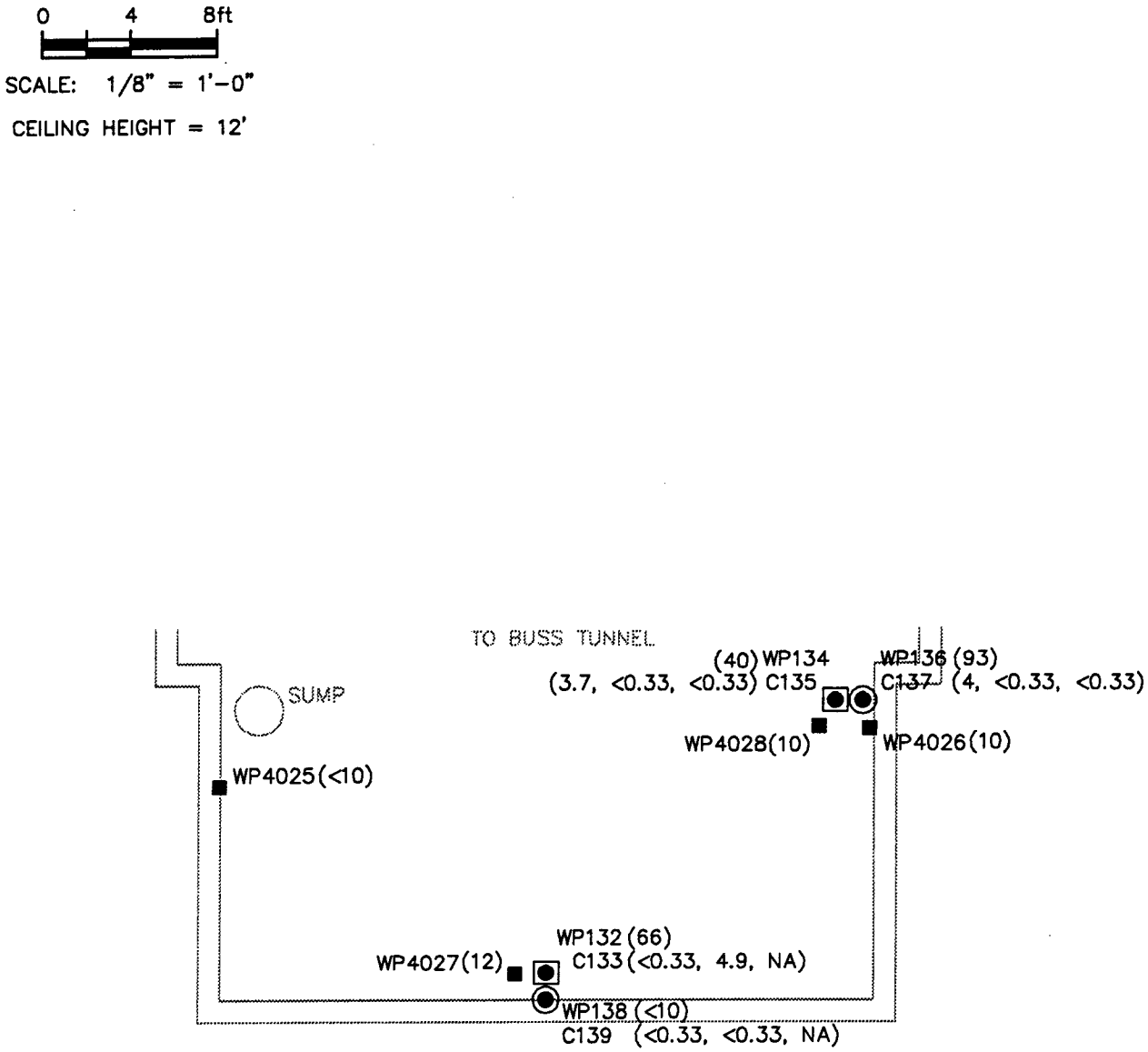
NOTES: SAMPLES TAKEN JUNE 7/96, JUNE 20/96 AND JULY 15/96

figure 6.5

SOIL SAMPLE LOCATIONS
HYDRAULIC ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P147)



LEGEND

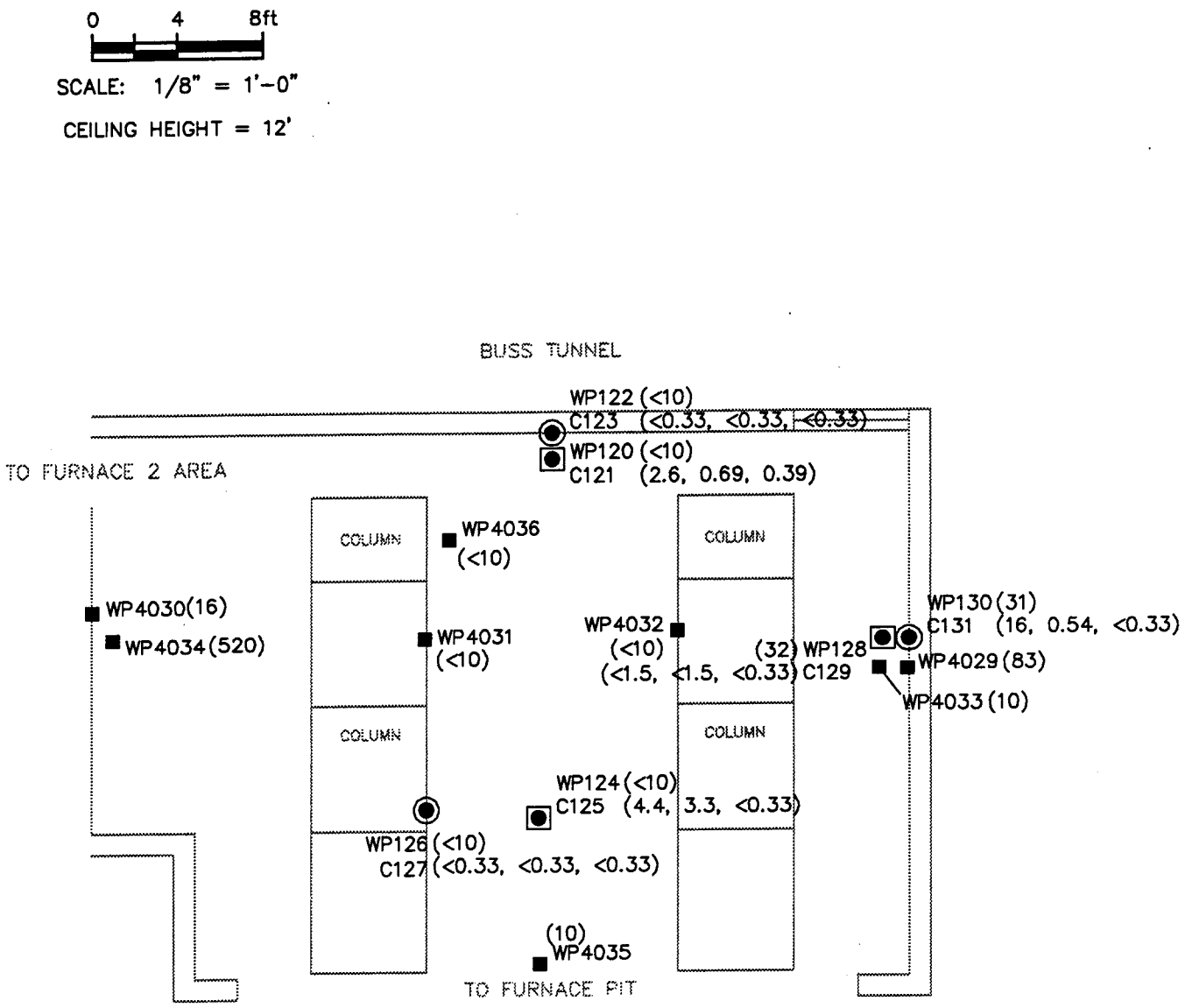
- ■ WP4027 WIPE SAMPLES (PCB RESULTS–μg/100cm^2, DECEMBER 27/96)
- ● WP132 WIPE SAMPLES (PCB RESULTS–μg/100cm^2, JULY 8/94)
- ◯ C139 WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 8/94)
- □ C133 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg BRICK, BRICK–1/2", 1/2"–10", JULY 8/94)
- NA NOT AVAILABLE

figure 7.1

SAMPLE LOCATIONS
PIT 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 15/97(W) REV.0 (P125)



LEGEND

- WP4035 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$, DECEMBER 27/96)
- WP126 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$, JULY 8/94)
- C193 WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 8/94)
- C195 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 8/94)

figure 7.2

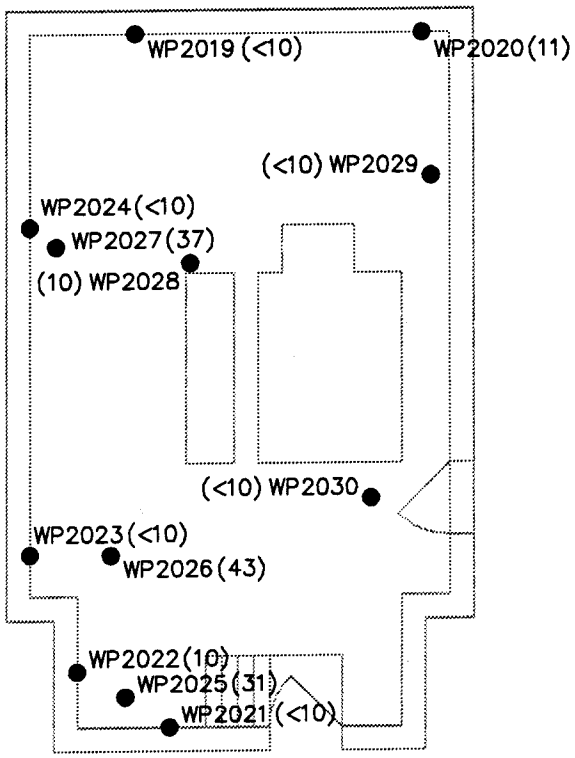
SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P126)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

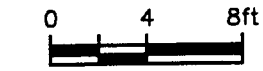
NOTES: SAMPLES TAKEN SEPT 4/96

figure 7.3

SAMPLE LOCATIONS
TRANSFORMER ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

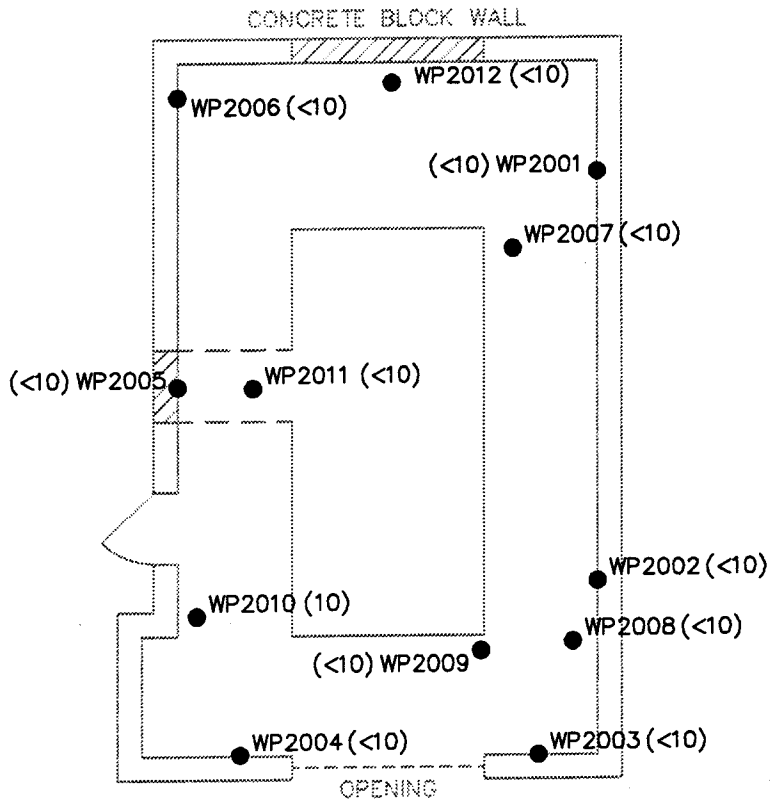
CRA

5579 (6) JAN 10/97(W) REV.0 (P139)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

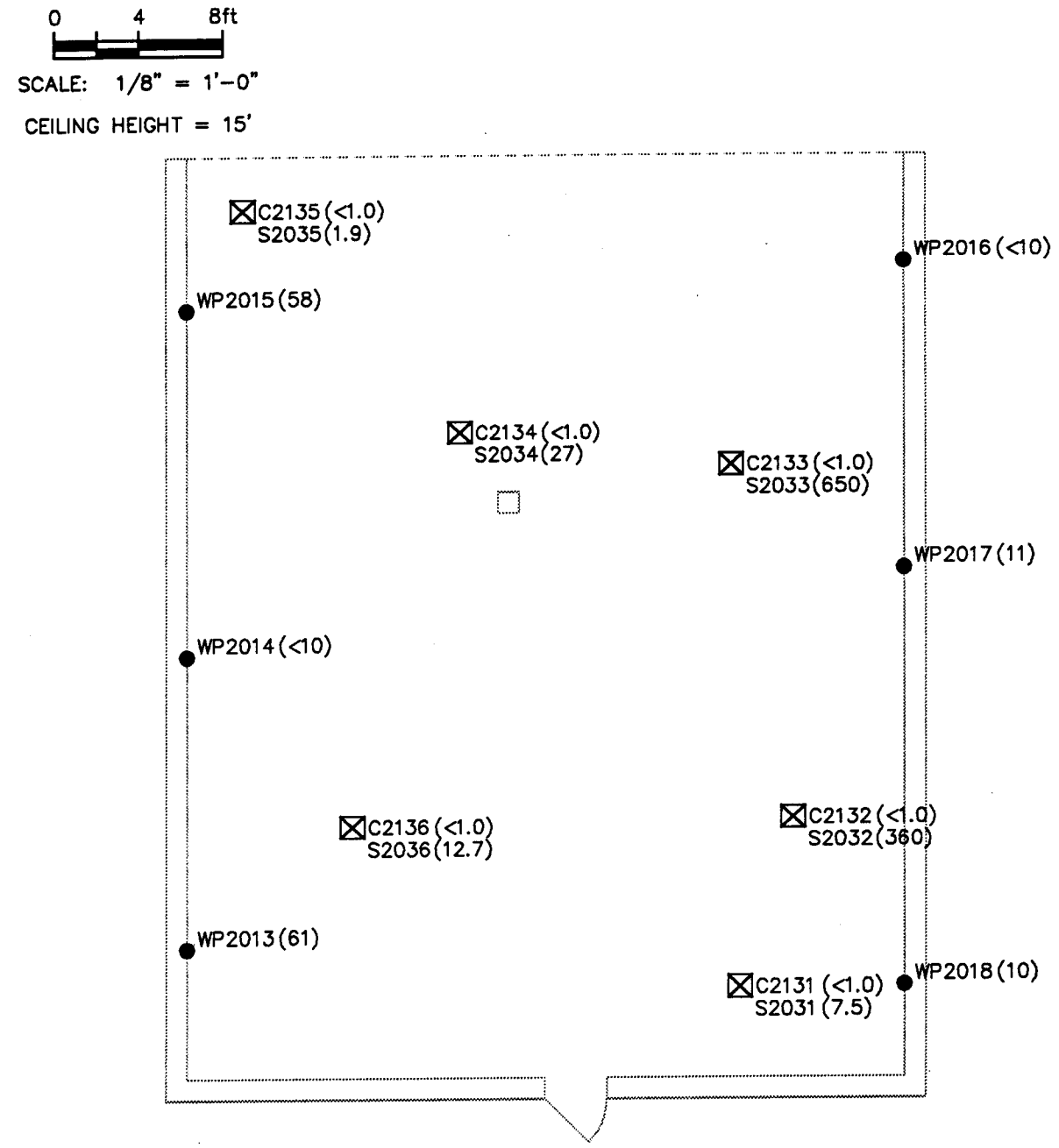
NOTES: SAMPLES TAKEN SEPT 4/96

figure 7.4

SAMPLE LOCATIONS
CONTROL ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P140)



LEGEND

- ● WP140 WIPE SAMPLES (PCB RESULTS–μg/100cm^2)
- □ C195 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg BRICK, 5"–10")
- × SOIL SAMPLES (PCB RESULTS–ug/100cm^2)

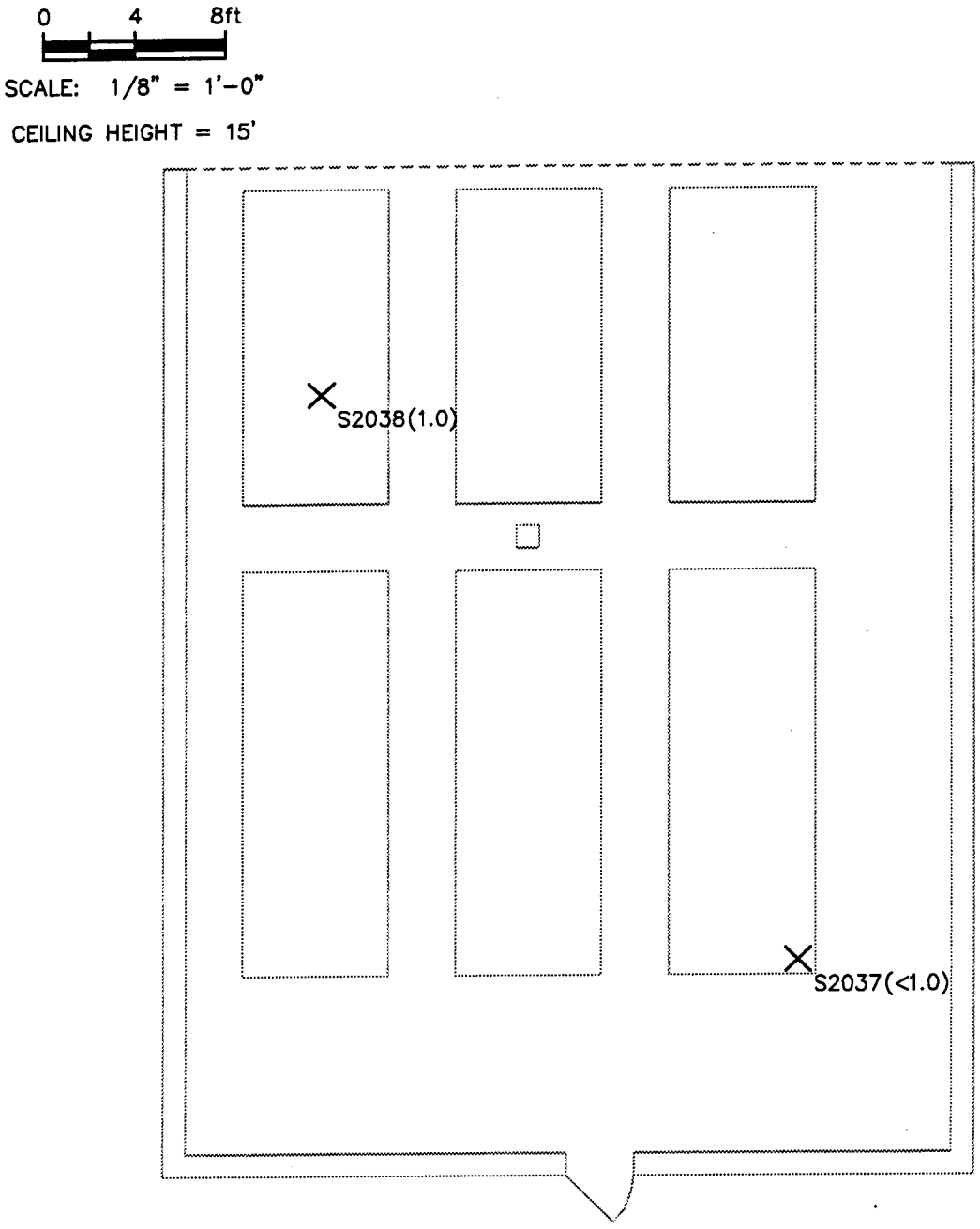
NOTES: SAMPLES TAKEN SEPT 4/96, SEPT 5/96

figure 7.5

SAMPLE LOCATIONS
CAPACITOR ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P144)



LEGEND

× SOIL SAMPLES (PCB RESULTS–mg/kg)

NOTES: SAMPLES TAKEN SEPT 24/96

figure 7.6

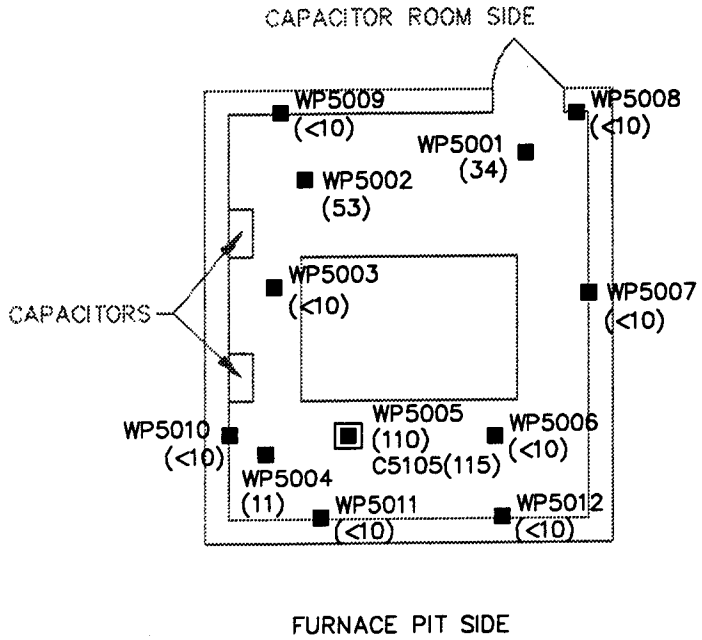
VERIFICATION SAMPLE LOCATIONS
CAPACITOR ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P148)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



LEGEND

■ WP5004	WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
□ C5105	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")

NOTES: SAMPLES TAKEN DECEMBER 26/96

figure 7.7

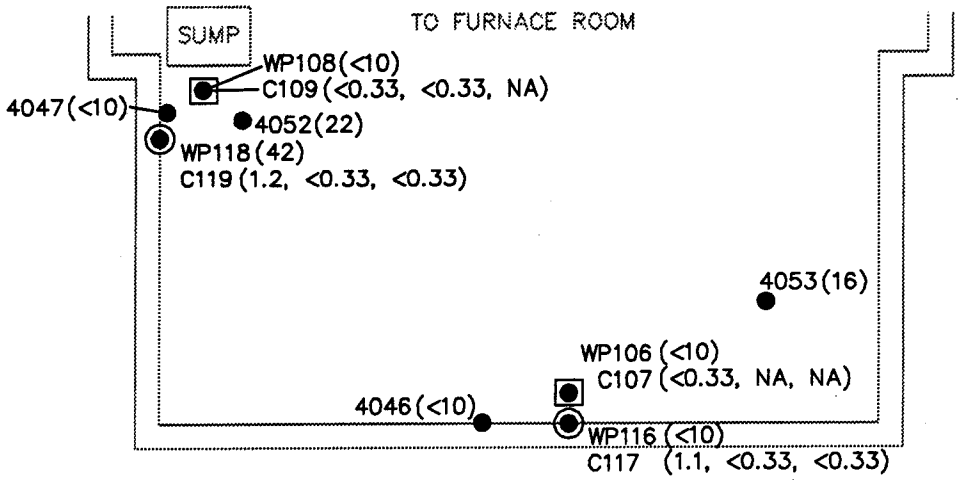
SAMPLE LOCATIONS
HYDRAULIC ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 27/97(W) REV.0 (P153)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 12'



LEGEND

● WP140	WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
○ C117	WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")
□ C107	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg BRICK, BRICK–1/2", 1/2"–10")
NA	NOT AVAILABLE

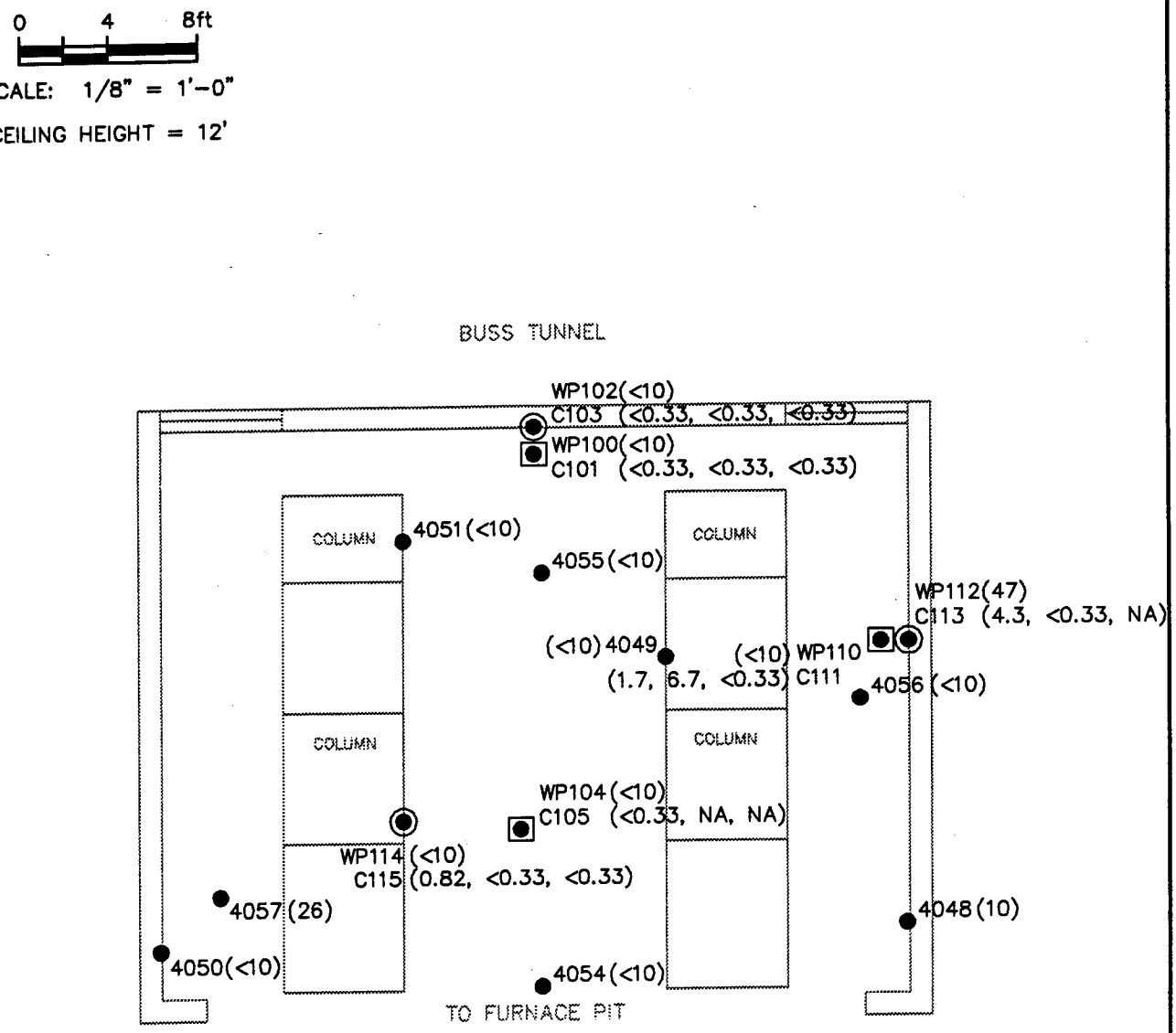
NOTES: SAMPLES TAKEN JULY 8/94 AND FEB 7/97

figure 8.1

SAMPLE LOCATIONS
PIT 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) FEB 21/97(W) REV.0 (P127)



LEGEND

● WP140	WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
○ C193	WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")
□ C195	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")
NA	NOT AVAILABLE

NOTES: SAMPLES TAKEN JULY 8/94 AND FEB 7/97

figure 8.2

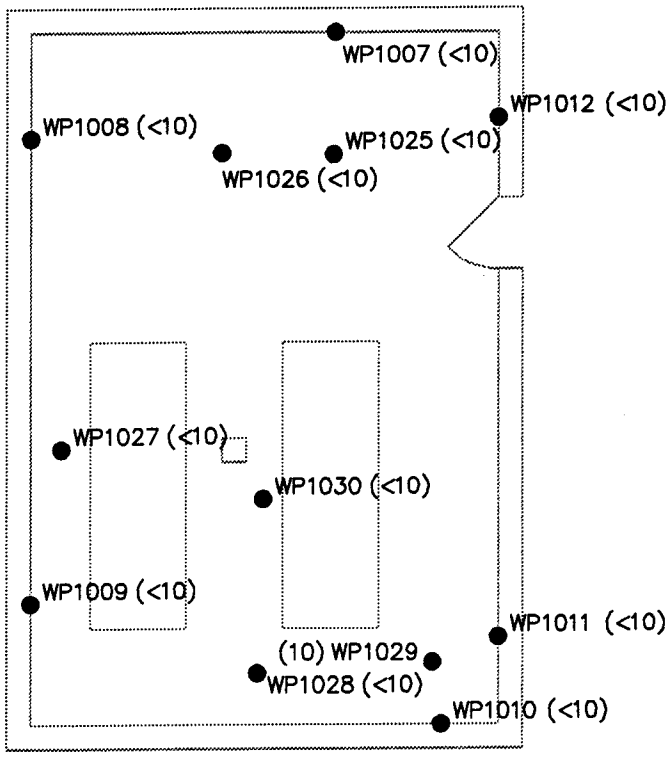
SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P128)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

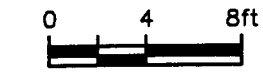
NOTES: SAMPLES TAKEN JUNE 7/96, JUNE 10/96

figure 8.3

SAMPLE LOCATIONS
GENERATOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

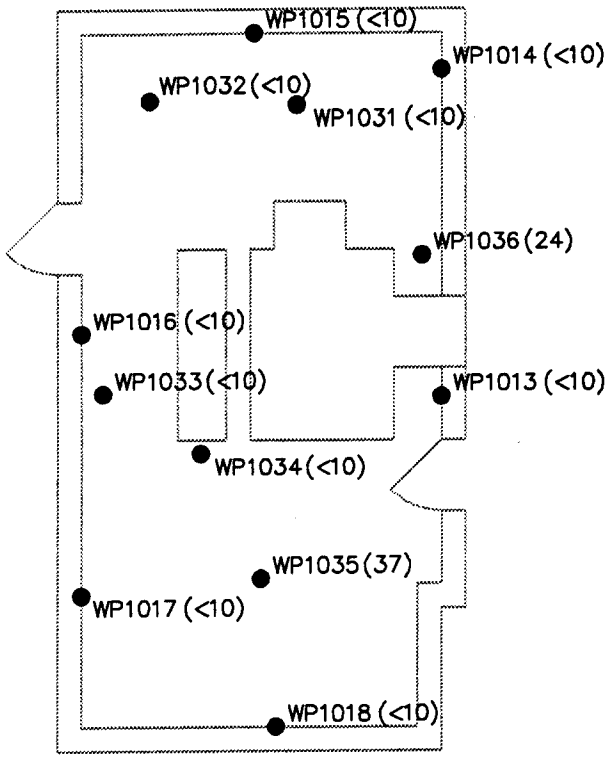
CRA

5579 (6) JAN 10/97(W) REV.0 (P143)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

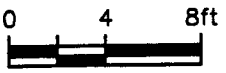
NOTES: SAMPLES TAKEN JUNE 7/96, JUNE 10/96

figure 8.4

SAMPLE LOCATIONS
TRANSFORMER ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

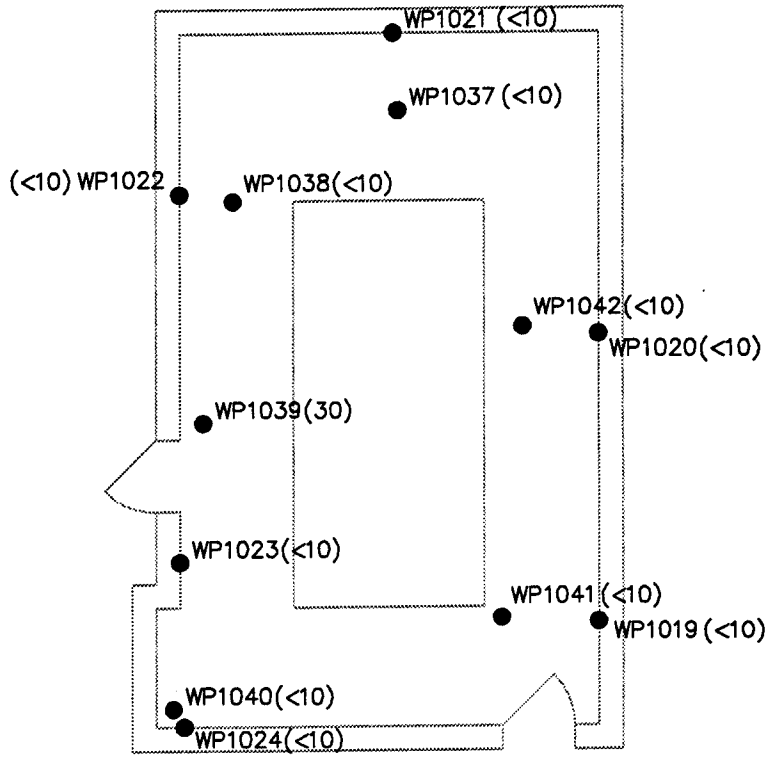
CRA

5579 (6) JAN 10/97(W) REV.0 (P142)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

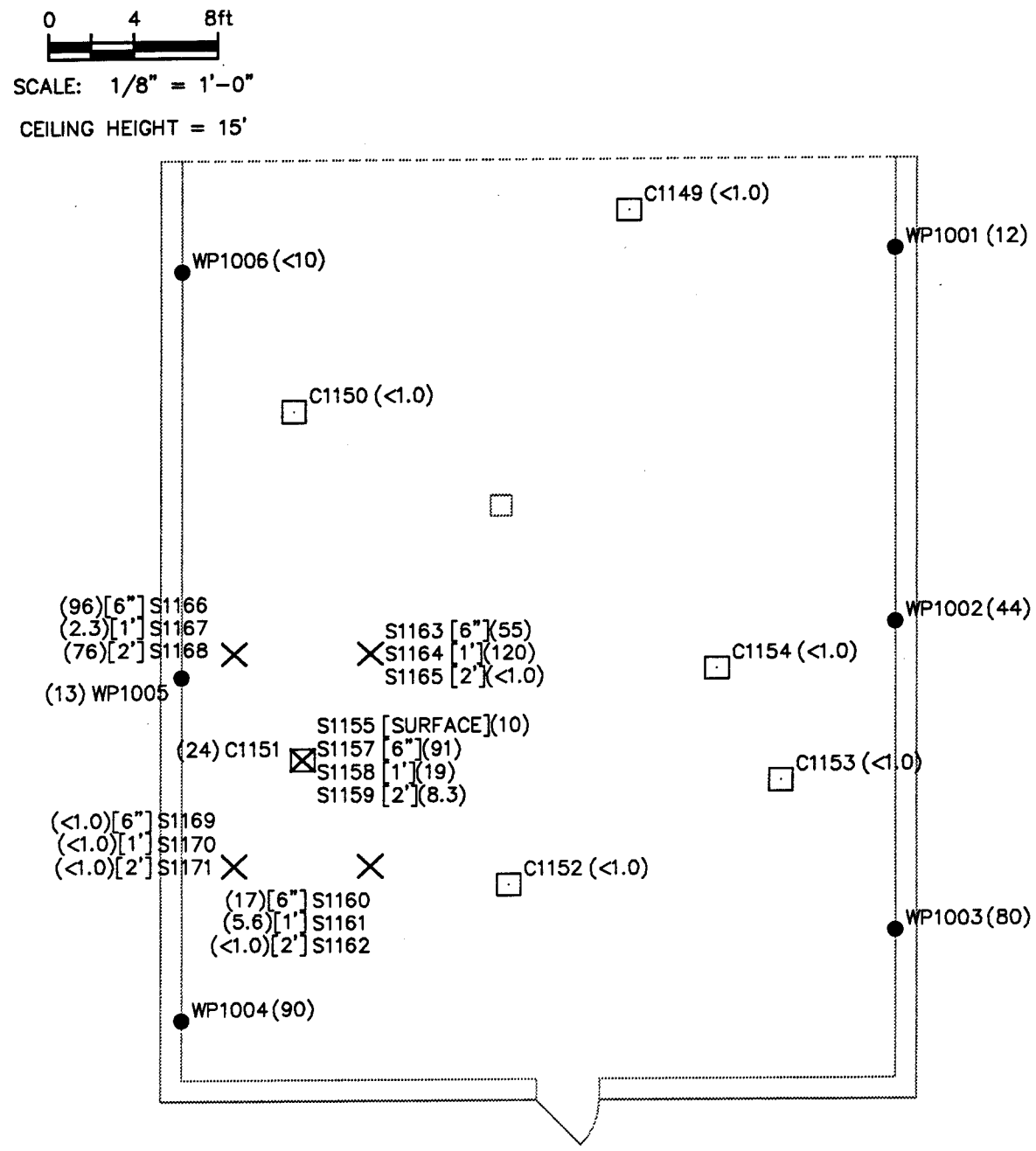
NOTES: SAMPLES TAKEN JUNE 7/96, JUNE 10/96

figure 8.5

SAMPLE LOCATIONS
CONTROL ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P141)



LEGEND

- ● WP140 — WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)
- × — SOIL SAMPLES [DEPTH OF SAMPLE] (PCB RESULTS–mg/kg)
- □ C195 — FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 5"–10")

NOTES: SAMPLES TAKEN JUNE 7/96, JUNE 17/96, JUNE 20/96

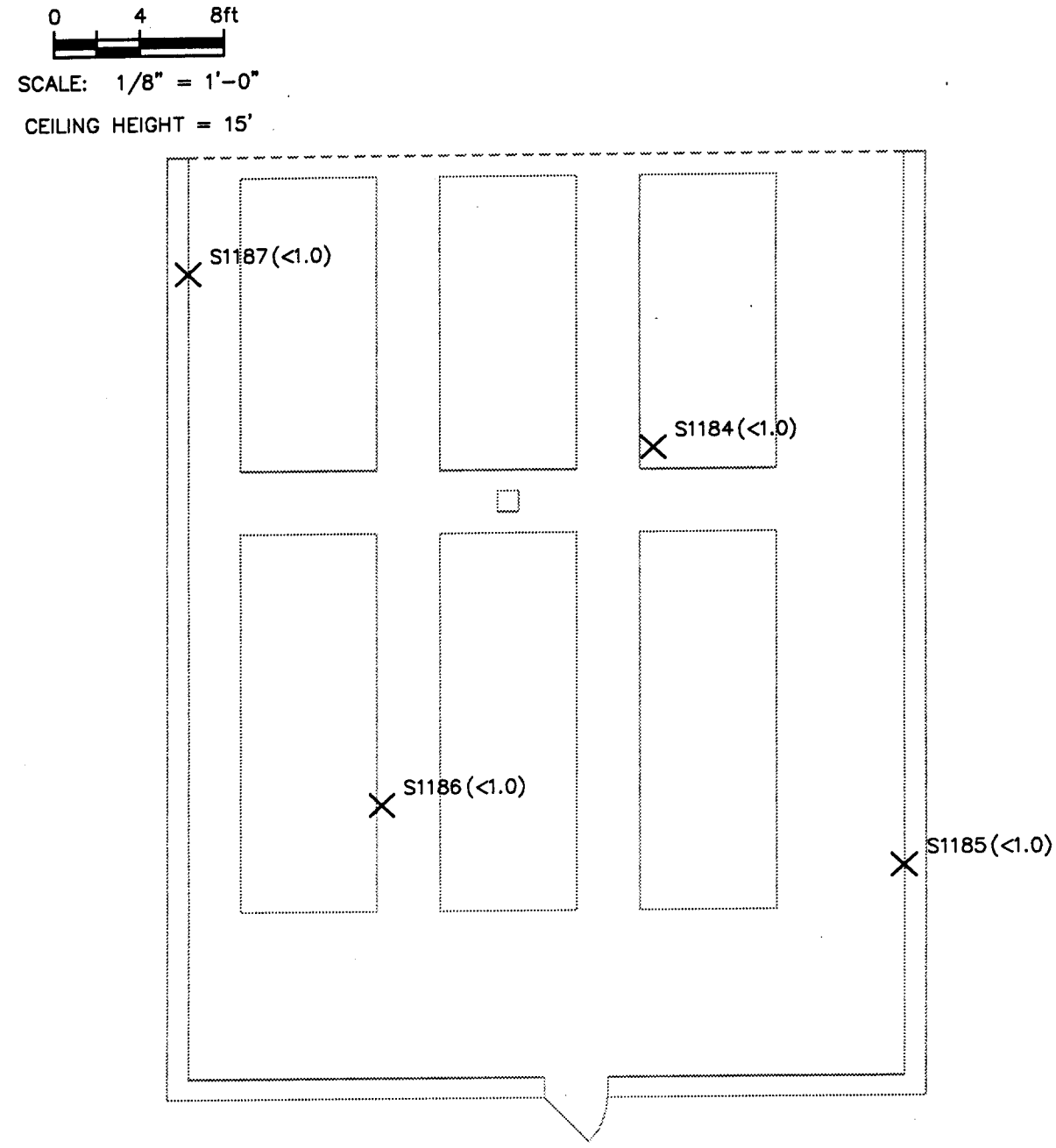
figure 8.6

SAMPLE LOCATIONS CAPACITOR ROOM 4 GMPT SAGINAW MALLEABLE IRON PLANT

Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P145)



LEGEND

× SOIL SAMPLES (PCB RESULTS–mg/kg)

NOTES: SAMPLES TAKEN JULY 9/96

figure 8.7

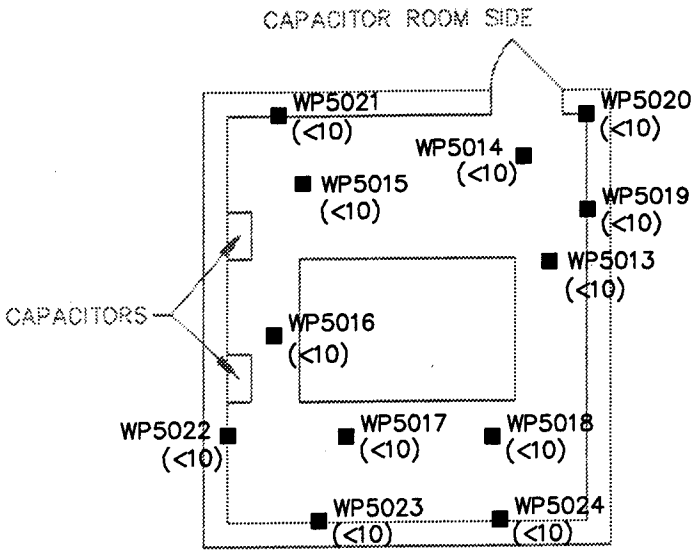
VERIFICATION SAMPLE LOCATIONS
CAPACITOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P146)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



LEGEND

■ WP5024 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

NOTES: SAMPLES TAKEN DECEMBER 26/96

figure 8.8

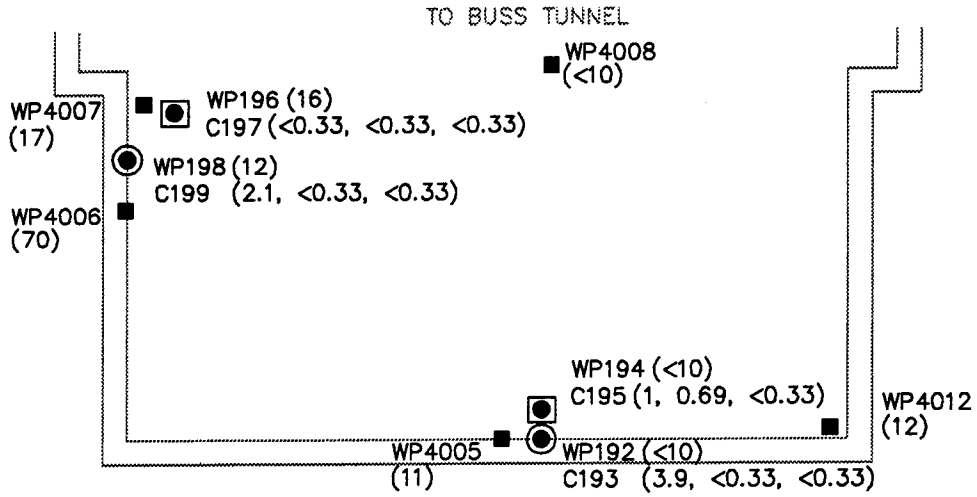
SAMPLE LOCATIONS
HYDRAULIC ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P154)

SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 12'



LEGEND

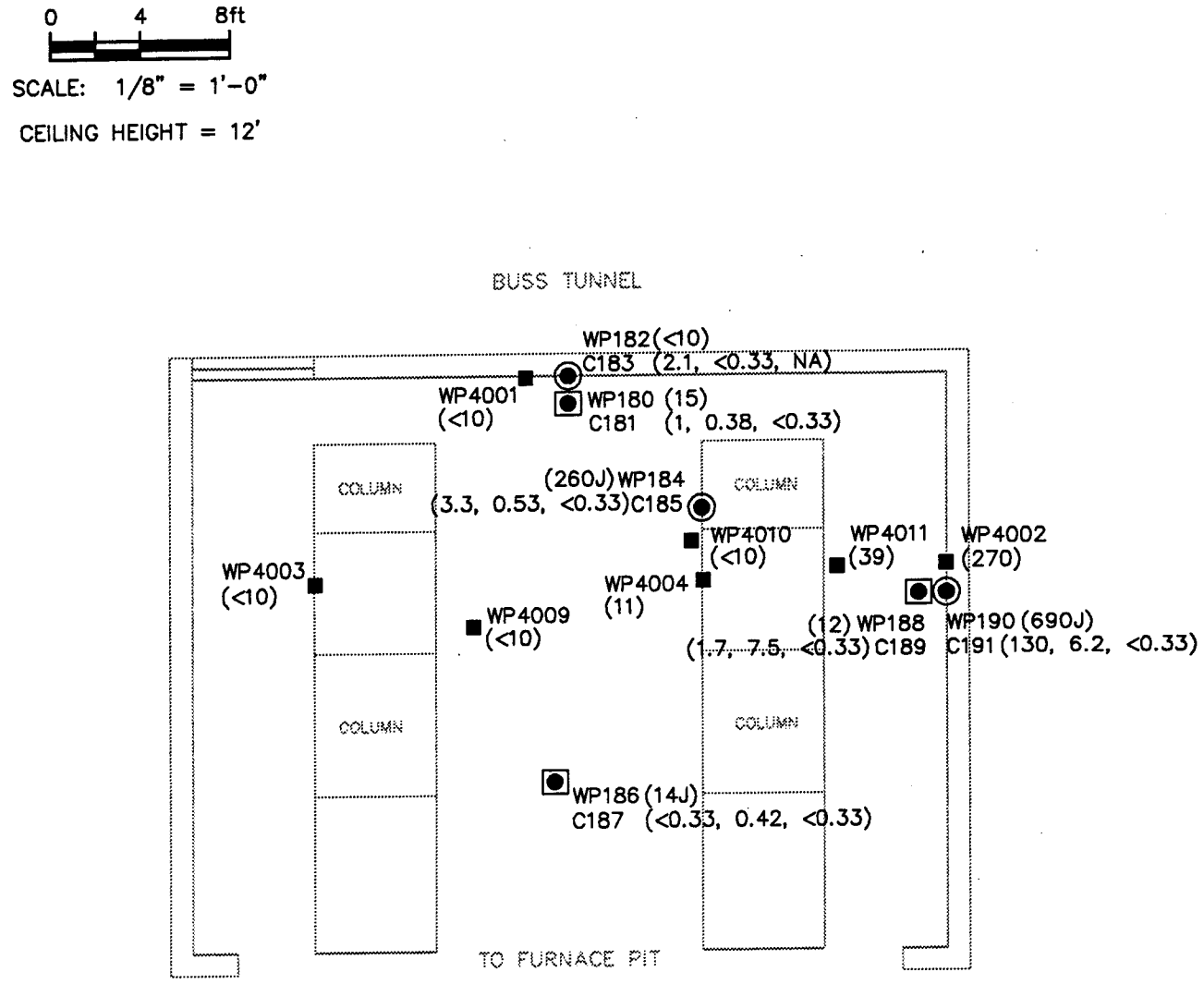
- ● WP140 — WIPE SAMPLES (PCB RESULTS– $\mu g/100cm^2$, JULY 9/94)
- ○ C193 — WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 9/94)
- □ C195 — FLOOR CORE SAMPLES (PCB RESULTS–mg/kg BRICK, BRICK–1/2", 1/2"–10", JULY 9/94)
- ■ WP4006 — WIPE SAMPLES (PCB RESULTS– $\mu g/100cm^2$, NOVEMBER 27/96)

figure 9.1

SAMPLE LOCATIONS
PIT 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P129)



LEGEND

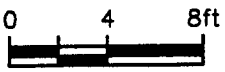
● WP140	WIPE SAMPLES (PCB RESULTS– µg/100cm², JULY 9/94)
○ C193	WALL CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 9/94)
□ C195	FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10", JULY 9/94)
■ WP4001	WIPE SAMPLES (PCB RESULTS– µg/100cm², NOVEMBER 27/96)
NA	NOT AVAILABLE
J	ESTIMATED VALUE

figure 9.2

SAMPLE LOCATIONS
BUSS TUNNEL TO PIT 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

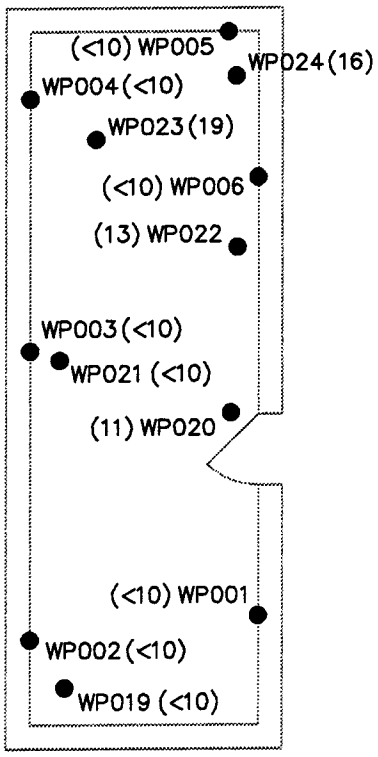
CRA

5579 (6) JAN 09/97(W) REV.0 (P130)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 15'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

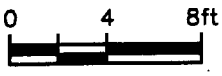
NOTES: SAMPLES TAKEN MAR 13/96, MAR 14/96

figure 9.3

SAMPLE LOCATIONS
GENERATOR ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

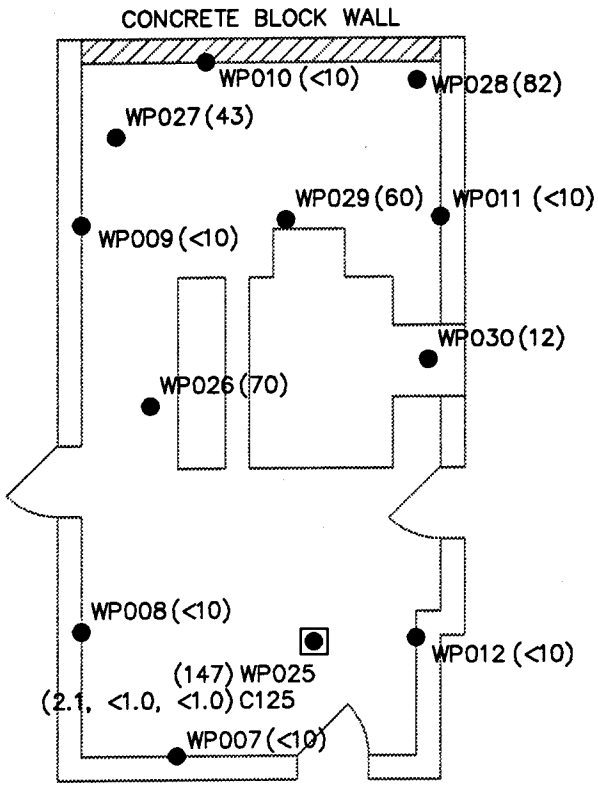
CRA

5579 (6) JAN 09/97(W) REV.0 (P133)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 20'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

□ C195 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 0–1/2", 1/2"–5", 5"–10")

NOTES: SAMPLES TAKEN MAR 13/96, MAR 15/96

figure 9.4

SAMPLE LOCATIONS
TRANSFORMER ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P134)

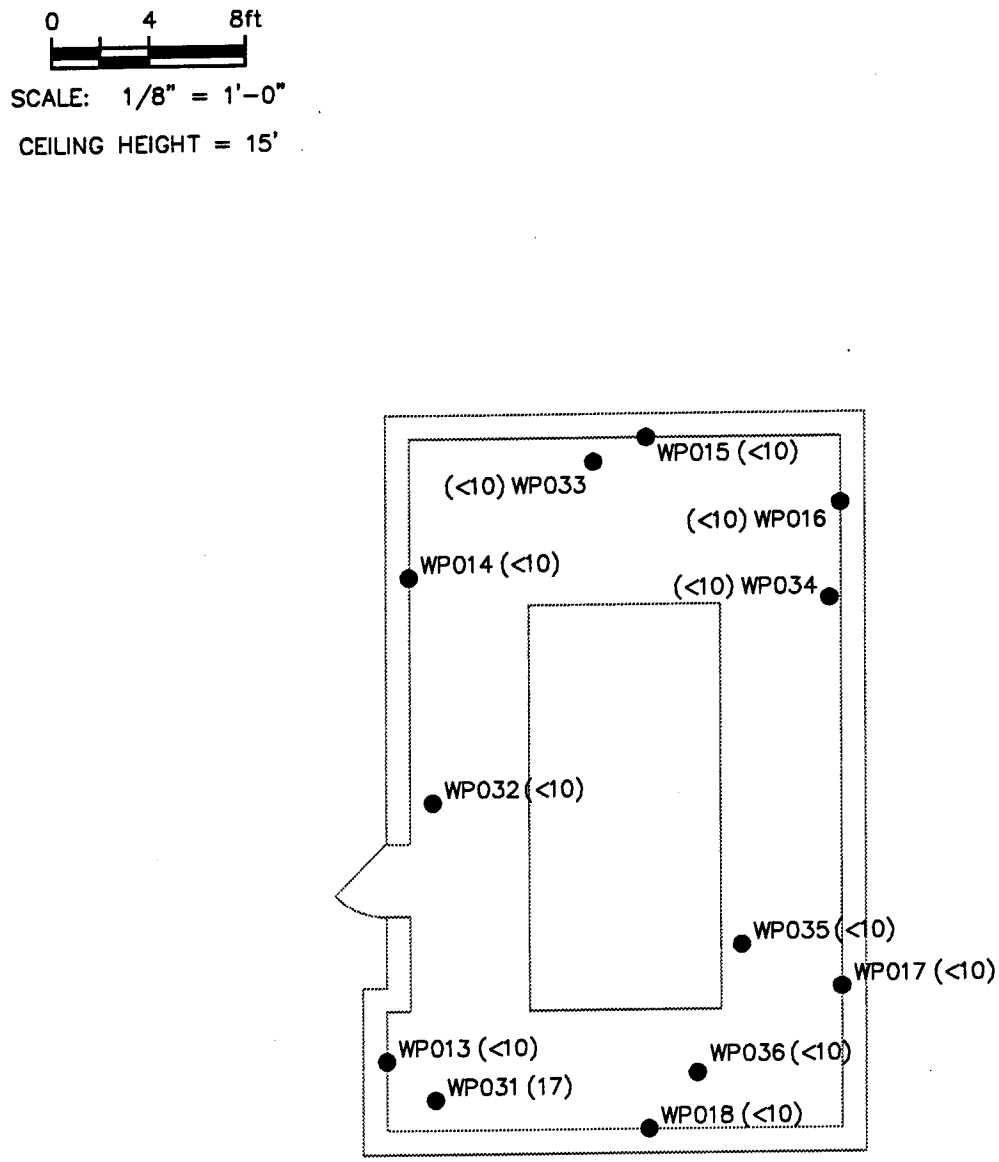
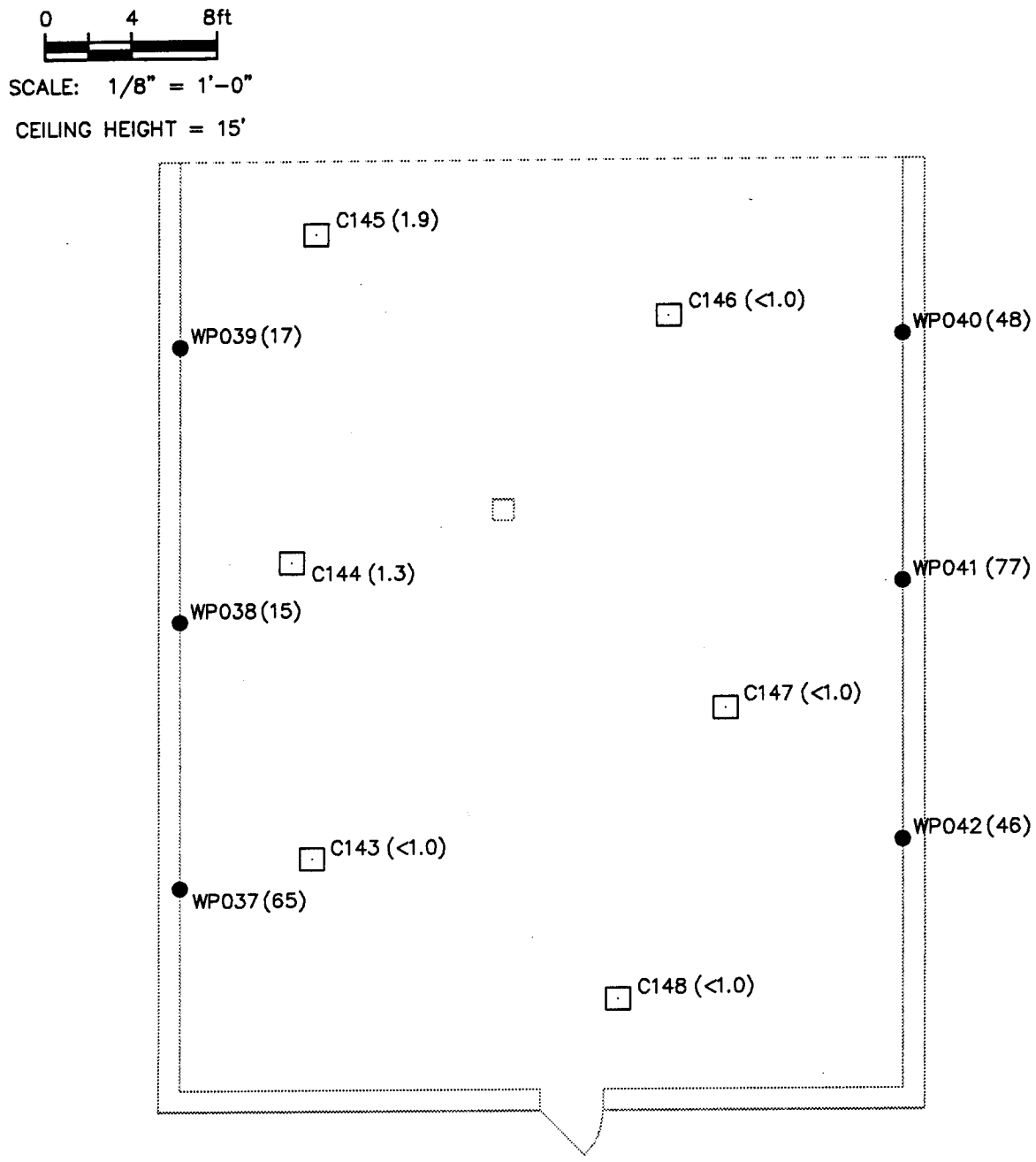


figure 9.5

SAMPLE LOCATIONS
CONTROL ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) MAR 13/97(W) REV.0 (P135)



LEGEND

WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

C195 FLOOR CORE SAMPLES (PCB RESULTS–mg/kg 5"–10")

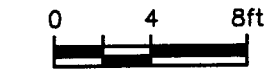
NOTES: SAMPLES TAKEN MAR 15/96

figure 9.6

SAMPLE LOCATIONS
CAPACITOR ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

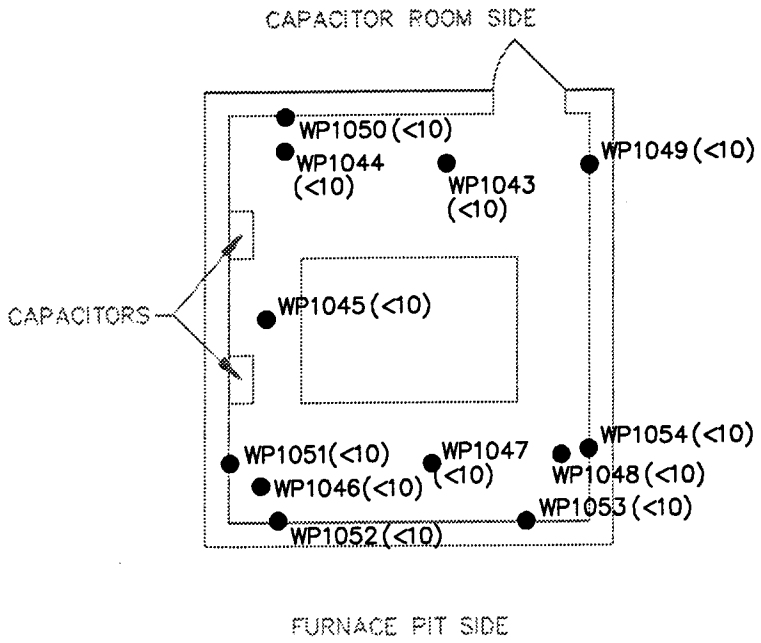
CRA

5579 (6) JAN 09/97(W) REV.0 (P136)



SCALE: 1/8" = 1'-0"

CEILING HEIGHT = 8'



LEGEND

● WP140 WIPE SAMPLES (PCB RESULTS–$\mu g/100cm^2$)

NOTES: SAMPLES TAKEN JUNE 11/96

figure 9.7

SAMPLE LOCATIONS
HYDRAULIC ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 10/97(W) REV.0 (P137)

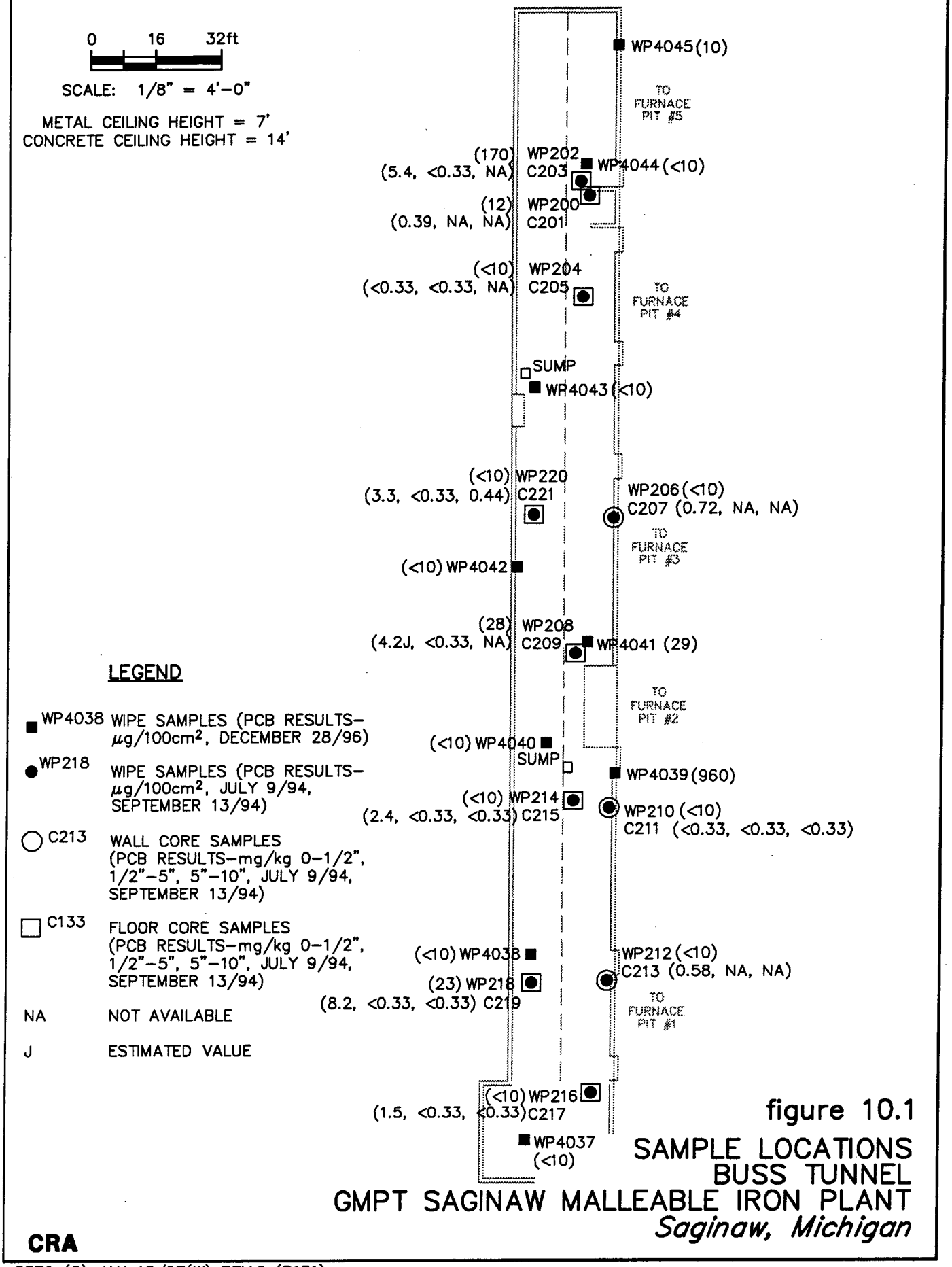


figure 10.1

SAMPLE LOCATIONS
BUSS TUNNEL
GMPT SAGINAW MALLEABLE IRON PLANT
Saginaw, Michigan

CRA

5579 (6) JAN 15/97(W) REV.0 (P131)

TABLE 2.1

SUMMARY OF PCB DETECTIONS
INITIAL PCB SAMPLING
JUNE 7, NOVEMBER AND DECEMBER 1993
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location	*Room/Area*	*Sample Location*	*Sample Type*	*Results*	*Number of Samples*
Power Supply #1	Transformer Room	Floor	Wipe	46 µg/100 cm2	1
	Control Room	Floor	Wipe	11 - 24 µg/100 cm2	2
	Hydraulic Room	Wall	Wipe	10 µg/100 cm2	1
	BUSS Tunnel to Pit	Wall	Wipe	29 µg/100 cm2	1
	Power Supply Pit	Floor	Brick	2.6 mg/kg	1
	Capacitor Room (1)	Various	Wipe	17 - 3,800 µg/100 cm2	10
Power Supply #2	BUSS Tunnel to Pit	Wall	Wipe	400 µg/100 cm2	1
	Capacitor Room (1)	Various	Wipe	<10 - 9,100 µg/100 cm2	10
Power Supply #3	Transformer Room	Floor	Wipe	130 µg/100 cm2	1
	Power Supply Pit	Floor	Brick	1.7 mg/kg	1
	Capacitor Room (1)	Various	Wipe	<10 - 5,400 µg/100 cm2	10
Power Supply #4	BUSS Tunnel to Pit	Wall	Wipe	80 µg/100 cm2	1
	Power Supply Pit	Floor	Brick	10 mg/kg	1
	Capacitor Room (1)	Various	Wipe	<10 - 350 µg/100 cm2	10
Power Supply #5	Transformer Room	Floor	Wipe	69 µg/100 cm2	1
	Transformer Room	Equipment	Wipe	840 µg/100 cm2	1
	Hallway	Floor	Wipe	13 µg/100 cm2	1
	Hydraulic Room	Floor	Bulk	1.4 - 1.6 mg/kg	2
	BUSS Tunnel to Pit	Wall	Wipe	26 µg/100 cm2	1
	Capacitor Room (1)	Various	Wipe	10 - 1,500 µg/100 cm2	10
Bus Tunnel	BUSS Tunnel	Floor	Bulk	36 - 570 mg/kg	5
	BUSS Tunnel	Wall	Wipe	19 - 31 µg/100 cm2	2

Note:

(1) Results from previous sampling by GM (June 1993), sample locations unavailable.

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	W-111193-IKR-								
	004	***005***	***006***	***007***	***008***	***009***	***011***	***012***	***016***
Parameter									
Total PCB (µg/100 cm2)	<10	**46**	<10	<10	**11**	<10	**24**	<10	<10
Location									
Furnace #	1	1	1	1	1	1	1	1	2
Room	Transformer	Transformer	Transformer	Control	Control	Control	Control	Hallway	Transformer
Sample Location	Equipment	Floor	Wall	Equipment	Floor	Wall	Floor	Floor	Equipment
Distance off Floor	(1 ft)		(4 ft)	(2 ft)		(6 ft)			(2 ft)

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	W-111193-IKR-								
	017	***018***	***020***	***023***	***024***	***025***	***027***	***028***	***029***
Parameter									
Total PCB (µg/100 cm2)	<10	<10	<10	<10	**130**	<10	<10	<10	<10
Location									
Furnace #	2	2	2	3	3	3	3	3	3
Room	Transformer	Transformer	Hallway	Transformer	Transformer	Transformer	Control	Control	Control
Sample Location	Wall	Floor	Wall	Equipment	Floor	Wall	Equipment	Floor	Wall
Distance off Floor	(6 ft)		(5 ft)	(1 ft)		(4 ft)	(2 ft)		(6 ft)

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

W-111193-IKR-

	031	*033*	*034*	*035*	*037*	*038*	*040*	*041*
Parameter								
Total PCB (µg/100 cm2)	<10	<10	<10	<10	<10	<10	<10	<10
Location								
Furnace #	3	4	4	4	4	4	4	4
Room	Hallway	Transformer	Transformer	Transformer	Generator	Generator	Control	Control
Sample Location	Wall	Floor	Wall	Equipment	Floor	Column	Equipment	Floor
Distance off Floor	(4 ft)		(6 ft)	(1 ft)		(5 ft)	(5 ft)	

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	W-111193-IKR-								
	044	***046***	***047***	***049***	***050***	***051***	***052***	***053***	***054***
Parameter									
Total PCB (µg/100 cm2)	<10	<10	<10	**840**	<10	**69**	<10	<10	<10
Location									
Furnace #	4	1	1	5	5	5	5	5	5
Room	Hallway	Generator	Generator	Transformer	Transformer	Transformer	Generator	Generator	Control
Sample Location	Wall	Floor	Wall	Equipment	Wall	Floor	Floor	Wall	Equipment
Distance off Floor	(6 ft)		(5 ft)	(4 ft)	(5 ft)			(4 ft)	(2 ft)

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

W-111193-IKR-

	055	*056*	*057*	*058*	*062*	*066*	*069*	*072*	*076*
Parameter									
Total PCB (µg/100 cm2)	<10	<10	<10	**13**	**29**	**400**	**31**	<10	**80**
Location									
Furnace #	5	5	5	5	1	2	2	3	4
Room	Control	Control	Hallway	Hallway	BUSS Tnnl-pit	BUSS Tnnl-pit	BUSS Tunnel	BUSS Tnnl-pit	BUSS Tnnl-pit
Sample Location	Wall	Floor	Wall	Floor	Column	Wall	Wall	Column	Column
Distance off Floor	(3 ft)		(5 ft)		(5 ft)	(5 ft)	(5 ft)	(6 ft)	(5 ft)

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	W-111193-IKR-									
	078	***081***	***083***	***085***	***088***	***092***	***093***	***097***	***098***	***102***
Parameter										
Total PCB (µg/100 cm2)	<10	**26**	<10	<10	<10	<10	<10	<10	<10	**10**
Location										
Furnace #	4	5	5	5	5	4	4	3	3	1
Room	BUSS Tunnel	BUSS Tnnl-pit	BUSS Tunnel	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Sample Location	Wall	Column	Wall	Wall	Equipment	Wall	Equipment	Wall	Equipment	Wall
Distance off Floor	(5 ft)	(6 ft)	(5 ft)	(5 ft)	(4 ft)	(6 ft)	(3 ft)	(6 ft)	(4 ft)	(6 ft)

TABLE 2.2

PCB SAMPLING RESULTS
WIPE SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

W-111893-MRT-

	103	***104***	***106***	***107***	***112***	***113***	***114***
Parameter							
Total PCB (µg/100 cm2)	<10	<10	<10	<10	**19**	<10	<10
Location							
Furnace #	1	4	3	4	5	2	1
Room	Hydraulic Equipment	Control Wall	BUSS Tunnel Wall	BUSS Tunnel Wall	BUSS Tunnel Wall	BUSS Tunnel Wall	BUSS Tunnel Wall
Sample Location							
Distance off Floor	(3 ft)	(5 ft)	(5 ft)	(5 ft)	(5 ft)	(5 ft)	(5 ft)

TABLE 2.3

PCB SAMPLING RESULTS
BULK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

B-111193-IKR-

	001	*002*	*003*	*010*	*013*	*014*	*015*	*019*	*021*	*022*
Parameter										
PCBs										
Aroclor-1016 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1248 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Location										
Furnace #	1	1	1	1	2	2	2	2	3	3
Room	Transformer	Transformer	Transformer	Control	Transformer	Transformer	Transformer	Hallway	Transformer	Transformer
Sample Location	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor

TABLE 2.3

PCB SAMPLING RESULTS
BULK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	B-111193-IKR- 026	030	032	036	039	043	045	048	059	060
Parameter										
PCBs										
Aroclor-1016 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1248 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260 (mg/kg)	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Location										
Furnace #	3	3	4	4	4	4	1	5	1	1
Room	Control	Hallway	Transformer	Generator	Control	Hallway	Generator	Transformer	BUSS Tnnl-pit	BUSS Tnnl-pit
Sample Location	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor

TABLE 2.3

PCB SAMPLING RESULTS
BULK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	B-111193-IKR- 061	063	064	065	067	068	070	071	073	074
Parameter										
PCBs										
Aroclor-1016 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Aroclor-1221 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Aroclor-1232 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Aroclor-1242 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Aroclor-1248 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Aroclor-1254 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Aroclor-1260 (mg/kg)	<0.33	<0.33	<0.36	<0.46	<0.33	<0.33	<0.33	<0.33	<0.53	<0.33
Location										
Furnace #	1	1	2	2	2	2	3	3	4	4
Room	BUSS Tnnl-pit	BUSS Tunnel	BUSS Tnnl-pit	BUSS Tnnl-pit	BUSS Tunnel	BUSS Tunnel	BUSS Tnnl-pit	BUSS Tunnel	BUSS Tnnl-pit	BUSS Tnnl-pit
Sample Location	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor

TABLE 2.3

PCB SAMPLING RESULTS
BULK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	B-111193-IKR- 075	077	079	080	082	084	086	087	089	090
Parameter										
PCBs										
Aroclor-1016 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	<0.5	<0.5	<0.36	<0.33	<3.3
Aroclor-1221 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	<0.5	<0.5	<0.36	<0.33	<3.3
Aroclor-1232 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	<0.5	<0.5	<0.36	<0.33	<3.3
Aroclor-1242 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	<0.5	<0.5	<0.36	<0.33	<3.3
Aroclor-1248 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	<0.5	<0.5	<0.36	<0.33	<3.3
Aroclor-1254 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	**1.6**	**1.4**	<0.36	<0.33	<3.3
Aroclor-1260 (mg/kg)	<0.33	<0.43	<0.5	<0.33	<0.33	<0.5	<0.5	<0.36	<0.33	<3.3
Location										
Furnace #	4	4	5	5	5	5	5	5	4	4
Room	BUSS Tnnl-pit	BUSS Tunnel	BUSS Tnnl-pit	BUSS Tnnl-pit	BUSS Tnnl-pit	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Sample Location	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor

TABLE 2.3

PCB SAMPLING RESULTS
BULK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

B-111193-IKR-

	091	*094*	*095*	*096*	*099*	*100*	*101*
Parameter							
PCBs							
Aroclor-1016 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Aroclor-1221 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Aroclor-1232 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Aroclor-1242 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Aroclor-1248 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Aroclor-1254 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Aroclor-1260 (mg/kg)	<0.89	<0.36	<0.33	<0.56	<0.43	<0.33	<0.46
Location							
Furnace #	4	3	3	3	1	1	1
Room	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Sample Location	Floor	Floor	Floor	Floor	Floor	Floor	Floor

TABLE 2.3

PCB SAMPLING RESULTS
BULK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

B-111893-MRT-

	105	*108*	*109*	*110*	*111*
Parameter					
PCBs					
Aroclor-1016 (mg/kg)	<20	<1	<20	<20	<20
Aroclor-1221 (mg/kg)	<20	<1	<20	<20	<20
Aroclor-1232 (mg/kg)	<20	<1	<20	<20	<20
Aroclor-1242 (mg/kg)	**190**	**36**	**510**	**330**	**570**
Aroclor-1248 (mg/kg)	<20	<1	<20	<20	<20
Aroclor-1254 (mg/kg)	<20	<1	<20	<20	<20
Aroclor-1260 (mg/kg)	<20	<1	<20	<20	<20
Location					
Furnace #	3	4	5	2	1
Room	BUSS Tunnel	BUSS Tunnel	BUSS Tunnel	BUSS Tunnel	BUSS Tunnel
Sample Location	Floor	Floor	Floor	Floor	Floor

TABLE 2.4

PCB SAMPLING RESULTS
BRICK SAMPLES
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

SAMPLE LOCATION

	0001	*0003*	*0003A*	*0004*	*0005*
Parameter					
PCBs					
Aroclor-1016 (mg/kg)	<1	<1	<1	<1	<1
Aroclor-1221 (mg/kg)	<1	<1	<1	<1	<1
Aroclor-1232 (mg/kg)	<1	<1	<1	<1	<1
Aroclor-1242 (mg/kg)	**2.6**	**1.7**	<1	**10**	<1
Aroclor-1248 (mg/kg)	<1	<1	<1	<1	<1
Aroclor-1254 (mg/kg)	<1	<1	<1	<1	<1
Aroclor-1260 (mg/kg)	<1	<1	<1	<1	<1
Location					
Power Supply #	1	3	3	4	5
Room	Pit	Pit	Pit	Pit	Pit
Sample Location	Floor	Floor	Floor	Floor	Floor

TABLE 3.1

PCB SAMPLING RESULTS
CAPACITOR ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples						*Floor Samples*					
		March 23, 1994											
		Wipe Samples (WP-032394-SSH-)											
Parameter	***Units***	***007***				***011***		***001***	***002***	***003***	***004***	***005***	***006***
Total PCB	µg/100cm ^{2}	<10				<10		**760**	**4,500**	**7,800**	**2,900**	**760**	**1,100**
		March 23, 1994											
		Concrete Core Samples (C-032394-SSH-)											
		(0"-1/2")						*(0"-1/2")*					
Parameter	***Units***	***007***	***008***	***009***	***010***	***011***	***012***	***001A***	***002A***	***003A***	***004A***	***005A***	***006A***
Aroclor 1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<11	<24	<20	<15	<27	<0.33
Aroclor 1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<11	<24	<20	<15	<27	<0.33
Aroclor 1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<11	<24	<20	<15	<27	<0.33
Aroclor 1242	mg/kg	**2.8**	**3.1**	**1.3**	**7.0**	**1.3**	**9.7**	**220**	**450**	**190**	**58**	**71**	**4.5**
Aroclor 1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<11	<24	<20	<15	<27	<0.33
Aroclor 1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<11	<24	<20	<15	<27	<0.33
Aroclor 1260	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<11	<24	<20	<15	<27	<0.33
								(1/2" - 5")					
Parameter	***Units***							***001B***	***002B***	***003B***	***004B***	***005B***	***006B***
Aroclor 1016	mg/kg							<0.33	<0.33	<20	<0.33	<0.33	<0.33
Aroclor 1221	mg/kg							<0.33	<0.33	<20	<0.33	<0.33	<0.33
Aroclor 1232	mg/kg							<0.33	<0.33	<20	<0.33	<0.33	<0.33
Aroclor 1242	mg/kg							<0.33	**5.6**	**74**	<0.33	**0.92**	<0.33
Aroclor 1248	mg/kg							<0.33	<0.33	<20	<0.33	<0.33	<0.33
Aroclor 1254	mg/kg							<0.33	<0.33	<20	<0.33	<0.33	<0.33
Aroclor 1260	mg/kg							<0.33	<0.33	<20	<0.33	<0.33	<0.33
								(5" - 10")					
Parameter	***Units***							***001C***	***002C***	***003C***	***004C***	***005C***	***006C***
Aroclor 1016	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor 1221	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor 1232	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor 1242	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor 1248	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor 1254	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor 1260	mg/kg							<0.33	<0.33	<0.33	<0.33	<0.33	<0.33

TABLE 3.2

SUMMARY OF VERIFICATION WIPE SAMPLING
CAPACITOR ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Floor Samples

November 11, 1994
(1/2" total removed)

Parameter	Location / Units	1	2	3	4	5	6	7	8	9	10
Total PCB	µg/100cm ^{2}	1,400	6,900	5,300	210	320	930	3,600	410	240	180

December 5, 1994
(1" total removed)

Parameter	Location / Units	1	2	3	4	5	6	7	8	9	10
Total PCB	µg/100cm ^{2}	630	2,600	180	120	20	600	<10	240	1,600	<10

December 15, 1994
(1 1/2" total removed)

rameter	Location / Units	1	2	3	4	5	6	7	8	9	10
Total PCB	µg/100cm ^{2}	37	440	140	<10	<10	<10	–	16	16	–

December 19, 1994
(2" total removed)

Parameter	Location / Units	1	2	3	4	5	6	7	8	9	10
Total PCB	µg/100cm ^{2}	160	1,700	1,400	–	–	–	–	13	40	–

December 23, 1994
(2" total removed)

Parameter	Location / Units	1	2	3	4	5	6	7	8	9	10
Total PCB	µg/100cm ^{2}	170	740	190	–	–	–	–	23	21	–

Note:

ıot sampled

TABLE 5.1

PCB SAMPLING RESULTS
PIT 1 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		July 9, 1994			
		Wipe Samples (WP-070994-SSH-)			
Parameter	*Units*	*156*	*158*	*152*	*154*
Total PCB	µg/100cm ^{2}	<10	<10	**18**	**20**

		July 9, 1994		*July 8, 1994*	
		Concrete Core Samples		*Concrete Core Samples*	
		(C-070994-SSH-)		*(C-070894-SSH-)*	
		(0" to 1/2")		*(fire brick)*	
Parameter	*Units*	*157A*	*159A*	*153A*	*155A*
Aroclor-1016	mg/kg	<10	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<10	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<10	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	**150**	**1.7**	<0.33	<0.33
Aroclor-1248	mg/kg	<10	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<10	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<10	<0.33	<0.33	<0.33

		(1/2" to 5")		*(under brick to 1/2")*	
Parameter	*Units*	*157B*	*159B*	*153B*	*155B*
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	<0.33	**0.35**	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33

		(5" to 10")		*(1/2" to 10")*	
Parameter	*Units*	*157C*	*159C*	*153C*	*155C*
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33

TABLE 5.1

PCB SAMPLING RESULTS
PIT 1 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*	
		December 16, 1996				
		Verification Wipe Samples (WP-961216-SSH-)				
Parameter	*Units*	*4019*	*4021*	*4023*	*4020*	*4022*
Total PCB	$\mu g/100cm^2$	**10**	**49**	**44**	**41**	**310**

TABLE 5.2

PCB SAMPLING RESULTS
POWER SUPPLY 1 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*		
		July 9, 1994					
		Wipe Samples (WP-070994-SSH-)					
Parameter	***Units***	***146***	***148***	***150***	***140***	***142***	***144***
Total PCB	µg/100cm^2	**100**	**15**	**11**	**40**	**32**	**22**

		July 8, 1994					
		Concrete Core Samples (C-070894-SSH-)					
		(0" to 1/2")			*(0" to 1/2")*		
Parameter	***Units***	***147A***	***149A***	***151A***	***141A***	***143A***	***145A***
Aroclor-1016	mg/kg	<2.5	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1221	mg/kg	<2.5	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1232	mg/kg	<2.5	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1242	mg/kg	**12**	<0.33	**1.3**	<0.33	**0.43**	**14**
Aroclor-1248	mg/kg	<2.5	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1254	mg/kg	<2.5	<0.33	<0.33	<0.33UJ	<0.33	<2.5
Aroclor-1260	mg/kg	<2.5	<0.33	<0.33	<0.33UJ	<0.33	<2.5

		(1/2" to 5")			*(1/2" to 5")*		
Parameter	***Units***	***147B***	***149B***	***151B***	***141B***	***143B***	***145B***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1242	mg/kg	**0.47**	<0.33	<0.33	<0.33	**1.6**	**73**
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<2.5
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33UJ	<0.33	<2.5
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33UJ	<0.33	<2.5

		(5" to 10")			*(5" to 10")*		
Parameter	***Units***		***149C***	***151C***	***141C***	***143C***	***145C***
Aroclor-1016	mg/kg	(1)	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg		<0.33	<0.33	<0.33	<0.33UJ	<0.33
Aroclor-1260	mg/kg		<0.33	<0.33	<0.33	<0.33UJ	<0.33

Note:
(1) unable to collect complete core.

TABLE 5.2

PCB SAMPLING RESULTS
POWER SUPPLY 1 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*			
		December 16, 1996						
		Verification Wipe Samples (WP-961216-SSH-)						
Parameter	***Units***	***4013***	***4015***	***4017***	***4014***	***4016***	***4018***	***4024***
Total PCB	µg/100cm^2	<10	<10	<10	**33**	**28**	**70**	**12**

Note:
(1) unable to collect complete core.

TABLE 5.3

PCB SAMPLING RESULTS
GENERATOR ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples November 26, 1996 (WP-5579-961126-DJC-)					
Parameter	*Units*	*3025*	*3026*	*3027*	*3028*	*3029*	*3030*
Total PCB	µg/100 cm^2	<10UJ	<10UJ	<10UJ	<10UJ	<10UJ	<10UJ

		Floor Wipe Samples November 26, 1996 (WP-5579-961126-DJC-)					
Parameter	*Units*	*3031*	*3032*	*3033*	*3034*	*3035*	*3036*
Total PCB	µg/100 cm^2	**37J**	**48J**	**39J**	**43J**	<10UJ	<10UJ

TABLE 5.4

PCB SAMPLING RESULTS
TRANSFORMER ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples November 26, 1996 (WP-5579-961126-DJC-)					
Parameter	*Units*	*3013*	*3014*	*3015*	*3016*	*3017*	*3018*
Total PCB	µg/100 cm^2	<10UJ	**10J**	<10UJ	<10UJ	**25J**	<10UJ

		Floor Wipe Samples November 26, 1996 (WP-5579-961126-DJC-)					
Parameter	*Units*	*3019*	*3020*	*3021*	*3022*	*3023*	*3024*
Total PCB	µg/100 cm^2	**140J**	**26J**	**160J**	**33J**	**58J**	**18J**

		Floor Core Samples (0" to 1/2") November 26, 1996 (C-5579-961126-DJC-)	
Parameter	*Units*	*3119A*	*3121A*
Aroclor 1016	mg/kg	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0
Aroclor 1242	mg/kg	**11**	**12**
Aroclor 1248	mg/kg	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0

		Floor Core Samples (1/2" to 5") November 26, 1996 (C-5579-961126-DJC-)	
Parameter	*Units*	*3119B*	*3121B*
Aroclor 1016	mg/kg	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0
Aroclor 1242	mg/kg	**3.0**	<1.0
Aroclor 1248	mg/kg	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0

TABLE 5.4

PCB SAMPLING RESULTS
TRANSFORMER ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Floor Core Samples (5" to 10")
November 26, 1996
(C-5579-961126-DJC-)

Parameter	*Units*	*3119C*	*3121C*
Aroclor 1016	mg/kg	<1.0	(1)
Aroclor 1221	mg/kg	<1.0	
Aroclor 1232	mg/kg	<1.0	
Aroclor 1242	mg/kg	2.1	
Aroclor 1248	mg/kg	<1.0	
Aroclor 1254	mg/kg	<1.0	
Aroclor 1260	mg/kg	<1.0	

Verification Floor Wipe Samples
December 26, 1996
(WP-5579-961226-DJC-)

Parameter	*Units*	*3049*	*3050*	*3051*	*3052*	*3053*	*3054*
Total PCB	$\mu g/100\ cm^2$	13	<10	11	<10	<10	<10

Note:
(1) unable to collect complete core.

TABLE 5.5

PCB SAMPLING RESULTS
CONTROL ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples November 26, 1996 (WP-5579-961126-DJC-)					
Parameter	***Units***	***3001***	***3002***	***3003***	***3004***	***3005***	***3006***
Total PCB	µg/100 cm^2	<10UJ	<10UJ	<10UJ	<10UJ	<10UJ	<10UJ

		Floor Wipe Samples November 26, 1996 (WP-5579-961126-DJC-)					
Parameter	***Units***	***3007***	***3008***	***3009***	***3010***	***3011***	***3012***
Total PCB	µg/100 cm^2	**10J**	**33J**	<10UJ	<10UJ	<10UJ	<10UJ

TABLE 5.6

PCB SAMPLING RESULTS
CAPACITOR ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples November 27, 1996 (WP-5579-961127-DJC-)					
Parameter	*Units*	*3037*	*3038*	*3039*	*3040*	*3041*	*3042*
Total PCB	µg/100 cm^2	**11J**	**140**	**37J**	**12J**	**900**	**39J**

		Wall Core Samples (0" to 1/2") November 27, 1996 (C-5579-961127-DJC-)	
Parameter	*Units*	*3138A*	*3141A*
Aroclor 1016	mg/kg	<1.0	<10
Aroclor 1221	mg/kg	<1.0	<10
Aroclor 1232	mg/kg	<1.0	<10
Aroclor 1242	mg/kg	**42**	**430**
Aroclor 1248	mg/kg	<1.0	<10
Aroclor 1254	mg/kg	<1.0	<10
Aroclor 1260	mg/kg	<1.0	<10

		Floor Core Samples (5" to 10") November 27, 1996 (C-5579-961127-DJC-)					
Parameter	*Units*	*3143C*	*3144C*	*3145C*	*3146C*	*3147C*	*3148C*
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1242	mg/kg	**45**	**27**	**7.8**	**2,300**	**3.4**	**16**
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ
Aroclor 1260	mg/kg	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ

TABLE 5.6

PCB SAMPLING RESULTS
CAPACITOR ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Investigative Soil Samples (Surface)					
		November 27, 1996					
		(S-5579-961127-DJC-)					
Parameter	***Units***	***3043***	***3044***	***3045***	***3046***	***3047***	***3048***
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	**6.3**	<1.0	**1.4**	**3.1**	<1.0	**2.1**
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	**0.67**	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0UJ	<1.0UJ	<1.0UJ	<1.0UJ

TABLE 5.7

PCB SAMPLING RESULTS
HYDRAULIC ROOM 1
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples March 18, 1996 (WP-5579-960318-SSH-)					
Parameter	*Units*	*043*	*044*	*045*	*046*	*047*	*048*
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples March 18, 1996 (WP-5579-960318-SSH-)					
Parameter	*Units*	*049*	*050*	*051*	*052*	*053*	*054*
Total PCB	µg/100 cm^2	**11**	<10	<10	<10	<10	**13**

		Floor Core Samples (0" to 1/2") March 18, 1996 (C-5579-960318-SSH-)					
Parameter	*Units*	*149A*	*150A*	*151A*	*152A*	*153A*	*154A*
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Aroclor 1242	mg/kg	**5.2**	**30**	<1.0	**8.5**	**13**	**25**
Aroclor 1248	mg/kg	<1.0	<1.0	**81**	<10	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

		Floor Core Samples (1/2" to 3") March 18, 1996 (C-5579-960318-SSH-)					
Parameter	*Units*	*149B*	*150B*	*151B*	*152B*	*153B*	*154B*
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	<1.0	**1.2**	**5.3**	**1.0**	<1.0	<1.0
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 6.1

PCB SAMPLING RESULTS
PIT 2 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		July 9, 1994			
		Wipe Samples (WP-070994-SSH-)			
Parameter	*Units*	*168*	*176*	*166*	*178*
Total PCB	µg/100cm ^{2}	**130**	**360**	**130**	**2,900**

		July 9, 1994			
		Concrete Core Samples (C-070994-SSH-)			
		(0" to 1/2")		*(fire brick)*	
Parameter	*Units*	*169A*	*177A*	*167A*	*179A*
Aroclor-1016	mg/kg	<12	<2.5	<18	<120
Aroclor-1221	mg/kg	<12	<2.5	<18	<120
Aroclor-1232	mg/kg	<12	<2.5	<18	<120
Aroclor-1242	mg/kg	**39**	**34**	**230**	**1,100**
Aroclor-1248	mg/kg	<12	<2.5	<18	<120
Aroclor-1254	mg/kg	<12	<2.5	<18	<120
Aroclor-1260	mg/kg	<12	<2.5	<18	<120

		(1/2" to 5")		*(under brick to 1/2")*	
Parameter	*Units*	*169B*	*177B*	*167B*	*179B*
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<120
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<120
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<120
Aroclor-1242	mg/kg	<0.33	**0.43**	<0.33	**1,400**
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<120
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<120
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<120

		(5" to 10")		*(1/2" to 10")*	
Parameter	*Units*	*169C*		*167C*	*179C*
Aroclor-1016	mg/kg	<0.33	(1)	<0.33	<120
Aroclor-1221	mg/kg	<0.33		<0.33	<120
Aroclor-1232	mg/kg	<0.33		<0.33	<120
Aroclor-1242	mg/kg	<0.33		**0.36**	**1,100**
Aroclor-1248	mg/kg	<0.33		<0.33	<120
Aroclor-1254	mg/kg	<0.33		<0.33	<120
Aroclor-1260	mg/kg	<0.33		<0.33	<120

Note:

(1) unable to collect complete core.

TABLE 6.2

PCB SAMPLING RESULTS
POWER SUPPLY 2 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*		
		July 9, 1994					
		Wipe Samples (WP-070994-SSH-)					
Parameter	***Units***	***170***	***172***	***174***	***160***	***162***	***164***
Total PCB	µg/100cm ^{2}	**920J**	**400J**	**1,100J**	**800**	**350**	**740**

		July 9, 1994					
		Concrete Core Samples (C-070994-SSH-)					
		(0" to 1/2")			*(0" to 1/2")*		
Parameter	***Units***	***171A***	***173A***	***175A***	***161A***	***163A***	***165A***
Aroclor-1016	mg/kg	<49	<5	<25	<125	<3.9	<55
Aroclor-1221	mg/kg	<49	<5	<25	<125	<3.9	<55
Aroclor-1232	mg/kg	<49	<5	<25	<125	<3.9	<55
Aroclor-1242	mg/kg	**350**	**230**	**500**	**1,700**	**50**	**710**
Aroclor-1248	mg/kg	<49	<5	<25	<125	<3.9	<55
Aroclor-1254	mg/kg	<49	<5	<25	<125	<3.9	<55
Aroclor-1260	mg/kg	<49	<5	<25	<125	<3.9	<55

		(1/2" to 5")			*(1/2" to 5")*		
Parameter	***Units***	***171B***	***173B***	***175B***	***161B***	***163B***	***165B***
Aroclor-1016	mg/kg	<0.33	<0.33	<6.2	<6.2	<0.33	<1.5
Aroclor-1221	mg/kg	<0.33	<0.33	<6.2	<6.2	<0.33	<1.5
Aroclor-1232	mg/kg	<0.33	<0.33	<6.2	<6.2	<0.33	<1.5
Aroclor-1242	mg/kg	**0.99**	**4.1**	**92**	**91**	**39J**	**24**
Aroclor-1248	mg/kg	<0.33	<0.33	<6.2	<6.2	<0.33	<1.5
Aroclor-1254	mg/kg	<0.33	<0.33	<6.2	<6.2	<0.33	<1.5
Aroclor-1260	mg/kg	<0.33	<0.33	<6.2	<6.2	<0.33	<1.5

		(5" to 10")			*(5" to 10")*		
Parameter	***Units***	***171C***	***173C***		***161C***	***163C***	***165C***
Aroclor-1016	mg/kg	<0.33	<0.33	(1)	<0.33	<10	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33		<0.33	<10	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33		<0.33	<10	<0.33
Aroclor-1242	mg/kg	<0.33	**0.92**		**0.77**	**130**	**0.8**
Aroclor-1248	mg/kg	<0.33	<0.33		<0.33	<10	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33		<0.33	<10	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33		<0.33	<10	<0.33

Notes:

J indicates an estimated value
(1) unable to collect complete core.

TABLE 6.3

PCB SAMPLING RESULTS
TRANSFORMER ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples February 25, 1997 (WP-5579-970225-SSH-)					
Parameter	***Units***	***6001***	***6002***	***6003***	***6004***	***6005***	***6006***
Total PCB	µg/100cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples February 25, 1997 (WP-5579-970225-SSH-)					
Parameter	***Units***	***6007***	***6008***	***6009***	***6010***	***6011***	***6012***
Total PCB	µg/100cm^2	<10	<10	<10	<10	<10	<10

TABLE 6.4

PCB SAMPLING RESULTS
HYDRAULIC ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		March 23, 1994			
		Wipe Samples (WP-032394-SSH-)			
Parameter	***Units***	***013***	***017***	***019***	***021***
Total PCB	µg/100cm^2	<10	**13**	**950**	**490**

		March 23, 1994									
		Concrete Core Samples (C-032394-SSH-)									
		(0" to 1/2")						*(0" to 1/2")*			
Parameter	***Units***	***013***	***014***	***015***	***016***	***017***	***018***	***019A***	***020A***	***021A***	***022A***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<12	<37	<7	<9
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<12	<37	<7	<9
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<12	<37	<7	<9
Aroclor-1242	mg/kg	<0.33	<0.33	**1.0**	**0.5**	<0.33	**2.6**	**100**	**630**	**150**	**160**
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<12	<37	<7	<9
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<12	<37	<7	<9
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<12	<37	<7	<9

		(1/2" to 5")			
Parameter	***Units***	***019B***	***020B***	***021B***	***022B***
Aroclor-1016	mg/kg	<0.33	<12	<0.33	<6
Aroclor-1221	mg/kg	<0.33	<12	<0.33	<6
Aroclor-1232	mg/kg	<0.33	<12	<0.33	<6
Aroclor-1242	mg/kg	<0.33	**310**	<0.33	**350**
Aroclor-1248	mg/kg	<0.33	<12	<0.33	<6
Aroclor-1254	mg/kg	<0.33	<12	<0.33	<6
Aroclor-1260	mg/kg	<0.33	<12	<0.33	<6

		(5" to 10")			
Parameter	***Units***	***019C***	***020C***	***021C***	***022C***
Aroclor-1016	mg/kg	<0.33	<6	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<6	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<6	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	**85**	<0.33	<0.33
Aroclor-1248	mg/kg	<0.33	<6	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<6	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<6	<0.33	<0.33

TABLE 6.4

PCB SAMPLING RESULTS
HYDRAULIC ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Investigative Soil Sample (Surface) *June 17, 1996* *(S-5579-960617-SSH-)*
Parameter	***Units***	***1156***
Aroclor 1016	mg/kg	<1.0
Aroclor 1221	mg/kg	<1.0
Aroclor 1232	mg/kg	<1.0
Aroclor 1242	mg/kg	**210**
Aroclor 1248	mg/kg	<1.0
Aroclor 1254	mg/kg	<1.0
Aroclor 1260	mg/kg	<1.0

		Investigative Soil Samples (6") *June 20, 1996* *(S-5579-960620-DJC-)*			
Parameter	***Units***	***1172***	***1175***	***1178***	***1181***
Aroclor 1016	mg/kg	<1.0	<5	<5	<1.0
Aroclor 1221	mg/kg	<1.0	<5	<5	<1.0
Aroclor 1232	mg/kg	<1.0	<5	<5	<1.0
Aroclor 1242	mg/kg	**1.8**	**50**	**26**	**3.7**
Aroclor 1248	mg/kg	<1.0	<5	<5	<1.0
Aroclor 1254	mg/kg	<1.0	<5	<5	<1.0
Aroclor 1260	mg/kg	<1.0	<5	<5	<1.0

		Investigative Soil Samples (1') *June 20, 1996* *(S-5579-960620-DJC-)*			
Parameter	***Units***	***1173***	***1176***	***1179***	***1182***
Aroclor 1016	mg/kg	<1.0	<10	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<10	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<10	<1.0	<1.0
Aroclor 1242	mg/kg	**6.7**	**220**	**18**	**4.8**
Aroclor 1248	mg/kg	<1.0	<10	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<10	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<10	<1.0	<1.0

TABLE 6.4

PCB SAMPLING RESULTS
HYDRAULIC ROOM 2
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Investigative Soil Samples (2') *June 20, 1996* *(S-5579-960620-DJC-)*			
Parameter	***Units***	***1174***	***1177***	***1180***	***1183***
Aroclor 1016	mg/kg	<1.0	<50	<5	<1.0
Aroclor 1221	mg/kg	<1.0	<50	<5	<1.0
Aroclor 1232	mg/kg	<1.0	<50	<5	<1.0
Aroclor 1242	mg/kg	**5.8**	**640**	**40**	**1.4**
Aroclor 1248	mg/kg	<1.0	<50	<5	<1.0
Aroclor 1254	mg/kg	<1.0	<50	<5	<1.0
Aroclor 1260	mg/kg	<1.0	<50	<5	<1.0

		Verification Soil Sample (5') *July 15, 1996* *(S-5579-960715-DJC-)*	
Parameter	***Units***	***1188***	***1189***
Aroclor 1016	mg/kg	<10	<1.0
Aroclor 1221	mg/kg	<10	<1.0
Aroclor 1232	mg/kg	<10	<1.0
Aroclor 1242	mg/kg	**41**	**1.3**
Aroclor 1248	mg/kg	<10	<1.0
Aroclor 1254	mg/kg	<10	<1.0
Aroclor 1260	mg/kg	<10	<1.0

TABLE 7.1

PCB SAMPLING RESULTS
PIT 3 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		July 8, 1994			
		Wipe Samples (WP-070894-SSH-)			
Parameter	*Units*	*136*	*138*	*132*	*134*
Total PCB	µg/100cm ^{2}	**93**	<10	**66**	**40**

		July 8, 1994			
		Concrete Core Samples (C-070894-SSH-)			
		(0" to 1/2")		*(fire brick)*	
Parameter	*Units*	*137A*	*139A*	*133A*	*135A*
Aroclor-1016	mg/kg	<0.75	<0.33	<0.33	<1.5
Aroclor-1221	mg/kg	<0.75	<0.33	<0.33	<1.5
Aroclor-1232	mg/kg	<0.75	<0.33	<0.33	<1.5
Aroclor-1242	mg/kg	**4**	<0.33	<0.33	**3.7**
Aroclor-1248	mg/kg	<0.75	<0.33	<0.33	<1.5
Aroclor-1254	mg/kg	<0.75	<0.33	<0.33	<1.5
Aroclor-1260	mg/kg	<0.75	<0.33	<0.33	<1.5

		(1/2" to 5")		*(under brick to 1/2")*	
Parameter	*Units*	*137B*	*139B*	*133B*	*135B*
Aroclor-1016	mg/kg	<0.33	<0.33	<1.5	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<1.5	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<1.5	<0.33
Aroclor-1242	mg/kg	<0.33	<0.33	**4.9**	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<1.5	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<1.5	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<1.5	<0.33

		(5" to 10")		*(1/2" to 10")*	
Parameter	*Units*	*137C*			*135C*
Aroclor-1016	mg/kg	<0.33	(1)	(1)	<0.33
Aroclor-1221	mg/kg	<0.33			<0.33
Aroclor-1232	mg/kg	<0.33			<0.33
Aroclor-1242	mg/kg	<0.33			<0.33
Aroclor-1248	mg/kg	<0.33			<0.33
Aroclor-1254	mg/kg	<0.33			<0.33
Aroclor-1260	mg/kg	<0.33			<0.33

TABLE 7.1

PCB SAMPLING RESULTS
PIT 3 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		Floor Samples	
		December 27, 1996			
		Wipe Samples (WP-961227-SSH)			
Parameter	***Units***	***4025***	***4026***	***4027***	***4028***
Total PCB	µg/100cm ^{2}	<10	10	12	10

Note:

(1) unable to collect complete core.

TABLE 7.2

PCB SAMPLING RESULTS
POWER SUPPLY 3 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*		
		July 8, 1994					
		Wipe Samples (WP-070894-SSH-)					
Parameter	***Units***	***122***	***126***	***130***	***120***	***124***	***128***
Total PCB	µg/100cm ^{2}	<10	<10	**31**	<10	<10	**32**

		July 8, 1994					
		Concrete Core Samples (C-070894-SSH-)					
		(0" to 1/2")			*(0" to 1/2")*		
Parameter	***Units***	***123A***	***127A***	***131A***	***121A***	***125A***	***129A***
Aroclor-1016	mg/kg	<0.33	<0.33	<1.5	<0.49	<0.33	<1.5
Aroclor-1221	mg/kg	<0.33	<0.33	<1.5	<0.49	<0.33	<1.5
Aroclor-1232	mg/kg	<0.33	<0.33	<1.5	<0.49	<0.33	<1.5
Aroclor-1242	mg/kg	<0.33	<0.33	**16**	**2.6**	**4.4**	<1.5
Aroclor-1248	mg/kg	<0.33	<0.33	<1.5	<0.49	<0.33	<1.5
Aroclor-1254	mg/kg	<0.33	<0.33	<1.5	<0.49	<0.33	<1.5
Aroclor-1260	mg/kg	<0.33	<0.33	<1.5	<0.49	<0.33	<1.5

		(1/2" to 5")			*(1/2" to 5")*		
Parameter	***Units***	***123B***	***127B***	***131B***	***121B***	***125B***	***129B***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<1.5
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<1.5
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<1.5
Aroclor-1242	mg/kg	<0.33	<0.33	**0.54**	**0.69**	**3.3**	<1.5
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<1.5
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<1.5
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<1.5

		(5" to 10")			*(5" to 10")*		
Parameter	***Units***	***123C***	***127C***	***131C***	***121C***	***125C***	***129C***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	<0.33	<0.33	**0.39**	<0.33	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33

TABLE 7.2

PCB SAMPLING RESULTS
POWER SUPPLY 3 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples				*Floor Samples*			
		December 27,1996							
		Wipe Samples (WP-961227-SSH-)							
Parameter	***Units***	***4029***	***4030***	***4031***	***4032***	***4033***	***4034***	***4035***	***4036***
Total PCB	µg/100cm^2	83	16	<10	<10	10	520	10	<10

TABLE 7.3

PCB SAMPLING RESULTS
TRANSFORMER ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples September 4, 1996 (WP-5579-960904-DJC-)					
Parameter	*Units*	*2019*	*2020*	*2021*	*2022*	*2023*	*2024*
Total PCB	µg/100cm^2	<10UJ	**11J**	<10UJ	**10J**	<10UJ	<10UJ

		Floor Wipe Samples September 4, 1996 (WP-5579-960904-DJC-)					
Parameter	*Units*	*2025*	*2026*	*2027*	*2028*	*2029*	*2030*
Total PCB	µg/100cm^2	**31**	**43**	**37**	**10J**	<10UJ	<10UJ

TABLE 7.4

PCB SAMPLING RESULTS
CONTROL ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples September 4, 1996 (WP-5579-960904-DJC-)					
Parameter	***Units***	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***
Total PCB	µg/100cm^2	<10UJ	<10UJ	<10UJ	<10UJ	<10UJ	<10UJ

		Floor Wipe Samples September 4, 1996 (WP-5579-960904-DJC-)					
Parameter	***Units***	***2007***	***2008***	***2009***	***2010***	***2011***	***2012***
Total PCB	µg/100cm^2	<10UJ	<10UJ	<10UJ	**10J**	<10UJ	<10UJ

TABLE 7.5

PCB SAMPLING RESULTS
CAPACITOR ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples September 4, 1996 (WP-5579-960904-DJC-)					
Parameter	*Units*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*
Total PCB	µg/100 cm^2	**61J**	<10UJ	**58**	<10	**11**	**10**

		Floor Core Samples (5"-10") September 5, 1996 (C-5579-960905-DJC-)					
Parameter	*Units*	*2131C*	*2132C*	*2133C*	*2134C*	*2135C*	*2136C*
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

		Investigative Soil Samples (Surface) September 5, 1996 (S-5579-960905-DJC-)					
Parameter	*Units*	*2031*	*2032*	*2033*	*2034*	*2035*	*2036*
Aroclor 1016	mg/kg	<1.0	<10	<10	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<10	<10	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<10	<10	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	**7.5**	**360**	**650**	**27**	**1.9**	**12.7**
Aroclor 1248	mg/kg	<1.0	<10	<10	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

		Verification Soil Samples (3' to 5') September 24, 1996 (S-5579-960924-SSH-)	
Parameter	*Units*	*2037*	*2038*
Aroclor 1016	mg/kg	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0
Aroclor 1242	mg/kg	<1.0	<1.0
Aroclor 1248	mg/kg	<1.0	**1.0**
Aroclor 1254	mg/kg	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0

TABLE 7.6

PCB SAMPLING RESULTS
HYDRAULIC ROOM 3
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples December 26, 1996 (WP-5579-961226-DJC-)					
Parameter	***Units***	***5007***	***5008***	***5009***	***5010***	***5011***	***5012***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples December 26, 1996 (WP-5579-961226-DJC-)					
Parameter	***Units***	***5001***	***5002***	***5003***	***5004***	***5005***	***5006***
Total PCB	µg/100 cm^2	**34**	**53**	<10	**11**	**110**	<10

		Floor Core Samples (0" to 3") December 26, 1996 (C-5579-961226-DJC-)
Parameter	***Units***	***5105***
Aroclor		
1016	mg/kg	<10
1221	mg/kg	<10
1232	mg/kg	<10
1242	mg/kg	115
1248	mg/kg	<10
1254	mg/kg	<10
1260	mg/kg	<10

TABLE 8.1

PCB SAMPLING RESULTS
PIT 4 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		July 8, 1994			
		Wipe Samples (WP-070894-SSH-)			
Parameter	***Units***	***116***	***118***	***106***	***108***
Total PCB	µg/100cm^2	<10	**42**	<10	<10

		July 8, 1994			
		Concrete Core Samples (C-070894-SSH-)			
		(0" to 1/2")		*(fire brick)*	
Parameter	***Units***	***117A***	***119A***	***107A***	***109A***
Aroclor-1016	mg/kg	<0.33	<0.33UJ	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33UJ	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33UJ	<0.33	<0.33
Aroclor-1242	mg/kg	**1.1**	**1.2J**	<0.33	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33UJ	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33UJ	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33UJ	<0.33	<0.33

		(1/2" to 5")		*(under brick to 1/2")*	
Parameter	***Units***	***117B***	***119B***		***109B***
Aroclor-1016	mg/kg	<0.33	<0.33	(1)	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33		<0.33
Aroclor-1232	mg/kg	<0.33	<0.33		<0.33
Aroclor-1242	mg/kg	<0.33	<0.33		<0.33
Aroclor-1248	mg/kg	<0.33	<0.33		<0.33
Aroclor-1254	mg/kg	<0.33	<0.33		<0.33
Aroclor-1260	mg/kg	<0.33	<0.33		<0.33

		(5" to 10")		*(1/2" to 10")*	
Parameter	***Units***	***117C***	***119C***		
Aroclor-1016	mg/kg	<0.33	<0.33	(1)	(1)
Aroclor-1221	mg/kg	<0.33	<0.33		
Aroclor-1232	mg/kg	<0.33	<0.33		
Aroclor-1242	mg/kg	<0.33	<0.33		
Aroclor-1248	mg/kg	<0.33	<0.33		
Aroclor-1254	mg/kg	<0.33	<0.33		
Aroclor-1260	mg/kg	<0.33	<0.33		

Note:

(1) unable to collect complete core.

TABLE 8.1

PCB SAMPLING RESULTS
PIT 4 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		February 7, 1997			
		Wipe Samples (WP-5579-970297-SSH-)			
Parameter	***Units***	***4046***	***4047***	***4052***	***4053***
Total PCB	µg/100cm	<10	<10	**22**	**16**

TABLE 8.2

PCB SAMPLING RESULTS
POWER SUPPLY 4 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*		
		July 8, 1994					
		Wipe Samples (WP-070894-SSH-)					
Parameter	***Units***	***102***	***112***	***114***	***100***	***104***	***110***
Total PCB	µg/100cm^2	<10	**47**	<10	<10	<10	<10

		July 8, 1994					
		Concrete Core Samples (C-070894-SSH-)					
		(0" to 1/2")			*(0" to 1/2 ")*		
Parameter	***Units***	***103A***	***113A***	***115A***	***101A***	***105A***	***111A***
Aroclor-1016	mg/kg	<0.33UJ	<0.62	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33UJ	<0.62	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33UJ	<0.62	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33UJ	**4.3**	**0.82**	<0.33	<0.33	**1.7**
Aroclor-1248	mg/kg	<0.33UJ	<0.62	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33UJ	**0.75**	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33UJ	<0.62	<0.33	<0.33	<0.33	<0.33

		(1/2" to 5")			*(1/2" to 5")*		
Parameter	***Units***	***103B***	***113B***	***115B***	***101B***		***111B***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	(1)	<1.2
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33		<1.2
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33		<1.2
Aroclor-1242	mg/kg	<0.33	<0.33	<0.33	<0.33		**4.6**
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33		<1.2
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33		**2.1**
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33		<1.2

		(5" to 10")			*(5" to 10")*		
Parameter	***Units***	***103C***		***115C***	***101C***		***111C***
Aroclor-1016	mg/kg	<0.33	(1)	<0.33	<0.33	(1)	<0.33
Aroclor-1221	mg/kg	<0.33		<0.33	<0.33		<0.33
Aroclor-1232	mg/kg	<0.33		<0.33	<0.33		<0.33
Aroclor-1242	mg/kg	<0.33		<0.33	<0.33		<0.33
Aroclor-1248	mg/kg	<0.33		<0.33	<0.33		<0.33
Aroclor-1254	mg/kg	<0.33		<0.33	<0.33		<0.33
Aroclor-1260	mg/kg	<0.33		<0.33	<0.33		<0.33

Note:

(1) unable to collect complete core.

TABLE 8.2

PCB SAMPLING RESULTS
POWER SUPPLY 4 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples				*Floor Samples*			
		February 7, 1997							
		Wipe Samples (WP-5579-970207-SSH-)							
Parameter	*Units*	*4048*	*4049*	*4050*	*4051*	*4054*	*4055*	*4056*	*4057*
Total PCB	µg/100cm^2	**10**	<10	<10	<10	<10	<10	<10	**26**

TABLE 8.3

PCB SAMPLING RESULTS
GENERATOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples June 7, 1996 (WP-5579-960607-DJC-)					
Parameter	***Units***	***1007***	***1008***	***1009***	***1010***	***1011***	***1012***
Total PCB	$\mu g/100\ cm^2$	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples June 10, 1996 (WP-5579-960610-DJC-)					
Parameter	***Units***	***1025***	***1026***	***1027***	***1028***	***1029***	***1030***
Total PCB	$\mu g/100\ cm^2$	<10	<10	<10	<10	**10**	<10

TABLE 8.4

PCB SAMPLING RESULTS
TRANSFORMER ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples June 7, 1996 (WP-5579-960607-DJC-)					
Parameter	***Units***	***1013***	***1014***	***1015***	***1016***	***1017***	***1018***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples June 10, 1996 (WP-5579-960610-DJC-)					
Parameter	***Units***	***1031***	***1032***	***1033***	***1034***	***1035***	***1036***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	**37**	**24**

TABLE 8.5

PCB SAMPLING RESULTS
CONTROL ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples June 7, 1996 (WP-5579-960607-DJC-)					
Parameter	***Units***	***1019***	***1020***	***1021***	***1022***	***1023***	***1024***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples June 10, 1996 (WP-5579-960610-DJC-)					
Parameter	***Units***	***1037***	***1038***	***1039***	***1040***	***1041***	***1042***
Total PCB	µg/100 cm^2	<10	<10	**30**	<10	<10	<10

TABLE 8.6

PCB SAMPLING RESULTS
CAPACITOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples *June 7, 1996* *(WP-5579-960607-DJC-)*					
Parameter	***Units***	***1001***	***1002***	***1003***	***1004***	***1005***	***1006***
Total PCB	µg/100 cm^2	**12**	**44**	**80**	**90**	**13**	<10

		Floor Core Samples (5"-10") *June 10, 1996* *(C-5579-960610-DJC-)*					
Parameter	***Units***	***1149C***	***1150C***	***1151C***	***1152C***	***1153C***	***1154C***
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	<1.0	<1.0	**24**	<1.0	<1.0	<1.0
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

		Investigative Soil Samples (Surface) *June 17, 1996* *(S-5579-960617-SSH-)*
Parameter	***Units***	***1155***
Aroclor 1016	mg/kg	<1.0
Aroclor 1221	mg/kg	<1.0
Aroclor 1232	mg/kg	<1.0
Aroclor 1242	mg/kg	**10**
Aroclor 1248	mg/kg	<1.0
Aroclor 1254	mg/kg	<1.0
Aroclor 1260	mg/kg	<1.0

TABLE 8.6

PCB SAMPLING RESULTS
CAPACITOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Investigative Soil Samples (6")				
		June 20, 1996				
		(S-5579-960620-SSH-)				
Parameter	***Units***	***1157***	***1160***	***1163***	***1166***	***1169***
Aroclor 1016	mg/kg	<10UJ	<1.0	<5UJ	<10	<1.0
Aroclor 1221	mg/kg	<10UJ	<1.0	<5UJ	<10	<1.0
Aroclor 1232	mg/kg	<10UJ	<1.0	<5UJ	<10	<1.0
Aroclor 1242	mg/kg	**91J**	**17**	**55J**	**96**	<1.0
Aroclor 1248	mg/kg	<10UJ	<1.0	<5UJ	<10	<1.0
Aroclor 1254	mg/kg	<10UJ	<1.0	<5UJ	<10	<1.0
Aroclor 1260	mg/kg	<10UJ	<1.0	<5UJ	<10	<1.0

		Investigative Soil Samples (1')				
		June 20, 1996				
		(S-5579-960620-SSH-)				
Parameter	***Units***	***1158***	***1161***	***1164***	***1167***	***1170***
Aroclor 1016	mg/kg	<5	<1.0	<10	<1.0	<1.0UJ
Aroclor 1221	mg/kg	<5	<1.0	<10	<1.0	<1.0UJ
Aroclor 1232	mg/kg	<5	<1.0	<10	<1.0	<1.0UJ
Aroclor 1242	mg/kg	**19**	**5.6**	**120**	**2.3**	<1.0UJ
Aroclor 1248	mg/kg	<5	<1.0	<10	<1.0	<1.0UJ
Aroclor 1254	mg/kg	<5	<1.0	<10	<1.0	<1.0
Aroclor 1260	mg/kg	<5	<1.0	<10	<1.0	<1.0

		Investigative Soil Samples (2')				
		June 20, 1996				
		(S-5579-960620-SSH-)				
Parameter	***Units***	***1159***	***1162***	***1165***	***1168***	***1171***
Aroclor 1016	mg/kg	<1.0	<1.0UJ	<1.0UJ	<5UJ	<1.0UJ
Aroclor 1221	mg/kg	<1.0	<1.0UJ	<1.0UJ	<5UJ	<1.0UJ
Aroclor 1232	mg/kg	<1.0	<1.0UJ	<1.0UJ	<5UJ	<1.0UJ
Aroclor 1242	mg/kg	**8.3**	<1.0UJ	<1.0UJ	**76J**	<1.0UJ
Aroclor 1248	mg/kg	<1.0	<1.0UJ	<1.0UJ	<5UJ	<1.0UJ
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<5UJ	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<5UJ	<1.0

TABLE 8.6

PCB SAMPLING RESULTS
CAPACITOR ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Verification Soil Samples (3'-5')			
		July 9, 1996			
		(S-5579-960709-SSH-)			
Parameter	***Units***	***1184***	***1185***	***1186***	***1187***
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	<1.0	<1.0	<1.0	<1.0
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0

TABLE 8.7

PCB SAMPLING RESULTS
HYDRAULIC ROOM 4
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples December 26, 1996 (WP-5579-961226-DJC-)					
Parameter	***Units***	***5019***	***5020***	***5021***	***5022***	***5023***	***5024***
Total PCB	$\mu g/100\ cm^2$	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples December 26, 1996 (WP-5579-961226-DJC-)					
Parameter	***Units***	***5013***	***5014***	***5015***	***5016***	***5017***	***5018***
Total PCB	$\mu g/100\ cm^2$	<10	<10	<10	<10	<10	<10

TABLE 9.1

PCB SAMPLING RESULTS
PIT 5 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*	
		July 9, 1994			
		Wipe Samples (WP-070994-SSH-)			
Parameter	*Units*	*192*	*198*	*194*	*196*
Total PCB	µg/100cm ^{2}	<10	**12**	<10	**16**

		July 9, 1994			
		Concrete Core Samples (C-070994-SSH-)			
		(0" to 1/2")		*(fire brick)*	
Parameter	*Units*	*193A*	*199A*	*195A*	*197A*
Aroclor-1016	mg/kg	<0.33	<1.3	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<1.3	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<1.3	<0.33	<0.33
Aroclor-1242	mg/kg	**3.9**	**2.1**	**1**	<0.33
Aroclor-1248	mg/kg	<0.33	<1.3	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<1.3	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<1.3	<0.33	<0.33

		(1/2" to 5")		*(under brick to 1/2")*	
Parameter	*Units*	*193B*	*199B*	*195B*	*197B*
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	<0.33	**0.69**	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33

		(5" to 10")		*(1/2" to 10")*	
Parameter	*Units*	*193C*	*199C*	*195C*	*197C*
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33

TABLE 9.1

PCB SAMPLING RESULTS
PIT 5 AREA
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples November 27, 1996 (WP-5579-961127-SSH-)	
Parameter	***Units***	***4005***	***4006***
Total PCB	µg/100 cm^2	**11J**	**70J**

		Floor Wipe Samples November 27, 1996 (WP-5579-961127-SSH-)		
Parameter	***Units***	***4007***	***4008***	***4012***
Total PCB	µg/100 cm^2	**17J**	<10UJ	**12J**

TABLE 9.2

PCB SAMPLING RESULTS
POWER SUPPLY 5 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples			*Floor Samples*		
		July 9, 1994					
		Wipe Samples (WP-070994-SSH-)					
Parameter	***Units***	***182***	***184***	***190***	***180***	***186***	***188***
Total PCB	µg/100cm^2	<10	**260J**	**690J**	**15**	**14J**	**12**

		July 9, 1994					
		Concrete Core Samples (C-070994-SSH-)					
		(0" to 1/2")			*(0" to 1/2")*		
Parameter	***Units***	***183A***	***185A***	***191A***	***181A***	***187A***	***189A***
Aroclor-1016	mg/kg	<0.33	<0.33	<12	<0.33UJ	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<12	<0.33UJ	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<12	<0.33UJ	<0.33	<0.33
Aroclor-1242	mg/kg	**2.1**	**3.3**	**130**	**1J**	<0.33	**1.7**
Aroclor-1248	mg/kg	<0.33	<0.33	<12	<0.33UJ	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<12	<0.33UJ	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<12	<0.33UJ	<0.33	<0.33

		(1/2" to 5")			*(1/2" to 5")*		
Parameter	***Units***	***183B***	***185B***	***191B***	***181B***	***187B***	***189B***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	**0.53**	**6.2**	**0.38**	**0.42**	**7.5**
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33

		(5" to 10")			*(5" to 10")*		
Parameter	***Units***		***185C***	***191C***	***181C***	***187C***	***189C***
Aroclor-1016	mg/kg	(1)	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg		<0.33	<0.33	<0.33	<0.33	<0.33

Notes:

J indicates an estimated value
(1) unable to collecte complete core.

TABLE 9.2

PCB SAMPLING RESULTS
POWER SUPPLY 5 BUSS TUNNEL TO PIT
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples November 27, 1996 (WP-5579-961127-SSH-)			
Parameter	***Units***	***4001***	***4002***	***4003***	***4004***
Total PCB	µg/100 cm^2	<10UJ	**270J**	<10UJ	**11J**

		Floor Wipe Samples November 27, 1996 (WP-5579-961127-SSH-)		
Parameter	***Units***	***4009***	***4010***	***4011***
Total PCB	µg/100 cm^2	<10UJ	<10UJ	**39J**

TABLE 9.3

PCB SAMPLING RESULTS
GENERATOR ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples March 13, 1996 (WP-5579-960313-SSH-)					
Parameter	***Units***	***001***	***002***	***003***	***004***	***005***	***006***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples March 14, 1996 (WP-5579-960314-SSH-)					
Parameter	***Units***	***019***	***020***	***021***	***022***	***023***	***024***
Total PCB	µg/100 cm^2	<10	**11**	<10	**13**	**19**	**16**

TABLE 9.4

PCB SAMPLING RESULTS
TRANSFORMER ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples March 13, 1996 (WP-5579-960313-SSH-)					
Parameter	***Units***	***007***	***008***	***009***	***010***	***011***	***012***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples March 15, 1996 (WP-5579-960315-SSH-)					
Parameter	***Units***	***025***	***026***	***027***	***028***	***029***	***030***
Total PCB	µg/100 cm^2	**147**	**70**	**43**	**82**	**60**	**12**

		Floor Core Samples (0" - 1/2") March 15, 1996 (C-5579-960315-SSH-)
Parameter	***Units***	***125A***
Aroclor 1016	mg/kg	<1.0
Aroclor 1221	mg/kg	<1.0
Aroclor 1232	mg/kg	<1.0
Aroclor 1242	mg/kg	**2.1**
Aroclor 1248	mg/kg	<1.0
Aroclor 1254	mg/kg	<1.0
Aroclor 1260	mg/kg	<1.0

		Floor Core Samples (1/2" - 5") March 15, 1996 (C-5579-960315-SSH-)
Parameter	***Units***	***125B***
Aroclor 1016	mg/kg	<1.0
Aroclor 1221	mg/kg	<1.0
Aroclor 1232	mg/kg	<1.0
Aroclor 1242	mg/kg	<1.0
Aroclor 1248	mg/kg	<1.0
Aroclor 1254	mg/kg	<1.0
Aroclor 1260	mg/kg	<1.0

TABLE 9.4

PCB SAMPLING RESULTS
TRANSFORMER ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Floor Core Samples (5" - 10")
		March 15, 1996
		(C-5579-960315-SSH-)
Parameter	***Units***	***125C***
Aroclor 1016	mg/kg	<1.0
Aroclor 1221	mg/kg	<1.0
Aroclor 1232	mg/kg	<1.0
Aroclor 1242	mg/kg	<1.0
Aroclor 1248	mg/kg	<1.0
Aroclor 1254	mg/kg	<1.0
Aroclor 1260	mg/kg	<1.0

TABLE 9.5

PCB SAMPLING RESULTS
CONTROL ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples March 13, 1996 (WP-5579-960313-SSH-)					
Parameter	***Units***	***013***	***014***	***015***	***016***	***017***	***018***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples March 15, 1996 (WP-5579-960315-SSH-)					
Parameter	***Units***	***031***	***032***	***033***	***034***	***035***	***036***
Total PCB	µg/100 cm^2	**17**	<10	<10	<10	<10	<10

TABLE 9.6

PCB SAMPLING RESULTS
CAPACITOR ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples March 15, 1996 (WP-5579-960315-SSH-)					
Parameter	***Units***	***037***	***038***	***039***	***040***	***041***	***042***
Total PCB	µg/100 cm^2	**65**	**15**	**17**	**48**	**77**	**46**

		Floor Core Samples (5" - 10") March 15, 1996 (C-5579-960315-SSH-)					
Parameter	***Units***	***143C***	***144C***	***145C***	***146C***	***147C***	***148C***
Aroclor 1016	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1221	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1232	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1242	mg/kg	<1.0	**1.3**	**1.9**	<1.0	<1.0	<1.0
Aroclor 1248	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1254	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 9.7

PCB SAMPLING RESULTS
HYDRAULIC ROOM 5
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Wipe Samples June 11, 1996 (WP-5579-960611-DJC-)					
Parameter	***Units***	***1049***	***1050***	***1051***	***1052***	***1053***	***1054***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

		Floor Wipe Samples June 11, 1996 (WP-5579-960611-DJC-)					
Parameter	***Units***	***1043***	***1044***	***1045***	***1046***	***1047***	***1048***
Total PCB	µg/100 cm^2	<10	<10	<10	<10	<10	<10

TABLE 10.1

PCB SAMPLING RESULTS
BUSS TUNNEL
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*		
		July 9, 1994				
		Wipe Samples (WP-070994-SSH-)				
Parameter	***Units***	***200***	***206***	***202***	***204***	***208***
Total PCB	µg/100cm^2	**12**	<10	**170**	<10	**28**

		July 9, 1994				
		Concrete Core Samples (C-070994-SSH-)				
		(0" to 1/2")		*(0" to 1/2")*		
Parameter	***Units***	***201A***	***207A***	***203A***	***205A***	***209A***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	**0.39**	**0.72**	**5.4**	<0.33	**4.2J**
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33

		(1/2" to 5")		*(1/2" to 5")*		
Parameter	***Units***			***203B***	***205B***	***209B***
Aroclor-1016	mg/kg	(1)	(1)	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg			<0.33	<0.33	<0.33
Aroclor-1232	mg/kg			<0.33	<0.33	<0.33
Aroclor-1242	mg/kg			<0.33	<0.33	<0.33
Aroclor-1248	mg/kg			<0.33	<0.33	<0.33
Aroclor-1254	mg/kg			<0.33	<0.33	<0.33
Aroclor-1260	mg/kg			<0.33	<0.33	<0.33

		(5" to 10")		*(5" to 10")*		
Parameter	***Units***					
Aroclor-1016	mg/kg	(1)	(1)	(1)	(1)	(1)
Aroclor-1221	mg/kg					
Aroclor-1232	mg/kg					
Aroclor-1242	mg/kg					
Aroclor-1248	mg/kg					
Aroclor-1254	mg/kg					
Aroclor-1260	mg/kg					

Notes:

J indicates an estimated value

(1) unable to collect complete core.

TABLE 10.1

PCB SAMPLING RESULTS
BUSS TUNNEL
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

		Wall Samples		*Floor Samples*			
		September 13, 1994					
		Wipe Samples (WP-091394-SSH-)					
Parameter	***Units***	***210***	***212***	***214***	***216***	***218***	***220***
Total PCB	µg/100cm^2	<10	<10	<10	<10	**23**	<10

		September 13, 1994					
		Concrete Core Samples (C-091394-SSH-)					
		(0" to 1/2")		*(0" to 1/2")*			
Parameter	***Units***	***211A***	***213A***	***215A***	***217A***	***219A***	***221A***
Aroclor-1016	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33	**0.58**	**2.4**	**0.93**	**0.033**	<0.33
Aroclor-1248	mg/kg	<0.33	<0.33	<0.33	<0.33	**7**	**2.7**
Aroclor-1254	mg/kg	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33	<0.33	**0.72**	**0.56**	**1.2**	**0.58**

		(1/2" to 5")		*(1/2" to 5")*			
Parameter	***Units***	***211B***		***215B***	***217B***	***219B***	***221B***
Aroclor-1016	mg/kg	<0.33	(1)	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1248	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33

		(5" to 10")		*(5" to 10")*			
Parameter	***Units***	***211C***		***215C***	***217C***	***219C***	***221C***
Aroclor-1016	mg/kg	<0.33	(1)	<0.33	<0.33	<0.33	<0.33
Aroclor-1221	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1232	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1242	mg/kg	<0.33		<0.33	<0.33	<0.33	**0.44**
Aroclor-1248	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1254	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33
Aroclor-1260	mg/kg	<0.33		<0.33	<0.33	<0.33	<0.33

Note:

(1) unable to collect complete core.

TABLE 10.1

PCB SAMPLING RESULTS
BUSS TUNNEL
GMPT SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Wall Samples
December 28, 1996
Wipe Samples (WP-961228-SSH-)

Parameter	*Units*	*4039*	*4042*	*4045*
Total PCB	µg/100cm^2	960	<10	10

Floor Samples
December 28, 1996
Wipe Samples (WP-961228-SSH-)

Parameter	*Units*	*4037*	*4038*	*4040*	*4041*	*4043*	*4044*
Total PCB	µg/100cm^2	<10	<10	<10	29	<10	<10