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December 19, 2008

MEMORANDUM

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cc: Marilyn Dedyne, GM
Fred Rindhage, GM
Jean Caufield, GM
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From: Francis Ramacciotti
Steve Song

Subject: Soil, Groundwater, and LNAPL Data Evaluation
GM Pontiac Validation Center, Pontiac, Michigan

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ENVIRON has performed a data screening and risk evaluation using the existing soil, groundwater, and light non-aqueous phase liquid (LNAPL) data collected at the General Motors (GM) Pontiac Validation Center in Pontiac, Michigan (Site) to identify potentially significant current and future exposures. Potential routine worker, maintenance worker, and construction worker exposures to soil, groundwater, and LNAPL were evaluated based on an understanding that GM intends to use a deed restriction to restrict future land use at the Site to commercial/industrial. The data used in the data screening and risk evaluation included those collected from 1989 through 2008 during various environmental site assessments. While the data collected in 2007 and 2008 are believed to be the most representative of current conditions at the Site, all data were used in screening and risk evaluation.

Methodology

Data screening was performed using Michigan Department of Environmental Quality (MDEQ) Part 201 Generic Screening Levels (MDEQ Operational Memorandum No. 1, Part 201 Cleanup Criteria, January 2006), which are based on a target cancer risk of 10^{-5} and a target hazard quotient of 1.

Soil screening criteria used include the following:

1. MDEQ Part 201 industrial and residential direct contact criteria;
2. MDEQ Part 201 industrial and residential soil volatilization to indoor air criteria;
3. MDEQ Part 201 industrial and residential soil inhalation criteria (outdoor air); and,
4. MDEQ Part 201 industrial and residential particulate inhalation criteria.

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Groundwater screening criteria used include the following:

1. MDEQ Part 201 industrial and residential drinking water criteria;
2. MDEQ Part 201 industrial and residential groundwater volatilization to indoor air criteria; and
3. MDEQ Part 201 groundwater contact criteria.

The data screening included Part 201 criteria for residential soil and groundwater exposures even though current and reasonably expected future land use is commercial/industrial to assist in identifying locations that should be considered for inclusion in a "due care plan" under Michigan Part 201 (reference).

In addition to the data screening, ENVIRON calculated cumulative cancer risk and non-cancer hazard index (HI) estimates for potential exposure to constituents in soil, groundwater, and LNAPL at the Site for the following exposure scenarios:

- routine worker ingestion, dermal contact, and inhalation of constituents in soil during typical activities that occur outdoors;
- routine worker inhalation of constituents in soil, groundwater, or LNAPL that volatilize and migrate into indoor air assuming a hypothetical commercial/industrial building that has the characteristics that MDEQ assumed in its derivation of the commercial/industrial soil and groundwater volatilization to indoor air criteria;
- maintenance worker and construction worker ingestion, dermal contact, and inhalation of constituents in soil during excavations into the subsurface;
- maintenance worker and construction worker ingestion, dermal contact, and inhalation of constituents in groundwater during excavations that extend into groundwater; and,
- maintenance worker and construction worker dermal contact, and inhalation of constituents in LNAPL during excavations that extend into LNAPL.

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Cumulative cancer risk and HI estimates for potential exposures to soil were calculated using the highest concentration of each chemical from any depth at all sample locations across the Site. Cumulative cancer risk and HI estimates for potential exposures to groundwater were calculated using the highest concentration of each chemical in groundwater from all sample locations across the Site during any sampling event. Cumulative cancer risk and HI estimates for potential exposures to LNAPL were calculated using the highest concentration of each chemical in LNAPL from MW69-08, which is the only location where LNAPL was sampled. Because the highest concentration detected in soil, groundwater, and LNAPL were used in the risk calculations, the resulting risk estimates should be considered upper-bound risk estimates, which are more conservative than reasonable maximum exposure (RME) risk estimates. Figure 1 shows the locations where data have been collected at the Site.

Summary of Results

The soil and groundwater data from the Site were compared to the screening criteria discussed above to identify locations that should be considered for inclusion in a "due care plan" under Michigan Part 201 Natural Resources and Environmental Reporting Act 1994 PA 541. The results of the comparison are summarized on Tables 1a and 2a, which show the highest site-

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Aug 07, 2009 14:51

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related[1] concentrations of constituents detected in soil and groundwater, and highlight the ratios of the concentration to screening criteria that are higher than 1. The individual soil and groundwater samples and constituents that exceeded the screening criteria are presented on Tables 1b and 2b, respectively.

The upper-bound cumulative cancer risk and HI estimates for potential routine worker contact with outdoor soil are summarized on Table 3a. Table 3a also summarizes the upper-bound risk estimates for potential routine worker exposure via vapor intrusion into a hypothetical commercial/industrial building and potential maintenance worker and construction worker contact with soil. As shown in this table, none of these upper-bound cumulative cancer risk estimates exceeds USEPA's acceptable cumulative cancer risk limit of 10^{-4} for RME risks. However, all of the upper-bound HI estimates exceed USEPA's acceptable HI limit of 1 for RME risks. The upper-bound HI estimates that exceed 1 are due to elevated xylene concentrations in soil (up to 23,000 mg/kg) at former tanks south of Building 17 (as shown on Figure 2). These xylene data were collected in 1989 and 1995 and may not be representative of current concentrations at this area. However, in the absence of more representative data these data are indicate a potential for significant exposure via volatilization to indoor air and routine worker, maintenance worker, and construction worker direct contact with soil in this area.

The upper-bound risk estimates for routine worker, maintenance worker, and construction worker direct contact exposures were refined to identify additional areas where potentially significant exposures may exist by removing the historic data collected at the former tanks south of Building 17 and using 95% UCLs in place of the maximum detected concentration for constituents contributing most significantly to the HI estimates. Specifically, the maximum detected concentrations of naphthalene, PCBs (total), manganese, and mercury were replaced with 95% UCLs which were conservatively calculated using maximum detected concentration with the highest concentrations at any depth from the nine locations nearest to the maximum concentration. These high-end estimates of cumulative cancer risk and HI for routine worker, maintenance worker, and construction worker exposure are shown on Table 3b. As shown on Table 3b, the cumulative cancer risk estimates, after incorporating these refinements, meet USEPA's HI limit for RME exposures except for the construction worker HI which slightly exceeds 1. However, the noncancer HI estimates on Table 3b sum the hazard quotient for individual chemicals regardless of the effects of each chemical. Segregating the hazard index by health effect or target organ, which is consistent with USEPA risk assessment methodology, gives HI estimates for construction worker exposure that do not exceed USEPA's HI limit, as shown on Table 3c.

The upper-bound HI estimate for potential routine worker exposure to constituents in soil that could volatilize and migrate into a hypothetical commercial/industrial building were refined by using the vertically averaged concentration of 1,2,4-trimethylbenzene at location MW-33-07 instead of the maximum detected concentration of 1,2,4-trimethylbenzene and are summarized on Table 3b. As shown in this table, the HI estimate for potential routine worker vapor intrusion exposure meets USEPA's acceptable noncancer HI limit of 1 for RME risk.

[1] Manganese concentrations at or below 440 mg/kg were assumed to represent the naturally occurring background concentration of manganese in soil (i.e., not included in site-related risk estimates) per MDEQ Part 201 (January 2006).

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The upper-bound cumulative cancer risk and HI estimates for potential routine worker exposure via vapor intrusion and potential maintenance worker and construction worker direct contact exposure to constituents in groundwater are summarized on Table 4. As shown in this table, none of the upper-bound cumulative cancer risk and HI estimates exceeds USEPA's acceptable cumulative cancer risk and noncancer HI limits of 10^{-4} and 1 for RME risks, respectively.

The upper-bound cumulative cancer risk and HI estimates for potential routine worker exposure via vapor intrusion into a hypothetical commercial/industrial building and potential maintenance worker direct contact exposure to constituents in LNAPL are summarized on Table 5. As shown in this table, none of the upper-bound cumulative cancer risk and HI estimates exceeds USEPA's acceptable cumulative cancer risk and noncancer HI limits of 10^{-4} and 1 for RME risks, respectively, except the HI for potential maintenance worker or construction worker contact with LNAPL. The extent of LNAPL around monitoring well MW69-08, the location where LNAPL was sampled, has been delineated and is shown on Figure 3. LNAPL was also identified near monitoring well MW33-07, however, no sample of that LNAPL was collected for chemical analysis because of insufficient sample volume.

Based on the results summarized on Table 3b, Table 4, and Table 5, the soil, groundwater, and LNAPL data used in the evaluation do not indicate a potential for significant worker exposures at the Site, except for xylene concentrations in soil south of Building 17 (Figure 2) and chloromethane concentrations in LNAPL north of Building 17 (Figure 3).

Please contact us if you have questions regarding this evaluation for the GM Pontiac Validation Center Site.

Enclosures

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
Background	INORG	Antimony	7440-36-0		18	18	3.00E-02	1.60E-01						1.3E+04	1.2E-05	1.8E+02	8.9E-04					5.9E+03	2.7E-05	6.7E+02	2.4E-04
Background	INORG	Arsenic	7440-38-2	A	19	19	1.20E+00	6.70E+00						7.2E+02	9.3E-03	7.6E+00	8.8E-01					9.1E+02	7.4E-03	3.7E+01	1.8E-01
Background	INORG	Barium	7440-39-3	NC	19	19	4.70E+00	2.14E+02						3.3E+05	6.5E-04	3.7E+04	5.8E-03					1.5E+05	1.4E-03	1.3E+05	1.6E-03
Background	INORG	Beryllium	7440-41-7	B1	19	17	1.40E-01	4.40E-01						1.3E+03	3.4E-04	4.1E+02	1.1E-03					5.9E+02	7.5E-04	1.6E+03	2.8E-04
Background	INORG	Cadmium	7440-43-9	B1	19	19	6.40E-02	6.20E-01						1.7E+03	3.6E-04	5.5E+02	1.1E-03					2.2E+03	2.8E-04	2.1E+03	3.0E-04
Background	INORG	Chromium III	16065-83-1	D	19	19	4.49E+00	1.52E+01						3.3E+05	4.6E-05	7.9E+05	1.9E-05					1.5E+05	1.0E-04	1.0E+06	1.5E-05
Background	INORG	Cobalt	7440-48-4	LC	19	19	2.40E+00	1.33E+01						1.3E+04	1.0E-03	2.6E+03	5.1E-03					5.9E+03	2.3E-03	9.0E+03	1.5E-03
Background	INORG	Copper	7440-50-8	D	19	19	6.10E+00	1.80E+01						1.3E+05	1.4E-04	2.0E+04	9.0E-04					5.9E+04	3.1E-04	7.3E+04	2.5E-04
Background	INORG	Lead	7439-92-1	B2	19	19	3.50E+00	2.76E+01						1.0E+05	2.8E-04	4.0E+02	6.9E-02					4.4E+04	6.3E-04	9.0E+02	3.1E-02
Background	INORG	Manganese	7439-96-5	D	19	19	5.57E+01	4.11E+03	4.40E+02					3.3E+03	**1.1E+00**	2.5E+04	1.5E-01					1.5E+03	**2.4E+00**	9.0E+04	4.1E-02
Background	INORG	Mercury	7439-97-6	D	19	8	1.80E-02	4.80E-02		4.8E+01	1.0E-03	5.2E+01	9.2E-04	2.0E+04	2.4E-06	1.6E+02	3.0E-04	8.9E+01	5.4E-04	6.2E+01	7.7E-04	8.8E+03	5.5E-06	5.8E+02	8.3E-05
Background	INORG	Nickel	7440-02-0	A	19	19	7.50E+00	2.51E+01						1.3E+04	1.9E-03	4.0E+04	6.3E-04					1.6E+04	1.6E-03	1.5E+05	1.7E-04
Background	INORG	Selenium	7782-49-2	D	19	19	1.70E-01	7.60E-01						1.3E+05	5.8E-06	2.6E+03	2.9E-04					5.9E+04	1.3E-05	9.6E+03	7.9E-05
Background	INORG	Silver	7440-22-4	D	19	9	1.90E-02	3.80E-02						6.7E+03	5.7E-06	2.5E+03	1.5E-05					2.9E+03	1.3E-05	9.0E+03	4.2E-06
Background	INORG	Thallium	7440-28-0		19	14	1.30E-01	3.90E-01								3.5E+01	1.1E-02							1.3E+02	3.0E-03
Background	INORG	Vanadium	7440-62-2		19	19	8.10E+00	2.42E+01								7.5E+02	3.2E-02							5.5E+03	4.4E-03
Background	INORG	Zinc	7440-66-6	ID	19	19	1.87E+01	5.79E+01								1.7E+05	3.4E-04							6.3E+05	9.2E-05
PAOC01	VOC	Acetone	67-64-1	ID	11	4	5.80E-03	4.30E-02		1.1E+05	3.9E-07	1.3E+05	3.3E-07	3.9E+08	1.1E-10	2.3E+04	1.9E-06	1.1E+05	3.9E-07	1.6E+05	2.7E-07	1.7E+08	2.5E-10	7.3E+04	5.9E-07
PAOC01	VOC	Benzene	71-43-2	A	11	2	2.30E-04	2.40E-04		1.6E+00	1.5E-04	1.3E+01	1.8E-05	3.8E+05	6.3E-10	1.8E+02	1.3E-06	8.4E+00	2.9E-05	4.5E+01	5.3E-06	4.7E+05	5.1E-10	4.0E+02	6.0E-07
PAOC01	VOC	2-Butanone	78-93-3	ID	11	4	1.30E-03	8.80E-03		2.7E+04	3.3E-07	2.9E+04	3.0E-07	6.7E+07	1.3E-10	2.7E+04	3.3E-07	2.7E+04	3.3E-07	3.5E+04	2.5E-07	2.9E+07	3.0E-10	2.7E+04	3.3E-07
PAOC01	VOC	Carbon Disulfide	75-15-0		11	1	1.00E-03	1.00E-03		7.6E+01	1.3E-05	1.3E+03	7.7E-07	4.7E+06	2.1E-11	2.8E+02	3.6E-06	1.4E+02	7.1E-06	1.6E+03	6.3E-07	2.1E+07	4.8E-11	2.8E+02	3.6E-06
PAOC01	VOC	1,2-Dichlorobenzene	95-50-1	D	11	1	3.40E-04	3.40E-04		2.1E+02	1.6E-06	3.9E+04	8.7E-09	1.0E+06	3.4E-12	2.1E+02	1.6E-06	2.1E+02	1.6E-06	4.6E+04	7.4E-09	4.4E+07	7.7E-12	2.1E+02	1.6E-06
PAOC01	VOC	1,3-Dichlorobenzene	541-73-1	D	11	1	3.20E-04	3.20E-04								1.7E+02	1.9E-06							1.7E+02	1.9E-06
PAOC01	VOC	Ethyl Benzene	100-41-4	D	11	1	2.60E-04	2.60E-04		8.7E+01	3.0E-06	7.2E+02	3.6E-07	1.0E+07	2.6E-11	1.4E+02	1.9E-06	1.4E+02	1.9E-06	2.4E+03	1.1E-07	1.3E+07	2.0E-11	1.4E+02	1.9E-06
PAOC01	VOC	Methylene Chloride	75-09-2	B2	11	1	1.20E-03	1.20E-03		4.5E+01	2.7E-05	2.1E+02	5.7E-06	6.6E+06	1.8E-10	1.3E+03	9.2E-07	2.4E+02	5.0E-06	7.0E+02	1.7E-06	8.3E+06	1.4E-10	2.3E+03	5.2E-07
PAOC01	VOC	Toluene	108-88-3	ID	11	3	2.10E-04	5.60E-04		2.5E+02	2.2E-06	2.8E+03	2.0E-07	2.7E+07	2.1E-11	2.5E+02	2.2E-06	2.5E+02	2.2E-06	3.3E+03	1.7E-07	1.2E+07	4.7E-11	2.5E+02	2.2E-06
PAOC01	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	11	1	2.50E-03	2.50E-03		1.1E+02	2.3E-05	2.1E+04	1.2E-07	8.2E+07	3.0E-11	1.1E+02	2.3E-05	1.1E+02	2.3E-05	2.5E+04	1.0E-07	3.6E+07	6.9E-11	1.1E+02	2.3E-05
PAOC01	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	11	1	2.20E-03	2.20E-03		9.4E+01	2.3E-05	1.6E+04	1.4E-07	8.2E+07	2.7E-11	9.4E+01	2.3E-05	9.4E+01	2.3E-05	1.9E+04	1.2E-07	3.6E+07	6.1E-11	9.4E+01	2.3E-05
PAOC01	VOC	Xylenes (total)	1330-20-7	ID	11	2	8.70E-04	3.10E-03		1.5E+02	2.1E-05	4.6E+04	6.7E-08	2.9E+08	1.1E-11	1.5E+02	2.1E-05	1.5E+02	2.1E-05	5.4E+04	5.7E-08	1.3E+08	2.4E-11	1.5E+02	2.1E-05
PAOC01	SVOC	Acenaphthene	83-32-9		11	2	7.90E-03	5.10E-02		1.9E+05	2.7E-07	8.1E+04	6.3E-07	1.4E+07	3.6E-09	4.1E+04	1.2E-06	3.5E+05	1.5E-07	9.7E+04	5.3E-07	6.2E+06	8.2E-09	1.3E+05	3.9E-07
PAOC01	SVOC	Acenaphthylene	208-96-8	D	11	1	2.60E-02	2.60E-02		1.6E+03	1.6E-05	2.2E+03	1.2E-05	2.3E+06	1.1E-08	1.6E+03	1.6E-05	3.0E+03	8.7E-06	2.7E+03	9.6E-06	1.0E+06	2.6E-08	5.2E+03	5.0E-06
PAOC01	SVOC	Anthracene	120-12-7	D	11	3	1.40E-02	3.50E-01		1.0E+06	3.5E-07	1.4E+06	2.5E-07	6.7E+07	5.2E-09	2.3E+05	1.5E-06	1.0E+06	3.5E-07	1.6E+06	2.2E-07	2.9E+07	1.2E-08	7.3E+05	4.8E-07
PAOC01	SVOC	Benzo(a)anthracene	56-55-3	B2	11	6	1.50E-02	8.50E-01								2.0E+01	4.3E-02							8.0E+01	1.1E-02
PAOC01	SVOC	Benzo(a)pyrene	50-32-8	B2	11	4	1.70E-02	3.60E-01						1.5E+03	2.4E-04	2.0E+00	1.8E-01					1.9E+03	1.9E-04	8.0E+00	4.5E-02
PAOC01	SVOC	Benzo(b)fluoranthene	205-99-2	B2	11	5	2.00E-02	3.20E-01								2.0E+01	1.6E-02							8.0E+01	4.0E-03
PAOC01	SVOC	Benzo(g,h,i)perylene	191-24-2	D	11	5	8.80E-03	1.90E-01						8.0E+05	2.4E-07	2.5E+03	7.6E-05					3.5E+05	5.4E-07	7.0E+03	2.7E-05
PAOC01	SVOC	Benzo(k)fluoranthene	207-08-9	B2	11	5	8.30E-03	3.40E-01								2.0E+02	1.7E-03							8.0E+02	4.3E-04
PAOC01	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	11	1	3.00E-02	3.00E-02						7.0E+05	4.3E-08	2.8E+03	1.1E-05					8.9E+05	3.4E-08	1.0E+04	3.0E-06
PAOC01	SVOC	Carbazole	86-74-8	B2	11	1	5.80E-02	5.80E-02								5.3E+02	1.1E-04							2.4E+03	2.4E-05
PAOC01	SVOC	Chrysene	218-01-9	B2	11	6	2.00E-02	9.50E-01								2.0E+03	4.8E-04							8.0E+03	1.2E-04
PAOC01	SVOC	Dibenzofuran	132-64-9	D	11	1	4.20E-02	4.20E-02																	
PAOC01	SVOC	Fluoranthene	206-44-0	D	11	6	2.70E-02	1.80E+00		1.0E+06	1.8E-06	7.4E+05	2.4E-06	9.3E+06	1.9E-07	4.6E+04	3.9E-05	1.0E+06	1.8E-06	8.9E+05	2.0E-06	4.1E+06	4.4E-07	1.3E+05	1.4E-05
PAOC01	SVOC	Fluorene	86-73-7	D	11	1	6.20E-02	6.20E-02		5.8E+05	1.1E-07	1.3E+05	4.8E-07	9.3E+06	6.7E-09	2.7E+04	2.3E-06	1.0E+06	6.2E-08	1.5E+05	4.1E-07	4.1E+06	1.5E-08	8.7E+04	7.1E-07
PAOC01	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	11	4	9.30E-03	1.80E-01								2.0E+01	9.0E-03							8.0E+01	2.3E-03
PAOC01	SVOC	2-Methylnaphthalene	91-57-6	ID	11	3	9.70E-03	3.10E-02								8.1E+03	3.8E-06							2.6E+04	1.2E-06
PAOC01	SVOC	Naphthalene	91-20-3	C	11	3	8.90E-03	3.00E-02		2.5E+02	1.2E-04	3.0E+02	1.0E-04	2.0E+05	1.5E-07	1.6E+04	1.9E-06	4.7E+02	6.4E-05	3.5E+02	8.6E-05	8.8E+04	3.4E-07	5.2E+04	5.8E-07
PAOC01	SVOC	Phenanthrene	85-01-8	D	11	7	1.40E-02	1.50E+00		2.8E+03	5.4E-04	1.6E+02	9.4E-03	6.7E+03	2.2E-04	1.6E+03	9.4E-04	5.1E+03	2.9E-04	1.9E+02	7.9E-03	2.9E+03	5.2E-04	5.2E+03	2.9E-04
PAOC01	SVOC	Pyrene	129-00-0	NC	11	7	2.50E-02	1.70E+00		1.0E+06	1.7E-06	6.5E+05	2.6E-06	6.7E+06	2.5E-07	2.9E+04	5.9E-05	1.0E+06	1.7E-06	7.8E+05	2.2E-06	2.9E+06	5.9E-07	8.4E+04	2.0E-05
PAOC01	PCB	PCBs (total)	1336-36-3	B2	11	1	4.00E-02	4.00E-02		3.0E+03	1.3E-05	2.4E+02	1.7E-04	5.2E+03	7.7E-06	4.0E+00	1.0E-02	1.6E+04	2.5E-06	8.1E+02	4.9E-05	6.5E+03	6.2E-06	1.6E+01	2.5E-03
PAOC01	INORG	Antimony	7440-36-0		11	2	9.50E-02	1.20E-01						1.3E+04	9.2E-06	1.8E+02	6.7E-04					5.9E+03	2.0E-05	6.7E+02	1.8E-04
PAOC01	INORG	Arsenic	7440-38-2	A	13	13	2.60E+00	7.70E+00						7.2E+02	1.1E-02	7.6E+00	1.0E+00					9.1E+02	8.5E-03	3.7E+01	2.1E-01
PAOC01	INORG	Barium	7440-39-3	NC	11	11	8.90E+00	7.70E+01						3.3E+05	2.3E-04	3.7E+04	2.1E-03					1.5E+05	5.1E-04	1.3E+05	5.9E-04
PAOC01	INORG	Beryllium	7440-41-7	B1	11	6	1.10E-01	5.10E-01						1.3E+03	3.9E-04	4.1E+02	1.2E-03					5.9E+02	8.6E-04	1.6E+03	3.2E-04
PAOC01	INORG	Cadmium	7440-43-9	B1	11	6	6.30E-02	3.00E-01						1.7E+03	1.8E-04	5.5E+02	5.5E-04					2.2E+03	1.4E-04	2.1E+03	1.4E-04
PAOC01	INORG	Chromium III	16065-83-1	D	11	11	3.10E+00	1.47E+01						3.3E+05	4.4E-05	7.9E+05	1.9E-05					1.5E+05	9.8E-05	1.0E+06	1.5E-05
PAOC01	INORG	Chromium VI	18540-29-9	A	11	5	1.20E+00	1.90E+00						2.6E+02	7.3E-03	2.5E+03	7.6E-04					2.4E+02	7.9E-03	9.2E+03	2.1E-04
PAOC01	INORG	Cobalt	7440-48-4	LC	11	11	2.70E+00	1.24E+01						1.3E+04	9.5E-04	2.6E+03	4.8E-03					5.9E+03	2.1E-03	9.0E+03	1.4E-03
PAOC01	INORG	Copper	7440-50-8	D	11	11	8.30E+00	2.29E+01						1.3E+05	1.8E-04	2.0E+04	1.1E-03					5.9E+04	3.9E-04	7.3E+04	3.1E-04
PAOC01	INORG	Cyanide (total)	57-12-5	D	11	3	1.30E-01	6.80E-01						2.5E+02	2.7E-03	1.2E+01	5.7E-02					2.5E+02	2.7E-03	2.5E+02	2.7E-03
PAOC01	INORG	Lead	7439-92-1	B2	11	11	4.10E+00	3.89E+01						1.0E+05	3.9E-04	4.0E+02	9.7E-02					4.4E+04	8.8E-04	9.0E+02	4.3E-02
PAOC01	INORG	Manganese	7439-96-5	D	11	11	1.19E+02	4.52E+02	4.40E+02					3.3E+03	3.6E-03	2.5E+04	4.8E-04					1.5E+03	8.0E-03	9.0E+04	1.3E-04
PAOC01	INORG	Mercury	7439-97-6	D	11	8	1.40E-02	3.70E-02		4.8E+01	7.7E-04	5.2E+01	7.1E-04	2.0E+04	1.9E-06	1.6E+02	2.3E-04	8.9E+01	4.2E-04	6.2E+01	6.0E-04	8.8E+03	4.2E-06	5.8E+02	6.4E-05
PAOC01	INORG	Nickel	7440-02-0	A	11	11	7.20E+00	2.15E+01						1.3E+04	1.7E-03	4.0E+04	5.4E-04					1.6E+04	1.3E-03	1.5E+05	1.4E-04
PAOC01	INORG	Selenium	7782-49-2	D	11	6	1.10E-01	5.40E-01						1.3E+05	4.2E-06	2.6E+03	2.1E-04					5.9E+04	9.2E-06	9.6E+03	5.6E-05
PAOC01	INORG	Silver	7440-22-4	D	11	8	4.30E-02	1.00E-01						6.7E+03	1.5E-05	2.5E+03	4.0E-05					2.9E+03	3.4E-05	9.0E+03	1.1E-05
PAOC01	INORG	Thallium	7440-28-0		11	11	3.70E-02	1.90E-01								3.5E+01	5.4E-03							1.3E+02	1.5E-03
PAOC01	INORG	Vanadium	7440-62-2		11	11	6.40E+00	2.22E+01								7.5E+02	3.0E-02							5.5E+03	4.0E-03
PAOC01	INORG	Zinc	7440-66-6	ID	11	11	8.60E+00	6.55E+01								1.7E+05	3.9E-04							6.3E+05	1.0E-04
PAOC02	VOC	Acetone	67-64-1	ID	41	6	6.60E-03	4.30E-02		1.1E+05	3.9E-07	1.3E+05	3.3E-07	3.9E+08	1.1E-10	2.3E+04	1.9E-06	1.1E+05	3.9E-07	1.6E+05	2.7E-07	1.7E+08	2.5E-10	7.3E+04	5.9E-07
PAOC02	VOC	Benzene	71-43-2	A	41	3	2.20E-04	5.50E-04		1.6E+00	3.4E-04	1.3E+01	4.2E-05	3.8E+05	1.4E-09	1.8E+02	3.1E-06	8.4E+00	6.5E-05	4.5E+01	1.2E-05	4.7E+05	1.2E-09	4.0E+02	1.4E-06
PAOC02	VOC	2-Butanone	78-93-3	ID	41	6	2.30E-03	1.10E-02		2.7E+04	4.1E-07	2.9E+04	3.8E-07	6.7E+07	1.6E-10	2.7E+04	4.1E-07	2.7E+04	4.1E-07	3.5E+04	3.1E-07	2.9E+07	3.8E-10	2.7E+04	4.1E-07
PAOC02	VOC	Carbon Disulfide	75-15-0		41	3	4.10E-04	7.80E-04		7.6E+01	1.0E-05	1.3E+03	6.0E-07	4.7E+07	1.7E-11	2.8E+02	2.8E-06	1.4E+02	5.6E-06	1.6E+03	4.9E-07	2.1E+07	3.7E-11	2.8E+02	2.8E-06
PAOC02	VOC	Chloroform	67-66-3	B2	41	1	1.20E-02	1.20E-02		7.2E+00	1.7E-03	4.5E+01	2.7E-04	1.3E+06	9.2E-09	1.2E+03	1.0E-05	3.8E+01	3.2E-04	1.5E+02	8.0E-05	1.6E+06	7.5E-09	1.5E+03	8.0E-06
PAOC02	VOC	Cumene	98-82-8	D	26	2	5.40E-02	1.70E-01		3.9E+02	4.4E-04	1.7E+03	1.0E-04	5.8E+06	2.9E-08	3.9E+02	4.4E-04	3.9E+02	4.4E-04	2.0E+03	8.5E-05	2.6E+06	6.5E-08	3.9E+02	4.4E-04
PAOC02	VOC	Cyclohexane	110-82-7	ID	26	4	5.30E-04	2.70E-02																	
PAOC02	VOC	1,2-Dichlorobenzene	95-50-1	D	38	1	3.10E-04	3.10E-04		2.1E+02	1.5E-06	3.9E+04	7.9E-09	1.0E+08	3.1E-12	2.1E+02	1.5E-06	2.1E+02	1.5E-06	4.6E+04	6.7E-09	4.4E+07	7.0E-12	2.1E+02	1.5E-06
PAOC02	VOC	1,3-Dichlorobenzene	541-73-1	D	38	1	4.00E-04	4.00E-04								1.7E+02	2.4E-06							1.7E+02	2.4E-06

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC02	VOC	1,4-Dichlorobenzene	106-46-7	C	38	1	4.70E-04	4.70E-04		1.9E+01	2.5E-05	7.7E+01	6.1E-06	4.5E+05	1.0E-09	4.0E+02	1.2E-06	1.0E+02	4.7E-06	2.6E+02	1.8E-06	5.7E+05	8.2E-10	1.9E+03	2.5E-07
PAOC02	VOC	1,1-Dichloroethane	75-34-3	SC	41	2	1.80E-02	7.40E-02		2.3E+02	3.2E-04	2.1E+03	3.5E-05	3.3E+07	2.2E-09	8.9E+02	8.3E-05	4.3E+02	1.7E-04	2.5E+03	3.0E-05	1.5E+07	4.9E-09	8.9E+02	8.3E-05
PAOC02	VOC	1,1-Dichloroethene	75-35-4	C	41	4	1.80E-03	2.60E-01		6.2E-02	**4.2E+00**	1.1E+00	2.4E-01	6.2E+04	4.2E-06	2.0E+02	1.3E-03	3.3E-01	7.9E-01	3.7E+00	7.0E-02	7.8E+04	3.3E-06	5.7E+02	4.6E-04
PAOC02	VOC	cis-1,2-Dichloroethene	156-59-2	ID	41	1	8.80E-04	8.80E-04		2.2E+01	4.0E-05	1.8E+02	4.9E-06	2.3E+06	3.8E-10	6.4E+02	1.4E-06	4.1E+01	2.1E-05	2.1E+02	4.2E-06	1.0E+06	8.8E-10	6.4E+02	1.4E-06
PAOC02	VOC	Ethyl Benzene	100-41-4	D	41	2	2.10E-02	2.50E-02		8.7E+01	2.9E-04	7.2E+02	3.5E-05	1.0E+07	2.5E-09	1.4E+02	1.8E-04	1.4E+02	1.8E-04	2.4E+03	1.0E-05	1.3E+07	1.9E-09	1.4E+02	1.8E-04
PAOC02	VOC	4-Methyl-2-pentanone	108-10-1	ID	41	1	8.90E-04	8.90E-04		2.7E+03	3.3E-07	4.5E+04	2.0E-08	1.4E+08	6.4E-12	2.7E+03	3.3E-07	2.7E+03	3.3E-07	5.3E+04	1.7E-08	6.0E+07	1.5E-11	2.7E+03	3.3E-07
PAOC02	VOC	Methylcyclohexane	108-87-2		26	3	1.70E-03	3.20E-01																	
PAOC02	VOC	Tetrachloroethene	127-18-4	C-B2	41	3	2.10E-03	7.40E-02		1.1E+01	6.7E-03	1.8E+02	4.1E-04	5.4E+06	1.4E-08	8.8E+01	8.4E-04	6.0E+01	1.2E-03	6.0E+02	1.2E-04	6.8E+06	1.1E-08	8.8E+01	8.4E-04
PAOC02	VOC	Toluene	108-88-3	ID	41	4	3.60E-04	1.00E-03		2.5E+02	4.0E-06	2.8E+03	3.6E-07	2.7E+07	3.7E-11	2.5E+02	4.0E-06	2.5E+02	4.0E-06	3.3E+03	3.0E-07	1.2E+07	8.3E-11	2.5E+02	4.0E-06
PAOC02	VOC	1,1,1-Trichloroethane	71-55-6	ID	41	2	4.00E-01	1.30E+00		2.5E+02	5.2E-03	3.8E+03	3.4E-04	6.7E+07	1.9E-08	4.6E+02	2.8E-03	4.6E+02	2.8E-03	4.5E+03	2.9E-04	2.9E+07	4.5E-08	4.6E+02	2.8E-03
PAOC02	VOC	Trichloroethene	79-01-6	C-B2	41	7	2.70E-03	7.60E+00		7.1E+00	**1.1E+00**	7.8E+01	9.7E-02	1.8E+06	4.2E-06	5.0E+02	1.5E-02	3.7E+01	2.1E-01	2.6E+02	2.9E-02	2.3E+06	3.3E-06	5.0E+02	1.5E-02
PAOC02	VOC	Trichlorofluoromethane	75-69-4		26	1	1.20E-03	1.20E-03		5.6E+02	2.1E-06	9.2E+04	1.3E-08	3.8E+09	3.2E-13	5.6E+02	2.1E-06	5.6E+02	2.1E-06	1.1E+05	1.1E-08	1.7E+09	7.1E-13	5.6E+02	2.1E-06
PAOC02	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	25	1	4.60E-01	4.60E-01		1.1E+02	4.2E-03	2.1E+04	2.2E-05	8.2E+07	5.6E-09	1.1E+02	4.2E-03	1.1E+02	4.2E-03	2.5E+04	1.8E-05	3.6E+07	1.3E-08	1.1E+02	4.2E-03
PAOC02	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	25	1	2.30E-01	2.30E-01		9.4E+01	2.4E-03	1.6E+04	1.4E-05	8.2E+07	2.8E-09	9.4E+01	2.4E-03	9.4E+01	2.4E-03	1.9E+04	1.2E-05	3.6E+07	6.4E-09	9.4E+01	2.4E-03
PAOC02	VOC	Xylenes (total)	1330-20-7	ID	40	3	6.30E-04	9.20E-02		1.5E+02	6.1E-04	4.6E+04	2.0E-06	2.9E+08	3.2E-10	1.5E+02	6.1E-04	1.5E+02	6.1E-04	5.4E+04	1.7E-06	1.3E+08	7.1E-10	1.5E+02	6.1E-04
PAOC02	SVOC	Acenaphthene	83-32-9		37	1	1.70E-02	1.70E-02		1.9E+05	8.9E-08	8.1E+04	2.1E-07	1.4E+07	1.2E-09	4.1E+04	4.1E-07	3.5E+05	4.9E-08	9.7E+04	1.8E-07	6.2E+06	2.7E-09	1.3E+05	1.3E-07
PAOC02	SVOC	Acenaphthylene	208-96-8	D	37	1	2.90E-02	2.90E-02		1.6E+03	1.8E-05	2.2E+03	1.3E-05	2.3E+06	1.3E-08	1.6E+03	1.8E-05	3.0E+03	9.7E-06	2.7E+03	1.1E-05	1.0E+06	2.9E-08	5.2E+03	5.6E-06
PAOC02	SVOC	Anthracene	120-12-7	D	37	4	8.20E-03	5.00E-02		1.0E+06	5.0E-08	1.4E+06	3.6E-08	6.7E+07	7.5E-10	2.3E+05	2.2E-07	1.0E+06	5.0E-08	1.6E+06	3.1E-08	2.9E+07	1.7E-09	7.3E+05	6.8E-08
PAOC02	SVOC	Benzo(a)anthracene	56-55-3	B2	37	5	8.80E-03	1.80E-01								2.0E+01	9.0E-03							8.0E+01	2.3E-03
PAOC02	SVOC	Benzo(a)pyrene	50-32-8	B2	37	5	8.10E-03	1.80E-01						1.5E+03	1.2E-04	2.0E+00	9.0E-02					1.9E+03	9.5E-05	8.0E+00	2.3E-02
PAOC02	SVOC	Benzo(b)fluoranthene	205-99-2	B2	25	5	8.60E-03	2.60E-01								2.0E+01	1.3E-02							8.0E+01	3.3E-03
PAOC02	SVOC	Benzo(b,k)fluoranthene	U-452		12	1	3.40E-01	3.40E-01																	
PAOC02	SVOC	Benzo(g,h,i)perylene	191-24-2	D	37	5	8.80E-03	1.70E-01						8.0E+05	2.1E-07	2.5E+03	6.8E-05					3.5E+05	4.9E-07	7.0E+03	2.4E-05
PAOC02	SVOC	Benzo(k)fluoranthene	207-08-9	B2	25	4	3.00E-02	1.00E-01								2.0E+02	5.0E-04							8.0E+02	1.3E-04
PAOC02	SVOC	Biphenyl	92-52-4	D	25	1	2.00E-01	2.00E-01																	
PAOC02	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	37	15	2.00E-02	3.60E-01						7.0E+05	5.1E-07	2.8E+03	1.3E-04					8.9E+05	4.0E-07	1.0E+04	3.6E-05
PAOC02	SVOC	Caprolactam	105-60-2		25	1	2.20E-01	2.20E-01						6.7E+05	3.3E-07	5.3E+04	4.2E-06					2.9E+05	7.6E-07	3.1E+05	7.1E-07
PAOC02	SVOC	Carbazole	86-74-8	B2	25	1	2.70E-02	2.70E-02								5.3E+02	5.1E-05							2.4E+03	1.1E-05
PAOC02	SVOC	Chrysene	218-01-9	B2	37	9	8.30E-03	2.30E-01								2.0E+03	1.2E-04							8.0E+03	2.9E-05
PAOC02	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	37	4	9.90E-03	3.80E-02								2.0E+00	1.9E-02							8.0E+00	4.8E-03
PAOC02	SVOC	Dibenzofuran	132-64-9	D	37	1	3.40E-02	3.40E-02																	
PAOC02	SVOC	Fluoranthene	206-44-0	D	37	9	9.80E-03	6.10E-01		1.0E+06	6.1E-07	7.4E+05	8.2E-07	9.3E+06	6.6E-08	4.6E+04	1.3E-05	1.0E+06	6.1E-07	8.9E+05	6.9E-07	4.1E+06	1.5E-07	1.3E+05	4.7E-06
PAOC02	SVOC	Fluorene	86-73-7	D	37	2	2.30E-02	6.80E-02		5.8E+05	1.2E-07	1.3E+05	5.2E-07	9.3E+06	7.3E-09	2.7E+04	2.5E-06	1.0E+06	6.8E-08	1.5E+05	4.5E-07	4.1E+06	1.7E-08	8.7E+04	7.8E-07
PAOC02	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	37	4	3.70E-02	1.20E-01								2.0E+01	6.0E-03							8.0E+01	1.5E-03
PAOC02	SVOC	2-Methylnaphthalene	91-57-6	ID	37	4	1.10E-01	3.10E+00								8.1E+03	3.8E-04							2.6E+04	1.2E-04
PAOC02	SVOC	Naphthalene	91-20-3	C	37	1	7.60E-02	7.60E-02		2.5E+02	3.0E-04	3.0E+02	2.5E-04	2.0E+05	3.8E-07	1.6E+04	4.8E-06	4.7E+02	1.6E-04	3.5E+02	2.2E-04	8.8E+04	8.6E-07	5.2E+04	1.5E-06
PAOC02	SVOC	Phenanthrene	85-01-8	D	37	9	1.00E-02	2.40E-01		2.8E+03	8.6E-05	1.6E+02	1.5E-03	6.7E+03	3.6E-05	1.6E+03	1.5E-04	5.1E+03	4.7E-05	1.9E+02	1.3E-03	2.9E+03	8.3E-05	5.2E+03	4.6E-05
PAOC02	SVOC	Pyrene	129-00-0	NC	37	9	7.70E-03	3.30E-01		1.0E+06	3.3E-07	6.5E+05	5.1E-07	6.7E+06	4.9E-08	2.9E+04	1.1E-05	1.0E+06	3.3E-07	7.8E+05	4.2E-07	2.9E+06	1.1E-07	8.4E+04	3.9E-06
PAOC02	PCB	PCBs (total)	1336-36-3	B2	37	1	4.25E-02	4.25E-02		3.0E+03	1.4E-05	2.4E+02	1.8E-04	5.2E+03	8.2E-06	4.0E+00	1.1E-02	1.6E+04	2.7E-06	8.1E+02	5.2E-05	6.5E+03	6.5E-06	1.6E+01	2.7E-03
PAOC02	INORG	Antimony	7440-36-0		51	25	4.20E-02	3.20E+00						1.3E+04	2.5E-04	1.8E+02	1.8E-02					5.9E+03	5.4E-04	6.7E+02	4.8E-03
PAOC02	INORG	Arsenic	7440-38-2	A	52	52	2.00E+00	1.20E+01						7.2E+02	1.7E-02	7.6E+00	**1.6E+00**					9.1E+02	1.3E-02	3.7E+01	3.2E-01
PAOC02	INORG	Barium	7440-39-3	NC	52	52	6.40E+00	1.98E+02						3.3E+05	6.0E-04	3.7E+04	5.4E-03					1.5E+05	1.3E-03	1.3E+05	1.5E-03
PAOC02	INORG	Beryllium	7440-41-7	B1	52	17	9.10E-02	1.80E+00						1.3E+03	1.4E-03	4.1E+02	4.4E-03					5.9E+02	3.1E-03	1.6E+03	1.1E-03
PAOC02	INORG	Cadmium	7440-43-9	B1	52	45	6.60E-02	2.90E+00						1.7E+03	1.7E-03	5.5E+02	5.3E-03					2.2E+03	1.3E-03	2.1E+03	1.4E-03
PAOC02	INORG	Chromium (total)	7440-47-3		27	27	4.80E+00	1.90E+01						2.6E+02	7.3E-02	2.5E+03	7.6E-03					2.4E+02	7.9E-02	9.2E+03	2.1E-03
PAOC02	INORG	Chromium III	16065-83-1	D	25	25	4.27E+00	1.85E+01						3.3E+05	5.6E-05	7.9E+05	2.3E-05					1.5E+05	1.2E-04	1.0E+06	1.8E-05
PAOC02	INORG	Chromium VI	18540-29-9	A	25	10	4.70E-01	4.10E+00						2.6E+02	1.6E-02	2.5E+03	1.6E-03					2.4E+02	1.7E-02	9.2E+03	4.5E-04
PAOC02	INORG	Cobalt	7440-48-4	LC	52	42	2.20E+00	1.90E+01						1.3E+04	1.5E-03	2.6E+03	7.3E-03					5.9E+03	3.2E-03	9.0E+03	2.1E-03
PAOC02	INORG	Copper	7440-50-8	D	52	52	4.00E+00	8.00E+01						1.3E+05	6.2E-04	2.0E+04	4.0E-03					5.9E+04	1.4E-03	7.3E+04	1.1E-03
PAOC02	INORG	Cyanide (total)	57-12-5	D	40	4	2.10E-01	1.20E+00						2.5E+02	4.8E-03	1.2E+01	1.0E-01					2.5E+02	4.8E-03	2.5E+02	4.8E-03
PAOC02	INORG	Lead	7439-92-1	B2	52	52	2.90E+00	9.60E+01						1.0E+05	9.6E-04	4.0E+02	2.4E-01					4.4E+04	2.2E-03	9.0E+02	1.1E-01
PAOC02	INORG	Manganese	7439-96-5	D	52	52	7.40E+01	5.44E+02	4.40E+02					3.3E+03	3.2E-02	2.5E+04	4.2E-03					1.5E+03	6.9E-02	9.0E+04	1.2E-03
PAOC02	INORG	Mercury	7439-97-6	D	52	13	1.70E-02	4.80E+00		4.8E+01	1.0E-01	5.2E+01	9.2E-02	2.0E+04	2.4E-04	1.6E+02	3.0E-02	8.9E+01	5.4E-02	6.2E+01	7.7E-02	8.8E+03	5.5E-04	5.8E+02	8.3E-03
PAOC02	INORG	Nickel	7440-02-0	A	52	52	4.10E+00	5.00E+01						1.3E+04	3.8E-03	4.0E+04	1.3E-03					1.6E+04	3.1E-03	1.5E+05	3.3E-04
PAOC02	INORG	Selenium	7782-49-2	D	52	24	1.20E-01	1.40E+00						1.3E+05	1.1E-05	2.6E+03	5.4E-04					5.9E+04	2.4E-05	9.6E+03	1.5E-04
PAOC02	INORG	Silver	7440-22-4	D	52	17	1.90E-02	2.10E+00						6.7E+03	3.1E-04	2.5E+03	8.4E-04					2.9E+03	7.2E-04	9.0E+03	2.3E-04
PAOC02	INORG	Thallium	7440-28-0		52	22	6.70E-02	2.50E-01								3.5E+01	7.1E-03							1.3E+02	1.9E-03
PAOC02	INORG	Vanadium	7440-62-2		52	52	5.80E+00	4.46E+01								7.5E+02	5.9E-02							5.5E+03	8.1E-03
PAOC02	INORG	Zinc	7440-66-6	ID	52	52	1.30E+01	9.24E+01								1.7E+05	5.4E-04							6.3E+05	1.5E-04
PAOC03	VOC	Acetone	67-64-1	ID	9	5	1.50E-02	8.40E-02		1.1E+05	7.6E-07	1.3E+05	6.5E-07	3.9E+08	2.2E-10	2.3E+04	3.7E-06	1.1E+05	7.6E-07	1.6E+05	5.3E-07	1.7E+08	4.9E-10	7.3E+04	1.2E-06
PAOC03	VOC	2-Butanone	78-93-3	ID	9	4	3.10E-03	1.90E-02		2.7E+04	7.0E-07	2.9E+04	6.6E-07	6.7E+07	2.8E-10	2.7E+04	7.0E-07	2.7E+04	7.0E-07	3.5E+04	5.4E-07	2.9E+07	6.6E-10	2.7E+04	7.0E-07
PAOC03	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	9	1	1.00E-03	1.00E-03		1.1E+02	9.1E-06	2.1E+04	4.8E-08	8.2E+07	1.2E-11	1.1E+02	9.1E-06	1.1E+02	9.1E-06	2.5E+04	4.0E-08	3.6E+07	2.8E-11	1.1E+02	9.1E-06
PAOC03	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	9	1	8.70E-04	8.70E-04		9.4E+01	9.3E-06	1.6E+04	5.4E-08	8.2E+07	1.1E-11	9.4E+01	9.3E-06	9.4E+01	9.3E-06	1.9E+04	4.6E-08	3.6E+07	2.4E-11	9.4E+01	9.3E-06
PAOC03	SVOC	Anthracene	120-12-7	D	9	3	7.90E-03	1.70E-02		1.0E+06	1.7E-08	1.4E+06	1.2E-08	6.7E+07	2.5E-10	2.3E+05	7.4E-08	1.0E+06	1.7E-08	1.6E+06	1.1E-08	2.9E+07	5.9E-10	7.3E+05	2.3E-08
PAOC03	SVOC	Benzo(a)anthracene	56-55-3	B2	9	5	1.20E-02	1.50E-01								2.0E+01	7.5E-03							8.0E+01	1.9E-03
PAOC03	SVOC	Benzo(a)pyrene	50-32-8	B2	9	5	1.50E-02	1.80E-01						1.5E+03	1.2E-04	2.0E+00	9.0E-02					1.9E+03	9.5E-05	8.0E+00	2.3E-02
PAOC03	SVOC	Benzo(b)fluoranthene	205-99-2	B2	9	5	2.20E-02	2.10E-01								2.0E+01	1.1E-02							8.0E+01	2.6E-03
PAOC03	SVOC	Benzo(g,h,i)perylene	191-24-2	D	9	5	1.50E-02	1.40E-01						8.0E+05	1.8E-07	2.5E+03	5.6E-05					3.5E+05	4.0E-07	7.0E+03	2.0E-05
PAOC03	SVOC	Benzo(k)fluoranthene	207-08-9	B2	9	5	8.60E-03	2.00E-01								2.0E+02	1.0E-03							8.0E+02	2.5E-04
PAOC03	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9	1	2.40E-02	2.40E-02						7.0E+05	3.4E-08	2.8E+03	8.6E-06					8.9E+05	2.7E-08	1.0E+04	2.4E-06
PAOC03	SVOC	Chrysene	218-01-9	B2	9	6	1.60E-02	2.10E-01								2.0E+03	1.1E-04							8.0E+03	2.6E-05
PAOC03	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	9	1	3.30E-02	3.30E-02								2.0E+00	1.7E-02							8.0E+00	4.1E-03
PAOC03	SVOC	Fluoranthene	206-44-0	D	9	6	2.00E-02	2.60E-01		1.0E+06	2.6E-07	7.4E+05	3.5E-07	9.3E+06	2.8E-08	4.6E+04	5.7E-06	1.0E+06	2.6E-07	8.9E+05	2.9E-07	4.1E+06	6.3E-08	1.3E+05	2.0E-06
PAOC03	SVOC	Fluorene	86-73-7	D	9	1	7.60E-03	7.60E-03		5.8E+05	1.3E-08	1.3E+05	5.8E-08	9.3E+06	8.2E-10	2.7E+04	2.8E-07	1.0E+06	7.6E-09	1.5E+05	5.1E-08	4.1E+06	1.9E-09	8.7E+04	8.7E-08
PAOC03	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	9	5	1.10E-02	1.00E-01								2.0E+01	5.0E-03							8.0E+01	1.3E-03
PAOC03	SVOC	2-Methylnaphthalene	91-57-6	ID	9	3	2.00E-02	4.20E-02								8.1E+03	5.2E-06							2.6E+04	1.6E-06
PAOC03	SVOC	Naphthalene	91-20-3	C	9	2	7.40E-02	9.00E-02		2.5E+02	3.6E-04	3.0E+02	3.0E-04	2.0E+05	4.5E-07	1.6E+04	5.6E-06	4.7E+02	1.9E-04	3.5E+02	2.6E-04	8.8E+04	1.0E-06	5.2E+04	1.7E-06

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC03	SVOC	Phenanthrene	85-01-8	D	9	5	1.10E-02	7.20E-02		2.8E+03	2.6E-05	1.6E+02	4.5E-04	6.7E+03	1.1E-05	1.6E+03	4.5E-05	5.1E+03	1.4E-05	1.9E+02	3.8E-04	2.9E+03	2.5E-05	5.2E+03	1.4E-05
PAOC03	SVOC	Pyrene	129-00-0	NC	9	6	2.00E-02	2.00E-01		1.0E+06	2.0E-07	6.5E+05	3.1E-07	6.7E+06	3.0E-08	2.9E+04	6.9E-06	1.0E+06	2.0E-07	7.8E+05	2.6E-07	2.9E+06	6.9E-08	8.4E+04	2.4E-06
PAOC03	PCB	PCBs (total)	1336-36-3	B2	9	2	3.05E-02	9.34E-01		3.0E+03	3.1E-04	2.4E+02	3.9E-03	5.2E+03	1.8E-04	4.0E+00	2.3E-01	1.6E+04	5.8E-05	8.1E+02	1.2E-03	6.5E+03	1.4E-04	1.6E+01	5.8E-02
PAOC03	INORG	Antimony	7440-36-0		9	4	1.10E-01	1.60E-01						1.3E+04	1.2E-05	1.8E+02	8.9E-04					5.9E+03	2.7E-05	6.7E+02	2.4E-04
PAOC03	INORG	Arsenic	7440-38-2	A	9	9	3.10E+00	5.80E+00						7.2E+02	8.1E-03	7.6E+00	7.6E-01					9.1E+02	6.4E-03	3.7E+01	1.6E-01
PAOC03	INORG	Barium	7440-39-3	NC	9	9	1.13E+01	6.35E+01						3.3E+05	1.9E-04	3.7E+04	1.7E-03					1.5E+05	4.2E-04	1.3E+05	4.9E-04
PAOC03	INORG	Beryllium	7440-41-7	B1	9	6	6.90E-02	5.60E-01						1.3E+03	4.3E-04	4.1E+02	1.4E-03					5.9E+02	9.5E-04	1.6E+03	3.5E-04
PAOC03	INORG	Cadmium	7440-43-9	B1	9	6	7.40E-02	3.10E-01						1.7E+03	1.8E-04	5.5E+02	5.6E-04					2.2E+03	1.4E-04	2.1E+03	1.5E-04
PAOC03	INORG	Chromium III	16065-83-1	D	9	9	4.49E+00	2.77E+01						3.3E+05	8.4E-05	7.9E+05	3.5E-05					1.5E+05	1.8E-04	1.0E+06	2.8E-05
PAOC03	INORG	Chromium VI	18540-29-9	A	9	6	7.20E-01	2.30E+00						2.6E+02	8.8E-03	2.5E+03	9.2E-04					2.4E+02	9.6E-03	9.2E+03	2.5E-04
PAOC03	INORG	Cobalt	7440-48-4	LC	9	9	2.00E+00	9.30E+00						1.3E+04	7.2E-04	2.6E+03	3.6E-03					5.9E+03	1.6E-03	9.0E+03	1.0E-03
PAOC03	INORG	Copper	7440-50-8	D	9	9	7.00E+00	2.56E+01						1.3E+05	2.0E-04	2.0E+04	1.3E-03					5.9E+04	4.3E-04	7.3E+04	3.5E-04
PAOC03	INORG	Cyanide (total)	57-12-5	D	9	2	1.30E-01	4.40E-01						2.5E+02	1.8E-03	1.2E+01	3.7E-02					2.5E+02	1.8E-03	2.5E+02	1.8E-03
PAOC03	INORG	Lead	7439-92-1	B2	9	9	8.80E+00	1.88E+01						1.0E+05	1.9E-04	4.0E+02	4.7E-02					4.4E+04	4.3E-04	9.0E+02	2.1E-02
PAOC03	INORG	Manganese	7439-96-5	D	9	9	2.21E+02	4.84E+02	4.40E+02					3.3E+03	1.3E-02	2.5E+04	1.8E-03					1.5E+03	2.9E-02	9.0E+04	4.9E-04
PAOC03	INORG	Mercury	7439-97-6	D	9	9	1.70E-02	5.00E-02		4.8E+01	1.0E-03	5.2E+01	9.6E-04	2.0E+04	2.5E-06	1.6E+02	3.1E-04	8.9E+01	5.6E-04	6.2E+01	8.1E-04	8.8E+03	5.7E-06	5.8E+02	8.6E-05
PAOC03	INORG	Nickel	7440-02-0	A	9	9	5.90E+00	3.28E+01						1.3E+04	2.5E-03	4.0E+04	8.2E-04					1.6E+04	2.1E-03	1.5E+05	2.2E-04
PAOC03	INORG	Selenium	7782-49-2	D	9	3	1.10E-01	2.70E-01						1.3E+05	2.1E-06	2.6E+03	1.0E-04					5.9E+04	4.6E-06	9.6E+03	2.8E-05
PAOC03	INORG	Silver	7440-22-4	D	9	7	5.90E-02	1.20E-01						6.7E+03	1.8E-05	2.5E+03	4.8E-05					2.9E+03	4.1E-05	9.0E+03	1.3E-05
PAOC03	INORG	Thallium	7440-28-0		9	9	1.00E-01	2.00E-01								3.5E+01	5.7E-03							1.3E+02	1.5E-03
PAOC03	INORG	Vanadium	7440-62-2		9	9	7.40E+00	2.78E+01								7.5E+02	3.7E-02							5.5E+03	5.1E-03
PAOC03	INORG	Zinc	7440-66-6	ID	9	9	2.86E+01	4.48E+01								1.7E+05	2.6E-04							6.3E+05	7.1E-05
PAOC04	VOC	Acetone	67-64-1	ID	6	2	7.10E-03	2.90E-02		1.1E+05	2.6E-07	1.3E+05	2.2E-07	3.9E+08	7.4E-11	2.3E+04	1.3E-06	1.1E+05	2.6E-07	1.6E+05	1.8E-07	1.7E+08	1.7E-10	7.3E+04	4.0E-07
PAOC04	VOC	Benzene	71-43-2	A	6	1	4.30E-04	4.30E-04		1.6E+00	2.7E-04	1.3E+01	3.3E-05	3.8E+05	1.1E-09	1.8E+02	2.4E-06	8.4E+00	5.1E-05	4.5E+01	9.6E-06	4.7E+05	9.1E-10	4.0E+02	1.1E-06
PAOC04	VOC	2-Butanone	78-93-3	ID	6	2	1.80E-03	6.50E-03		2.7E+04	2.4E-07	2.9E+04	2.2E-07	6.7E+07	9.7E-11	2.7E+04	2.4E-07	2.7E+04	2.4E-07	3.5E+04	1.9E-07	2.9E+07	2.2E-10	2.7E+04	2.4E-07
PAOC04	VOC	Carbon Disulfide	75-15-0		6	1	5.70E-04	5.70E-04		7.6E+01	7.5E-06	1.3E+03	4.4E-07	4.7E+07	1.2E-11	2.8E+02	2.0E-06	1.4E+02	4.1E-06	1.6E+03	3.6E-07	2.1E+07	2.7E-11	2.8E+02	2.0E-06
PAOC04	VOC	Cyclohexane	110-82-7	ID	6	1	5.20E-04	5.20E-04																	
PAOC04	VOC	Ethyl Benzene	100-41-4	D	6	1	2.50E-04	2.50E-04		8.7E+01	2.9E-06	7.2E+02	3.5E-07	1.0E+07	2.5E-11	1.4E+02	1.8E-06	1.4E+02	1.8E-06	2.4E+03	1.0E-07	1.3E+07	1.9E-11	1.4E+02	1.8E-06
PAOC04	VOC	Methylcyclohexane	108-87-2		6	1	3.00E-04	3.00E-04																	
PAOC04	VOC	Methylene Chloride	75-09-2	B2	6	2	6.60E-04	3.00E-03		4.5E+01	6.7E-05	2.3E+02	1.3E-05	6.6E+06	4.5E-10	1.3E+03	2.3E-06	2.4E+02	1.3E-05	7.0E+02	4.3E-06	8.3E+06	3.6E-10	2.3E+03	1.3E-06
PAOC04	VOC	Toluene	108-88-3	ID	6	2	3.00E-04	1.00E-03		2.5E+02	4.0E-06	2.8E+03	3.6E-07	2.7E+07	3.7E-11	2.5E+02	4.0E-06	2.5E+02	4.0E-06	3.3E+03	3.0E-07	1.2E+07	8.3E-11	2.5E+02	4.0E-06
PAOC04	VOC	Xylenes (total)	1330-20-7	ID	6	1	1.40E-03	1.40E-03		1.5E+02	9.3E-06	4.6E+04	3.0E-08	2.9E+08	4.8E-12	1.5E+02	9.3E-06	1.5E+02	9.3E-06	5.4E+04	2.6E-08	1.3E+08	1.1E-11	1.5E+02	9.3E-06
PAOC04	SVOC	Acenaphthene	83-32-9		6	1	1.80E-01	1.80E-01		1.9E+05	9.5E-07	8.4E+04	2.2E-06	1.4E+07	1.3E-08	4.1E+04	4.4E-06	3.5E+05	5.1E-07	9.7E+04	1.9E-06	6.2E+06	2.9E-08	1.3E+05	1.4E-06
PAOC04	SVOC	Acenaphthylene	208-96-8	D	6	1	2.90E-02	2.90E-02		1.6E+03	1.8E-05	2.2E+03	1.3E-05	2.3E+06	1.3E-08	1.6E+03	1.8E-05	3.0E+03	9.7E-06	2.7E+03	1.1E-05	1.0E+06	2.9E-08	5.2E+03	5.6E-06
PAOC04	SVOC	Anthracene	120-12-7	D	6	2	6.10E-02	5.60E-01		1.0E+06	5.6E-07	1.4E+06	4.0E-07	6.7E+07	8.4E-09	2.3E+05	2.4E-06	1.0E+06	5.6E-07	1.6E+06	3.5E-07	2.9E+07	1.9E-08	7.3E+05	7.7E-07
PAOC04	SVOC	Benzo(a)anthracene	56-55-3	B2	6	3	2.30E-02	6.90E-01								2.0E+01	3.5E-02							8.0E+01	8.6E-03
PAOC04	SVOC	Benzo(a)pyrene	50-32-8	B2	6	3	1.90E-02	4.60E-01						1.5E+03	3.1E-04	2.0E+00	2.3E-01					1.9E+03	2.4E-04	8.0E+00	5.8E-02
PAOC04	SVOC	Benzo(b)fluoranthene	205-99-2	B2	6	3	2.30E-02	4.30E-01								2.0E+01	2.2E-02							8.0E+01	5.4E-03
PAOC04	SVOC	Benzo(g,h,i)perylene	191-24-2	D	6	3	1.50E-02	3.80E-01						8.0E+05	4.8E-07	2.5E+03	1.5E-04					3.5E+05	1.1E-06	7.0E+03	5.4E-05
PAOC04	SVOC	Benzo(k)fluoranthene	207-08-9	B2	6	2	1.00E-02	2.20E-01								2.0E+02	1.1E-03							8.0E+02	2.8E-04
PAOC04	SVOC	Chrysene	218-01-9	B2	6	3	2.90E-02	9.60E-01								2.0E+03	4.8E-04							8.0E+03	1.2E-04
PAOC04	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	6	1	9.80E-02	9.80E-02								2.0E+00	4.9E-02							8.0E+00	1.2E-02
PAOC04	SVOC	Fluoranthene	206-44-0	D	6	2	4.00E-02	6.80E-01		1.0E+06	6.8E-07	7.4E+05	9.2E-07	9.3E+06	7.3E-08	4.6E+04	1.5E-05	1.0E+06	6.8E-07	8.9E+05	7.6E-07	4.1E+06	1.7E-07	1.3E+05	5.2E-06
PAOC04	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	6	3	1.20E-02	2.00E-01								2.0E+01	1.0E-02							8.0E+01	2.5E-03
PAOC04	SVOC	2-Methylnaphthalene	91-57-6	ID	6	2	8.60E-03	1.70E-01								8.1E+03	2.1E-05							2.6E+04	6.5E-06
PAOC04	SVOC	Naphthalene	91-20-3	C	6	1	7.40E-02	7.40E-02		2.5E+02	3.0E-04	3.0E+02	2.5E-04	2.0E+05	3.7E-07	1.6E+04	4.6E-06	4.7E+02	1.6E-04	3.5E+02	2.1E-04	8.8E+04	8.4E-07	5.2E+04	1.4E-06
PAOC04	SVOC	Phenanthrene	85-01-8	D	6	4	8.60E-03	1.50E+00		2.8E+03	5.4E-04	1.6E+02	9.4E-03	6.7E+03	2.2E-04	1.6E+03	9.4E-04	5.1E+03	2.9E-04	1.9E+02	7.9E-03	2.9E+03	5.2E-04	5.2E+03	2.9E-04
PAOC04	SVOC	Pyrene	129-00-0	NC	6	3	3.30E-02	1.80E+00		1.0E+06	1.8E-06	6.5E+05	2.8E-06	6.7E+06	2.7E-07	2.9E+04	6.2E-05	1.0E+06	1.8E-06	7.8E+05	2.3E-06	2.9E+06	6.2E-07	8.4E+04	2.1E-05
PAOC04	PCB	PCBs (total)	1336-36-3	B2	6	1	5.07E-02	5.07E-02		3.0E+03	1.7E-05	2.4E+02	2.1E-04	5.2E+03	9.8E-06	4.0E+00	1.3E-02	1.6E+04	3.2E-06	8.1E+02	6.3E-05	6.5E+03	7.8E-06	1.6E+01	3.2E-03
PAOC04	INORG	Antimony	7440-36-0		6	4	9.10E-02	3.20E-01						1.3E+04	2.5E-05	1.8E+02	1.8E-03					5.9E+03	5.4E-05	6.7E+02	4.8E-04
PAOC04	INORG	Arsenic	7440-38-2	A	6	6	3.30E+00	1.21E+01						7.2E+02	1.7E-02	7.6E+00	**1.6E+00**					9.1E+02	1.3E-02	3.7E+01	3.3E-01
PAOC04	INORG	Barium	7440-39-3	NC	6	6	1.08E+01	6.20E+01						3.3E+05	1.9E-04	3.7E+04	1.7E-03					1.5E+05	4.1E-04	1.3E+05	4.8E-04
PAOC04	INORG	Beryllium	7440-41-7	B1	6	2	1.10E-01	1.80E-01						1.3E+03	1.4E-04	4.1E+02	4.4E-04					5.9E+02	3.1E-04	1.6E+03	1.1E-04
PAOC04	INORG	Cadmium	7440-43-9	B1	6	2	6.20E-02	4.70E-01						1.7E+03	2.8E-04	5.5E+02	8.5E-04					2.2E+03	2.1E-04	2.1E+03	2.2E-04
PAOC04	INORG	Chromium III	16065-83-1	D	6	6	5.50E+00	2.35E+01						3.3E+05	7.1E-05	7.9E+05	3.0E-05					1.5E+05	1.6E-04	1.0E+06	2.3E-05
PAOC04	INORG	Chromium VI	18540-29-9	A	6	4	6.10E-01	3.40E+00						2.6E+02	1.3E-02	2.5E+03	1.4E-03					2.4E+02	1.4E-02	9.2E+03	3.7E-04
PAOC04	INORG	Cobalt	7440-48-4	LC	6	6	3.50E+00	1.50E+01						1.3E+04	1.2E-03	2.6E+03	5.8E-03					5.9E+03	2.5E-03	9.0E+03	1.7E-03
PAOC04	INORG	Copper	7440-50-8	D	6	6	1.12E+01	4.89E+01						1.3E+05	3.8E-04	2.0E+04	2.4E-03					5.9E+04	8.3E-04	7.3E+04	6.7E-04
PAOC04	INORG	Lead	7439-92-1	B2	6	6	5.80E+00	7.18E+01						1.0E+05	7.2E-04	4.0E+02	1.8E-01					4.4E+04	1.6E-03	9.0E+02	8.0E-02
PAOC04	INORG	Manganese	7439-96-5	D	6	6	2.28E+02	9.23E+02	4.40E+02					3.3E+03	1.5E-01	2.5E+04	1.9E-02					1.5E+03	3.2E-01	9.0E+04	5.4E-03
PAOC04	INORG	Mercury	7439-97-6	D	6	4	1.50E-02	5.60E-02		4.8E+01	1.2E-03	5.2E+01	1.1E-03	2.0E+04	2.8E-06	1.6E+02	3.5E-04	8.9E+01	6.3E-04	6.2E+01	9.0E-04	8.8E+03	6.4E-06	5.8E+02	9.7E-05
PAOC04	INORG	Nickel	7440-02-0	A	6	6	8.30E+00	4.00E+01						1.3E+04	3.1E-03	4.0E+04	1.0E-03					1.6E+04	2.5E-03	1.5E+05	2.7E-04
PAOC04	INORG	Selenium	7782-49-2	D	6	6	1.20E-01	1.60E+00						1.3E+05	1.2E-05	2.6E+03	6.2E-04					5.9E+04	2.7E-05	9.6E+03	1.7E-04
PAOC04	INORG	Silver	7440-22-4	D	6	6	4.20E-02	1.00E-01						6.7E+03	1.5E-05	2.5E+03	4.0E-05					2.9E+03	3.4E-05	9.0E+03	1.1E-05
PAOC04	INORG	Thallium	7440-28-0		6	6	1.10E-01	4.20E-01								3.5E+01	1.2E-02							1.3E+02	3.2E-03
PAOC04	INORG	Vanadium	7440-62-2		6	6	7.10E+00	3.62E+01								7.5E+02	4.8E-02							5.5E+03	6.6E-03
PAOC04	INORG	Zinc	7440-66-6	ID	6	6	2.39E+01	9.21E+01								1.7E+05	5.4E-04							6.3E+05	1.5E-04
PAOC05	VOC	Acetone	67-64-1	ID	23	3	7.70E-03	5.50E-02		1.1E+05	5.0E-07	1.3E+05	4.2E-07	3.9E+08	1.4E-10	2.3E+04	2.4E-06	1.1E+05	5.0E-07	1.6E+05	3.4E-07	1.7E+08	3.2E-10	7.3E+04	7.5E-07
PAOC05	VOC	Benzene	71-43-2	A	123	24	3.60E-04	5.20E+00		1.6E+00	**3.3E+00**	1.3E+01	4.0E-01	3.8E+05	1.4E-05	1.8E+02	2.9E-02	8.4E+00	6.2E-01	4.5E+01	1.2E-01	4.7E+05	1.1E-05	4.0E+02	1.3E-02
PAOC05	VOC	2-Butanone	78-93-3	ID	22	4	1.50E-03	5.20E-03		2.7E+04	1.9E-07	2.9E+04	1.8E-07	6.7E+07	7.8E-11	2.7E+04	1.9E-07	2.7E+04	1.9E-07	3.5E+04	1.5E-07	2.9E+07	1.8E-10	2.7E+04	1.9E-07
PAOC05	VOC	Carbon Disulfide	75-15-0		16	2	1.20E-03	2.40E-03		7.6E+01	3.2E-05	1.3E+03	1.8E-06	4.7E+07	5.1E-11	2.8E+02	8.6E-06	1.4E+02	1.7E-05	1.6E+03	1.5E-06	2.1E+07	1.1E-10	2.8E+02	8.6E-06
PAOC05	VOC	Chloroethane	75-00-3	LC	22	1	8.20E-04	8.20E-04		9.5E+02	8.6E-07	3.0E+04	2.7E-08	6.7E+08	1.2E-12	9.5E+02	8.6E-07	9.5E+02	8.6E-07	3.6E+04	2.3E-08	2.9E+08	2.8E-12	9.5E+02	8.6E-07
PAOC05	VOC	Cumene	98-82-8	D	11	3	9.10E-04	6.10E-01		3.9E+02	1.6E-03	1.7E+03	3.6E-04	5.8E+06	1.1E-07	3.9E+02	1.6E-03	3.9E+02	1.6E-03	2.0E+03	3.1E-04	2.6E+06	2.3E-07	3.9E+02	1.6E-03
PAOC05	VOC	Cyclohexane	110-82-7	ID	11	3	4.10E-04	2.00E-02																	
PAOC05	VOC	Ethyl Benzene	100-41-4	D	123	24	3.20E-03	3.50E+03		8.7E+01	**4.0E+01**	7.2E+02	4.9E-06	1.0E+07	3.5E-04	1.4E+02	**2.5E+01**	1.4E+02	**2.5E+01**	2.4E+03	**1.5E+00**	1.3E+07	2.7E-04	1.4E+02	**2.5E+01**
PAOC05	VOC	Methyl Acetate	79-20-9		6	1	1.10E-01	1.10E-01																	
PAOC05	VOC	4-Methyl-2-pentanone	108-10-1	ID	22	1	1.80E-02	1.80E-02		2.7E+03	6.7E-06	4.5E+04	4.0E-07	1.4E+08	1.3E-10	2.7E+03	6.7E-06	2.7E+03	6.7E-06	5.3E+04	3.4E-07	6.0E+07	3.0E-10	2.7E+03	6.7E-06

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC05	VOC	Methylcyclohexane	108-87-2		11	3	5.80E-04	6.10E-02																	
PAOC05	VOC	Toluene	108-88-3	ID	123	19	3.00E-04	8.50E+02		2.5E+02	**3.4E+00**	2.8E+03	3.0E-01	2.7E+07	3.1E-05	2.5E+02	**3.4E+00**	2.5E+02	**3.4E+00**	3.3E+03	2.6E-01	1.2E+07	7.1E-05	2.5E+02	**3.4E+00**
PAOC05	VOC	Trichloroethene	79-01-6	C-B2	23	2	8.00E-04	1.10E-03		7.1E+00	1.5E-04	7.8E+01	1.4E-05	1.8E+06	6.1E-10	5.0E+02	2.2E-06	3.7E+01	3.0E-05	2.6E+02	4.2E-06	2.3E+06	4.8E-10	5.0E+02	2.2E-06
PAOC05	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	11	3	8.50E-04	2.50E+00		1.1E+02	2.3E-02	2.1E+04	1.2E-04	8.2E+07	3.0E-08	1.1E+02	2.3E-02	1.1E+02	2.3E-02	2.5E+04	1.0E-04	3.6E+07	6.9E-08	1.1E+02	2.3E-02
PAOC05	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	11	1	4.50E-01	4.50E-01		9.4E+01	4.8E-03	1.6E+04	2.8E-05	8.2E+07	5.5E-09	9.4E+01	4.8E-03	9.4E+01	4.8E-03	1.9E+04	2.4E-05	3.6E+07	1.3E-08	9.4E+01	4.8E-03
PAOC05	VOC	Xylenes (total)	1330-20-7	ID	123	26	5.90E-04	2.30E+04		1.5E+02	**1.5E+02**	4.6E+04	5.0E-01	2.9E+08	7.9E-05	1.5E+02	**1.5E+02**	1.5E+02	**1.5E+02**	5.4E+04	4.3E-01	1.3E+08	1.8E-04	1.5E+02	**1.5E+02**
PAOC05	SVOC	Acenaphthene	83-32-9		72	2	1.00E-01	2.10E-01		1.9E+05	1.1E-06	8.1E+04	2.6E-06	1.4E+07	1.5E-08	4.1E+04	5.1E-06	3.5E+05	6.0E-07	9.7E+04	2.2E-06	6.2E+06	3.4E-08	1.3E+05	1.6E-06
PAOC05	SVOC	Acenaphthylene	208-96-8	D	72	2	2.50E-02	4.70E-01		1.6E+03	2.9E-04	2.2E+03	2.1E-04	2.3E+06	2.0E-07	1.6E+03	2.9E-04	3.0E+03	1.6E-04	2.7E+03	1.7E-04	1.0E+06	4.7E-07	5.2E+03	9.0E-05
PAOC05	SVOC	Anthracene	120-12-7	D	72	2	2.30E-01	8.20E-01		1.0E+06	8.2E-07	1.4E+06	5.9E-07	6.7E+07	1.2E-08	2.3E+05	3.6E-06	1.0E+06	8.2E-07	1.6E+06	5.1E-07	2.9E+07	2.8E-08	7.3E+05	1.1E-06
PAOC05	SVOC	Benzo(a)anthracene	56-55-3	B2	72	5	1.50E-02	3.70E+00								2.0E+01	1.9E-01							8.0E+01	4.6E-02
PAOC05	SVOC	Benzo(a)pyrene	50-32-8	B2	72	5	1.20E-02	2.60E+00						1.5E+03	1.7E-03	2.0E+00	**1.3E+00**					1.9E+03	1.4E-03	8.0E+00	3.3E-01
PAOC05	SVOC	Benzo(b)fluoranthene	205-99-2	B2	72	5	1.30E-02	3.60E+00								2.0E+01	1.8E-01							8.0E+01	4.5E-02
PAOC05	SVOC	Benzo(g,h,i)perylene	191-24-2	D	72	5	1.20E-02	1.50E+00						8.0E+05	1.9E-06	2.5E+03	6.0E-04					3.5E+05	4.3E-06	7.0E+03	2.1E-04
PAOC05	SVOC	Benzo(k)fluoranthene	207-08-9	B2	72	3	1.10E-02	1.30E+00								2.0E+02	6.5E-03							8.0E+02	1.6E-03
PAOC05	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	13	3	2.10E-02	6.10E-02						7.0E+05	8.7E-08	2.8E+03	2.2E-05					8.9E+05	6.9E-08	1.0E+04	6.1E-06
PAOC05	SVOC	Carbazole	86-74-8	B2	13	2	9.30E-02	2.00E-01								5.3E+02	3.8E-04							2.4E+03	8.3E-05
PAOC05	SVOC	Chrysene	218-01-9	B2	72	5	2.30E-02	2.90E+00								2.0E+03	1.5E-03							8.0E+03	3.6E-04
PAOC05	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	72	2	9.60E-02	4.30E-01								2.0E+00	2.2E-01							8.0E+00	5.4E-02
PAOC05	SVOC	Dibenzofuran	132-64-9	D	13	3	5.10E-02	2.20E-01																	
PAOC05	SVOC	Fluoranthene	206-44-0	D	72	6	2.30E-02	1.00E+01		1.0E+06	1.0E-05	7.4E+05	1.4E-05	9.3E+06	1.1E-06	4.6E+04	2.2E-04	1.0E+06	1.0E-05	8.9E+05	1.1E-05	4.1E+06	2.4E-06	1.3E+05	7.7E-05
PAOC05	SVOC	Fluorene	86-73-7	D	72	2	6.00E-02	2.80E-01		5.8E+05	4.8E-07	1.3E+05	2.2E-06	9.3E+06	3.0E-08	2.7E+04	1.0E-05	1.0E+06	2.8E-07	1.5E+05	1.9E-06	4.1E+06	6.8E-08	8.7E+04	3.2E-06
PAOC05	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	72	3	1.50E-02	1.40E+00								2.0E+01	7.0E-02							8.0E+01	1.8E-02
PAOC05	SVOC	2-Methylnaphthalene	91-57-6	ID	72	3	7.70E-03	2.20E-01								8.1E+03	2.7E-05							2.6E+04	8.5E-06
PAOC05	SVOC	Naphthalene	91-20-3	C	72	3	6.40E-02	1.60E-01		2.5E+02	6.4E-04	3.0E+02	5.3E-04	2.0E+05	8.0E-07	1.6E+04	1.0E-05	4.7E+02	3.4E-04	3.5E+02	4.6E-04	8.8E+04	1.8E-06	5.2E+04	3.1E-06
PAOC05	SVOC	Phenanthrene	85-01-8	D	72	9	8.90E-03	3.40E+00		2.8E+03	1.2E-03	1.6E+02	2.1E-02	6.7E+03	5.1E-04	1.6E+03	2.1E-03	5.1E+03	6.7E-04	1.9E+02	1.8E-02	2.9E+03	1.2E-03	5.2E+03	6.5E-04
PAOC05	SVOC	Pyrene	129-00-0	NC	72	6	2.50E-02	8.10E+00		1.0E+06	8.1E-06	6.5E+05	1.2E-05	6.7E+06	1.2E-06	2.9E+04	2.8E-04	1.0E+06	8.1E-06	7.8E+05	1.0E-05	2.9E+06	2.8E-06	8.4E+04	9.6E-05
PAOC05	PCB	PCBs (total)	1336-36-3	B2	72	4	5.40E-02	6.70E-01		3.0E+03	2.2E-04	2.4E+02	2.8E-03	5.2E+03	1.3E-04	4.0E+00	1.7E-01	1.6E+04	4.2E-05	8.1E+02	8.3E-04	6.5E+03	1.0E-04	1.6E+01	4.2E-02
PAOC05	INORG	Antimony	7440-36-0		13	10	4.30E-02	5.30E-01						1.3E+04	4.1E-05	1.8E+02	2.9E-03					5.9E+03	9.0E-05	6.7E+02	7.9E-04
PAOC05	INORG	Arsenic	7440-38-2	A	13	13	1.10E+00	7.40E+00						7.2E+02	1.0E-02	7.6E+00	9.7E-01					9.1E+02	8.1E-03	3.7E+01	2.0E-01
PAOC05	INORG	Barium	7440-39-3	NC	13	13	1.52E+01	1.30E+02						3.3E+05	3.9E-04	3.7E+04	3.5E-03					1.5E+05	8.7E-04	1.3E+05	1.0E-03
PAOC05	INORG	Beryllium	7440-41-7	B1	13	8	1.50E-01	1.10E+00						1.3E+03	8.5E-04	4.1E+02	2.7E-03					5.9E+02	1.9E-03	1.6E+03	6.9E-04
PAOC05	INORG	Cadmium	7440-43-9	B1	78	72	1.60E-01	7.20E+00						1.7E+03	4.2E-03	5.5E+02	1.3E-02					2.2E+03	3.3E-03	2.1E+03	3.4E-03
PAOC05	INORG	Chromium (total)	7440-47-3		65	65	6.00E+00	2.70E+01						2.6E+02	1.0E-01	2.5E+03	1.1E-02					2.4E+02	1.1E-01	9.2E+03	2.9E-03
PAOC05	INORG	Chromium III	16065-83-1	D	13	13	6.18E+00	3.31E+01						3.3E+05	1.0E-04	7.9E+05	4.2E-05					1.5E+05	2.2E-04	1.0E+06	3.3E-05
PAOC05	INORG	Chromium VI	18540-29-9	A	13	7	4.10E-01	1.80E+00						2.6E+02	6.9E-03	2.5E+03	7.2E-04					2.4E+02	7.5E-03	9.2E+03	2.0E-04
PAOC05	INORG	Cobalt	7440-48-4	LC	13	13	2.60E+00	8.90E+00						1.3E+04	6.8E-04	2.6E+03	3.4E-03					5.9E+03	1.5E-03	9.0E+03	9.9E-04
PAOC05	INORG	Copper	7440-50-8	D	13	13	8.10E+00	1.42E+02						1.3E+05	1.1E-03	2.0E+04	7.1E-03					5.9E+04	2.4E-03	7.3E+04	1.9E-03
PAOC05	INORG	Cyanide (total)	57-12-5	D	13	1	6.40E-01	6.40E-01						2.5E+02	2.6E-03	1.2E+01	5.3E-02					2.5E+02	2.6E-03	2.5E+02	2.6E-03
PAOC05	INORG	Lead	7439-92-1	B2	78	78	2.10E+00	1.94E+01						1.0E+05	1.9E-04	4.0E+02	4.9E-02					4.4E+04	4.4E-04	9.0E+02	2.2E-02
PAOC05	INORG	Manganese	7439-96-5	D	13	13	1.30E+02	9.21E+02	4.40E+02					3.3E+03	1.5E-01	2.5E+04	1.9E-02					1.5E+03	3.2E-01	9.0E+04	5.3E-03
PAOC05	INORG	Mercury	7439-97-6	D	13	8	1.90E-02	1.00E-01		4.8E+01	2.1E-03	5.2E+01	1.9E-03	2.0E+04	5.0E-06	1.6E+02	6.3E-04	8.9E+01	1.1E-03	6.2E+01	1.6E-03	8.8E+03	1.1E-05	5.8E+02	1.7E-04
PAOC05	INORG	Nickel	7440-02-0	A	13	13	5.70E+00	2.48E+01						1.3E+04	1.9E-03	4.0E+04	6.2E-04					1.6E+04	1.6E-03	1.5E+05	1.7E-04
PAOC05	INORG	Selenium	7782-49-2	D	13	7	1.50E-01	5.70E-01						1.3E+05	4.4E-06	2.6E+03	2.2E-04					5.9E+04	9.7E-06	9.6E+03	5.9E-05
PAOC05	INORG	Silver	7440-22-4	D	13	13	3.00E-02	1.80E-01						6.7E+03	2.7E-05	2.5E+03	7.2E-05					2.9E+03	6.2E-05	9.0E+03	2.0E-05
PAOC05	INORG	Thallium	7440-28-0		13	12	4.10E-02	2.70E-01								3.5E+01	7.7E-03							1.3E+02	2.1E-03
PAOC05	INORG	Vanadium	7440-62-2		13	13	1.02E+01	2.45E+01								7.5E+02	3.3E-02							5.5E+03	4.5E-03
PAOC05	INORG	Zinc	7440-66-6	ID	13	13	1.46E+01	5.28E+01								1.7E+05	3.1E-04							6.3E+05	8.4E-05
PAOC06	VOC	Acetone	67-64-1	ID	9	2	7.00E-03	8.10E-03		1.1E+05	7.4E-08	1.3E+05	6.2E-08	3.9E+08	2.1E-11	2.3E+04	3.5E-07	1.1E+05	7.4E-08	1.6E+05	5.1E-08	1.7E+08	4.8E-11	7.3E+04	1.1E-07
PAOC06	VOC	Benzene	71-43-2	A	9	1	2.20E-04	2.20E-04		1.6E+00	1.4E-04	1.3E+01	1.7E-05	3.8E+05	5.8E-10	1.8E+02	1.2E-06	8.4E+00	2.6E-05	4.5E+01	4.9E-06	4.7E+05	4.7E-10	4.0E+02	5.5E-07
PAOC06	VOC	2-Butanone	78-93-3	ID	9	1	1.90E-03	1.90E-03		2.7E+04	7.0E-08	2.9E+04	6.6E-08	6.7E+07	2.8E-11	2.7E+04	7.0E-08	2.7E+04	7.0E-08	3.5E+04	5.4E-08	2.9E+07	6.6E-11	2.7E+04	7.0E-08
PAOC06	VOC	Carbon Disulfide	75-15-0		9	1	4.10E-03	4.10E-03		7.6E+01	5.4E-05	1.3E+03	3.2E-06	4.7E+07	8.7E-11	2.8E+02	1.5E-05	1.4E+02	2.9E-05	1.6E+03	2.6E-06	2.1E+07	2.0E-10	2.8E+02	1.5E-05
PAOC06	VOC	1,2-Dichlorobenzene	95-50-1	D	9	1	2.80E-04	2.80E-04		2.1E+02	1.3E-06	3.9E+04	7.2E-09	1.0E+08	2.8E-12	2.1E+02	1.3E-06	2.1E+02	1.3E-06	4.6E+04	6.1E-09	4.4E+07	6.4E-12	2.1E+02	1.3E-06
PAOC06	VOC	Toluene	108-88-3	ID	9	2	2.10E-04	6.20E-04		2.5E+02	2.5E-06	2.8E+03	2.2E-07	2.7E+07	2.3E-11	2.5E+02	2.5E-06	2.5E+02	2.5E-06	3.3E+03	1.9E-07	1.2E+07	5.2E-11	2.5E+02	2.5E-06
PAOC06	VOC	Trichloroethene	79-01-6	C-B2	9	2	4.70E-04	2.20E-02		7.1E+00	3.1E-03	7.8E+01	2.8E-04	1.8E+06	1.2E-08	5.0E+02	4.4E-05	3.7E+01	5.9E-04	2.6E+02	8.5E-05	2.3E+06	9.6E-09	5.0E+02	4.4E-05
PAOC06	VOC	Trichlorofluoromethane	75-69-4		9	1	6.60E-04	6.60E-04		5.6E+02	1.2E-06	9.2E+04	7.2E-09	3.8E+09	1.7E-13	5.6E+02	1.2E-06	5.6E+02	1.2E-06	1.1E+05	6.0E-09	1.7E+09	3.9E-13	5.6E+02	1.2E-06
PAOC06	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	9	1	1.40E-02	1.40E-02		1.1E+02	1.3E-04	2.1E+04	6.7E-07	8.2E+07	1.7E-10	1.1E+02	1.3E-04	1.1E+02	1.3E-04	2.5E+04	5.6E-07	3.6E+07	3.9E-10	1.1E+02	1.3E-04
PAOC06	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	9	1	3.90E-03	3.90E-03		9.4E+01	4.1E-05	1.6E+04	2.4E-07	8.2E+07	4.8E-11	9.4E+01	4.1E-05	9.4E+01	4.1E-05	1.9E+04	2.1E-07	3.6E+07	1.1E-10	9.4E+01	4.1E-05
PAOC06	VOC	Xylenes (total)	1330-20-7	ID	9	1	1.30E-03	1.30E-03		1.5E+02	8.7E-06	4.6E+04	2.8E-08	2.9E+08	4.5E-12	1.5E+02	8.7E-06	1.5E+02	8.7E-06	5.4E+04	2.4E-08	1.3E+08	1.0E-11	1.5E+02	8.7E-06
PAOC06	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	9	2	2.60E-02	6.30E-02						7.0E+05	9.0E-08	2.8E+03	2.3E-05					8.9E+05	7.1E-08	1.0E+04	6.3E-06
PAOC06	SVOC	Chrysene	218-01-9	B2	9	1	2.30E-02	2.30E-02								2.0E+03	1.2E-05							8.0E+03	2.9E-06
PAOC06	SVOC	Di-n-butylphthalate	84-74-2	D	9	1	4.10E-02	4.10E-02						3.3E+06	1.2E-08	7.6E+02	5.4E-05					1.5E+06	2.7E-08	7.6E+02	5.4E-05
PAOC06	SVOC	2,6-Dinitrotoluene	606-20-2	B2	9	1	1.50E-01	1.50E-01																	
PAOC06	SVOC	Fluoranthene	206-44-0	D	9	1	2.20E-02	2.20E-02		1.0E+06	2.2E-08	7.4E+05	3.0E-08	9.3E+06	2.4E-09	4.6E+04	4.8E-07	1.0E+06	2.2E-08	8.9E+05	2.5E-08	4.1E+06	5.4E-09	1.3E+05	1.7E-07
PAOC06	SVOC	Phenanthrene	85-01-8	D	9	1	2.20E-02	2.20E-02		2.8E+03	7.9E-06	1.6E+02	1.4E-04	6.7E+03	3.3E-06	1.6E+03	1.4E-05	5.1E+03	4.3E-06	1.9E+02	1.2E-04	2.9E+03	7.6E-06	5.2E+03	4.2E-06
PAOC06	SVOC	Pyrene	129-00-0	NC	9	1	1.60E-02	1.60E-02		1.0E+06	1.6E-08	6.5E+05	2.5E-08	6.7E+06	2.4E-09	2.9E+04	5.5E-07	1.0E+06	1.6E-08	7.8E+05	2.1E-08	2.9E+06	5.5E-09	8.4E+04	1.9E-07
PAOC06	INORG	Antimony	7440-36-0		8	7	3.40E-02	9.80E-02						1.3E+04	7.5E-06	1.8E+02	5.4E-04					5.9E+03	1.7E-05	6.7E+02	1.5E-04
PAOC06	INORG	Arsenic	7440-38-2	A	11	11	5.70E-01	1.11E+01						7.2E+02	1.5E-02	7.6E+00	**1.5E+00**					9.1E+02	1.2E-02	3.7E+01	3.0E-01
PAOC06	INORG	Barium	7440-39-3	NC	9	9	1.39E+01	4.40E+01						3.3E+05	1.3E-04	3.7E+04	1.2E-03					1.5E+05	2.9E-04	1.3E+05	3.4E-04
PAOC06	INORG	Beryllium	7440-41-7	B1	9	3	1.20E-01	3.90E-01						1.3E+03	3.0E-04	4.1E+02	9.5E-04					5.9E+02	6.6E-04	1.6E+03	2.4E-04
PAOC06	INORG	Cadmium	7440-43-9	B1	9	6	8.40E-02	3.90E-01						1.7E+03	2.3E-04	5.5E+02	7.1E-04					2.2E+03	1.8E-04	2.1E+03	1.9E-04
PAOC06	INORG	Chromium III	16065-83-1	D	9	9	6.39E+00	1.36E+01						3.3E+05	4.1E-05	7.9E+05	1.7E-05					1.5E+05	9.1E-05	1.0E+06	1.4E-05
PAOC06	INORG	Chromium VI	18540-29-9	A	9	4	3.00E-01	5.50E-01						2.6E+02	2.1E-03	2.5E+03	2.2E-04					2.4E+02	2.3E-03	9.2E+03	6.0E-05
PAOC06	INORG	Cobalt	7440-48-4	LC	9	9	2.20E+00	6.80E+00						1.3E+04	5.2E-04	2.6E+03	2.6E-03					5.9E+03	1.2E-03	9.0E+03	7.6E-04
PAOC06	INORG	Copper	7440-50-8	D	9	9	6.80E+00	2.09E+01						1.3E+05	1.6E-04	2.0E+04	1.0E-03					5.9E+04	3.5E-04	7.3E+04	2.9E-04
PAOC06	INORG	Cyanide (total)	57-12-5	D	9	2	2.30E-01	4.80E-01						2.6E+02	1.9E-03	1.2E+01	4.0E-02					2.5E+02	1.9E-03	2.5E+02	1.9E-03
PAOC06	INORG	Lead	7439-92-1	B2	9	9	3.90E+00	9.00E+00						1.0E+05	9.0E-05	4.0E+02	2.3E-02					4.4E+04	2.0E-04	9.0E+02	1.0E-02
PAOC06	INORG	Manganese	7439-96-5	D	9	9	1.50E+02	3.38E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC06	INORG	Mercury	7439-97-6	D	9	7	1.80E-02	6.30E-02		4.8E+01	1.3E-03	5.2E+01	1.2E-03	2.0E+04	3.2E-06	1.6E+02	3.9E-04	8.9E+01	7.1E-04	6.2E+01	1.0E-03	8.8E+03	7.2E-06	5.8E+02	1.1E-04
PAOC06	INORG	Nickel	7440-02-0	A	9	9	8.00E+00	1.71E+01						1.3E+04	1.3E-03	4.0E+04	4.3E-04					1.6E+04	1.1E-03	1.5E+05	1.1E-04
PAOC06	INORG	Selenium	7782-49-2	D	9	8	1.00E-01	9.00E-01						1.3E+05	6.9E-06	2.6E+03	3.5E-04					5.9E+04	1.5E-05	9.6E+03	9.4E-05
PAOC06	INORG	Silver	7440-22-4	D	9	4	3.70E-02	1.00E-01						6.7E+03	1.5E-05	2.5E+03	4.0E-05					2.9E+03	3.4E-05	9.0E+03	1.1E-05
PAOC06	INORG	Thallium	7440-28-0		9	7	7.90E-02	2.60E-01								3.5E+01	7.4E-03							1.3E+02	2.0E-03
PAOC06	INORG	Vanadium	7440-62-2		9	9	8.20E+00	2.05E+01								7.5E+02	2.7E-02							5.5E+03	3.7E-03
PAOC06	INORG	Zinc	7440-66-6	ID	9	9	1.72E+01	6.34E+01								1.7E+05	3.7E-04							6.3E+05	1.0E-04
PAOC07	VOC	Acetone	67-64-1	ID	1	1	1.20E-02	1.20E-02		1.1E+05	1.1E-07	1.3E+05	9.2E-08	3.9E+08	3.1E-11	2.3E+04	5.2E-07	1.1E+05	1.1E-07	1.6E+05	7.5E-08	1.7E+08	7.1E-11	7.3E+04	1.6E-07
PAOC07	VOC	2-Butanone	78-93-3	ID	1	1	2.60E-03	2.60E-03		2.7E+04	9.6E-08	2.9E+04	9.0E-08	6.7E+07	3.9E-11	2.7E+04	9.6E-08	2.7E+04	9.6E-08	3.5E+04	7.4E-08	2.9E+07	9.0E-11	2.7E+04	9.6E-08
PAOC07	INORG	Antimony	7440-36-0		1	1	7.20E-02	7.20E-02						1.3E+04	5.5E-06	1.8E+02	4.0E-04					5.9E+03	1.2E-05	6.7E+02	1.1E-04
PAOC07	INORG	Arsenic	7440-38-2	A	1	1	5.00E+00	5.00E+00						7.2E+02	6.9E-03	7.6E+00	6.6E-01					9.1E+02	5.5E-03	3.7E+01	1.4E-01
PAOC07	INORG	Barium	7440-39-3	NC	1	1	7.12E+01	7.12E+01						3.3E+05	2.2E-04	3.7E+04	1.9E-03					1.5E+05	4.7E-04	1.3E+05	5.5E-04
PAOC07	INORG	Beryllium	7440-41-7	B1	1	1	3.50E-01	3.50E-01						1.3E+03	2.7E-04	4.1E+02	8.5E-04					5.9E+02	5.9E-04	1.6E+03	2.2E-04
PAOC07	INORG	Chromium III	16065-83-1	D	1	1	1.71E+01	1.71E+01						3.3E+05	5.2E-05	7.9E+05	2.2E-05					1.5E+05	1.1E-04	1.0E+06	1.7E-05
PAOC07	INORG	Chromium VI	18540-29-9	A	1	1	7.80E-01	7.80E-01						2.6E+02	3.0E-03	2.5E+03	3.1E-04					2.4E+02	3.3E-03	9.2E+03	8.5E-05
PAOC07	INORG	Cobalt	7440-48-4	LC	1	1	9.10E+00	9.10E+00						1.3E+04	7.0E-04	2.6E+03	3.5E-03					5.9E+03	1.5E-03	9.0E+03	1.0E-03
PAOC07	INORG	Copper	7440-50-8	D	1	1	1.43E+01	1.43E+01						1.3E+05	1.1E-04	2.0E+04	7.2E-04					5.9E+04	2.4E-04	7.3E+04	2.0E-04
PAOC07	INORG	Lead	7439-92-1	B2	1	1	1.25E+01	1.25E+01						1.0E+05	1.3E-04	4.0E+02	3.1E-02					4.4E+04	2.8E-04	9.0E+02	1.4E-02
PAOC07	INORG	Manganese	7439-96-5	D	1	1	4.27E+02	4.27E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC07	INORG	Mercury	7439-97-6	D	1	1	4.50E-02	4.50E-02		4.8E+01	9.4E-04	5.2E+01	8.7E-04	2.0E+04	2.3E-06	1.6E+02	2.8E-04	8.9E+01	5.1E-04	6.2E+01	7.3E-04	8.8E+03	5.1E-06	5.8E+02	7.8E-05
PAOC07	INORG	Nickel	7440-02-0	A	1	1	2.20E+01	2.20E+01						1.3E+04	1.7E-03	4.0E+04	5.5E-04					1.6E+04	1.4E-03	1.5E+05	1.5E-04
PAOC07	INORG	Selenium	7782-49-2	D	1	1	1.20E-01	1.20E-01						1.3E+05	9.2E-07	2.6E+03	4.6E-05					5.9E+04	2.0E-06	9.6E+03	1.3E-05
PAOC07	INORG	Silver	7440-22-4	D	1	1	7.70E-02	7.70E-02						6.7E+03	1.1E-05	2.5E+03	3.1E-05					2.9E+03	2.7E-05	9.0E+03	8.6E-06
PAOC07	INORG	Thallium	7440-28-0		1	1	1.70E-01	1.70E-01								3.5E+01	4.9E-03							1.3E+02	1.3E-03
PAOC07	INORG	Vanadium	7440-62-2		1	1	2.36E+01	2.36E+01								7.5E+02	3.1E-02							5.5E+03	4.3E-03
PAOC07	INORG	Zinc	7440-66-6	ID	1	1	4.05E+01	4.05E+01								1.7E+05	2.4E-04							6.3E+05	6.4E-05
PAOC08	VOC	Acetone	67-64-1	ID	1	1	1.30E-02	1.30E-02		1.1E+05	1.2E-07	1.3E+05	1.0E-07	3.9E+08	3.3E-11	2.3E+04	5.7E-07	1.1E+05	1.2E-07	1.6E+05	8.1E-08	1.7E+08	7.6E-11	7.3E+04	1.8E-07
PAOC08	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1	1	3.00E-02	3.00E-02						7.0E+05	4.3E-08	2.8E+03	1.1E-05					8.9E+05	3.4E-08	1.0E+04	3.0E-06
PAOC08	INORG	Antimony	7440-36-0		1	1	4.90E-02	4.90E-02						1.3E+04	3.8E-06	1.8E+02	2.7E-04					5.9E+03	8.3E-06	6.7E+02	7.3E-05
PAOC08	INORG	Arsenic	7440-38-2	A	1	1	7.40E+00	7.40E+00						7.2E+02	1.0E-02	7.6E+00	9.7E-01					9.1E+02	8.1E-03	3.7E+01	2.0E-01
PAOC08	INORG	Barium	7440-39-3	NC	1	1	4.36E+01	4.36E+01						3.3E+05	1.3E-04	3.7E+04	1.2E-03					1.5E+05	2.9E-04	1.3E+05	3.4E-04
PAOC08	INORG	Beryllium	7440-41-7	B1	1	1	3.60E-01	3.60E-01						1.3E+03	2.8E-04	4.1E+02	8.8E-04					5.9E+02	6.1E-04	1.6E+03	2.3E-04
PAOC08	INORG	Cadmium	7440-43-9	B1	1	1	2.30E-01	2.30E-01						1.7E+03	1.4E-04	5.5E+02	4.2E-04					2.2E+03	1.0E-04	2.1E+03	1.1E-04
PAOC08	INORG	Chromium III	16065-83-1	D	1	1	1.16E+01	1.16E+01						3.3E+05	3.5E-05	7.9E+05	1.5E-05					1.5E+05	7.7E-05	1.0E+06	1.2E-05
PAOC08	INORG	Chromium VI	18540-29-9	A	1	1	1.20E+00	1.20E+00						2.6E+02	4.6E-03	2.5E+03	4.8E-04					2.4E+02	5.0E-03	9.2E+03	1.3E-04
PAOC08	INORG	Cobalt	7440-48-4	LC	1	1	6.80E+00	6.80E+00						1.3E+04	5.2E-04	2.6E+03	2.6E-03					5.9E+03	1.2E-03	9.0E+03	7.6E-04
PAOC08	INORG	Copper	7440-50-8	D	1	1	1.38E+01	1.38E+01						1.3E+05	1.1E-04	2.0E+04	6.9E-04					5.9E+04	2.3E-04	7.3E+04	1.9E-04
PAOC08	INORG	Lead	7439-92-1	B2	1	1	5.50E+00	5.50E+00						1.0E+05	5.5E-05	4.0E+02	1.4E-02					4.4E+04	1.3E-04	9.0E+02	6.1E-03
PAOC08	INORG	Manganese	7439-96-5	D	1	1	3.08E+02	3.08E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC08	INORG	Mercury	7439-97-6	D	1	1	1.90E-02	1.90E-02		4.8E+01	4.0E-04	5.2E+01	3.7E-04	2.0E+04	9.5E-07	1.6E+02	1.2E-04	8.9E+01	2.1E-04	6.2E+01	3.1E-04	8.8E+03	2.2E-06	5.8E+02	3.3E-05
PAOC08	INORG	Nickel	7440-02-0	A	1	1	1.63E+01	1.63E+01						1.3E+04	1.3E-03	4.0E+04	4.1E-04					1.6E+04	1.0E-03	1.5E+05	1.1E-04
PAOC08	INORG	Selenium	7782-49-2	D	1	1	3.70E-01	3.70E-01						1.3E+05	2.8E-06	2.6E+03	1.4E-04					5.9E+04	6.3E-06	9.6E+03	3.9E-05
PAOC08	INORG	Thallium	7440-28-0		1	1	1.20E-01	1.20E-01								3.5E+01	3.4E-03							1.3E+02	9.2E-04
PAOC08	INORG	Vanadium	7440-62-2		1	1	1.76E+01	1.76E+01								7.5E+02	2.3E-02							5.5E+03	3.2E-03
PAOC08	INORG	Zinc	7440-66-6	ID	1	1	2.86E+01	2.86E+01								1.7E+05	1.7E-04							6.3E+05	4.5E-05
PAOC09	VOC	cis-1,2-Dichloroethene	156-59-2	ID	3	2	4.10E-01	7.30E-01		2.2E+01	3.3E-02	1.8E+02	4.1E-03	2.3E+06	3.2E-07	6.4E+02	1.1E-03	4.1E+01	1.8E-02	2.1E+02	3.5E-03	1.0E+06	7.3E-07	6.4E+02	1.1E-03
PAOC09	VOC	trans-1,2-Dichloroethene	156-60-5		3	2	4.80E-02	9.00E-02		2.3E+01	3.9E-03	2.8E+02	3.2E-04	4.7E+06	1.9E-08	1.4E+03	6.4E-05	4.3E+01	2.1E-03	3.3E+02	2.7E-04	2.1E+06	4.3E-08	1.4E+03	6.4E-05
PAOC09	VOC	Toluene	108-88-3	ID	3	1	2.90E-04	2.90E-04		2.5E+02	1.2E-06	2.8E+03	1.0E-07	2.7E+07	1.1E-11	2.5E+02	1.2E-06	2.5E+02	1.2E-06	3.3E+03	8.8E-08	1.2E+07	2.4E-11	2.5E+02	1.2E-06
PAOC09	VOC	Trichloroethene	79-01-6	C-B2	3	2	1.20E-01	2.20E-01		7.1E+00	3.1E-02	7.8E+01	2.8E-03	1.8E+06	1.2E-07	5.0E+02	4.4E-04	3.7E+01	5.9E-03	2.6E+02	8.5E-04	2.3E+06	9.6E-08	5.0E+02	4.4E-04
PAOC09	VOC	Vinyl Chloride	75-01-4	A	3	2	4.50E-02	6.60E-02		2.7E-01	2.4E-01	4.2E+00	1.6E-02	3.5E+05	1.9E-07	3.8E+00	1.7E-02	2.8E+00	2.4E-02	2.9E+01	2.3E-03	8.9E+05	7.4E-08	3.4E+01	1.9E-03
PAOC09	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	3	1	3.00E-02	3.00E-02						7.0E+05	4.3E-08	2.8E+03	1.1E-05					8.9E+05	3.4E-08	1.0E+04	3.0E-06
PAOC09	SVOC	Fluoranthene	206-44-0	D	3	2	9.50E-03	9.60E-03		1.0E+06	9.6E-09	7.4E+05	1.3E-08	9.3E+06	1.0E-09	4.6E+04	2.1E-07	1.0E+06	9.6E-09	8.9E+05	1.1E-08	4.1E+06	2.3E-09	1.3E+05	7.4E-08
PAOC09	SVOC	Phenanthrene	85-01-8	D	3	2	7.50E-03	7.80E-03		2.8E+03	2.8E-06	1.6E+02	4.9E-05	6.7E+03	1.2E-06	1.6E+03	4.9E-06	5.1E+03	1.5E-06	1.9E+02	4.1E-05	2.9E+03	2.7E-06	5.2E+03	1.5E-06
PAOC09	SVOC	Pyrene	129-00-0	NC	3	2	7.50E-03	8.00E-03		1.0E+06	8.0E-09	6.5E+05	1.2E-08	6.7E+06	1.2E-09	2.9E+04	2.8E-07	1.0E+06	8.0E-09	7.8E+05	1.0E-08	2.9E+06	2.8E-09	8.4E+04	9.5E-08
PAOC09	INORG	Antimony	7440-36-0		3	3	4.10E-02	7.00E-02						1.3E+04	5.4E-06	1.8E+02	3.9E-04					5.9E+03	1.2E-05	6.7E+02	1.0E-04
PAOC09	INORG	Arsenic	7440-38-2	A	3	3	4.10E+00	5.30E+00						7.2E+02	7.4E-03	7.6E+00	7.0E-01					9.1E+02	5.8E-03	3.7E+01	1.4E-01
PAOC09	INORG	Barium	7440-39-3	NC	3	3	3.15E+01	4.85E+01						3.3E+05	1.5E-04	3.7E+04	1.3E-03					1.5E+05	3.2E-04	1.3E+05	3.7E-04
PAOC09	INORG	Beryllium	7440-41-7	B1	3	3	2.70E-01	4.00E-01						1.3E+03	3.1E-04	4.1E+02	9.8E-04					5.9E+02	6.8E-04	1.6E+03	2.5E-04
PAOC09	INORG	Cadmium	7440-43-9	B1	3	3	2.10E-01	2.80E-01						1.7E+03	1.6E-04	5.5E+02	5.1E-04					2.2E+03	1.3E-04	2.1E+03	1.3E-04
PAOC09	INORG	Chromium III	16065-83-1	D	3	3	1.01E+01	1.27E+01						3.3E+05	3.8E-05	7.9E+05	1.6E-05					1.5E+05	8.5E-05	1.0E+06	1.3E-05
PAOC09	INORG	Chromium VI	18540-29-9	A	3	3	2.70E-01	1.10E+00						2.6E+02	4.2E-03	2.5E+03	4.4E-04					2.4E+02	4.6E-03	9.2E+03	1.2E-04
PAOC09	INORG	Cobalt	7440-48-4	LC	3	3	5.30E+00	9.10E+00						1.3E+04	7.0E-04	2.6E+03	3.5E-03					5.9E+03	1.5E-03	9.0E+03	1.0E-03
PAOC09	INORG	Copper	7440-50-8	D	3	3	1.06E+01	1.56E+01						1.3E+05	1.2E-04	2.0E+04	7.8E-04					5.9E+04	2.6E-04	7.3E+04	2.1E-04
PAOC09	INORG	Lead	7439-92-1	B2	3	3	4.90E+00	6.80E+00						1.0E+05	6.8E-05	4.0E+02	1.7E-02					4.4E+04	1.5E-04	9.0E+02	7.6E-03
PAOC09	INORG	Manganese	7439-96-5	D	3	3	2.78E+02	4.95E+02	4.40E+02					3.3E+03	1.7E-02	2.5E+04	2.2E-03					1.5E+03	3.7E-02	9.0E+04	6.1E-04
PAOC09	INORG	Mercury	7439-97-6	D	3	2	1.70E-02	2.30E-02		4.8E+01	4.8E-04	5.2E+01	4.4E-04	2.0E+04	1.2E-06	1.6E+02	1.4E-04	8.9E+01	2.6E-04	6.2E+01	3.7E-04	8.8E+03	2.6E-06	5.8E+02	4.0E-05
PAOC09	INORG	Nickel	7440-02-0	A	3	3	1.37E+01	2.13E+01						1.3E+04	1.6E-03	4.0E+04	5.3E-04					1.6E+04	1.3E-03	1.5E+05	1.4E-04
PAOC09	INORG	Selenium	7782-49-2	D	3	3	3.00E-01	5.00E-01						1.3E+05	3.8E-06	2.6E+03	1.9E-04					5.9E+04	8.5E-06	9.6E+03	5.2E-05
PAOC09	INORG	Silver	7440-22-4	D	3	1	1.80E-02	1.80E-02						6.7E+03	2.7E-06	2.5E+03	7.2E-06					2.9E+03	6.2E-06	9.0E+03	2.0E-06
PAOC09	INORG	Thallium	7440-28-0		3	3	1.30E-01	2.30E-01								3.5E+01	6.6E-03							1.3E+02	1.8E-03
PAOC09	INORG	Vanadium	7440-62-2		3	3	1.42E+01	1.79E+01								7.5E+02	2.4E-02							5.5E+03	3.3E-03
PAOC09	INORG	Zinc	7440-66-6	ID	3	3	2.67E+01	3.61E+01								1.7E+05	2.1E-04							6.3E+05	5.7E-05
PAOC10	VOC	Cumene	98-82-8	D	2	1	7.40E-02	7.40E-02		3.9E+02	1.9E-04	1.7E+03	4.4E-05	5.8E+06	1.3E-08	3.9E+02	1.9E-04	3.9E+02	1.9E-04	2.0E+03	3.7E-05	2.6E+06	2.8E-08	3.9E+02	1.9E-04
PAOC10	VOC	Cyclohexane	110-82-7	ID	2	1	5.80E-02	5.80E-02																	
PAOC10	VOC	Ethyl Benzene	100-41-4	D	2	1	2.20E-02	2.20E-02		8.7E+01	2.5E-04	7.2E+02	3.1E-05	1.3E+07	2.2E-09	1.4E+02	1.6E-04	1.4E+02	1.6E-04	2.4E+03	9.2E-06	1.3E+07	1.7E-09	1.4E+02	1.6E-04
PAOC10	VOC	Methylcyclohexane	108-87-2		2	1	1.10E-01	1.10E-01																	
PAOC10	VOC	Toluene	108-88-3	ID	2	1	1.40E-02	1.40E-02		2.5E+02	5.6E-05	2.8E+03	5.0E-06	2.7E+07	5.2E-10	2.5E+02	5.6E-05	2.5E+02	5.6E-05	3.3E+03	4.2E-06	1.2E+07	1.2E-09	2.5E+02	5.6E-05

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC10	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	2	1	5.20E-02	5.20E-02		1.1E+02	4.7E-04	2.1E+04	2.5E-06	8.2E+07	6.3E-10	1.1E+02	4.7E-04	1.1E+02	4.7E-04	2.5E+04	2.1E-06	3.6E+07	1.4E-09	1.1E+02	4.7E-04
PAOC10	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	2	1	5.30E-02	5.30E-02		9.4E+01	5.6E-04	1.6E+04	3.3E-06	8.2E+07	6.5E-10	9.4E+01	5.6E-04	9.4E+01	5.6E-04	1.9E+04	2.8E-06	3.6E+07	1.5E-09	9.4E+01	5.6E-04
PAOC10	VOC	Xylenes (total)	1330-20-7	ID	2	1	8.10E-02	8.10E-02		1.5E+02	5.4E-04	4.6E+04	1.8E-06	2.9E+08	2.8E-10	1.5E+02	5.4E-04	1.5E+02	5.4E-04	5.4E+04	1.5E-06	1.3E+08	6.2E-10	1.5E+02	5.4E-04
PAOC10	SVOC	Acenaphthene	83-32-9		2	1	1.30E+00	1.30E+00		1.9E+05	6.8E-06	8.1E+04	1.6E-05	1.4E+07	9.3E-08	4.1E+04	3.2E-05	3.5E+05	3.7E-06	9.7E+04	1.3E-05	6.2E+06	2.1E-07	1.3E+05	1.0E-05
PAOC10	SVOC	Benzo(b)fluoranthene	205-99-2	B2	2	1	1.20E-02	1.20E-02								2.0E+01	6.0E-04							8.0E+01	1.5E-04
PAOC10	SVOC	Biphenyl	92-52-4	D	2	1	9.30E-01	9.30E-01																	
PAOC10	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2	1	5.70E-01	5.70E-01						7.0E+05	8.1E-07	2.8E+03	2.0E-04					8.9E+05	6.4E-07	1.0E+04	5.7E-05
PAOC10	SVOC	Chrysene	218-01-9	B2	2	1	1.80E-01	1.80E-01								2.0E+03	9.0E-05							8.0E+03	2.3E-05
PAOC10	SVOC	Fluoranthene	206-44-0	D	2	1	3.10E-01	3.10E-01		1.0E+06	3.1E-07	7.4E+05	4.2E-07	9.3E+06	3.3E-08	4.6E+04	6.7E-06	1.0E+06	3.1E-07	8.9E+05	3.5E-07	4.1E+06	7.6E-08	1.3E+05	2.4E-06
PAOC10	SVOC	2-Methylnaphthalene	91-57-6	ID	2	2	2.10E-02	2.40E+00								8.1E+03	3.0E-04							2.6E+04	9.2E-05
PAOC10	SVOC	Naphthalene	91-20-3	C	2	2	1.20E-02	1.60E+00		2.5E+02	6.4E-03	3.0E+02	5.3E-03	2.0E+05	8.0E-06	1.6E+04	1.0E-04	4.7E+02	3.4E-03	3.5E+02	4.6E-03	8.8E+04	1.8E-05	5.2E+04	3.1E-05
PAOC10	SVOC	Phenanthrene	85-01-8	D	2	2	9.20E-03	2.60E+00		2.8E+03	9.3E-04	1.6E+02	1.6E-02	6.7E+03	3.9E-04	1.6E+03	1.6E-03	5.1E+03	5.1E-04	1.9E+02	1.4E-02	2.9E+03	9.0E-04	5.2E+03	5.0E-04
PAOC10	SVOC	Pyrene	129-00-0	NC	2	1	5.60E-01	5.60E-01		1.0E+06	5.6E-07	6.5E+05	8.6E-07	6.7E+06	8.4E-08	2.9E+04	1.9E-05	1.0E+06	5.6E-07	7.8E+05	7.2E-07	2.9E+06	1.9E-07	8.4E+04	6.7E-06
PAOC10	INORG	Arsenic	7440-38-2	A	2	2	3.10E+00	3.80E+00						7.2E+02	5.3E-03	7.6E+00	5.0E-01					9.1E+02	4.2E-03	3.7E+01	1.0E-01
PAOC10	INORG	Barium	7440-39-3	NC	2	2	6.30E+00	3.59E+01						3.3E+05	1.1E-04	3.7E+04	9.7E-04					1.5E+05	2.4E-04	1.3E+05	2.8E-04
PAOC10	INORG	Chromium III	16065-83-1	D	2	2	3.89E+00	9.98E+00						3.3E+05	3.0E-05	7.9E+05	1.3E-05					1.5E+05	6.7E-05	1.0E+06	1.0E-05
PAOC10	INORG	Cobalt	7440-48-4	LC	2	2	1.80E+00	5.40E+00						1.3E+04	4.2E-04	2.6E+03	2.1E-03					5.9E+03	9.2E-04	9.0E+03	6.0E-04
PAOC10	INORG	Copper	7440-50-8	D	2	2	3.80E+00	1.02E+01						1.3E+05	7.9E-05	2.0E+04	5.1E-04					5.9E+04	1.7E-04	7.3E+04	1.4E-04
PAOC10	INORG	Lead	7439-92-1	B2	2	2	3.20E+00	6.50E+00						1.0E+05	6.5E-05	4.0E+02	1.6E-02					4.4E+04	1.5E-04	9.0E+02	7.2E-03
PAOC10	INORG	Manganese	7439-96-5	D	2	2	1.16E+02	2.14E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC10	INORG	Nickel	7440-02-0	A	2	2	3.70E+00	1.32E+01						1.3E+04	1.0E-03	4.0E+04	3.3E-04					1.6E+04	8.3E-04	1.5E+05	8.8E-05
PAOC10	INORG	Selenium	7782-49-2	D	2	1	4.60E-01	4.60E-01						1.3E+05	3.5E-06	2.6E+03	1.8E-04					5.9E+04	7.8E-06	9.6E+03	4.8E-05
PAOC10	INORG	Silver	7440-22-4	D	2	2	2.10E-02	2.40E-02						6.7E+03	3.6E-06	2.5E+03	9.6E-06					2.9E+03	8.3E-06	9.0E+03	2.7E-06
PAOC10	INORG	Thallium	7440-28-0		2	1	1.20E-01	1.20E-01								3.5E+01	3.4E-03							1.3E+02	9.2E-04
PAOC10	INORG	Vanadium	7440-62-2		2	2	6.40E+00	1.31E+01								7.5E+02	1.7E-02							5.5E+03	2.4E-03
PAOC10	INORG	Zinc	7440-66-6	ID	2	2	2.01E+01	3.28E+01								1.7E+05	1.9E-04							6.3E+05	5.2E-05
PAOC11	VOC	Acetone	67-64-1	ID	1	1	6.00E-02	6.00E-02		1.1E+05	5.5E-07	1.3E+05	4.5E-07	3.9E+08	1.9E-10	2.3E+04	2.6E-06	1.1E+05	5.5E-07	1.6E+05	3.8E-07	1.7E+08	3.5E-10	7.3E+04	8.2E-07
PAOC11	VOC	2-Butanone	78-93-3	ID	1	1	1.50E-02	1.50E-02		2.7E+04	5.6E-07	2.9E+04	5.2E-07	6.7E+07	2.2E-10	2.7E+04	5.6E-07	2.7E+04	5.6E-07	3.5E+04	4.3E-07	2.9E+07	5.2E-10	2.7E+04	5.6E-07
PAOC11	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1	1	8.10E-03	8.10E-03								2.0E+01	4.1E-04							8.0E+01	1.0E-04
PAOC11	SVOC	Fluoranthene	206-44-0	D	1	1	1.10E-02	1.10E-02		1.0E+06	1.1E-08	7.4E+05	1.5E-08	9.3E+06	1.2E-09	4.6E+04	2.4E-07	1.0E+06	1.1E-08	8.9E+05	1.2E-08	4.1E+06	2.7E-09	1.3E+05	8.5E-08
PAOC11	SVOC	Naphthalene	91-20-3	C	1	1	8.50E-03	8.50E-03		2.5E+02	3.4E-05	3.0E+02	2.8E-05	2.0E+05	4.3E-08	1.6E+04	5.3E-07	4.7E+02	1.8E-05	3.5E+02	2.4E-05	8.8E+04	9.7E-08	5.2E+04	1.6E-07
PAOC11	SVOC	Phenanthrene	85-01-8	D	1	1	9.10E-03	9.10E-03		2.8E+03	3.3E-06	1.6E+02	5.7E-05	6.7E+03	1.4E-06	1.6E+03	5.7E-06	5.1E+03	1.8E-06	1.9E+02	4.8E-05	2.9E+03	3.1E-06	5.2E+03	1.8E-06
PAOC11	SVOC	Pyrene	129-00-0	NC	1	1	1.00E-02	1.00E-02		1.0E+06	1.0E-08	6.5E+05	1.5E-08	6.7E+06	1.5E-09	2.9E+04	3.4E-07	1.0E+06	1.0E-08	7.8E+05	1.3E-08	2.9E+06	3.4E-09	8.4E+04	1.2E-07
PAOC11	INORG	Antimony	7440-36-0		1	1	5.50E+00	5.50E+00						1.3E+04	4.2E-04	1.8E+02	3.1E-02					5.9E+03	9.3E-04	6.7E+02	8.2E-03
PAOC11	INORG	Arsenic	7440-38-2	A	1	1	5.50E+00	5.50E+00						7.2E+02	7.6E-03	7.6E+00	7.2E-01					9.1E+02	6.0E-03	3.7E+01	1.5E-01
PAOC11	INORG	Barium	7440-39-3	NC	1	1	7.16E+01	7.16E+01						3.3E+05	2.2E-04	3.7E+04	1.9E-03					1.5E+05	4.8E-04	1.3E+05	5.5E-04
PAOC11	INORG	Beryllium	7440-41-7	B1	1	1	4.10E-01	4.10E-01						1.3E+03	3.2E-04	4.1E+02	1.0E-03					5.9E+02	6.9E-04	1.6E+03	2.6E-04
PAOC11	INORG	Cadmium	7440-43-9	B1	1	1	2.80E-01	2.80E-01						1.7E+03	1.6E-04	5.5E+02	5.1E-04					2.2E+03	1.3E-04	2.1E+03	1.3E-04
PAOC11	INORG	Chromium III	16065-83-1	D	1	1	1.03E+01	1.03E+01						3.3E+05	3.1E-05	7.9E+05	1.3E-05					1.5E+05	6.9E-05	1.0E+06	1.0E-05
PAOC11	INORG	Chromium VI	18540-29-9	A	1	1	5.70E-01	5.70E-01						2.6E+02	2.2E-03	2.5E+03	2.3E-04					2.4E+02	2.4E-03	9.2E+03	6.2E-05
PAOC11	INORG	Cobalt	7440-48-4	LC	1	1	5.20E+00	5.20E+00						1.3E+04	4.0E-04	2.6E+03	2.0E-03					5.9E+03	8.8E-04	9.0E+03	5.8E-04
PAOC11	INORG	Copper	7440-50-8	D	1	1	2.84E+02	2.84E+02						1.3E+05	2.2E-03	2.0E+04	1.4E-02					5.9E+04	4.8E-03	7.3E+04	3.9E-03
PAOC11	INORG	Lead	7439-92-1	B2	1	1	3.01E+02	3.01E+02						1.0E+05	3.0E-03	4.0E+02	7.5E-01					4.4E+04	6.8E-03	9.0E+02	3.3E-01
PAOC11	INORG	Manganese	7439-96-5	D	1	1	4.41E+02	4.41E+02	4.40E+02					3.3E+03	3.0E-04	2.5E+04	4.0E-05					1.5E+03	6.7E-04	9.0E+04	1.1E-05
PAOC11	INORG	Mercury	7439-97-6	D	1	1	3.40E-02	3.40E-02		4.8E+01	7.1E-04	5.2E+01	6.5E-04	2.0E+04	1.7E-06	1.6E+02	2.1E-04	8.9E+01	3.8E-04	6.2E+01	5.5E-04	8.8E+03	3.9E-06	5.8E+02	5.9E-05
PAOC11	INORG	Nickel	7440-02-0	A	1	1	7.00E+00	7.00E+00						1.3E+04	5.4E-04	4.0E+04	1.8E-04					1.6E+04	4.4E-04	1.5E+05	4.7E-05
PAOC11	INORG	Selenium	7782-49-2	D	1	1	3.70E-01	3.70E-01						1.3E+05	2.8E-06	2.6E+03	1.4E-04					5.9E+04	6.3E-06	9.6E+03	3.9E-05
PAOC11	INORG	Vanadium	7440-62-2		1	1	2.37E+01	2.37E+01								7.5E+02	3.2E-02							5.5E+03	4.3E-03
PAOC11	INORG	Zinc	7440-66-6	ID	1	1	2.54E+01	2.54E+01								1.7E+05	1.5E-04							6.3E+05	4.0E-05
PAOC11/PAOC14	INORG	Arsenic	7440-38-2	A	1	1	1.50E+00	1.50E+00						7.2E+02	2.1E-03	7.6E+00	2.0E-01					9.1E+02	1.6E-03	3.7E+01	4.1E-02
PAOC11/PAOC14	INORG	Barium	7440-39-3	NC	1	1	3.80E+01	3.80E+01						3.3E+05	1.2E-04	3.7E+04	1.0E-03					1.5E+05	2.5E-04	1.3E+05	2.9E-04
PAOC11/PAOC14	INORG	Beryllium	7440-41-7	B1	1	1	4.40E-01	4.40E-01						1.3E+03	3.4E-04	4.1E+02	1.1E-03					5.9E+02	7.5E-04	1.6E+03	2.8E-04
PAOC11/PAOC14	INORG	Cadmium	7440-43-9	B1	1	1	2.50E-01	2.50E-01						1.7E+03	1.5E-04	5.5E+02	4.5E-04					2.2E+03	1.1E-04	2.1E+03	1.2E-04
PAOC11/PAOC14	INORG	Chromium III	16065-83-1	D	1	1	1.27E+01	1.27E+01						3.3E+05	3.9E-05	7.9E+05	1.6E-05					1.5E+05	8.5E-05	1.0E+06	1.3E-05
PAOC11/PAOC14	INORG	Chromium VI	18540-29-9	A	1	1	3.60E-01	3.60E-01						2.6E+02	1.4E-03	2.5E+03	1.4E-04					2.4E+02	1.5E-03	9.2E+03	3.9E-05
PAOC11/PAOC14	INORG	Cobalt	7440-48-4	LC	1	1	7.00E+00	7.00E+00						1.3E+04	5.4E-04	2.6E+03	2.7E-03					5.9E+03	1.2E-03	9.0E+03	7.8E-04
PAOC11/PAOC14	INORG	Copper	7440-50-8	D	1	1	1.47E+01	1.47E+01						1.3E+05	1.1E-04	2.0E+04	7.4E-04					5.9E+04	2.5E-04	7.3E+04	2.0E-04
PAOC11/PAOC14	INORG	Lead	7439-92-1	B2	1	1	6.60E+00	6.60E+00						1.0E+05	6.6E-05	4.0E+02	1.7E-02					4.4E+04	1.5E-04	9.0E+02	7.3E-03
PAOC11/PAOC14	INORG	Manganese	7439-96-5	D	1	1	3.44E+02	3.44E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC11/PAOC14	INORG	Mercury	7439-97-6	D	1	1	2.30E-02	2.30E-02		4.8E+01	4.8E-04	5.2E+01	4.4E-04	2.0E+04	1.2E-06	1.6E+02	1.4E-04	8.9E+01	2.6E-04	6.2E+01	3.7E-04	8.8E+03	2.6E-06	5.8E+02	4.0E-05
PAOC11/PAOC14	INORG	Nickel	7440-02-0	A	1	1	1.66E+01	1.66E+01						1.3E+04	1.3E-03	4.0E+04	4.2E-04					1.6E+04	1.0E-03	1.5E+05	1.1E-04
PAOC11/PAOC14	INORG	Vanadium	7440-62-2		1	1	1.97E+01	1.97E+01								7.5E+02	2.6E-02							5.5E+03	3.6E-03
PAOC11/PAOC14	INORG	Zinc	7440-66-6	ID	1	1	9.90E+00	9.90E+00								1.7E+05	5.8E-05							6.3E+05	1.6E-05
PAOC12	VOC	Toluene	108-88-3	ID	2	1	2.40E-04	2.40E-04		2.5E+02	9.6E-07	2.8E+03	8.6E-08	2.7E+07	8.9E-12	2.5E+02	9.6E-07	2.5E+02	9.6E-07	3.3E+03	7.3E-08	1.2E+07	2.0E-11	2.5E+02	9.6E-07
PAOC12	SVOC	Acenaphthylene	208-96-8	D	2	1	4.10E-02	4.10E-02		1.6E+03	2.6E-05	2.2E+03	1.9E-05	2.3E+06	1.8E-08	1.6E+03	2.6E-05	3.0E+03	1.4E-05	2.7E+03	1.5E-05	1.0E+06	4.1E-08	5.2E+03	7.9E-06
PAOC12	SVOC	Benzo(g,h,i)perylene	191-24-2	D	2	2	5.90E-02	1.10E-01						8.0E+05	1.4E-07	2.5E+03	4.4E-05					3.5E+05	3.1E-07	7.0E+03	1.6E-05
PAOC12	SVOC	Fluoranthene	206-44-0	D	2	2	1.20E-01	1.50E-01		1.0E+06	1.5E-07	7.4E+05	2.0E-07	9.3E+06	1.6E-08	4.6E+04	3.3E-06	1.0E+06	1.5E-07	8.9E+05	1.7E-07	4.1E+06	3.7E-08	1.3E+05	1.2E-06
PAOC12	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	2	1	9.50E-02	9.50E-02								2.0E+01	4.8E-03							8.0E+01	1.2E-03
PAOC12	SVOC	2-Methylnaphthalene	91-57-6	ID	2	2	5.30E-02	8.60E-02								8.1E+03	1.1E-05							2.6E+04	3.3E-06
PAOC12	SVOC	Phenanthrene	85-01-8	D	2	2	6.10E-02	1.00E-01		2.8E+03	3.6E-05	1.6E+02	6.3E-04	6.7E+03	1.5E-05	1.6E+03	6.3E-05	5.1E+03	2.0E-05	1.9E+02	5.3E-04	2.9E+03	3.4E-05	5.2E+03	1.9E-05
PAOC12	SVOC	Pyrene	129-00-0	NC	2	2	7.50E-02	1.50E-01		1.0E+06	1.5E-07	6.5E+05	2.3E-07	6.7E+06	2.2E-08	2.9E+04	5.2E-06	1.0E+06	1.5E-07	7.8E+05	1.9E-07	2.9E+06	5.2E-08	8.4E+04	1.8E-06
PAOC12	INORG	Antimony	7440-36-0		2	2	1.50E+00	2.50E+00						1.3E+04	1.9E-04	1.8E+02	1.4E-02					5.9E+03	4.2E-04	6.7E+02	3.7E-03
PAOC12	INORG	Arsenic	7440-38-2	A	2	2	3.80E+00	6.90E+00						7.2E+02	9.6E-03	7.6E+00	9.1E-01					9.1E+02	7.6E-03	3.7E+01	1.9E-01
PAOC12	INORG	Barium	7440-39-3	NC	2	2	8.46E+01	1.14E+02						3.3E+05	3.5E-04	3.7E+04	3.1E-03					1.5E+05	7.6E-04	1.3E+05	8.8E-04
PAOC12	INORG	Beryllium	7440-41-7	B1	2	2	1.00E-01	1.40E-01						1.3E+03	1.1E-04	4.1E+02	3.4E-04					5.9E+02	2.4E-04	1.6E+03	8.8E-05
PAOC12	INORG	Cadmium	7440-43-9	B1	2	2	1.50E+00	7.80E+00						1.7E+03	4.6E-03	5.5E+02	1.4E-02					2.2E+03	3.5E-03	2.1E+03	3.7E-03
PAOC12	INORG	Chromium III	16065-83-1	D	2	2	1.66E+01	2.17E+01						3.3E+05	6.6E-05	7.9E+05	2.7E-05					1.5E+05	1.4E-04	1.0E+06	2.2E-05

Confidential under FOIA

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC12	INORG	Chromium VI	18540-29-9	A	2	2	1.20E+00	1.70E+00						2.6E+02	6.5E-03	2.5E+03	6.8E-04					2.4E+02	7.1E-03	9.2E+03	1.8E-04
PAOC12	INORG	Cobalt	7440-48-4	LC	2	2	7.20E+00	8.20E+00						1.3E+04	6.3E-04	2.6E+03	3.2E-03					5.9E+03	1.4E-03	9.0E+03	9.1E-04
PAOC12	INORG	Copper	7440-50-8	D	2	2	6.71E+01	1.13E+02						1.3E+05	8.7E-04	2.0E+04	5.7E-03					5.9E+04	1.9E-03	7.3E+04	1.5E-03
PAOC12	INORG	Lead	7439-92-1	B2	3	3	1.45E+01	4.46E+02						1.0E+05	4.5E-03	4.0E+02	**1.1E+00**					4.4E+04	1.0E-02	9.0E+02	5.0E-01
PAOC12	INORG	Manganese	7439-96-5	D	2	2	3.17E+02	4.69E+02	4.40E+02					3.3E+03	8.8E-03	2.5E+04	1.2E-03					1.5E+03	1.9E-02	9.0E+04	3.2E-04
PAOC12	INORG	Mercury	7439-97-6	D	2	2	3.90E-01	4.40E-01		4.8E+01	9.2E-03	5.2E+01	8.5E-03	2.0E+04	2.2E-05	1.6E+02	2.8E-03	8.9E+01	4.9E-03	6.2E+01	7.1E-03	8.8E+03	5.0E-05	5.8E+02	7.6E-04
PAOC12	INORG	Nickel	7440-02-0	A	2	2	2.00E+01	2.88E+01						1.3E+04	2.2E-03	4.0E+04	7.2E-04					1.6E+04	1.8E-03	1.5E+05	1.9E-04
PAOC12	INORG	Selenium	7782-49-2	D	2	2	1.50E-01	3.30E-01						1.3E+05	2.5E-06	2.6E+03	1.3E-04					5.9E+04	5.6E-06	9.6E+03	3.4E-05
PAOC12	INORG	Silver	7440-22-4	D	2	2	1.30E-01	1.50E-01						6.7E+03	2.2E-05	2.5E+03	6.0E-05					2.9E+03	5.2E-05	9.0E+03	1.7E-05
PAOC12	INORG	Thallium	7440-28-0		2	2	1.70E-01	2.20E-01								3.5E+01	6.3E-03							1.3E+02	1.7E-03
PAOC12	INORG	Vanadium	7440-62-2		2	2	1.79E+01	2.00E+01								7.5E+02	2.7E-02							5.5E+03	3.6E-03
PAOC12	INORG	Zinc	7440-66-6	ID	2	2	7.90E+01	1.22E+02								1.7E+05	7.2E-04							6.3E+05	1.9E-04
PAOC13	VOC	Bromodichloromethane	75-27-4	B2	26	1	2.00E-02	2.00E-02		1.2E+00	1.7E-02	9.1E+00	2.2E-03	8.4E+04	2.4E-07	1.1E+02	1.8E-04	6.4E+00	3.1E-03	3.1E+01	6.5E-04	1.1E+05	1.8E-07	4.9E+02	4.1E-05
PAOC13	VOC	Chloroform	67-66-3	B2	26	2	1.50E-02	1.10E-01		7.2E+00	1.5E-02	4.5E+01	2.4E-03	1.3E+06	8.5E-08	1.2E+03	9.2E-05	3.8E+01	2.9E-03	1.5E+02	7.3E-04	1.6E+06	6.9E-08	1.5E+03	7.3E-05
PAOC13	VOC	Ethyl Benzene	100-41-4	D	26	4	2.90E-02	4.00E+01		8.7E+01	4.6E-01	7.2E+02	5.6E-02	1.0E+07	4.0E-06	1.4E+02	2.9E-01	1.4E+02	2.9E-01	2.4E+03	1.7E-02	1.3E+07	3.1E-06	1.4E+02	2.9E-01
PAOC13	VOC	Tetrachloroethene	127-18-4	C-B2	26	2	1.50E-02	2.60E-01		1.1E+01	2.4E-02	1.8E+02	1.4E-03	5.4E+06	4.8E-08	8.8E+01	3.0E-03	6.0E+01	4.3E-03	6.0E+02	4.3E-04	6.8E+06	3.8E-08	8.8E+01	3.0E-03
PAOC13	VOC	Toluene	108-88-3	ID	26	2	1.30E-02	2.40E+00		2.5E+02	9.6E-03	2.8E+03	8.6E-04	2.7E+07	8.9E-08	2.5E+02	9.6E-03	2.5E+02	9.6E-03	3.3E+03	7.3E-04	1.2E+07	2.0E-07	2.5E+02	9.6E-03
PAOC13	VOC	1,1,1-Trichloroethane	71-55-6	ID	26	3	1.30E-02	5.60E-02		2.5E+02	2.2E-04	3.8E+03	1.5E-05	6.7E+07	8.4E-10	4.6E+02	1.2E-04	4.6E+02	1.2E-04	4.5E+03	1.2E-05	2.9E+07	1.9E-09	4.6E+02	1.2E-04
PAOC13	VOC	Trichloroethene	79-01-6	C-B2	26	1	2.70E-01	2.70E-01		7.1E+00	3.8E-02	7.8E+01	3.5E-03	1.8E+06	1.5E-07	5.0E+02	5.4E-04	3.7E+01	7.3E-03	2.6E+02	1.0E-03	2.3E+06	1.2E-07	5.0E+02	5.4E-04
PAOC13	VOC	Xylenes (total)	1330-20-7	ID	26	3	2.30E-01	2.00E+01		1.5E+02	1.3E-01	4.6E+04	4.3E-04	2.9E+08	6.9E-08	1.5E+02	1.3E-01	1.5E+02	1.3E-01	5.4E+04	3.7E-04	1.3E+08	1.5E-07	1.5E+02	1.3E-01
PAOC13	INORG	Chromium (total)	7440-47-3		14	14	1.29E-02	3.28E+01						2.6E+04	1.3E-01	2.5E+03	1.3E-02					2.4E+02	1.4E-01	9.2E+03	3.6E-03
PAOC13	INORG	Lead	7439-92-1	B2	14	14	1.23E-02	3.00E+01						1.0E+05	3.0E-04	4.0E+02	7.5E-02					4.4E+04	6.8E-04	9.0E+02	3.3E-02
PAOC13/PAOC19	VOC	2-Butanone	78-93-3	ID	2	2	1.60E-03	1.90E-02		2.7E+04	7.0E-07	2.9E+04	6.6E-07	6.7E+07	2.8E-10	2.7E+04	7.0E-07	2.7E+04	7.0E-07	3.5E+04	5.4E-07	2.9E+07	6.6E-10	2.7E+04	7.0E-07
PAOC13/PAOC19	VOC	Carbon Disulfide	75-15-0		2	2	4.60E-04	5.50E-04		7.6E+01	7.2E-06	1.3E+03	4.2E-07	4.7E+07	1.2E-11	2.8E+02	2.0E-06	1.4E+02	3.9E-06	1.6E+03	3.4E-07	2.1E+07	2.6E-11	2.8E+02	2.0E-06
PAOC13/PAOC19	VOC	cis-1,2-Dichloroethene	156-59-2	ID	2	1	6.10E-04	6.10E-04		2.2E+01	2.8E-05	1.8E+02	3.4E-06	2.3E+06	2.7E-10	6.4E+02	9.5E-07	4.1E+01	1.5E-05	2.1E+02	2.9E-06	1.0E+06	6.1E-10	6.4E+02	9.5E-07
PAOC13/PAOC19	VOC	Trichloroethene	79-01-6	C-B2	2	1	6.70E-04	6.70E-04		7.1E+00	9.4E-05	7.8E+01	8.6E-06	1.8E+06	3.7E-10	5.0E+02	1.3E-06	3.7E+01	1.8E-05	2.6E+02	2.6E-06	2.3E+06	2.9E-10	5.0E+02	1.3E-06
PAOC13/PAOC19	SVOC	Anthracene	120-12-7	D	2	1	6.10E-03	6.10E-03		1.0E+06	6.1E-09	1.4E+06	4.4E-09	6.7E+07	9.1E-11	2.3E+05	2.7E-08	1.0E+06	6.1E-09	1.6E+06	3.8E-09	2.9E+07	2.1E-10	7.3E+05	8.4E-09
PAOC13/PAOC19	SVOC	Benzo(b)fluoranthene	205-99-2	B2	2	1	8.00E-03	8.00E-03								2.0E+01	4.0E-04							8.0E+01	1.0E-04
PAOC13/PAOC19	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2	1	4.80E-02	4.80E-02						7.0E+05	6.9E-08	2.8E+03	1.7E-05					8.9E+05	5.4E-08	1.0E+04	4.8E-06
PAOC13/PAOC19	SVOC	Phenanthrene	85-01-8	D	2	1	8.80E-03	8.80E-03		2.8E+03	3.1E-06	1.4E+02	6.3E-05	6.7E+03	1.3E-06	1.6E+03	5.5E-06	5.1E+03	1.7E-06	1.9E+02	4.6E-05	2.9E+03	3.0E-06	5.2E+03	1.7E-06
PAOC13/PAOC19	INORG	Antimony	7440-36-0		2	1	5.20E-02	5.20E-02						1.3E+04	4.0E-06	1.8E+02	2.9E-04					5.9E+03	8.8E-06	6.7E+02	7.8E-05
PAOC13/PAOC19	INORG	Arsenic	7440-38-2	A	2	2	1.70E+00	3.80E+00						7.2E+02	5.3E-03	7.6E+00	5.0E-01					9.1E+02	4.2E-03	3.7E+01	1.0E-01
PAOC13/PAOC19	INORG	Barium	7440-39-3	NC	2	2	1.14E+01	4.51E+01						3.3E+05	1.4E-04	3.7E+04	1.2E-03					1.5E+05	3.0E-04	1.3E+05	3.5E-04
PAOC13/PAOC19	INORG	Beryllium	7440-41-7	B1	2	2	1.70E-01	3.60E-01						1.3E+03	2.8E-04	4.1E+02	8.8E-04					5.9E+02	6.1E-04	1.6E+03	2.3E-04
PAOC13/PAOC19	INORG	Cadmium	7440-43-9	B1	2	2	1.70E-01	3.40E-01						1.7E+03	2.0E-04	5.5E+02	6.2E-04					2.2E+03	1.5E-04	2.1E+03	1.6E-04
PAOC13/PAOC19	INORG	Chromium III	16065-83-1	D	2	2	5.36E+00	1.02E+01						3.3E+05	3.1E-05	7.9E+05	1.3E-05					1.5E+05	6.8E-05	1.0E+06	1.0E-05
PAOC13/PAOC19	INORG	Chromium VI	18540-29-9	A	2	2	6.40E-01	1.30E+00						2.6E+02	5.0E-03	2.5E+03	5.2E-04					2.4E+02	5.4E-03	9.2E+03	1.4E-04
PAOC13/PAOC19	INORG	Cobalt	7440-48-4	LC	2	2	3.10E+00	4.50E+00						1.3E+04	3.5E-04	2.6E+03	1.7E-03					5.9E+03	7.6E-04	9.0E+03	5.0E-04
PAOC13/PAOC19	INORG	Copper	7440-50-8	D	2	2	7.20E+00	8.00E+00						1.3E+05	6.2E-05	2.0E+04	4.0E-04					5.9E+04	1.4E-04	7.3E+04	1.1E-04
PAOC13/PAOC19	INORG	Lead	7439-92-1	B2	2	2	3.80E+00	8.70E+00						1.0E+05	8.7E-05	4.0E+02	2.2E-02					4.4E+04	2.0E-04	9.0E+02	9.7E-03
PAOC13/PAOC19	INORG	Manganese	7439-96-5	D	2	2	1.30E+02	2.25E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC13/PAOC19	INORG	Mercury	7439-97-6	D	2	1	2.30E-02	2.30E-02		4.8E+01	4.8E-04	5.2E+01	4.4E-04	2.0E+04	1.2E-06	1.6E+02	1.4E-04	8.9E+01	2.6E-04	6.2E+01	3.7E-04	8.8E+03	2.6E-06	5.8E+02	4.0E-05
PAOC13/PAOC19	INORG	Nickel	7440-02-0	A	2	2	6.90E+00	8.80E+00						1.3E+04	6.8E-04	4.0E+04	2.2E-04					1.6E+04	5.5E-04	1.5E+05	5.9E-05
PAOC13/PAOC19	INORG	Selenium	7782-49-2	D	2	1	8.50E-01	8.50E-01						1.3E+05	6.5E-06	2.6E+03	3.3E-04					5.9E+04	1.4E-05	9.6E+03	8.9E-05
PAOC13/PAOC19	INORG	Silver	7440-22-4	D	2	2	3.20E-02	4.20E-02						6.7E+03	6.3E-06	2.5E+03	1.7E-05					2.9E+03	1.4E-05	9.0E+03	4.7E-06
PAOC13/PAOC19	INORG	Thallium	7440-28-0		2	1	8.20E-02	8.20E-02								3.5E+01	2.3E-03							1.3E+02	6.3E-04
PAOC13/PAOC19	INORG	Vanadium	7440-62-2		2	2	1.15E+01	1.52E+01								7.5E+02	2.0E-02							5.5E+03	2.8E-03
PAOC13/PAOC19	INORG	Zinc	7440-66-6	ID	2	2	2.43E+01	3.28E+01								1.7E+05	1.9E-04							6.3E+05	5.2E-05
PAOC14	SVOC	Benzo(a)anthracene	56-55-3	B2	13	1	9.40E-03	9.40E-03								2.0E+01	4.7E-04							8.0E+01	1.2E-04
PAOC14	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1	1	1.00E-02	1.00E-02								2.0E+01	5.0E-04							8.0E+01	1.3E-04
PAOC14	SVOC	Chrysene	218-01-9	B2	13	1	9.30E-03	9.30E-03								2.0E+03	4.7E-06							8.0E+03	1.2E-06
PAOC14	SVOC	Fluoranthene	206-44-0	D	13	1	2.30E-02	2.30E-02		1.0E+06	2.3E-08	7.4E+05	3.1E-08	9.3E+06	2.5E-09	4.6E+04	5.0E-07	1.0E+06	2.3E-08	8.9E+05	2.6E-08	4.1E+06	5.6E-09	1.3E+05	1.8E-07
PAOC14	SVOC	Phenanthrene	85-01-8	D	13	1	2.10E-02	2.10E-02		2.8E+03	7.5E-06	1.6E+02	1.3E-04	6.7E+03	3.1E-06	1.6E+03	1.3E-05	5.1E+03	4.1E-06	1.9E+02	1.1E-04	2.9E+03	7.2E-06	5.2E+03	4.0E-06
PAOC14	SVOC	Pyrene	129-00-0	NC	13	1	1.90E-02	1.90E-02		1.0E+06	1.9E-08	6.5E+05	2.9E-08	6.7E+06	2.8E-09	2.9E+04	6.6E-07	1.0E+06	1.9E-08	7.8E+05	2.4E-08	2.9E+06	6.6E-09	8.4E+04	2.3E-07
PAOC14	INORG	Arsenic	7440-38-2	A	1	1	2.40E+00	2.40E+00						7.2E+02	3.3E-03	7.6E+00	3.2E-01					9.1E+02	2.6E-03	3.7E+01	6.5E-02
PAOC14	INORG	Barium	7440-39-3	NC	1	1	8.50E+00	8.50E+00						3.3E+05	2.6E-05	3.7E+04	2.3E-04					1.5E+05	5.7E-05	1.3E+05	6.5E-05
PAOC14	INORG	Beryllium	7440-41-7	B1	1	1	1.60E-01	1.60E-01						1.3E+03	1.2E-04	4.1E+02	3.9E-04					5.9E+02	2.7E-04	1.6E+03	1.0E-04
PAOC14	INORG	Cadmium	7440-43-9	B1	13	13	1.20E-01	3.10E+00						1.7E+03	1.8E-03	5.5E+02	5.6E-03					2.2E+03	1.4E-03	2.1E+03	1.5E-03
PAOC14	INORG	Chromium (total)	7440-47-3		12	12	4.30E+00	1.90E+01						2.6E+02	7.3E-02	2.5E+03	7.6E-03					2.4E+02	7.9E-02	9.2E+03	2.1E-03
PAOC14	INORG	Chromium III	16065-83-1	D	1	1	3.60E+00	3.60E+00						3.3E+05	1.1E-05	7.9E+05	4.6E-06					1.5E+05	2.4E-05	1.0E+06	3.6E-06
PAOC14	INORG	Chromium VI	18540-29-9	A	1	1	1.40E+00	1.40E+00						2.6E+02	5.4E-03	2.5E+03	5.6E-04					2.4E+02	5.8E-03	9.2E+03	1.5E-04
PAOC14	INORG	Cobalt	7440-48-4	LC	1	1	2.80E+00	2.80E+00						1.3E+04	2.2E-04	2.6E+03	1.1E-03					5.9E+03	4.7E-04	9.0E+03	3.1E-04
PAOC14	INORG	Copper	7440-50-8	D	1	1	9.00E+00	9.00E+00						1.3E+05	6.9E-05	2.0E+04	4.5E-04					5.9E+04	1.5E-04	7.3E+04	1.2E-04
PAOC14	INORG	Lead	7439-92-1	B2	13	13	3.60E+00	1.90E+01						1.0E+05	1.9E-04	4.0E+02	4.8E-02					4.4E+04	4.3E-04	9.0E+02	2.1E-02
PAOC14	INORG	Manganese	7439-96-5	D	1	1	1.69E+02	1.69E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC14	INORG	Nickel	7440-02-0	A	1	1	6.90E+00	6.90E+00						1.3E+04	5.3E-04	4.0E+04	1.7E-04					1.6E+04	4.3E-04	1.5E+05	4.6E-05
PAOC14	INORG	Vanadium	7440-62-2		1	1	7.00E+00	7.00E+00								7.5E+02	9.3E-03							5.5E+03	1.3E-03
PAOC14	INORG	Zinc	7440-66-6	ID	1	1	2.17E+01	2.17E+01								1.7E+05	1.3E-04							6.3E+05	3.4E-05
PAOC15	SVOC	Anthracene	120-12-7	D	2	1	1.30E-02	1.30E-02		1.0E+06	1.3E-08	1.4E+06	9.3E-09	6.7E+07	1.9E-10	2.3E+05	5.7E-08	1.0E+06	1.3E-08	1.6E+06	8.1E-09	2.9E+07	4.5E-10	7.3E+05	1.8E-08
PAOC15	SVOC	Benzo(a)anthracene	56-55-3	B2	2	1	5.60E-02	5.60E-02								2.0E+01	2.8E-03							8.0E+01	7.0E-04
PAOC15	SVOC	Benzo(a)pyrene	50-32-8	B2	2	1	5.10E-02	5.10E-02						1.5E+03	3.4E-05	2.0E+00	2.6E-02					1.9E+03	2.7E-05	8.0E+00	6.4E-03
PAOC15	SVOC	Benzo(b)fluoranthene	205-99-2	B2	2	2	7.30E-02	1.70E-01								2.0E+01	8.5E-03							8.0E+01	2.1E-03
PAOC15	SVOC	Benzo(g,h,i)perylene	191-24-2	D	2	1	3.90E-02	3.90E-02						8.0E+05	4.9E-08	2.5E+03	1.6E-05					3.5E+05	1.1E-07	7.0E+03	5.6E-06
PAOC15	SVOC	Benzo(k)fluoranthene	207-08-9	B2	2	1	2.90E-02	2.90E-02								2.0E+02	1.5E-04							8.0E+02	3.6E-05
PAOC15	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2	1	7.30E-02	7.30E-02						7.0E+05	1.0E-07	2.8E+03	2.6E-05					8.9E+05	8.2E-08	1.0E+04	7.3E-06
PAOC15	SVOC	Chrysene	218-01-9	B2	2	1	5.30E-02	5.30E-02								2.0E+03	2.7E-05							8.0E+03	6.6E-06
PAOC15	SVOC	Di-n-butylphthalate	84-74-2	D	2	1	1.60E-01	1.60E-01						3.3E+06	4.8E-08	7.6E+02	2.1E-04					1.5E+06	1.1E-07	7.6E+02	2.1E-04

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC15	SVOC	Fluoranthene	206-44-0	D	2	2	8.50E-02	1.10E-01		1.0E+06	1.1E-07	7.4E+05	1.5E-07	9.3E+06	1.2E-08	4.6E+04	2.4E-06	1.0E+06	1.1E-07	8.9E+05	1.2E-07	4.1E+06	2.7E-08	1.3E+05	8.5E-07
PAOC15	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	2	1	3.30E-02	3.30E-02								2.0E+01	1.7E-03							8.0E+01	4.1E-04
PAOC15	SVOC	Phenanthrene	85-01-8	D	2	1	4.80E-02	4.80E-02		2.8E+03	1.7E-05	1.6E+02	3.0E-04	6.7E+03	7.2E-06	1.6E+03	3.0E-05	5.1E+03	9.4E-06	1.9E+02	2.5E-04	2.9E+03	1.7E-05	5.2E+03	9.2E-06
PAOC15	SVOC	Pyrene	129-00-0	NC	2	1	8.70E-02	8.70E-02		1.0E+06	8.7E-08	6.5E+05	1.3E-07	6.7E+06	1.3E-08	2.9E+04	3.0E-06	1.0E+06	8.7E-08	7.8E+05	1.1E-07	2.9E+06	3.0E-08	8.4E+04	1.0E-06
PAOC15	PCB	PCBs (total)	1336-36-3	B2	2	2	1.14E-01	1.14E-01		3.0E+03	3.8E-05	2.4E+02	4.8E-04	5.2E+03	2.2E-05	4.0E+00	2.9E-02	1.6E+04	7.1E-06	8.1E+02	1.4E-04	6.5E+03	1.8E-05	1.6E+01	7.1E-03
PAOC15	INORG	Arsenic	7440-38-2	A	2	2	3.50E+00	4.40E+00						7.2E+02	6.1E-03	7.6E+00	5.8E-01					9.1E+02	4.8E-03	3.7E+01	1.2E-01
PAOC15	INORG	Barium	7440-39-3	NC	2	2	1.59E+01	2.79E+01						3.3E+05	8.5E-05	3.7E+04	7.5E-04					1.5E+05	1.9E-04	1.3E+05	2.1E-04
PAOC15	INORG	Cadmium	7440-43-9	B1	2	2	2.20E-01	3.30E-01						1.7E+03	1.9E-04	5.5E+02	6.0E-04					2.2E+03	1.5E-04	2.1E+03	1.6E-04
PAOC15	INORG	Chromium III	16065-83-1	D	2	2	5.69E+00	7.38E+00						3.3E+05	2.2E-05	7.9E+05	9.3E-06					1.5E+05	4.9E-05	1.0E+06	7.4E-06
PAOC15	INORG	Cobalt	7440-48-4	LC	2	2	2.90E+00	5.10E+00						1.3E+04	3.9E-04	2.6E+03	2.0E-03					5.9E+03	8.6E-04	9.0E+03	5.7E-04
PAOC15	INORG	Copper	7440-50-8	D	2	2	8.90E+00	1.20E+01						1.3E+05	9.2E-05	2.0E+04	6.0E-04					5.9E+04	2.0E-04	7.3E+04	1.6E-04
PAOC15	INORG	Lead	7439-92-1	B2	2	2	8.60E+00	1.47E+01						1.0E+05	1.5E-04	4.0E+02	3.7E-02					4.4E+04	3.3E-04	9.0E+02	1.6E-02
PAOC15	INORG	Manganese	7439-96-5	D	2	2	2.22E+02	2.32E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC15	INORG	Nickel	7440-02-0	A	2	2	7.50E+00	9.80E+00						1.3E+04	7.5E-04	4.0E+04	2.5E-04					1.6E+04	6.1E-04	1.5E+05	6.5E-05
PAOC15	INORG	Selenium	7782-49-2	D	2	1	1.10E-01	1.10E-01						1.3E+05	8.5E-07	2.6E+03	4.2E-05					5.9E+04	1.9E-06	9.6E+03	1.1E-05
PAOC15	INORG	Silver	7440-22-4	D	2	2	3.10E-02	4.90E-02						6.7E+03	7.3E-06	2.5E+03	2.0E-05					2.9E+03	1.7E-05	9.0E+03	5.4E-06
PAOC15	INORG	Thallium	7440-28-0		2	1	1.10E-01	1.10E-01								3.5E+01	3.1E-03							1.3E+02	8.5E-04
PAOC15	INORG	Vanadium	7440-62-2		2	2	7.90E+00	8.80E+00								7.5E+02	1.2E-02							5.5E+03	1.6E-03
PAOC15	INORG	Zinc	7440-66-6	ID	2	2	2.51E+01	2.99E+01								1.7E+05	1.8E-04							6.3E+05	4.7E-05
PAOC17	VOC	Tetrachloroethene	127-18-4	C-B2	1	1	1.10E-03	1.10E-03		1.1E+01	1.0E-04	1.8E+02	6.1E-06	5.4E+06	2.0E-10	8.8E+01	1.3E-05	6.0E+01	1.8E-05	6.0E+02	1.8E-06	6.8E+06	1.6E-10	8.8E+01	1.3E-05
PAOC17	SVOC	Acenaphthene	83-32-9		1	1	2.30E-02	2.30E-02		1.9E+05	1.2E-07	8.1E+04	2.8E-07	1.4E+04	1.6E-09	4.1E+04	5.6E-07	3.5E+05	6.6E-08	9.7E+04	2.4E-07	6.2E+06	3.7E-09	1.3E+05	1.8E-07
PAOC17	SVOC	Anthracene	120-12-7	D	1	1	3.80E-02	3.80E-02		1.0E+06	3.8E-08	1.4E+06	2.7E-08	6.7E+07	5.7E-10	2.3E+05	1.7E-07	1.0E+06	3.8E-08	1.6E+06	2.4E-08	2.9E+07	1.3E-09	7.3E+05	5.2E-08
PAOC17	SVOC	Benzo(a)anthracene	56-55-3	B2	1	1	1.30E-01	1.30E-01								2.0E+01	6.5E-03							8.0E+01	1.6E-03
PAOC17	SVOC	Benzo(a)pyrene	50-32-8	B2	1	1	1.10E-01	1.10E-01						1.5E+03	7.3E-05	2.0E+00	5.5E-02					1.9E+03	5.8E-05	8.0E+00	1.4E-02
PAOC17	SVOC	Benzo(b)fluoranthene	205-99-2	B2	1	1	1.70E-01	1.70E-01								2.0E+01	8.5E-03							8.0E+01	2.1E-03
PAOC17	SVOC	Benzo(g,h,i)perylene	191-24-2	D	1	1	6.90E-02	6.90E-02						8.0E+05	8.6E-08	2.5E+03	2.8E-05					3.5E+05	2.0E-07	7.0E+03	9.9E-06
PAOC17	SVOC	Benzo(k)fluoranthene	207-08-9	B2	1	1	7.10E-02	7.10E-02								2.0E+02	3.6E-04							8.0E+02	8.9E-05
PAOC17	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1	1	2.30E-02	2.30E-02						7.0E+05	3.3E-08	2.8E+03	8.2E-06					8.9E+05	2.6E-08	1.0E+04	2.3E-06
PAOC17	SVOC	Chrysene	218-01-9	B2	1	1	1.50E-01	1.50E-01								2.0E+03	7.5E-05							8.0E+03	1.9E-05
PAOC17	SVOC	Fluoranthene	206-44-0	D	1	1	3.70E-01	3.70E-01		1.0E+06	3.7E-07	7.4E+05	5.0E-07	9.3E+06	4.0E-08	4.6E+04	8.0E-06	1.0E+06	3.7E-07	8.9E+05	4.2E-07	4.1E+06	9.0E-08	1.3E+05	2.8E-06
PAOC17	SVOC	Fluorene	86-73-7	D	1	1	1.20E-02	1.20E-02		5.8E+05	2.1E-08	1.3E+05	9.2E-08	9.3E+06	1.3E-09	2.7E+04	4.4E-07	1.0E+06	1.2E-08	1.5E+05	8.0E-08	4.1E+06	2.9E-09	8.7E+04	1.4E-07
PAOC17	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	1	1	5.90E-02	5.90E-02								2.0E+01	3.0E-03							8.0E+01	7.4E-04
PAOC17	SVOC	2-Methylnaphthalene	91-57-6	ID	1	1	1.40E-02	1.40E-02								8.1E+03	1.7E-06							2.6E+04	5.4E-07
PAOC17	SVOC	Naphthalene	91-20-3	C	1	1	7.40E-03	7.40E-03		2.5E+02	3.0E-05	3.0E+02	2.5E-05	2.0E+05	3.7E-08	1.6E+04	4.6E-07	4.7E+02	1.6E-05	3.5E+02	2.1E-05	8.8E+04	8.4E-08	5.2E+04	1.4E-07
PAOC17	SVOC	Phenanthrene	85-01-8	D	1	1	1.60E-01	1.60E-01		2.8E+03	5.7E-05	1.6E+03	1.0E-03	6.7E+03	2.4E-05	1.6E+03	1.0E-04	5.1E+03	3.1E-05	1.9E+02	8.4E-04	2.9E+03	5.5E-05	5.2E+03	3.1E-05
PAOC17	SVOC	Pyrene	129-00-0	NC	1	1	2.30E-01	2.30E-01		1.0E+06	2.3E-07	6.5E+05	3.5E-07	6.7E+06	3.4E-08	2.9E+04	7.9E-06	1.0E+06	2.3E-07	7.8E+05	2.9E-07	2.9E+06	7.9E-08	8.4E+04	2.7E-06
PAOC17	PCB	PCBs (total)	1336-36-3	B2	1	1	3.05E-02	3.05E-02		3.0E+03	1.0E-05	2.4E+02	1.3E-04	5.2E+03	5.9E-06	4.0E+00	7.6E-03	1.6E+04	1.9E-06	8.1E+02	3.8E-05	6.5E+03	4.7E-06	1.6E+01	1.9E-03
PAOC17	INORG	Antimony	7440-36-0		1	1	7.80E-02	7.80E-02						1.3E+04	6.0E-06	1.8E+02	4.3E-04					5.9E+03	1.3E-05	6.7E+02	1.2E-04
PAOC17	INORG	Arsenic	7440-38-2	A	1	1	2.80E+00	2.80E+00						7.2E+02	3.9E-03	7.6E+00	3.7E-01					9.1E+02	3.1E-03	3.7E+01	7.6E-02
PAOC17	INORG	Barium	7440-39-3	NC	1	1	1.68E+01	1.68E+01						3.3E+05	5.1E-05	3.7E+04	4.5E-04					1.5E+05	1.1E-04	1.3E+05	1.3E-04
PAOC17	INORG	Cadmium	7440-43-9	B1	1	1	1.40E-01	1.40E-01						1.7E+03	8.2E-05	5.5E+02	2.5E-04					2.2E+03	6.4E-05	2.1E+03	6.7E-05
PAOC17	INORG	Chromium III	16065-83-1	D	1	1	5.09E+00	5.09E+00						3.3E+05	1.5E-05	7.9E+05	6.4E-06					1.5E+05	3.4E-05	1.0E+06	5.1E-06
PAOC17	INORG	Chromium VI	18540-29-9	A	1	1	3.10E-01	3.10E-01						2.6E+02	1.2E-03	2.5E+03	1.2E-04					2.4E+02	1.3E-03	9.2E+03	3.4E-05
PAOC17	INORG	Cobalt	7440-48-4	LC	1	1	2.20E+00	2.20E+00						1.3E+04	1.7E-04	2.6E+03	8.5E-04					5.9E+03	3.7E-04	9.0E+03	2.4E-04
PAOC17	INORG	Copper	7440-50-8	D	1	1	7.40E+00	7.40E+00						1.3E+05	5.7E-05	2.0E+04	3.7E-04					5.9E+04	1.3E-04	7.3E+04	1.0E-04
PAOC17	INORG	Cyanide (total)	57-12-5	D	1	1	3.10E-01	3.10E-01						2.5E+02	1.2E-03	1.2E+01	2.6E-02					2.5E+02	1.2E-03	2.5E+02	1.2E-03
PAOC17	INORG	Lead	7439-92-1	B2	1	1	1.69E+01	1.69E+01						1.0E+05	1.7E-04	4.0E+02	4.2E-02					4.4E+04	3.8E-04	9.0E+02	1.9E-02
PAOC17	INORG	Manganese	7439-96-5	D	1	1	1.58E+02	1.58E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC17	INORG	Mercury	7439-97-6	D	1	1	2.00E-02	2.00E-02		4.8E+01	4.2E-04	5.2E+01	3.8E-04	2.0E+04	1.0E-06	1.6E+02	1.3E-04	8.9E+01	2.2E-04	6.2E+01	3.2E-04	8.8E+03	2.3E-06	5.8E+02	3.4E-05
PAOC17	INORG	Nickel	7440-02-0	A	1	1	5.20E+00	5.20E+00						1.3E+04	4.0E-04	4.0E+04	1.3E-04					1.6E+04	3.3E-04	1.5E+05	3.5E-05
PAOC17	INORG	Silver	7440-22-4	D	1	1	5.20E-02	5.20E-02						6.7E+03	7.8E-06	2.5E+03	2.1E-05					2.9E+03	1.8E-05	9.0E+03	5.8E-06
PAOC17	INORG	Thallium	7440-28-0		1	1	7.20E-02	7.20E-02								3.5E+01	2.1E-03							1.3E+02	5.5E-04
PAOC17	INORG	Vanadium	7440-62-2		1	1	7.60E+00	7.60E+00								7.5E+02	1.0E-02							5.5E+03	1.4E-03
PAOC17	INORG	Zinc	7440-66-6	ID	1	1	3.12E+01	3.12E+01								1.7E+05	1.8E-04							6.3E+05	5.0E-05
PAOC18	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	1	1	6.30E-02	6.30E-02						7.0E+05	9.0E-08	2.8E+03	2.3E-05					8.9E+05	7.1E-08	1.0E+04	6.3E-06
PAOC18	INORG	Antimony	7440-36-0		1	1	1.00E-01	1.00E-01						1.3E+04	7.7E-06	1.8E+02	5.6E-04					5.9E+03	1.7E-05	6.7E+02	1.5E-04
PAOC18	INORG	Arsenic	7440-38-2	A	1	1	4.10E+00	4.10E+00						7.2E+02	5.7E-03	7.6E+00	5.4E-01					9.1E+02	4.5E-03	3.7E+01	1.1E-01
PAOC18	INORG	Barium	7440-39-3	NC	1	1	2.36E+01	2.36E+01						3.3E+05	7.2E-05	3.7E+04	6.4E-04					1.5E+05	1.6E-04	1.3E+05	1.8E-04
PAOC18	INORG	Chromium III	16065-83-1	D	1	1	8.30E+00	8.30E+00						3.3E+05	2.5E-05	7.9E+05	1.1E-05					1.5E+05	5.5E-05	1.0E+06	8.3E-06
PAOC18	INORG	Chromium VI	18540-29-9	A	1	1	1.20E+00	1.20E+00						2.6E+02	4.6E-03	2.5E+03	4.8E-04					2.4E+02	5.0E-03	9.2E+03	1.3E-04
PAOC18	INORG	Cobalt	7440-48-4	LC	1	1	4.10E+00	4.10E+00						1.3E+04	3.2E-04	2.6E+03	1.6E-03					5.9E+03	6.9E-04	9.0E+03	4.6E-04
PAOC18	INORG	Copper	7440-50-8	D	1	1	1.08E+01	1.08E+01						1.3E+05	8.3E-05	2.0E+04	5.4E-04					5.9E+04	1.8E-04	7.3E+04	1.5E-04
PAOC18	INORG	Lead	7439-92-1	B2	1	1	5.50E+00	5.50E+00						1.0E+05	5.5E-05	4.0E+02	1.4E-02					4.4E+04	1.3E-04	9.0E+02	6.1E-03
PAOC18	INORG	Manganese	7439-96-5	D	1	1	2.41E+02	2.41E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC18	INORG	Mercury	7439-97-6	D	1	1	1.50E-02	1.50E-02		4.8E+01	3.1E-04	5.2E+01	2.9E-04	2.0E+04	7.5E-07	1.6E+02	9.4E-05	8.9E+01	1.7E-04	6.2E+01	2.4E-04	8.8E+03	1.7E-06	5.8E+02	2.6E-05
PAOC18	INORG	Nickel	7440-02-0	A	1	1	1.08E+01	1.08E+01						1.3E+04	8.3E-04	4.0E+04	2.7E-04					1.6E+04	6.8E-04	1.5E+05	7.2E-05
PAOC18	INORG	Selenium	7782-49-2	D	1	1	2.00E-01	2.00E-01						1.3E+05	1.5E-06	2.6E+03	7.7E-05					5.9E+04	3.4E-06	9.6E+03	2.1E-05
PAOC18	INORG	Silver	7440-22-4	D	1	1	6.10E-02	6.10E-02						6.7E+03	9.1E-06	2.5E+03	2.4E-05					2.9E+03	2.1E-05	9.0E+03	6.8E-06
PAOC18	INORG	Thallium	7440-28-0		1	1	1.10E-01	1.10E-01								3.5E+01	3.1E-03							1.3E+02	8.5E-04
PAOC18	INORG	Vanadium	7440-62-2		1	1	1.29E+01	1.29E+01								7.5E+02	1.7E-02							5.5E+03	2.3E-03
PAOC18	INORG	Zinc	7440-66-6	ID	1	1	2.82E+01	2.82E+01								1.7E+05	1.7E-04							6.3E+05	4.5E-05
PAOC21	VOC	Cyclohexane	110-82-7	ID	2	1	2.60E-04	2.60E-04																	
PAOC21	SVOC	Anthracene	120-12-7	D	2	1	2.10E-02	2.10E-02		1.0E+06	2.1E-08	1.4E+06	1.5E-08	6.7E+07	3.1E-10	2.3E+05	9.1E-08	1.0E+06	2.1E-08	1.6E+06	1.3E-08	2.9E+07	7.2E-10	7.3E+05	2.9E-08
PAOC21	SVOC	Benzo(a)anthracene	56-55-3	B2	2	2	7.30E-02	1.80E-01								2.0E+01	9.0E-03							8.0E+01	2.3E-03
PAOC21	SVOC	Benzo(a)pyrene	50-32-8	B2	2	2	6.40E-02	1.80E-01						1.8E+03	1.2E-04	2.0E+00	9.0E-02					1.9E+03	9.5E-05	8.0E+00	2.3E-02
PAOC21	SVOC	Benzo(b)fluoranthene	205-99-2	B2	2	2	8.00E-02	2.60E-01								2.0E+01	1.3E-02							8.0E+01	3.3E-03
PAOC21	SVOC	Benzo(g,h,i)perylene	191-24-2	D	2	2	3.90E-02	1.10E-01						8.0E+05	1.4E-07	2.5E+03	4.4E-05					3.5E+05	3.1E-07	7.0E+03	1.6E-05

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Table 1a: Screening Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/kg)	Max Detected (mg/kg)	Background (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Max Detect to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Max Detect to Res VSIC	Residential PSIC (mg/kg)	Ratio of Max Detect to Res PSIC	Residential DCC (mg/kg)	Ratio of Max Detect to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Max Detect to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Max Detect to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Max Detect to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Max Detect to Industrial II DCC
PAOC21	SVOC	Benzo(k)fluoranthene	207-08-9	B2	2	2	3.50E-02	1.40E-01								2.0E+02	7.0E-04							8.0E+02	1.8E-04
PAOC21	SVOC	Chrysene	218-01-9	B2	2	2	7.40E-02	2.40E-01								2.0E+03	1.2E-04							8.0E+03	3.0E-05
PAOC21	SVOC	Fluoranthene	206-44-0	D	2	2	1.60E-01	2.30E-01		1.0E+06	2.3E-07	7.4E+05	3.1E-07	9.3E+06	2.5E-08	4.6E+04	5.0E-06	1.0E+06	2.3E-07	8.9E+05	2.6E-07	4.1E+06	5.6E-08	1.3E+05	1.8E-06
PAOC21	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	2	2	3.30E-02	1.10E-01								2.0E+01	5.5E-03							8.0E+01	1.4E-03
PAOC21	SVOC	2-Methylnaphthalene	91-57-6	ID	2	1	1.40E-01	1.40E-01								8.1E+03	1.7E-05							2.6E+04	5.4E-06
PAOC21	SVOC	Naphthalene	91-20-3	C	2	1	6.00E-02	6.00E-02		2.5E+02	2.4E-04	3.0E+02	2.0E-04	2.0E+05	3.0E-07	1.6E+04	3.8E-06	4.7E+02	1.3E-04	3.5E+02	1.7E-04	8.8E+04	6.8E-07	5.2E+04	1.2E-06
PAOC21	SVOC	Phenanthrene	85-01-8	D	2	2	8.00E-02	1.00E-01		2.8E+03	3.6E-05	1.6E+02	6.3E-04	6.7E+03	1.5E-05	1.6E+03	6.3E-05	5.1E+03	2.0E-05	1.9E+02	5.3E-04	2.9E+03	3.4E-05	5.2E+03	1.9E-05
PAOC21	SVOC	Pyrene	129-00-0	NC	2	2	1.30E-01	2.10E-01		1.0E+06	2.1E-07	6.5E+05	3.2E-07	6.7E+06	3.1E-08	2.9E+04	7.2E-06	1.0E+06	2.1E-07	7.8E+05	2.7E-07	2.9E+06	7.2E-08	8.4E+04	2.5E-06
PAOC21	PCB	PCBs (total)	1336-36-3	B2	2	1	3.65E-02	3.65E-02		3.0E+03	1.2E-05	2.4E+02	1.5E-04	5.2E+03	7.0E-06	4.0E+00	9.1E-03	1.6E+04	2.3E-06	8.1E+02	4.5E-05	6.5E+03	5.6E-06	1.6E+01	2.3E-03
PAOC21	INORG	Antimony	7440-36-0		2	1	6.30E-01	6.30E-01						1.3E+04	4.8E-05	1.8E+02	3.5E-03					5.9E+03	1.1E-04	6.7E+02	9.4E-04
PAOC21	INORG	Arsenic	7440-38-2	A	2	2	3.00E+00	4.50E+00						7.2E+02	6.3E-03	7.6E+00	5.9E-01					9.1E+02	4.9E-03	3.7E+01	1.2E-01
PAOC21	INORG	Barium	7440-39-3	NC	2	2	2.45E+01	1.39E+02						3.3E+05	4.2E-04	3.7E+04	3.8E-03					1.5E+05	9.3E-04	1.3E+05	1.1E-03
PAOC21	INORG	Beryllium	7440-41-7	B1	2	1	4.90E-02	4.90E-02						1.3E+03	3.8E-05	4.1E+02	1.2E-04					5.9E+02	8.3E-05	1.6E+03	3.1E-05
PAOC21	INORG	Cadmium	7440-43-9	B1	2	2	1.00E-01	1.10E-01						1.7E+03	6.5E-05	5.5E+02	2.0E-04					2.2E+03	5.0E-05	2.1E+03	5.2E-05
PAOC21	INORG	Chromium III	16065-83-1	D	2	2	6.69E+00	1.02E+02						3.3E+05	3.1E-04	7.9E+05	1.3E-04					1.5E+05	6.8E-04	1.0E+06	1.0E-04
PAOC21	INORG	Chromium VI	18540-29-9	A	2	1	1.50E+00	1.50E+00						2.6E+02	5.8E-03	2.5E+03	6.0E-04					2.4E+02	6.3E-03	9.2E+03	1.6E-04
PAOC21	INORG	Cobalt	7440-48-4	LC	2	2	2.90E+00	6.54E+01						1.3E+04	5.0E-03	2.6E+03	2.5E-02					5.9E+03	1.1E-02	9.0E+03	7.3E-03
PAOC21	INORG	Copper	7440-50-8	D	2	2	1.26E+01	6.56E+01						1.3E+05	5.0E-04	2.0E+04	3.3E-03					5.9E+04	1.1E-03	7.3E+04	9.0E-04
PAOC21	INORG	Lead	7439-92-1	B2	2	2	1.08E+01	5.46E+01						1.0E+05	5.5E-04	4.0E+02	1.4E-01					4.4E+04	1.2E-03	9.0E+02	6.1E-02
PAOC21	INORG	Manganese	7439-96-5	D	3	3	9.66E+01	2.27E+03	4.40E+02					3.3E+03	6.7E-01	2.5E+04	7.3E-02					1.5E+03	**1.2E+00**	9.0E+04	2.0E-02
PAOC21	INORG	Mercury	7439-97-6	D	2	1	3.50E-01	3.50E-01		4.8E+01	7.3E-03	5.2E+01	6.7E-03	2.0E+04	1.8E-05	1.6E+02	2.2E-03	8.9E+01	3.9E-03	6.2E+01	5.6E-03	8.8E+03	4.0E-05	5.8E+02	6.0E-04
PAOC21	INORG	Nickel	7440-02-0	A	2	2	1.19E+01	4.84E+01						1.3E+04	3.7E-03	4.0E+04	1.2E-03					1.6E+04	3.0E-03	1.5E+05	3.2E-04
PAOC21	INORG	Selenium	7782-49-2	D	2	1	2.40E-01	2.40E-01						1.3E+05	1.8E-06	2.6E+03	9.2E-05					5.9E+04	4.1E-06	9.6E+03	2.5E-05
PAOC21	INORG	Silver	7440-22-4	D	2	2	3.40E-02	1.80E-01						6.7E+03	2.7E-05	2.5E+03	7.2E-05					2.9E+03	6.2E-05	9.0E+03	2.0E-05
PAOC21	INORG	Thallium	7440-28-0		2	2	3.60E-02	6.80E-02								3.5E+01	1.9E-03							1.3E+02	5.2E-04
PAOC21	INORG	Vanadium	7440-62-2		2	2	1.00E+01	2.85E+01								7.5E+02	3.8E-02							5.5E+03	5.2E-03
PAOC21	INORG	Zinc	7440-66-6	ID	2	2	3.09E+01	8.40E+01								1.7E+05	4.9E-04							6.3E+05	1.3E-04
PAOC22	VOC	Benzene	71-43-2	A	2	1	2.10E-02	2.10E-02		1.6E+00	1.3E-02	1.3E+01	1.6E-03	3.8E+05	5.5E-08	1.8E+02	1.2E-04	8.4E+00	2.5E-03	4.5E+01	4.7E-04	4.7E+05	4.5E-08	4.0E+02	5.3E-05
PAOC22	VOC	Cumene	98-82-8	D	2	1	2.40E-01	2.40E-01		3.9E+02	6.2E-04	1.7E+03	1.4E-04	5.8E+06	4.1E-08	3.9E+02	6.2E-04	3.9E+02	6.2E-04	2.0E+03	1.2E-04	2.6E+06	9.2E-08	3.9E+02	6.2E-04
PAOC22	VOC	Ethyl Benzene	100-41-4	D	2	1	4.00E-02	4.00E-02		8.7E+01	4.6E-04	7.2E+02	5.6E-05	1.0E+07	4.0E-09	1.4E+02	2.9E-04	1.4E+02	2.9E-04	2.4E+03	1.7E-05	1.3E+07	3.1E-09	1.4E+02	2.9E-04
PAOC22	VOC	Methylcyclohexane	108-87-2		2	1	1.60E-01	1.60E-01																	
PAOC22	SVOC	Biphenyl	92-52-4	D	2	1	2.70E+00	2.70E+00																	
PAOC22	SVOC	2-Methylnaphthalene	91-57-6	ID	2	1	3.80E+01	3.80E+01								8.1E+03	4.7E-03							2.6E+04	1.5E-03
PAOC22	SVOC	Naphthalene	91-20-3	C	2	1	8.00E+00	8.00E+00		2.5E+02	3.2E-02	3.0E+02	2.7E-02	2.0E+05	4.0E-05	1.6E+04	5.0E-04	4.7E+02	1.7E-02	3.5E+02	2.3E-02	8.8E+04	9.1E-05	5.2E+04	1.5E-04
PAOC22	SVOC	Phenanthrene	85-01-8	D	2	1	5.00E-01	5.00E-01		2.8E+03	1.8E-04	1.6E+03	3.1E-04	6.7E+03	7.5E-05	1.6E+03	3.1E-04	5.1E+03	9.8E-05	1.9E+02	2.6E-03	2.9E+03	1.7E-04	5.2E+03	9.6E-05
PAOC22	PCB	PCBs (total)	1336-36-3	B2	4	2	2.58E-01	2.20E+01		3.0E+03	7.3E-03	2.4E+02	9.2E-02	5.2E+03	4.2E-03	4.0E+00	**5.5E+00**	1.6E+04	1.4E-03	8.1E+02	2.7E-02	6.5E+03	3.4E-03	1.6E+01	**1.4E+00**
PAOC22	INORG	Antimony	7440-36-0		2	2	3.40E-02	4.50E-02						1.3E+04	3.5E-06	1.8E+02	2.5E-04					5.9E+03	7.6E-06	6.7E+02	6.7E-05
PAOC22	INORG	Arsenic	7440-38-2	A	2	2	4.10E+00	5.60E+00						7.2E+02	7.8E-03	7.6E+00	7.4E-01					9.1E+02	6.2E-03	3.7E+01	1.5E-01
PAOC22	INORG	Barium	7440-39-3	NC	2	2	2.88E+01	6.44E+01						3.3E+05	2.0E-04	3.7E+04	1.7E-03					1.5E+05	4.3E-04	1.3E+05	5.0E-04
PAOC22	INORG	Chromium III	16065-83-1	D	2	2	8.55E+00	1.33E+01						3.3E+05	4.0E-05	7.9E+05	1.7E-05					1.5E+05	8.9E-05	1.0E+06	1.3E-05
PAOC22	INORG	Chromium VI	18540-29-9	A	2	2	3.50E-01	1.00E+00						2.6E+02	3.8E-03	2.5E+03	4.0E-04					2.4E+02	4.2E-03	9.2E+03	1.1E-04
PAOC22	INORG	Cobalt	7440-48-4	LC	2	2	4.60E+00	5.80E+00						1.3E+04	4.5E-04	2.6E+03	2.2E-03					5.9E+03	9.8E-04	9.0E+03	6.4E-04
PAOC22	INORG	Copper	7440-50-8	D	2	2	1.34E+01	1.66E+01						1.3E+05	1.3E-04	2.0E+04	8.3E-04					5.9E+04	2.8E-04	7.3E+04	2.3E-04
PAOC22	INORG	Lead	7439-92-1	B2	2	2	6.80E+00	7.40E+00						1.0E+05	7.4E-05	4.0E+02	1.9E-02					4.4E+04	1.7E-04	9.0E+02	8.2E-03
PAOC22	INORG	Manganese	7439-96-5	D	2	2	2.18E+02	3.40E+02	4.40E+02					3.3E+03		2.5E+04						1.5E+03		9.0E+04	
PAOC22	INORG	Mercury	7439-97-6	D	2	2	2.40E-02	3.10E-02		4.8E+01	6.5E-04	5.2E+01	6.0E-04	2.0E+04	1.6E-06	1.6E+02	1.9E-04	8.9E+01	3.5E-04	6.2E+01	5.0E-04	8.8E+03	3.5E-06	5.8E+02	5.3E-05
PAOC22	INORG	Nickel	7440-02-0	A	2	2	1.33E+01	1.50E+01						1.3E+04	1.2E-03	4.0E+04	3.8E-04					1.6E+04	9.4E-04	1.5E+05	1.0E-04
PAOC22	INORG	Selenium	7782-49-2	D	2	2	3.70E-01	4.50E-01						1.3E+05	3.5E-06	2.6E+03	1.7E-04					5.9E+04	7.6E-06	9.6E+03	4.7E-05
PAOC22	INORG	Silver	7440-22-4	D	2	1	2.70E-02	2.70E-02						6.7E+03	4.0E-06	2.5E+03	1.1E-05					2.9E+03	9.3E-06	9.0E+03	3.0E-06
PAOC22	INORG	Thallium	7440-28-0		2	2	9.50E-02	2.40E-01								3.5E+01	6.9E-03							1.3E+02	1.8E-03
PAOC22	INORG	Vanadium	7440-62-2		2	2	1.44E+01	2.15E+01								7.5E+02	2.9E-02							5.5E+03	3.9E-03
PAOC22	INORG	Zinc	7440-66-6	ID	2	2	3.03E+01	4.35E+01								1.7E+05	2.6E-04							6.3E+05	6.9E-05

Notes:

Only constituents detected in each area are shown.
The criteria for soil are the lower of the criteria at either the target cancer risk of 1E-5or target hazard quotient of 1.
The concentrations for all polychlorinated biphenyls (PCBs) Aroclors were summed before comparing to the criteria for PCBs (total).
The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the criteria for Xylenes (total).
The lead criterion is the low end of USEPA's acceptable range of concentrations of lead in soil (750 to 1750 mg/kg) (USEPA 2003).
Background concentrations from MDEQ Part 201 (MDEQ 2006) were considered only for manganese.
Ratios of site-related concentration to the criteria greater than 1 are shaded in bold.
Chem Group - chemical group
Carc Class - USEPA Weight-of-Evidence Cancer Classification
SVIIC - MDEQ Soil Volatilization to Indoor Air Inhalation Criteria
VSIC - MDEQ Volatile Soil Inhalation Criteria (ambient air)
PSIC - MDEQ Particulate Soil Inhalation Criteria
DCC - MDEQ Direct Contact Criteria (mg/kg)

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Table 1b: Exceedance Summary for Soil
Pontiac Validation Center, Pontiac, Michigan

Area	Location	Top Depth (ft)	Bottom Depth (ft)	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/kg)	Residential SVIIC (mg/kg)	Ratio of Conc to Res SVIIC	Residential VSIC (mg/kg)	Ratio of Conc to Res VSIC	Residential PSIC (mg/kg)	Ratio of Conc to Res PSIC	Residential DCC (mg/kg)	Ratio of Conc to Res DCC	Industrial SVIIC (mg/kg)	Ratio of Conc to Ind SVIIC	Industrial VSIC (mg/kg)	Ratio of Conc to Ind VSIC	Industrial PSIC (mg/kg)	Ratio of Conc to Ind PSIC	Industrial II DCC (mg/kg)	Ratio of Conc to Industrial II DCC
Background	BG-06	7	9	03/07/08	INORG	Manganese	7439-96-5	4.11E+03					3.3E+03	**1.1E+00**	2.5E+04	1.5E-01					1.5E+03	**2.4E+00**	9.0E+04	4.1E-02
PAOC02	BH-70-08	4	6	03/05/08	VOC	Trichloroethene	79-01-6	8.20E-02	7.1E+00	1.2E-02	7.8E+01	1.1E-03	1.8E+06	4.6E-08	5.0E+02	1.6E-04	3.7E+01	2.2E-03	2.6E+02	3.2E-04	2.3E+06	3.6E-08	5.0E+02	1.6E-04
PAOC02	BH-87-08	7	9	03/06/08	VOC	Trichloroethene	79-01-6	1.40E-01	7.1E+00	2.0E-02	7.8E+01	1.8E-03	1.8E+06	7.8E-08	5.0E+02	2.8E-04	3.7E+01	3.8E-03	2.6E+02	5.4E-04	2.3E+06	6.1E-08	5.0E+02	2.8E-04
PAOC02	BH-PS-7	2	2	04/25/95	INORG	Arsenic	7440-38-2	1.20E+01					7.2E+02	1.7E-02	7.6E+00	**1.6E+00**					9.1E+02	1.3E-02	3.7E+01	3.2E-01
PAOC02	MW-69-08	18	20	03/12/08	VOC	Tetrachloroethene	127-18-4	7.40E-02	1.1E+01	6.7E-03	1.8E+02	4.1E-04	5.4E+06	1.4E-08	8.8E+01	8.4E-04	6.0E+01	1.2E-03	6.0E+02	1.2E-04	6.8E+06	1.1E-08	8.8E+01	8.4E-04
PAOC02	MW-74-08	0	2	03/14/08	VOC	1,1-Dichloroethene	75-35-4	1.10E-01	6.2E-02	**1.8E+00**	1.1E+00	1.0E-01	6.2E+04	1.8E-06	2.0E+02	5.5E-04	3.3E-01	3.3E-01	3.7E+00	3.0E-02	7.8E+04	1.4E-06	5.7E+02	1.9E-04
PAOC02	MW-74-08	8	10	03/14/08	VOC	1,1-Dichloroethene	75-35-4	2.60E-01	6.2E-02	**4.2E+00**	1.1E+00	2.4E-01	6.2E+04	4.2E-06	2.0E+02	1.3E-03	3.3E-01	7.9E-01	3.7E+00	7.0E-02	7.8E+04	3.3E-06	5.7E+02	4.6E-04
PAOC02	MW-74-08	8	10	03/14/08	VOC	Trichloroethene	79-01-6	7.60E+00	7.1E+00	**1.1E+00**	7.8E+01	9.7E-02	1.8E+06	4.2E-06	5.0E+02	1.5E-02	3.7E+01	2.1E-01	2.6E+02	2.9E-02	2.3E+06	3.3E-06	5.0E+02	1.5E-02
PAOC04	BH-92-08	7.5	9.5	03/14/08	INORG	Arsenic	7440-38-2	1.21E+01					7.2E+02	1.7E-02	7.6E+00	**1.6E+00**					9.1E+02	1.3E-02	3.7E+01	3.3E-01
PAOC05	A	14	15	01/18/90	VOC	Benzene	71-43-2	5.20E+00	1.6E+00	**3.3E+00**	1.3E+01	4.0E-01	3.8E+05	1.4E-05	1.8E+02	2.9E-02	8.4E+00	6.2E-01	4.5E+01	1.2E-01	4.7E+05	1.1E-05	4.0E+02	1.3E-02
PAOC05	BH-36-07	0	2	12/03/07	SVOC	Benzo(a)pyrene	50-32-8	2.60E+00					1.5E+03	1.7E-03	2.0E+00	**1.3E+00**					1.9E+03	1.4E-03	8.0E+00	3.3E-01
PAOC05	C	14	15	01/18/90	VOC	Benzene	71-43-2	3.10E+00	1.6E+00	**1.9E+00**	1.3E+01	2.4E-01	3.8E+05	8.2E-06	1.8E+02	1.7E-02	8.4E+00	3.7E-01	4.5E+01	6.9E-02	4.7E+05	6.6E-06	4.0E+02	7.8E-03
PAOC05	F	14	15	01/18/90	VOC	Benzene	71-43-2	8.00E-02	1.6E+00	5.0E-02	1.3E+01	6.2E-03	3.8E+05	2.1E-07	1.8E+02	4.4E-04	8.4E+00	9.5E-03	4.5E+01	1.8E-03	4.7E+05	1.7E-07	4.0E+02	2.0E-04
PAOC05	SB16P3_E_SIDEWALL	5	5	07/06/95	VOC	Benzene	71-43-2	1.50E+00	1.6E+00	9.4E-01	1.3E+01	1.2E-01	3.8E+05	3.9E-06	1.8E+02	8.3E-03	8.4E+00	1.8E-01	4.5E+01	3.3E-02	4.7E+05	3.2E-06	4.0E+02	3.8E-03
PAOC05	SB16P3_N_SIDEWALL	4	4	06/30/95	VOC	Benzene	71-43-2	7.70E-02	1.6E+00	4.8E-02	1.3E+01	5.9E-03	3.8E+05	2.0E-07	1.8E+02	4.3E-04	8.4E+00	9.2E-03	4.5E+01	1.7E-03	4.7E+05	1.6E-07	4.0E+02	1.9E-04
PAOC05	SB16P3_N_SIDEWALL~1	5	5	06/30/95	VOC	Toluene	108-88-3	1.40E+01	2.5E+02	5.6E-02	2.8E+03	5.0E-03	2.7E+07	5.2E-07	2.5E+02	5.6E-02	2.5E+02	5.6E-02	3.3E+03	4.2E-03	1.2E+07	1.2E-06	2.5E+02	5.6E-02
PAOC05	SB16P3_N_SIDEWALL~1	5	5	06/30/95	VOC	Xylenes (total)	1330-20-7	6.30E+01	1.5E+02	4.2E-01	4.6E+04	1.4E-03	2.9E+08	2.2E-07	1.5E+02	4.2E-01	1.5E+02	4.2E-01	5.4E+04	1.2E-03	1.3E+08	4.8E-07	1.5E+02	4.2E-01
PAOC05	SB16P3_N_SIDEWALL~2	5	5	07/06/95	VOC	Toluene	108-88-3	2.00E+01	2.5E+02	8.0E-02	2.8E+03	7.1E-03	2.7E+07	7.4E-07	2.5E+02	8.0E-02	2.5E+02	8.0E-02	3.3E+03	6.1E-03	1.2E+07	1.7E-06	2.5E+02	8.0E-02
PAOC05	SB16P3_N_SIDEWALL~2	5	5	07/06/95	VOC	Xylenes (total)	1330-20-7	6.00E+01	1.5E+02	4.0E-01	4.6E+04	1.3E-03	2.9E+08	2.1E-07	1.5E+02	4.0E-01	1.5E+02	4.0E-01	5.4E+04	1.1E-03	1.3E+08	4.6E-07	1.5E+02	4.0E-01
PAOC05	SB16P3_NC_FLOOR	11	11	06/30/95	VOC	Benzene	71-43-2	7.40E-01	1.6E+00	4.6E-01	1.3E+01	5.7E-02	3.8E+05	1.9E-06	1.8E+02	4.1E-03	8.4E+00	8.8E-02	4.5E+01	1.6E-02	4.7E+05	1.6E-06	4.0E+02	1.9E-03
PAOC05	SB16P3_NE_FLOOR	11	11	06/30/95	VOC	Benzene	71-43-2	3.40E+00	1.6E+00	**2.1E+00**	1.3E+01	2.6E-01	3.8E+05	8.9E-06	1.8E+02	1.9E-02	8.4E+00	4.0E-01	4.5E+01	7.6E-02	4.7E+05	7.2E-06	4.0E+02	8.5E-03
PAOC05	SB16P3_NE_FLOOR~2	11	11	07/05/95	VOC	Benzene	71-43-2	5.00E+00	1.6E+00	**3.1E+00**	1.3E+01	3.8E-01	3.8E+05	1.3E-05	1.8E+02	2.8E-02	8.4E+00	6.0E-01	4.5E+01	1.1E-01	4.7E+05	1.1E-05	4.0E+02	1.3E-02
PAOC05	SB16P3_NW_FLOOR~1	9	9	06/30/95	VOC	Benzene	71-43-2	9.20E-02	1.6E+00	5.8E-02	1.3E+01	7.1E-03	3.8E+05	2.4E-07	1.8E+02	5.1E-04	8.4E+00	1.1E-02	4.5E+01	2.0E-03	4.7E+05	2.0E-07	4.0E+02	2.3E-04
PAOC05	SB16P3_SE_FLOOR	13	13	06/28/95	VOC	Benzene	71-43-2	6.30E-01	1.6E+00	3.9E-01	1.3E+01	4.8E-02	3.8E+05	1.7E-06	1.8E+02	3.5E-03	8.4E+00	7.5E-02	4.5E+01	1.4E-02	4.7E+05	1.3E-06	4.0E+02	1.6E-03
PAOC05	SB16P3_SFLOOR	8	8	06/28/95	VOC	Benzene	71-43-2	3.50E-01	1.6E+00	2.2E-01	1.3E+01	2.7E-02	3.8E+05	9.2E-07	1.8E+02	1.9E-03	8.4E+00	4.2E-02	4.5E+01	7.8E-03	4.7E+05	7.4E-07	4.0E+02	8.8E-04
PAOC05	SB-N-1	18	20	12/22/93	VOC	Benzene	71-43-2	1.27E+00	1.6E+00	7.9E-01	1.3E+01	9.8E-02	3.8E+05	3.3E-06	1.8E+02	7.1E-03	8.4E+00	1.5E-01	4.5E+01	2.8E-02	4.7E+05	2.7E-06	4.0E+02	3.2E-03
PAOC05	TANK 2	NA	NA	01/17/89	VOC	Ethyl Benzene	100-41-4	1.25E+02	8.7E+01	**1.4E+00**	7.2E+02	1.7E-01	1.0E+07	1.2E-05	1.4E+02	8.9E-01	1.4E+02	8.9E-01	2.4E+03	5.2E-02	1.3E+07	9.6E-06	1.4E+02	8.9E-01
PAOC05	TANK 2	NA	NA	01/17/89	VOC	Xylenes (total)	1330-20-7	4.50E+02	1.5E+02	**3.0E+00**	4.6E+04	9.8E-03	2.9E+08	1.6E-06	1.5E+02	**3.0E+00**	1.5E+02	**3.0E+00**	5.4E+04	8.3E-03	1.3E+08	3.5E-06	1.5E+02	**3.0E+00**
PAOC05	TANK 3	NA	NA	01/17/89	VOC	Ethyl Benzene	100-41-4	3.00E+01	8.7E+01	3.4E-01	7.2E+02	4.2E-02	1.0E+07	3.0E-06	1.4E+02	2.1E-01	1.4E+02	2.1E-01	2.4E+03	1.3E-02	1.3E+07	2.3E-06	1.4E+02	2.1E-01
PAOC05	TANK 3	NA	NA	01/17/89	VOC	Xylenes (total)	1330-20-7	1.25E+02	1.5E+02	8.3E-01	4.6E+04	2.7E-03	2.9E+08	4.3E-07	1.5E+02	8.3E-01	1.5E+02	8.3E-01	5.4E+04	2.3E-03	1.3E+08	9.6E-07	1.5E+02	8.3E-01
PAOC05	TANK 5	NA	NA	01/17/89	VOC	Xylenes (total)	1330-20-7	4.00E+01	1.5E+02	2.7E-01	4.6E+04	8.7E-04	2.9E+08	1.4E-07	1.5E+02	2.7E-01	1.5E+02	2.7E-01	5.4E+04	7.4E-04	1.3E+08	3.1E-07	1.5E+02	2.7E-01
PAOC05	TANK 6	NA	NA	01/17/89	VOC	Ethyl Benzene	100-41-4	3.50E+03	8.7E+01	**4.0E+01**	7.2E+02	**4.9E+00**	1.0E+07	3.5E-04	1.4E+02	**2.5E+01**	1.4E+02	**2.5E+01**	2.4E+03	**1.5E+00**	1.3E+07	2.7E-04	1.4E+02	**2.5E+01**
PAOC05	TANK 6	NA	NA	01/17/89	VOC	Toluene	108-88-3	8.50E+02	2.5E+02	**3.4E+00**	2.8E+03	3.0E-01	2.7E+07	3.1E-05	2.5E+02	**3.4E+00**	2.5E+02	**3.4E+00**	3.3E+03	2.6E-01	1.2E+07	7.1E-05	2.5E+02	**3.4E+00**
PAOC05	TANK 6	NA	NA	01/17/89	VOC	Xylenes (total)	1330-20-7	2.30E+04	1.5E+02	**1.5E+02**	4.6E+04	5.0E-01	2.9E+08	7.9E-05	1.5E+02	**1.5E+02**	1.5E+02	**1.5E+02**	5.4E+04	4.3E-01	1.3E+08	1.8E-04	1.5E+02	**1.5E+02**
PAOC05	WB16P3_SIDEWALL~12	5	5	08/11/95	VOC	Benzene	71-43-2	2.90E+00	1.6E+00	**1.8E+00**	1.3E+01	2.2E-01	3.8E+05	7.6E-06	1.8E+02	1.6E-02	8.4E+00	3.5E-01	4.5E+01	6.4E-02	4.7E+05	6.2E-06	4.0E+02	7.3E-03
PAOC05	WB16P3_SIDEWALL~9	5	5	08/08/95	VOC	Benzene	71-43-2	2.30E+00	1.6E+00	**1.4E+00**	1.3E+01	1.1E-01	3.8E+05	6.1E-06	1.8E+02	1.3E-02	8.4E+00	2.7E-01	4.5E+01	5.1E-02	4.7E+05	4.9E-06	4.0E+02	5.8E-03
PAOC06	BH-47-07	17.5	20	10/09/07	INORG	Arsenic	7440-38-2	1.11E+01					7.2E+02	1.5E-02	7.6E+00	**1.5E+00**					9.1E+02	1.2E-02	3.7E+01	3.0E-01
PAOC06	BH-80-08	4	6	03/05/08	SVOC	2,6-Dinitrotoluene	606-20-2	1.50E-01																
PAOC09	BH-77-08	8	10	03/11/08	VOC	cis-1,2-Dichloroethene	156-59-2	7.30E-01	2.2E+01	3.3E-02	1.8E+02	4.1E-03	2.3E+06	3.2E-07	6.4E+02	1.1E-03	4.1E+01	1.8E-02	2.1E+02	3.5E-03	1.0E+06	7.3E-07	6.4E+02	1.1E-03
PAOC09	BH-77-08	8	10	03/11/08	VOC	Trichloroethene	79-01-6	2.20E-01	7.1E+00	3.1E-02	7.8E+01	2.8E-03	1.8E+06	1.2E-07	5.0E+02	4.4E-04	3.7E+01	5.9E-03	2.6E+02	8.5E-04	2.3E+06	9.6E-08	5.0E+02	4.4E-04
PAOC09	BH-77-08	8	10	03/11/08	VOC	Trichloroethene	79-01-6	1.20E-01	7.1E+00	1.7E-02	7.8E+01	1.5E-03	1.8E+06	6.7E-08	5.0E+02	2.4E-04	3.7E+01	3.2E-03	2.6E+02	4.6E-04	2.3E+06	5.2E-08	5.0E+02	2.4E-04
PAOC09	BH-77-08	8	10	03/11/08	VOC	Vinyl Chloride	75-01-4	6.60E-02	2.7E-01	2.4E-01	4.2E+00	1.6E-02	3.5E+05	1.9E-07	3.8E+00	1.7E-02	2.8E+00	2.4E-02	2.9E+01	2.3E-03	8.9E+05	7.4E-08	3.4E+01	1.9E-03
PAOC09	BH-77-08	8	10	03/11/08	VOC	Vinyl Chloride	75-01-4	4.50E-02	2.7E-01	1.7E-01	4.2E+00	1.1E-02	3.5E+05	1.3E-07	3.8E+00	1.2E-02	2.8E+00	1.6E-02	2.9E+01	1.6E-03	8.9E+05	5.1E-08	3.4E+01	1.3E-03
PAOC11	BH-14-07	0	2	10/16/07	INORG	Antimony	7440-36-0	5.50E+00					1.3E+04	4.2E-04	1.8E+02	3.1E-02					5.9E+03	9.3E-04	6.7E+02	8.2E-03
PAOC12	MW-13-07	0	2	10/18/07	INORG	Lead	7439-92-1	4.46E+02					1.0E+05	4.5E-03	4.0E+02	**1.1E+00**					4.4E+04	1.0E-02	9.0E+02	5.0E-01
PAOC13	SS-8-A-SIDE-AREA1	NA	NA	07/25/95	VOC	Ethyl Benzene	100-41-4	4.00E+01	8.7E+01	4.6E-01	7.2E+02	5.6E-02	1.0E+07	4.0E-06	1.4E+02	2.9E-01	1.4E+02	2.9E-01	2.4E+03	1.7E-02	1.3E+07	3.1E-06	1.4E+02	2.9E-01
PAOC13	SS-8-A-SIDE-AREA1	NA	NA	07/25/95	VOC	Trichloroethene	79-01-6	2.70E-01	7.1E+00	3.8E-02	7.8E+01	3.5E-03	1.8E+06	1.5E-07	5.0E+02	5.4E-04	3.7E+01	7.3E-03	2.6E+02	1.0E-03	2.3E+06	1.2E-07	5.0E+02	5.4E-04
PAOC13	SS-9-A	NA	NA	07/25/95	VOC	Tetrachloroethene	127-18-4	2.60E-01	1.1E+01	2.4E-02	1.8E+02	1.4E-03	5.4E+06	4.8E-08	8.8E+01	3.0E-03	6.0E+01	4.3E-03	6.0E+02	4.3E-04	6.8E+06	3.8E-08	8.8E+01	3.0E-03
PAOC21	MW-28-07	0	2	10/17/07	INORG	Manganese	7439-96-5	2.27E+03					3.3E+03	5.5E-01	2.5E+04	7.3E-02					1.5E+03	**1.2E+00**	9.0E+04	2.0E-02
PAOC22	BH-72-08	12	14	03/13/08	PCB	PCBs (total)	1336-36-3	2.20E+01	3.0E+03	7.3E-03	2.4E+02	9.2E-02	5.2E+03	4.2E-03	4.0E+00	**5.5E+00**	1.6E+04	1.4E-03	8.1E+02	2.7E-02	6.5E+03	3.4E-03	1.6E+01	**1.4E+00**
Note:																								
See Table 1a.																								

Confidential under FOIA
David Selger
LFR
Aug 07, 2009 14:51

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David Seiger
LFR
Aug 07, 2009 14:51

Table 2a: Screening Summary for Groundwater
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Residential DWC (mg/L)	Ratio of Max Detect to Res DWC	Industrial DWC (mg/L)	Ratio of Max Detect to Ind DWC	Residential GVIIC (mg/L)	Ratio of Max Detect to Res GVIIC	Industrial GVIIC (mg/L)	Ratio of Max Detect to Ind GVIIC	GCC (mg/L)	Ratio of Max Detect to GCC
PAOC01	VOC	2-Butanone	78-93-3	ID	5	1	2.50E-03	2.50E-03	1.3E+01	1.9E-04	3.8E+01	6.6E-05	2.4E+05	1.0E-08	2.4E+05	1.0E-08	2.4E+05	1.0E-08
PAOC01	VOC	1,3-Dichlorobenzene	541-73-1	D	5	3	1.80E-04	2.90E-04	6.6E-03	4.4E-02	1.9E-02	1.5E-02					2.0E+00	1.5E-04
PAOC01	VOC	1,4-Dichlorobenzene	106-46-7	C	5	2	3.00E-04	4.80E-04	7.5E-02	6.4E-03	7.5E-02	6.4E-03	1.6E+01	3.0E-05	7.4E+01	6.5E-06	6.4E+00	7.5E-05
PAOC01	VOC	cis-1,2-Dichloroethene	156-59-2	ID	5	1	8.80E-03	8.80E-03	7.0E-02	1.3E-01	7.0E-02	1.3E-01	9.3E+01	9.5E-05	2.1E+02	4.2E-05	2.0E+02	4.4E-05
PAOC01	VOC	trans-1,2-Dichloroethene	156-60-5		5	1	2.90E-03	2.90E-03	1.0E-01	2.9E-02	1.0E-01	2.9E-02	8.5E+01	3.4E-05	2.0E+02	1.5E-05	2.2E+02	1.3E-05
PAOC01	VOC	4-Methyl-2-pentanone	108-10-1	ID	5	1	3.20E-03	3.20E-03	1.8E+00	1.8E-03	5.2E+00	6.2E-04	2.0E+04	1.6E-07	2.0E+04	1.6E-07	1.3E+04	2.5E-07
PAOC01	VOC	Trichloroethene	79-01-6	C-B2	5	1	5.10E-02	5.10E-02	5.0E-03	**1.0E+01**	5.0E-03	**1.0E+01**	1.5E+01	3.4E-03	9.7E+01	5.3E-04	2.2E+01	2.3E-03
PAOC01	PCB	PCBs (total)	1336-36-3	B2	5	1	6.20E-04	6.20E-04	5.0E-04	**1.2E+00**	5.0E-04	**1.2E+00**	4.5E-02	1.4E-02	4.5E-02	1.4E-02	3.3E-03	1.9E-01
PAOC01	INORG	Aluminum	7429-90-5	ID	5	4	1.16E-02	5.23E-01	3.0E-01	**1.7E+00**	4.1E+00	1.3E-01					6.4E+04	8.2E-06
PAOC01	INORG	Barium	7440-39-3	NC	5	5	1.20E-02	3.94E-01	2.0E+00	2.0E-01	2.0E+00	2.0E-01					1.4E+04	2.8E-05
PAOC01	INORG	Cadmium	7440-43-9	B1	5	1	7.10E-04	7.10E-04	5.0E-03	1.4E-01	5.0E-03	1.4E-01					1.9E+02	3.7E-06
PAOC01	INORG	Chromium III	16065-83-1	D	5	5	2.50E-03	2.60E-03	3.8E+01	6.8E-05	1.1E+02	2.4E-05					2.9E+05	9.0E-09
PAOC01	INORG	Cobalt	7440-48-4	LC	5	2	2.10E-03	2.50E-03	4.0E-02	6.3E-02	1.0E-01	2.5E-02					2.4E+03	1.0E-06
PAOC01	INORG	Iron	7439-89-6	D	5	5	8.71E-02	1.81E+00	2.0E+00	9.1E-01	5.6E+00	3.2E-01					5.8E+04	3.1E-05
PAOC01	INORG	Manganese	7439-96-5	D	5	5	1.45E-02	2.15E+00	8.6E-01	**2.5E+00**	2.5E+00	8.6E-01					9.1E+03	2.4E-04
PAOC01	INORG	Nickel	7440-02-0	A	5	3	3.50E-03	6.70E-03	1.0E-01	6.7E-02	1.0E-01	6.7E-02					7.4E+04	9.1E-08
PAOC01	INORG	Vanadium	7440-62-2		5	1	3.20E-03	3.20E-03	4.5E-03	7.1E-01	6.2E-02	5.2E-02					9.7E+02	3.3E-06
PAOC01	INORG	Zinc	7440-66-6	ID	5	4	5.80E-03	1.05E-02	2.4E+00	4.4E-03	5.0E+00	2.1E-03					1.1E+05	9.5E-08
PAOC02	VOC	Acetone	67-64-1	ID	9	1	1.80E-01	1.80E-01	7.3E-01	2.5E-01	2.1E+00	8.6E-02	1.0E+06	1.8E-07	1.0E+06	1.8E-07	3.1E+04	5.8E-06
PAOC02	VOC	2-Butanone	78-93-3	ID	9	2	7.40E-04	3.60E-02	1.3E+01	2.8E-03	3.8E+01	9.5E-04	2.4E+05	1.5E-07	2.4E+05	1.5E-07	2.4E+05	1.5E-07
PAOC02	VOC	Chloroform	67-66-3	B2	9	2	2.30E-04	1.70E-02	2.1E-01	8.0E-02	2.1E-01	8.0E-02	2.8E+01	6.1E-04	1.8E+02	9.4E-05	1.5E+02	1.1E-04
PAOC02	VOC	1,1-Dichloroethane	75-34-3	SC	9	1	2.30E-01	2.30E-01	9.8E-01	2.6E-01	2.5E+00	9.2E-02	1.0E+03	2.3E-04	2.3E+03	1.0E-04	2.4E+03	9.6E-05
PAOC02	VOC	1,1-Dichloroethene	75-35-4	C	9	4	4.70E-04	5.70E-02	7.0E-03	**8.1E+00**	7.0E-03	**8.1E+00**	2.0E-01	2.9E-01	1.3E+00	4.4E-02	1.1E+01	5.2E-03
PAOC02	VOC	cis-1,2-Dichloroethene	156-59-2	ID	9	1	7.60E-02	7.60E-02	7.0E-02	**1.1E+00**	7.0E-02	**1.1E+00**	9.3E+01	8.2E-04	2.1E+02	3.6E-04	2.0E+02	3.8E-04
PAOC02	VOC	2-Hexanone	591-78-6		9	1	3.80E-03	3.80E-03	1.0E+00	3.8E-03	2.9E+00	1.3E-03	4.2E+03	9.0E-07	8.7E+03	4.4E-07	5.2E+03	7.3E-07
PAOC02	VOC	4-Methyl-2-pentanone	108-10-1	ID	9	2	7.90E-04	7.60E-03	1.8E+00	4.2E-03	5.2E+00	1.5E-03	2.0E+04	3.8E-07	2.0E+04	3.8E-07	1.3E+04	5.8E-07
PAOC02	VOC	Toluene	108-88-3	ID	9	1	2.40E-04	2.40E-04	1.0E+00	2.4E-04	1.0E+00	2.4E-04	5.3E+02	4.5E-07	5.3E+02	4.5E-07	5.3E+02	4.5E-07
PAOC02	VOC	1,1,1-Trichloroethane	71-55-6	ID	9	1	1.00E+00	1.00E+00	2.0E-01	**5.0E+00**	2.0E-01	**5.0E+00**	6.6E+02	1.5E-03	1.3E+03	7.7E-04	1.3E+03	7.7E-04
PAOC02	VOC	Trichloroethene	79-01-6	C-B2	9	1	2.10E+00	2.10E+00	5.0E-03	**4.2E+02**	5.0E-03	**4.2E+02**	1.5E+01	1.4E-01	9.7E+01	2.2E-02	2.2E+01	9.5E-02
PAOC02	VOC	Trichlorofluoromethane	75-69-4		9	1	2.20E-04	2.20E-04	2.6E+00	8.5E-05	7.3E+00	3.0E-05	1.1E+03	2.0E-07	1.1E+03	2.0E-07	1.1E+03	2.0E-07
PAOC02	SVOC	Acenaphthene	83-32-9		8	1	6.60E-04	6.60E-04	1.3E+00	5.1E-04	3.8E+00	1.7E-04	4.2E+00	1.6E-04	4.2E+00	1.6E-04	4.2E+00	1.6E-04
PAOC02	SVOC	Anthracene	120-12-7	D	8	1	1.30E-03	1.30E-03	4.3E-02	3.0E-02	4.3E-02	3.0E-02	4.3E-02	3.0E-02	4.3E-02	3.0E-02	4.3E-02	3.0E-02
PAOC02	SVOC	Benzo(a)anthracene	56-55-3	B2	8	2	3.50E-04	3.40E-03	2.1E-03	**1.6E+00**	8.5E-03	4.0E-01					9.4E-03	3.6E-01
PAOC02	SVOC	Benzo(a)pyrene	50-32-8	B2	8	2	3.00E-04	3.30E-03	5.0E-03	6.6E-01	5.0E-03	6.6E-01					1.0E-03	**3.3E+00**
PAOC02	SVOC	Benzo(b)fluoranthene	205-99-2	B2	8	2	3.50E-04	4.10E-03	1.5E-03	**2.7E+00**	1.5E-03	**2.7E+00**					1.5E-03	**2.7E+00**
PAOC02	SVOC	Benzo(g,h,i)perylene	191-24-2	D	8	1	2.20E-03	2.20E-03	1.0E-03	**2.2E+00**	1.0E-03	**2.2E+00**					1.0E-03	**2.2E+00**
PAOC02	SVOC	Benzo(k)fluoranthene	207-08-9	B2	8	1	1.70E-03	1.70E-03	1.0E-03	**1.7E+00**	1.0E-03	**1.7E+00**					1.0E-03	**1.7E+00**
PAOC02	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	8	3	9.00E-04	9.70E-04	6.0E-03	1.6E-01	6.0E-03	1.6E-01					3.2E-01	3.0E-03
PAOC02	SVOC	Carbazole	86-74-8	B2	8	1	9.70E-04	9.70E-04	8.5E-02	1.1E-02	3.5E-01	2.8E-03					7.4E+00	1.3E-04
PAOC02	SVOC	Chrysene	218-01-9	B2	8	2	3.20E-04	3.30E-03	1.6E-03	**2.1E+00**	1.6E-03	**2.1E+00**					1.6E-03	**2.1E+00**
PAOC02	SVOC	Dibenz(a,h)anthracene	53-70-3	B2	8	1	6.10E-04	6.10E-04	2.0E-03	3.1E-01	2.0E-03	3.1E-01					2.0E-03	3.1E-01
PAOC02	SVOC	Di-n-butylphthalate	84-74-2	D	8	1	7.30E-04	7.30E-04	8.8E-01	8.3E-04	2.5E+00	2.9E-04					1.1E+01	6.6E-05
PAOC02	SVOC	Fluoranthene	206-44-0	D	8	3	2.40E-04	8.40E-03	2.1E-01	4.0E-02	2.1E-01	4.0E-02	2.1E-01	4.0E-02	2.1E-01	4.0E-02	2.1E-01	4.0E-02
PAOC02	SVOC	Fluorene	86-73-7	D	8	1	7.20E-04	7.20E-04	8.8E-01	8.2E-04	2.0E+00	3.6E-04	2.0E+00	3.6E-04	2.0E+00	3.6E-04	2.0E+00	3.6E-04
PAOC02	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	8	1	2.00E-03	2.00E-03	2.0E-03	1.0E+00	2.0E-03	1.0E+00					2.0E-03	1.0E+00
PAOC02	SVOC	Phenanthrene	85-01-8	D	8	2	5.90E-04	5.80E-03	5.2E-02	1.1E-01	1.5E-01	3.9E-02	1.0E+00	5.8E-03	1.0E+00	5.8E-03	1.0E+00	5.8E-03
PAOC02	SVOC	Pyrene	129-00-0	NC	8	2	5.90E-04	6.30E-03	1.4E-01	4.5E-02	1.4E-01	4.5E-02	1.4E-01	4.5E-02	1.4E-01	4.5E-02	1.4E-01	4.5E-02
PAOC02	INORG	Aluminum	7429-90-5	ID	8	8	2.25E-02	4.67E-01	3.0E-01	**1.6E+00**	4.1E+00	1.1E-01					6.4E+04	7.3E-06
PAOC02	INORG	Antimony	7440-36-0		8	6	1.70E-04	1.70E-03	6.0E-03	2.8E-01	6.0E-03	2.8E-01					6.8E+01	2.5E-05
PAOC02	INORG	Barium	7440-39-3	NC	8	8	8.10E-03	2.99E-01	2.0E+00	1.5E-01	2.0E+00	1.5E-01					1.4E+04	2.1E-05
PAOC02	INORG	Chromium III	16065-83-1	D	8	4	1.40E-03	5.10E-03	3.8E+01	1.3E-04	1.1E+02	4.6E-05					2.9E+05	1.8E-08
PAOC02	INORG	Cobalt	7440-48-4	LC	8	1	1.33E-02	1.33E-02	4.0E-02	3.3E-01	1.0E-01	1.3E-01					2.4E+03	5.5E-06
PAOC02	INORG	Copper	7440-50-8	D	8	1	4.10E-03	4.10E-03	1.4E+00	2.9E-03	4.0E+00	1.0E-03					7.4E+03	5.5E-07
PAOC02	INORG	Cyanide (amenable)	57-12-5A		8	2	1.40E-02	2.00E-02										
PAOC02	INORG	Iron	7439-89-6	D	8	8	1.66E-01	7.88E+00	2.0E+00	**3.9E+00**	5.6E+00	**1.4E+00**					5.8E+04	1.4E-04
PAOC02	INORG	Lead	7439-92-1	B2	8	2	2.50E-03	2.25E-02	4.0E-03	**5.6E+00**	4.0E-03	**5.6E+00**						

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Table 2a: Screening Summary for Groundwater
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Residential DWC (mg/L)	Ratio of Max Detect to Res DWC	Industrial DWC (mg/L)	Ratio of Max Detect to Ind DWC	Residential GVIIC (mg/L)	Ratio of Max Detect to Res GVIIC	Industrial GVIIC (mg/L)	Ratio of Max Detect to Ind GVIIC	GCC (mg/L)	Ratio of Max Detect to GCC
PAOC02	INORG	Manganese	7439-96-5	D	8	8	1.08E-02	5.95E-01	8.6E-01	6.9E-01	2.5E+00	2.4E-01					9.1E+03	6.5E-05
PAOC02	INORG	Mercury	7439-97-6	D	8	2	1.20E-04	1.20E-04	2.0E-03	6.0E-02	2.0E-03	6.0E-02	5.6E-02	2.1E-03	5.6E-02	2.1E-03	5.6E-02	2.1E-03
PAOC02	INORG	Nickel	7440-02-0	A	8	1	8.60E-03	8.60E-03	1.0E-01	8.6E-02	1.0E-01	8.6E-02					7.4E+04	1.2E-07
PAOC02	INORG	Selenium	7782-49-2	D	8	2	4.50E-03	5.40E-03	5.0E-02	1.1E-01	5.0E-02	1.1E-01					9.7E+02	5.6E-06
PAOC02	INORG	Vanadium	7440-62-2		8	3	1.00E-03	3.30E-03	4.5E-03	7.3E-01	6.2E-02	5.3E-02					9.7E+02	3.4E-06
PAOC02	INORG	Zinc	7440-66-6	ID	8	2	7.20E-03	3.14E-02	2.4E+00	1.3E-02	5.0E+00	6.3E-03					1.1E+05	2.9E-07
PAOC03	VOC	Toluene	108-88-3	ID	3	1	5.40E-04	5.40E-04	1.0E+00	5.4E-04	1.0E+00	5.4E-04	5.3E+02	1.0E-06	5.3E+02	1.0E-06	5.3E+02	1.0E-06
PAOC03	PCB	PCBs (total)	1336-36-3	B2	2	1	1.05E-04	1.05E-04	5.0E-04	2.1E-01	5.0E-04	2.1E-01	4.5E-02	2.3E-03	4.5E-02	2.3E-03	3.3E-03	3.2E-02
PAOC03	INORG	Aluminum	7429-90-5	ID	3	3	1.48E-01	6.44E-01	3.0E-01	**2.1E+00**	4.1E+00	1.6E-01					6.4E+04	1.0E-05
PAOC03	INORG	Antimony	7440-36-0		3	3	1.40E-04	1.30E-03	6.0E-03	2.2E-01	6.0E-03	2.2E-01					6.8E+01	1.9E-05
PAOC03	INORG	Arsenic	7440-38-2	A	3	1	5.90E-03	5.90E-03	1.0E-02	5.9E-01	1.0E-02	5.9E-01					4.3E+00	1.4E-03
PAOC03	INORG	Barium	7440-39-3	NC	3	3	9.70E-03	1.19E-01	2.0E+00	6.0E-02	2.0E+00	6.0E-02					1.4E+04	8.5E-06
PAOC03	INORG	Chromium III	16065-83-1	D	2	2	5.00E-04	5.00E-04	3.8E+01	1.3E-05	1.0E+02	4.5E-06					2.9E+05	1.7E-09
PAOC03	INORG	Chromium VI	18540-29-9	A	2	2	6.00E-03	1.00E-02	1.0E-01	1.0E-01	1.0E-01	1.0E-01					4.6E+02	2.2E-05
PAOC03	INORG	Copper	7440-50-8	D	3	3	3.90E-03	6.30E-03	1.4E+00	4.5E-03	4.0E+00	1.6E-03					7.4E+03	8.5E-07
PAOC03	INORG	Iron	7439-89-6	D	3	3	3.46E-01	1.03E+00	2.0E+00	5.2E-01	5.6E+00	1.8E-01					5.8E+04	1.8E-05
PAOC03	INORG	Lead	7439-92-1	B2	3	1	5.60E-03	5.60E-03	4.0E-03	**1.4E+00**	4.0E-03	**1.4E+00**						
PAOC03	INORG	Manganese	7439-96-5	D	3	3	1.51E-02	2.54E-01	8.6E-01	3.0E-01	2.5E+00	1.0E-01					9.1E+03	2.8E-05
PAOC03	INORG	Nickel	7440-02-0	A	3	1	9.40E-03	9.40E-03	1.0E-01	9.4E-02	1.0E-01	9.4E-02					7.4E+04	1.3E-07
PAOC03	INORG	Vanadium	7440-62-2		3	2	3.30E-03	5.40E-03	4.5E-03	**1.2E+00**	6.2E-02	8.7E-02					9.7E+02	5.6E-06
PAOC03	INORG	Zinc	7440-66-6	ID	3	2	1.62E-02	2.15E-02	2.4E+00	9.0E-03	5.0E+00	4.3E-03					1.1E+05	2.0E-07
PAOC05	VOC	Benzene	71-43-2	A	25	13	5.00E-04	1.40E+01	5.0E-03	**2.8E+03**	5.0E-03	**2.8E+03**	5.6E+00	**2.5E+00**	3.5E+01	4.0E-01	1.1E+01	**1.3E+00**
PAOC05	VOC	2-Butanone	78-93-3	ID	5	2	2.70E-03	7.00E-03	1.9E+01	5.4E-04	3.8E+01	1.8E-04	2.4E+05	2.9E-08	2.4E+05	2.9E-08	2.4E+05	2.9E-08
PAOC05	VOC	Carbon Disulfide	75-15-0		5	1	3.60E-04	3.60E-04	8.0E-01	4.5E-04	2.3E+00	1.6E-04	2.5E+02	1.4E-06	5.5E+02	6.5E-07	1.2E+03	3.0E-07
PAOC05	VOC	Chloroethane	75-00-3	LC	9	1	5.90E-04	5.90E-04	4.3E-01	1.4E-03	1.7E+00	3.5E-04	5.7E+03	1.0E-07	5.7E+03	1.0E-07	4.4E+02	1.3E-06
PAOC05	VOC	1,1-Dichloroethane	75-34-3	SC	9	1	2.00E-03	2.00E-03	8.8E-01	2.3E-03	2.5E+00	8.0E-04	1.0E+03	2.0E-06	2.3E+03	8.7E-07	2.4E+03	8.3E-07
PAOC05	VOC	1,1-Dichloroethene	75-35-4	C	9	2	9.20E-04	1.20E-03	7.0E-03	1.7E-01	7.0E-03	1.7E-01	2.0E-01	6.0E-03	1.3E+00	9.2E-04	1.1E+01	1.1E-04
PAOC05	VOC	trans-1,2-Dichloroethene	156-60-5		9	2	1.40E-02	1.60E-02	1.0E-01	1.6E-01	1.0E-01	1.6E-01	8.5E+01	1.9E-04	2.0E+02	8.0E-05	2.2E+02	7.3E-05
PAOC05	VOC	Ethyl Benzene	100-41-4	D	25	9	4.50E-03	2.10E+00	7.0E-01	**3.0E+00**	7.0E-01	**3.0E+00**	1.1E+02	1.9E-02	1.7E+02	1.2E-02	1.7E+02	1.2E-02
PAOC05	VOC	Methyl tert-butyl ether	1634-04-4		5	1	2.30E-04	2.30E-04	2.4E-01	9.6E-04	6.9E-01	3.3E-04	4.7E+04	4.9E-09	4.7E+04	4.9E-09	6.1E+02	3.8E-07
PAOC05	VOC	Tetrachloroethene	127-18-4	C-B2	9	1	1.30E-03	1.30E-03	5.0E-03	2.6E-01	5.0E-03	2.6E-01	2.5E+01	5.2E-05	1.7E+02	7.6E-06	1.2E+01	1.1E-04
PAOC05	VOC	Toluene	108-88-3	ID	25	10	1.80E-03	2.20E+01	1.0E+00	**2.2E+01**	1.0E+00	**2.2E+01**	5.3E+02	4.2E-02	5.3E+02	4.2E-02	5.3E+02	4.2E-02
PAOC05	VOC	1,1,1-Trichloroethane	71-55-6	ID	9	2	1.10E-03	3.60E-03	2.0E-01	1.8E-02	2.0E-01	1.8E-02	6.6E+02	5.5E-06	1.3E+03	2.8E-06	1.3E+03	2.8E-06
PAOC05	VOC	Trichloroethene	79-01-6	C-B2	9	1	2.40E-03	2.40E-03	5.0E-03	4.8E-01	5.0E-03	4.8E-01	1.5E+01	1.6E-04	9.7E+01	2.5E-05	2.2E+01	1.1E-04
PAOC05	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	5	1	8.50E-04	8.50E-04	1.0E+00	8.5E-04	2.9E+00	2.9E-04	5.6E+01	1.5E-05	5.6E+01	1.5E-05	5.6E+01	1.5E-05
PAOC05	VOC	1,3,5-Trimethylbenzene	108-67-8	ID	5	1	2.90E-04	2.90E-04	1.0E+00	2.9E-04	2.9E+00	1.0E-04	6.1E+01	4.8E-06	6.1E+01	4.8E-06	6.1E+01	4.8E-06
PAOC05	VOC	Vinyl Chloride	75-01-4	A	9	3	1.60E-03	7.50E-02	2.0E-03	**3.8E+01**	2.0E-03	**3.8E+01**	1.1E+00	6.8E-02	1.3E+01	5.8E-03	1.0E+00	7.5E-02
PAOC05	VOC	Xylenes (total)	1330-20-7	ID	21	7	1.40E-02	1.60E+01	1.0E+01	**1.6E+00**	1.0E+01	**1.6E+00**	1.9E+02	8.4E-02	1.9E+02	8.4E-02	1.9E+02	8.4E-02
PAOC05	SVOC	Acetophenone	98-86-2	D	5	1	5.50E-04	5.50E-04	1.5E+00	3.7E-04	4.4E+00	1.3E-04	6.1E+03	9.0E-08	6.1E+03	9.0E-08	6.1E+03	9.0E-08
PAOC05	SVOC	Benzo(a)anthracene	56-55-3	B2	5	1	7.30E-04	7.30E-04	2.1E-03	3.5E-01	8.5E-03	8.6E-02					9.4E-03	7.8E-02
PAOC05	SVOC	Benzo(a)pyrene	50-32-8	B2	5	1	6.40E-04	6.40E-04	5.0E-03	1.3E-01	5.0E-03	1.3E-01					1.0E-03	6.4E-01
PAOC05	SVOC	Benzo(b)fluoranthene	205-99-2	B2	5	1	1.20E-03	1.20E-03	1.5E-03	8.0E-01	1.5E-03	8.0E-01					1.5E-03	8.0E-01
PAOC05	SVOC	Benzo(g,h,i)perylene	191-24-2	D	5	1	5.70E-04	5.70E-04	1.0E-03	5.7E-01	1.0E-03	5.7E-01					1.0E-03	5.7E-01
PAOC05	SVOC	Benzo(k)fluoranthene	207-08-9	B2	5	1	3.80E-04	3.80E-04	1.0E-03	3.8E-01	1.0E-03	3.8E-01					1.0E-03	3.8E-01
PAOC05	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	5	2	1.50E-03	2.10E-03	6.0E-03	3.5E-01	6.0E-03	3.5E-01					3.2E-01	6.6E-03
PAOC05	SVOC	Chrysene	218-01-9	B2	5	1	9.40E-04	9.40E-04	1.6E-03	5.9E-01	1.6E-03	5.9E-01					1.6E-03	5.9E-01
PAOC05	SVOC	Fluoranthene	206-44-0	D	5	1	2.50E-03	2.50E-03	2.1E-01	1.2E-02	2.1E-01	1.2E-02	2.1E-01	1.2E-02	2.1E-01	1.2E-02	2.1E-01	1.2E-02
PAOC05	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	B2	5	1	4.90E-04	4.90E-04	2.0E-03	2.5E-01	2.0E-03	2.5E-01					2.0E-03	2.5E-01
PAOC05	SVOC	2-Methylnaphthalene	91-57-6	ID	5	1	3.80E-04	3.80E-04	2.6E-01	1.5E-03	7.5E-01	5.1E-04					2.5E+01	1.5E-05
PAOC05	SVOC	Naphthalene	91-20-3	C	5	1	9.20E-04	9.20E-04	5.2E-01	1.8E-03	1.5E+00	6.1E-04	3.1E+01	3.0E-05	3.1E+01	3.0E-05	3.1E+01	3.0E-05
PAOC05	SVOC	Phenanthrene	85-01-8	D	5	1	8.70E-04	8.70E-04	5.2E-02	1.7E-02	1.5E-01	5.8E-03	1.0E+00	8.7E-04	1.0E+00	8.7E-04	1.0E+00	8.7E-04
PAOC05	SVOC	Pyrene	129-00-0	NC	5	1	1.70E-03	1.70E-03	1.4E-01	1.2E-02	1.4E-01	1.2E-02	1.4E-01	1.2E-02	1.4E-01	1.2E-02	1.4E-01	1.2E-02
PAOC05	PCB	PCBs (total)	1336-36-3	B2	5	1	7.15E-05	7.15E-05	5.0E-04	1.4E-01	5.0E-04	1.4E-01	4.5E-02	1.6E-03	4.5E-02	1.6E-03	3.3E-03	2.2E-02
PAOC05	INORG	Aluminum	7429-90-5	ID	5	5	1.98E-02	9.29E-01	3.0E-01	**3.1E+00**	4.1E+00	2.3E-01					6.4E+04	1.5E-05
PAOC05	INORG	Antimony	7440-36-0		5	2	1.00E-03	1.90E-03	6.0E-03	3.2E-01	6.0E-03	3.2E-01					6.8E+01	2.8E-05
PAOC05	INORG	Arsenic	7440-38-2	A	5	1	9.20E-03	9.20E-03	1.0E-02	9.2E-01	1.0E-02	9.2E-01					4.3E+00	2.1E-03

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Table 2a: Screening Summary for Groundwater
Pontiac Validation Center, Pontiac, Michigan

Area	Chem Group	Chemical	CASRN	Carc Class	Analyzed	Detected	Min Detected (mg/L)	Max Detected (mg/L)	Residential DWC (mg/L)	Ratio of Max Detect to Res DWC	Industrial DWC (mg/L)	Ratio of Max Detect to Ind DWC	Residential GVIIC (mg/L)	Ratio of Max Detect to Res GVIIC	Industrial GVIIC (mg/L)	Ratio of Max Detect to Ind GVIIC	GCC (mg/L)	Ratio of Max Detect to GCC
PAOC05	INORG	Barium	7440-39-3	NC	5	5	9.50E-02	4.48E-01	2.0E+00	2.2E-01	2.0E+00	2.2E-01					1.4E+04	3.2E-05
PAOC05	INORG	Chromium III	16065-83-1	D	5	5	2.50E-03	1.14E-02	3.8E+01	3.0E-04	1.1E+02	1.0E-04					2.9E+05	3.9E-08
PAOC05	INORG	Chromium VI	18540-29-9	A	5	1	3.00E-02	3.00E-02	1.0E-01	3.0E-01	1.0E-01	3.0E-01					4.6E+02	6.5E-05
PAOC05	INORG	Copper	7440-50-8	D	5	1	7.50E-03	7.50E-03	1.4E+00	5.4E-03	4.0E+00	1.9E-03					7.4E+03	1.0E-06
PAOC05	INORG	Iron	7439-89-6	D	5	4	8.25E-02	5.75E-01	2.0E+00	2.9E-01	5.6E+00	1.0E-01					5.8E+04	9.9E-06
PAOC05	INORG	Manganese	7439-96-5	D	5	5	2.50E-03	2.33E-01	8.6E-01	2.7E-01	2.5E+00	9.3E-02					9.1E+03	2.6E-05
PAOC05	INORG	Nickel	7440-02-0	A	5	3	3.20E-03	5.50E-03	1.0E-01	5.5E-02	1.0E-01	5.5E-02					7.4E+04	7.4E-08
PAOC05	INORG	Vanadium	7440-62-2		5	3	1.80E-03	7.20E-03	4.5E-03	**1.6E+00**	6.2E-02	1.2E-01					9.7E+02	7.4E-06
PAOC10	VOC	Benzene	71-43-2	A	1	1	2.20E-04	2.20E-04	5.0E-03	4.4E-02	5.0E-03	4.4E-02	5.6E+00	3.9E-05	3.5E+01	6.3E-06	1.1E+01	2.0E-05
PAOC10	VOC	Toluene	108-88-3	ID	1	1	8.80E-04	8.80E-04	1.0E+00	8.8E-04	1.0E+00	8.8E-04	5.3E+02	1.7E-06	5.3E+02	1.7E-06	5.3E+02	1.7E-06
PAOC10	VOC	1,2,4-Trimethylbenzene	95-63-6	ID	1	1	2.20E-04	2.20E-04	1.0E+00	2.2E-04	2.9E+00	7.6E-05	5.6E+01	3.9E-06	5.6E+01	3.9E-06	5.6E+01	3.9E-06
PAOC10	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	B2	2	2	1.40E-03	6.90E-03	6.0E-03	**1.2E+00**	6.0E-03	**1.2E+00**					3.2E-01	2.2E-02
PAOC10	SVOC	Fluoranthene	206-44-0	D	2	1	2.30E-04	2.30E-04	2.1E-01	1.1E-03	2.1E-01	1.1E-03	2.1E-01	1.1E-03	2.1E-01	1.1E-03	2.1E-01	1.1E-03
PAOC10	SVOC	Phenanthrene	85-01-8	D	2	1	2.20E-04	2.20E-04	5.2E-02	4.2E-03	1.5E-01	1.5E-03	1.0E+00	2.2E-04	1.0E+00	2.2E-04	1.0E+00	2.2E-04
PAOC10	INORG	Aluminum	7429-90-5	ID	1	1	9.27E-01	9.27E-01	3.0E-01	**3.1E+00**	4.1E+00	2.3E-01					6.4E+04	1.4E-05
PAOC10	INORG	Antimony	7440-36-0		1	1	8.00E-04	8.00E-04	6.0E-03	1.3E-01	6.0E-03	1.3E-01					6.8E+01	1.2E-05
PAOC10	INORG	Arsenic	7440-38-2	A	1	1	4.93E-02	4.93E-02	1.0E-02	**4.9E+00**	1.0E-02	**4.9E+00**					4.3E+00	1.1E-02
PAOC10	INORG	Barium	7440-39-3	NC	1	1	4.60E-02	4.60E-02	2.0E+00	2.3E-02	2.0E+00	2.3E-02					1.4E+04	3.3E-06
PAOC10	INORG	Chromium III	16065-83-1	D	1	1			3.8E+01		1.1E+02						2.9E+05	
PAOC10	INORG	Chromium VI	18540-29-9	A	1	1	8.00E-03	8.00E-03	1.0E-01	8.0E-02	1.0E-01	8.0E-02					4.6E+02	1.7E-05
PAOC10	INORG	Copper	7440-50-8	D	1	1	7.20E-03	7.20E-03	1.4E+00	5.1E-03	4.0E+00	1.8E-03					7.4E+03	9.7E-07
PAOC10	INORG	Iron	7439-89-6	D	1	1	7.67E-01	7.67E-01	2.0E+00	3.8E-01	5.6E+00	1.4E-01					5.8E+04	1.3E-05
PAOC10	INORG	Manganese	7439-96-5	D	1	1	1.11E-02	1.11E-02	8.6E-01	1.3E-02	2.5E+00	4.4E-03					9.1E+03	1.2E-06
PAOC10	INORG	Nickel	7440-02-0	A	1	1	3.30E-03	3.30E-03	1.0E-01	3.3E-02	1.0E-01	3.3E-02					7.4E+04	4.5E-08
PAOC10	INORG	Vanadium	7440-62-2		1	1	4.88E-02	4.88E-02	4.5E-03	**1.1E+01**	6.2E-02	7.9E-01					9.7E+02	5.0E-05
PAOC11/PAOC14	VOC	1,3-Dichlorobenzene	541-73-1	D	2	2	2.10E-04	2.20E-04	6.6E-02	3.3E-02	1.9E-02	1.2E-02					2.0E+00	1.1E-04
PAOC11/PAOC14	INORG	Aluminum	7429-90-5	ID	2	1	9.80E-03	9.80E-03	3.0E-01	3.3E-02	4.1E+00	2.4E-03					6.4E+04	1.5E-07
PAOC11/PAOC14	INORG	Barium	7440-39-3	NC	2	2	2.96E-01	3.10E-01	2.0E+00	1.6E-01	2.0E+00	1.6E-01					1.4E+04	2.2E-05
PAOC11/PAOC14	INORG	Chromium III	16065-83-1	D	2	2	2.50E-03	2.50E-03	3.8E+01	6.6E-05	1.1E+02	2.3E-05					2.9E+05	8.6E-09
PAOC11/PAOC14	INORG	Cyanide (amenable)	57-12-5A		2	1	7.10E-03	7.10E-03										
PAOC11/PAOC14	INORG	Manganese	7439-96-5	D	2	2	1.14E-01	1.21E-01	8.6E-01	1.4E-01	2.5E+00	4.8E-02					9.1E+03	1.3E-05
PAOC13/PAOC19	VOC	Acetone	67-64-1	ID	1	1	7.90E-02	7.90E-02	7.3E-01	1.1E-01	2.1E+00	3.8E-02	1.0E+06	7.9E-08	1.0E+06	7.9E-08	3.1E+04	2.5E-06
PAOC13/PAOC19	VOC	2-Butanone	78-93-3	ID	1	1	1.40E-02	1.40E-02	1.3E+01	1.1E-03	3.8E+01	3.7E-04	2.4E+05	5.8E-08	2.4E+05	5.8E-08	2.4E+05	5.8E-08
PAOC13/PAOC19	VOC	Carbon Disulfide	75-15-0		1	1	1.80E-03	1.80E-03	8.0E-01	2.3E-03	2.3E+00	7.8E-04	2.5E+02	7.2E-06	5.5E+02	3.3E-06	1.2E+03	1.5E-06
PAOC13/PAOC19	VOC	cis-1,2-Dichloroethene	156-59-2	ID	1	1	6.00E-04	6.00E-04	7.0E-02	8.6E-03	7.0E-02	8.6E-03	9.3E+01	6.5E-06	2.1E+02	2.9E-06	2.0E+02	3.0E-06
PAOC13/PAOC19	VOC	4-Methyl-2-pentanone	108-10-1	ID	1	1	3.00E-03	3.00E-03	1.8E+00	1.7E-03	5.2E+00	5.8E-04	2.0E+04	1.5E-07	2.0E+04	1.5E-07	1.3E+04	2.3E-07
PAOC13/PAOC19	VOC	Toluene	108-88-3	ID	1	1	5.80E-04	5.80E-04	1.0E+00	5.8E-04	1.0E+00	5.8E-04	5.3E+02	1.1E-06	5.3E+02	1.1E-06	5.3E+02	1.1E-06
PAOC13/PAOC19	VOC	Vinyl Chloride	75-01-4	A	1	1	7.90E-04	7.90E-04	2.0E-03	4.0E-01	2.0E-03	4.0E-01	1.1E+00	7.2E-04	1.3E+01	6.1E-05	1.0E+00	7.9E-04

Notes:

Only constituents detected in each area are shown.

The drinking water criteria are based on the following hierarchy: State MCL, Federal MCL, Region 9 Tap Water Ingestion Criteria at the lower of the criteria calculated at either the target cancer risk of 1E-5 or target hazard quotient of 1.

The criteria for non-drinking water are the lower of the criteria at either the target cancer risk of 1E-5 or target hazard quotient of 1.

The concentrations for all polychlorinated biphenyls (PCBs) Aroclors were summed before comparing to the criteria for PCBs (total).

The concentrations for the Xylene isomers (m/p and o) were summed before comparing to the criteria for Xylenes (total).

Ratios of concentration to the criteria greater than 1 are shaded in bold.

SM - The criterion is the State MCL.

C - The criterion is based on cancer risk at a target cancer risk of 1E-5.

NC - The criterion is based on noncancer effects at a hazard quotient of 1.

Chem Group - chemical group

Carc Class - USEPA Weight-of-Evidence Cancer Classification

DWC - MDEQ Drinking Water Criteria

GCC - MDEQ Groundwater Contact Criteria

GVIIC - MDEQ Groundwater Volatilization to Indoor Air Inhalation Criteria

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Table 2b: Exceedance Summary for Groundwater
Pontiac Validation Center, Pontiac, Michigan

Area	Location	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Residential DWC (mg/L)	Ratio of Max Detect to Res DWC	Industrial DWC (mg/L)	Ratio of Max Detect to Ind DWC	Residential GVIIC (mg/L)	Ratio of Max Detect to Res GVIIC	Industrial GVIIC (mg/L)	Ratio of Max Detect to Ind GVIIC	GCC (mg/L)	Ratio of Max Detect to GCC
PAOC01	MW-11-07	11/27/07	INORG	Aluminum	7429-90-5	5.23E-01	3.0E-01	**1.7E+00**	4.1E+00	1.3E-01					6.4E+04	8.2E-06
PAOC01	MW-19-07	11/27/07	INORG	Aluminum	7429-90-5	4.63E-01	3.0E-01	**1.5E+00**	4.1E+00	1.1E-01					6.4E+04	7.2E-06
PAOC01	MW-2-07	11/28/07	VOC	Trichloroethene	79-01-6	5.10E-02	5.0E-03	**1.0E+01**	5.0E-03	**1.0E+01**	1.5E+01	3.4E-03	9.7E+01	5.3E-04	2.2E+01	2.3E-03
PAOC01	MW-2-07	11/28/07	PCB	PCBs (total)	1336-36-3	6.20E-04	5.0E-04	**1.2E+00**	5.0E-04	**1.2E+00**	4.5E-02	1.4E-02	4.5E-02	1.4E-02	3.3E-03	1.9E-01
PAOC01	MW-2-07	11/28/07	INORG	Manganese	7439-96-5	2.15E+00	8.6E-01	**2.5E+00**	2.5E+00	8.6E-01					9.1E+03	2.4E-04
PAOC02	MW-32-07	01/09/08	INORG	Aluminum	7429-90-5	3.25E-01	3.0E-01	**1.1E+00**	4.1E+00	7.9E-02					6.4E+04	5.1E-06
PAOC02	MW-48-07	04/08/08	INORG	Iron	7439-89-6	7.88E+00	2.0E+00	**3.9E+00**	5.6E+00	**1.4E+00**					5.8E+04	1.4E-04
PAOC02	MW-48-07	04/08/08	INORG	Iron	7439-89-6	7.67E+00	2.0E+00	**3.8E+00**	5.6E+00	**1.4E+00**					5.8E+04	1.3E-04
PAOC02	MW-63-08	04/07/08	INORG	Lead	7439-92-1	2.25E-02	4.0E-03	**5.6E+00**	4.0E-03	**5.6E+00**						
PAOC02	MW-68-08	04/07/08	SVOC	Benzo(a)pyrene	50-32-8	3.00E-04	5.0E-03	6.0E-02	5.0E-03	6.0E-02					1.0E-03	3.0E-01
PAOC02	MW-68-08	04/07/08	INORG	Aluminum	7429-90-5	4.67E-01	3.0E-01	**1.6E+00**	4.1E+00	1.1E-01					6.4E+04	7.3E-06
PAOC02	MW-74-08	04/07/08	VOC	1,1-Dichloroethene	75-35-4	5.70E-02	7.0E-03	**8.1E+00**	7.0E-03	**8.1E+00**	2.0E-01	2.9E-01	1.3E+00	4.4E-02	1.1E+01	5.2E-03
PAOC02	MW-74-08	04/07/08	VOC	cis-1,2-Dichloroethene	156-59-2	7.60E-02	7.0E-02	**1.1E+00**	7.0E-02	**1.1E+00**	9.3E+01	8.2E-04	2.1E+02	3.6E-04	2.0E+02	3.8E-04
PAOC02	MW-74-08	04/07/08	VOC	1,1,1-Trichloroethane	71-55-6	1.00E+00	2.0E-01	**5.0E+00**	2.0E-01	**5.0E+00**	6.6E+02	1.5E-03	1.3E+03	7.7E-04	1.3E+03	7.7E-04
PAOC02	MW-74-08	04/07/08	VOC	Trichloroethene	79-01-6	2.10E+00	5.0E-03	**4.2E+02**	5.0E-03	**4.2E+02**	1.5E+01	1.4E-01	9.7E+01	2.2E-02	2.2E+01	9.5E-02
PAOC02	MW-74-08	04/07/08	SVOC	Benzo(a)anthracene	56-55-3	3.40E-03	2.1E-03	**1.6E+00**	8.5E-03	4.0E-01					9.4E-03	3.6E-01
PAOC02	MW-74-08	04/07/08	SVOC	Benzo(a)pyrene	50-32-8	3.30E-03	5.0E-03	6.6E-01	5.0E-03	6.6E-01					1.0E-03	**3.3E+00**
PAOC02	MW-74-08	04/07/08	SVOC	Benzo(b)fluoranthene	205-99-2	4.10E-03	1.5E-03	**2.7E+00**	1.5E-03	**2.7E+00**					1.5E-03	**2.7E+00**
PAOC02	MW-74-08	04/07/08	SVOC	Benzo(g,h,i)perylene	191-24-2	2.20E-03	1.0E-03	**2.2E+00**	1.0E-03	**2.2E+00**					1.0E-03	**2.2E+00**
PAOC02	MW-74-08	04/07/08	SVOC	Benzo(k)fluoranthene	207-08-9	1.70E-03	1.0E-03	**1.7E+00**	1.0E-03	**1.7E+00**					1.0E-03	**1.7E+00**
PAOC02	MW-74-08	04/07/08	SVOC	Chrysene	218-01-9	3.30E-03	1.6E-03	**2.1E+00**	1.6E-03	**2.1E+00**					1.6E-03	**2.1E+00**
PAOC02	MW-74-08	04/07/08	SVOC	Dibenz(a,h)anthracene	53-70-3	6.10E-04	2.0E-03	3.1E-01	2.0E-03	3.1E-01					2.0E-03	3.1E-01
PAOC02	MW-74-08	04/07/08	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	2.00E-03	2.0E-03	1.0E+00	2.0E-03	1.0E+00					2.0E-03	1.0E+00
PAOC02	MW-74-08	04/07/08	INORG	Aluminum	7429-90-5	4.59E-01	3.0E-01	**1.5E+00**	4.1E+00	1.1E-01					6.4E+04	7.2E-06
PAOC03	MW-10-07	11/27/07	INORG	Aluminum	7429-90-5	6.44E-01	3.0E-01	**2.1E+00**	4.1E+00	1.6E-01					6.4E+04	1.0E-05
PAOC03	MW-10-07	11/27/07	INORG	Lead	7439-92-1	5.60E-03	4.0E-03	**1.4E+00**	4.0E-03	**1.4E+00**						
PAOC03	MW-10-07	11/27/07	INORG	Vanadium	7440-62-2	5.40E-03	4.5E-03	**1.2E+00**	6.2E-02	8.7E-02					9.7E+02	5.6E-06
PAOC05	MW-1	05/01/90	VOC	Benzene	71-43-2	9.90E-01	5.0E-03	**2.0E+02**	5.0E-03	**2.0E+02**	5.6E+00	1.8E-01	3.5E+01	2.8E-02	1.1E+01	9.0E-02
PAOC05	MW-1	05/01/90	VOC	Vinyl Chloride	75-01-4	7.50E-02	2.0E-03	**3.8E+01**	2.0E-03	**3.8E+01**	1.1E+00	6.8E-02	1.3E+01	5.8E-03	1.0E+00	7.5E-02
PAOC05	MW-1	03/11/93	VOC	Benzene	71-43-2	3.00E+00	5.0E-03	**6.0E+02**	5.0E-03	**6.0E+02**	5.6E+00	5.4E-01	3.5E+01	8.6E-02	1.1E+01	2.7E-01
PAOC05	MW-1	01/10/94	VOC	Benzene	71-43-2	2.60E+00	5.0E-03	**5.2E+02**	5.0E-03	**5.2E+02**	5.6E+00	4.6E-01	3.5E+01	7.4E-02	1.1E+01	2.4E-01
PAOC05	MW-1	01/10/94	VOC	Benzene	71-43-2	2.70E+00	5.0E-03	**5.4E+02**	5.0E-03	**5.4E+02**	5.6E+00	4.8E-01	3.5E+01	7.7E-02	1.1E+01	2.5E-01
PAOC05	MW-3	05/01/90	VOC	Benzene	71-43-2	5.30E-03	5.0E-03	**1.1E+00**	5.0E-03	**1.1E+00**	5.6E+00	9.5E-04	3.5E+01	1.5E-04	1.1E+01	4.8E-04
PAOC05	MW-3	05/01/90	VOC	Vinyl Chloride	75-01-4	1.20E-02	2.0E-03	**6.0E+00**	2.0E-03	**6.0E+00**	1.1E+00	1.1E-02	1.3E+01	9.2E-04	1.0E+00	1.2E-02
PAOC05	MW-33-07	01/09/08	INORG	Aluminum	7429-90-5	9.29E-01	3.0E-01	**3.1E+00**	4.1E+00	2.3E-01					6.4E+04	1.5E-05
PAOC05	MW-33-07	01/09/08	INORG	Vanadium	7440-62-2	7.20E-03	4.5E-03	**1.6E+00**	6.2E-02	1.2E-01					9.7E+02	7.4E-06
PAOC05	MW-34-07	01/08/08	INORG	Aluminum	7429-90-5	3.66E-01	3.0E-01	**1.2E+00**	4.1E+00	8.9E-02					6.4E+04	5.7E-06
PAOC05	MW-37-07	01/08/08	SVOC	Benzo(a)pyrene	50-32-8	6.40E-04	5.0E-03	1.3E-01	5.0E-03	1.3E-01					1.0E-03	6.4E-01
PAOC05	MW-37-07	01/08/08	SVOC	Benzo(b)fluoranthene	205-99-2	1.20E-03	1.5E-03	8.0E-01	1.5E-03	8.0E-01					1.5E-03	8.0E-01
PAOC05	MW-6	01/10/94	VOC	Benzene	71-43-2	9.70E-01	5.0E-03	**1.9E+02**	5.0E-03	**1.9E+02**	5.6E+00	1.7E-01	3.5E+01	2.8E-02	1.1E+01	8.8E-02
PAOC05	MW-6	02/01/94	VOC	Benzene	71-43-2	1.40E-02	5.0E-03	**2.8E+00**	5.0E-03	**2.8E+00**	5.6E+00	2.5E-03	3.5E+01	4.0E-04	1.1E+01	1.3E-03
PAOC05	PW-1 #1	11/01/90	VOC	Benzene	71-43-2	1.30E+01	5.0E-03	**2.6E+03**	5.0E-03	**2.6E+03**	5.6E+00	**2.3E+00**	3.5E+01	3.7E-01	1.1E+01	**1.2E+00**
PAOC05	PW-1 #1	11/01/90	VOC	Ethyl Benzene	100-41-4	1.70E+00	7.0E-01	**2.4E+00**	7.0E-01	**2.4E+00**	1.1E+02	1.5E-02	1.7E+02	1.0E-02	1.7E+02	1.0E-02
PAOC05	PW-1 #1	11/01/90	VOC	Toluene	108-88-3	1.80E+01	1.0E+00	**1.8E+01**	1.0E+00	**1.8E+01**	5.3E+02	3.4E-02	5.3E+02	3.4E-02	5.3E+02	3.4E-02
PAOC05	PW-1 #1	11/01/90	VOC	Xylenes (total)	1330-20-7	1.60E+01	1.0E+01	**1.6E+00**	1.0E+01	**1.6E+00**	1.9E+02	8.4E-02	1.9E+02	8.4E-02	1.9E+02	8.4E-02
PAOC05	PW-1 #2	11/01/90	VOC	Benzene	71-43-2	1.40E+01	5.0E-03	**2.8E+03**	5.0E-03	**2.8E+03**	5.6E+00	**2.5E+00**	3.5E+01	4.0E-01	1.1E+01	**1.3E+00**
PAOC05	PW-1 #2	11/01/90	VOC	Ethyl Benzene	100-41-4	2.10E+00	7.0E-01	**3.0E+00**	7.0E-01	**3.0E+00**	1.1E+02	1.9E-02	1.7E+02	1.2E-02	1.7E+02	1.2E-02
PAOC05	PW-1 #2	11/01/90	VOC	Toluene	108-88-3	2.00E+01	1.0E+00	**2.0E+01**	1.0E+00	**2.0E+01**	5.3E+02	3.8E-02	5.3E+02	3.8E-02	5.3E+02	3.8E-02
PAOC05	PW-1 #2	11/01/90	VOC	Xylenes (total)	1330-20-7	1.60E+01	1.0E+01	**1.6E+00**	1.0E+01	**1.6E+00**	1.9E+02	8.4E-02	1.9E+02	8.4E-02	1.9E+02	8.4E-02
PAOC05	PW-1 #3	11/01/90	VOC	Benzene	71-43-2	1.30E+01	5.0E-03	**2.6E+03**	5.0E-03	**2.6E+03**	5.6E+00	**2.3E+00**	3.5E+01	3.7E-01	1.1E+01	**1.2E+00**
PAOC05	PW-1 #3	11/01/90	VOC	Ethyl Benzene	100-41-4	1.40E+00	7.0E-01	**2.0E+00**	7.0E-01	**2.0E+00**	1.1E+02	1.3E-02	1.7E+02	8.2E-03	1.7E+02	8.2E-03
PAOC05	PW-1 #3	11/01/90	VOC	Toluene	108-88-3	1.80E+01	1.0E+00	**1.8E+01**	1.0E+00	**1.8E+01**	5.3E+02	3.4E-02	5.3E+02	3.4E-02	5.3E+02	3.4E-02
PAOC05	PW-1 #3	11/01/90	VOC	Xylenes (total)	1330-20-7	1.60E+01	1.0E+01	**1.6E+00**	1.0E+01	**1.6E+00**	1.9E+02	8.4E-02	1.9E+02	8.4E-02	1.9E+02	8.4E-02
PAOC05	PW-1 #4	11/01/90	VOC	Benzene	71-43-2	1.20E+01	5.0E-03	**2.4E+03**	5.0E-03	**2.4E+03**	5.6E+00	**2.1E+00**	3.5E+01	3.4E-01	1.1E+01	**1.1E+00**
PAOC05	PW-1 #4	11/01/90	VOC	Ethyl Benzene	100-41-4	1.30E+00	7.0E-01	**1.9E+00**	7.0E-01	**1.9E+00**	1.1E+02	1.2E-02	1.7E+02	7.6E-03	1.7E+02	7.6E-03

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Table 2b: Exceedance Summary for Groundwater
Pontiac Validation Center, Pontiac, Michigan

Area	Location	Sample Date	Chem Group	Chemical	CASRN	Conc (mg/L)	Residential DWC (mg/L)	Ratio of Max Detect to Res DWC	Industrial DWC (mg/L)	Ratio of Max Detect to Ind DWC	Residential GVIIC (mg/L)	Ratio of Max Detect to Res GVIIC	Industrial GVIIC (mg/L)	Ratio of Max Detect to Ind GVIIC	GCC (mg/L)	Ratio of Max Detect to GCC
PAOC05	PW-1 #4	11/01/90	VOC	Toluene	108-88-3	1.70E+01	1.0E+00	**1.7E+01**	1.0E+00	**1.7E+01**	5.3E+02	3.2E-02	5.3E+02	3.2E-02	5.3E+02	3.2E-02
PAOC05	PW-1 #4	11/01/90	VOC	Xylenes (total)	1330-20-7	1.50E+01	1.0E+01	**1.5E+00**	1.0E+01	**1.5E+00**	1.9E+02	7.9E-02	1.9E+02	7.9E-02	1.9E+02	7.9E-02
PAOC05	PW-1 #5	11/01/90	VOC	Benzene	71-43-2	1.30E+01	5.0E-03	**2.6E+03**	5.0E-03	**2.6E+03**	5.6E+00	**2.3E+00**	3.5E+01	3.7E-01	1.1E+01	**1.2E+00**
PAOC05	PW-1 #5	11/01/90	VOC	Ethyl Benzene	100-41-4	2.00E+00	7.0E-01	**2.9E+00**	7.0E-01	**2.9E+00**	1.1E+02	1.8E-02	1.7E+02	1.2E-02	1.7E+02	1.2E-02
PAOC05	PW-1 #5	11/01/90	VOC	Toluene	108-88-3	2.20E+01	1.0E+00	**2.2E+01**	1.0E+00	**2.2E+01**	5.3E+02	4.2E-02	5.3E+02	4.2E-02	5.3E+02	4.2E-02
PAOC05	PW-1 #5	11/01/90	VOC	Xylenes (total)	1330-20-7	1.60E+01	1.0E+01	**1.6E+00**	1.0E+01	**1.6E+00**	1.9E+02	8.4E-02	1.9E+02	8.4E-02	1.9E+02	8.4E-02
PAOC10	MW-35-07	01/08/08	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	6.90E-03	6.0E-03	**1.2E+00**	6.0E-03	**1.2E+00**					3.2E-01	2.2E-02
PAOC10	MW-35-07	01/09/08	INORG	Aluminum	7429-90-5	9.27E-01	3.0E-01	**3.1E+00**	4.1E+00	2.3E-01					6.4E+04	1.4E-05
PAOC10	MW-35-07	01/09/08	INORG	Arsenic	7440-38-2	4.93E-02	1.0E-02	**4.9E+00**	1.0E-02	**4.9E+00**					4.3E+00	1.1E-02
PAOC10	MW-35-07	01/09/08	INORG	Vanadium	7440-62-2	4.88E-02	4.5E-03	**1.1E+01**	6.2E-02	7.9E-01					9.7E+02	5.0E-05
Note:																
See notes on Table 2a.																

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Table 3a: Upper-Bound Cumulative Cancer Risk and HI estimates for Potential Soil Exposures
Pontiac Validation Center, Pontiac, Michigan

Routine Worker Contact		Industrial Vapor Intrusion		Maintenance Worker Contact		Construction Worker Contact	
Risk	**HI**	**Risk**	**HI**	**Risk**	**HI**	**Risk**	**HI**
5E-05	**4E+01**	7E-05	**7E+02**	4E-06	**6E+00**	8E-06	**2E+02**
Notes:							
Upper-bound cancer risk and HI estimates are based on the maximum detected concentrations of each constituent in soil at the Site.							
Values in bold and shaded in gray exceed USEPA's cumulative cancer risk or HI limits of 1E-4 and 1, respectively.							
Routine worker estimates assume exposure for 250 days/year for 25 years.							
Maintenance worker estimates assume exposure for 30 days/year for 10 years.							
Construction worker estimates assume exposure for 250 days/year for 1 year.							

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Table 3b: High-End Cumulative Cancer Risk and HI Estimates for Potential Soil Exposures
Pontiac Validation Center, Pontiac, Michigan

Routine Worker Contact		Industrial Vapor Intrusion		Maintenance Worker Contact		Construction Worker Contact	
Risk	**HI**	**Risk**	**HI**	**Risk**	**HI**	**Risk**	**HI**
3E-05	5E-01	5E-05	1E+00	3E-06	3E-01	4E-06	**2E+00**
Notes:							
Values in bold and shaded in gray exceed the USEPA's cumulative cancer risk or HI limits of 1E-4 and 1, respectively.							
High-end cancer risk and HI estimates are based on the maximum detected concentrations of each constituent in soil at the Site except as follows:							
Results from the following samples: "Floor 1","West Wall 1","North Wall 1","North Wall 2","A 14-15","S-6318-062895-DJC-E005","S-6318-063095-DJC-E012","S-6318-063095-DJC-E013","S-6318-063095-DJC-E014","S-6318-070695-DJC-E017","S-6318-070695-DJC-E018","S-6318-071495-EVD-031","S-6318-071495-EVD-032","SS-8-A-Side-Area1","SS-9-A","S-6318-070595-DJC-E016", and "C 14-15" were removed from the calculations.							
Routine worker, maintenance worker, and construction worker risk estimates included 95% Upper Confidence Limits on the mean (95% UCLs) for naphthalene, PCBs (total), manganese, and mercury.							
Vapor intrusion risk estimates included the vertically averaged concentration for 1,2,4-trimethylbenzene from location MW-33-07.							
Routine worker estimates assume exposure for 250 days/year for 25 years.							
Maintenance worker estimates assume exposure for 30 days/year for 10 years.							
Construction worker estimates assume exposure for 250 days/year for 1 year.							

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Table 3c: High-End Noncancer Risk Estimates for the Construction Worker
Exposure to Soil: Critical Effects Summary
Pontiac Validation Center, Pontiac, Michigan

Chem Group	Chemical	CASRN	Most Significant Pathway	Critical Effects	HQ
SVOC	Naphthalene	91-20-3	Vapor Inhalation	Nasal effects: hyperplasia and metaplasia in respiratory and olfactory epithelium, respectively	2E-01
PCB	PCBs (total)	1336-36-3	Ingerstion	Neurological	3E-01
INORG	Manganese	7439-96-5	Particulate Inhalation	Impairment of neurobehavioral function	5E-01
VARIOUS	Remaining Chemicals	Various	Various	Various	6E-01
References:					
USEPA. Integrated Risk Information System (IRIS). On-line database.					
ATSDR. 2007. Minimal Risk Levels. November.					

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Table 4: Upper-Bound Cumulative Cancer Risk and HI Estimates for Potential Groundwater Exposure Pontiac Validation Center, Pontiac, Michigan					
Industrial Vapor Intrusion		**Maintenance Worker Contact**		**Construction Worker Contact**	
Risk	**HI**	**Risk**	**HI**	**Risk**	**HI**
2E-05	4E-01	4E-05	1E+00	4E-06	5E-01
Notes:					
Upper-bound cancer risk and HI estimates are based on the maximum detected concentrations of each constituent in soil at the Site.					
Maintenance worker estimates assume exposure for 5 days/year for 10 years.					
Construction worker estimates assume exposure for 5 days/year for 1 year.					

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Table 5: Cumulative Cancer Risk and HI Estimates for Exposure to NAPL Pontiac Validation Center, Pontiac, MI		
Recptor	**Cumulative Cancer Risk**	**HI**
Routine Worker Vapor Intursion	3E-07	4E-01
Maintenance Worker Contact	3E-06	**4E+00**
Notes:		
Values in bold and shaded in gray exceed the USEPA's cumulative cancer risk or HI limits of 1E-4 and 1, respectively.		
Direct contact expoure routes include dermal contact with, and inhalation of vapors from NAPL.		

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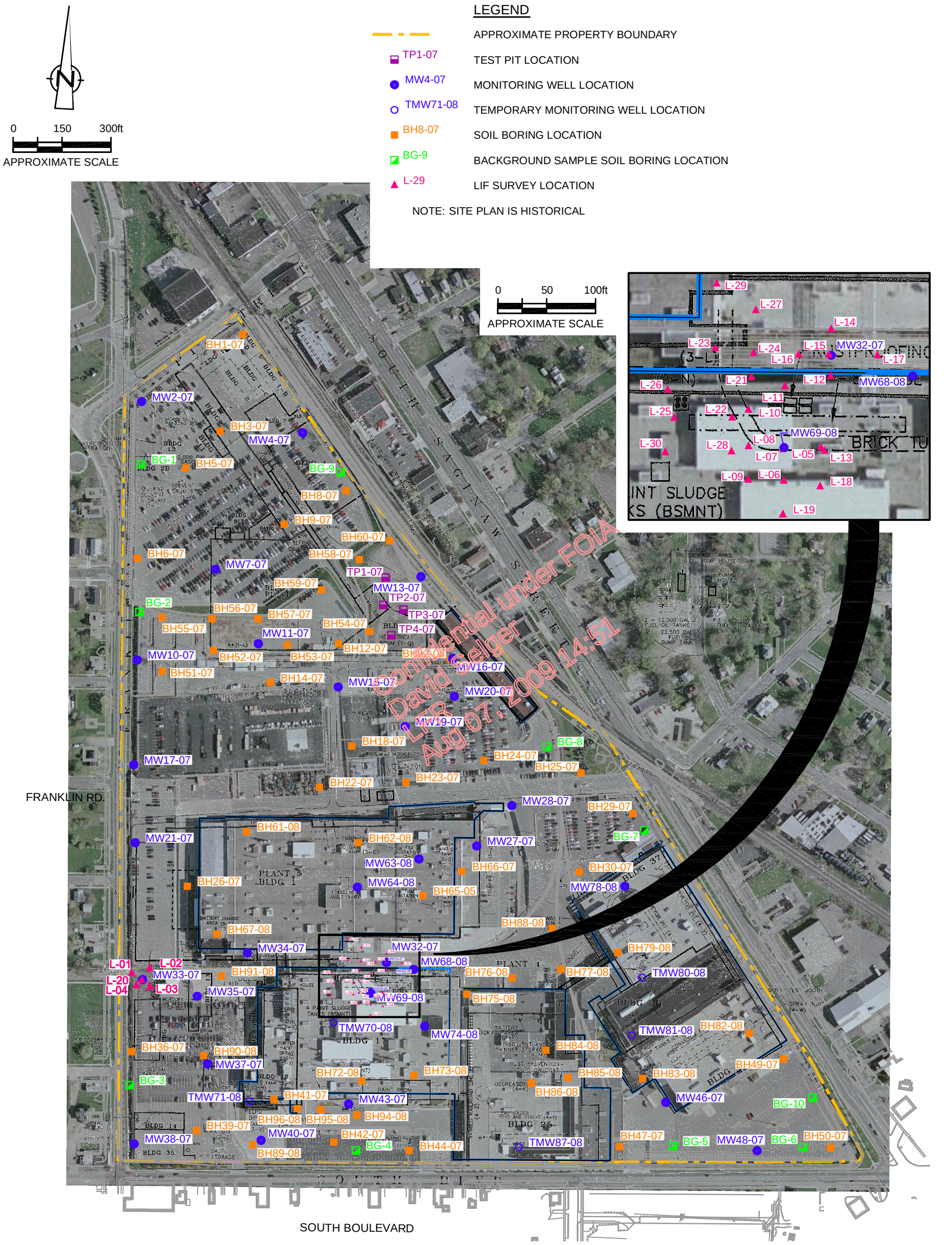

HISTORICAL SITE PLAN SOURCE: GENERAL MOTORS CORPORATION NORTH AMERICA TRUCK PLATFORM WEST FACILITY PONTIAC, MICHIGAN, THE TRAVERSE GROUP, DRAFT PHASE I ENVIRONMENTAL ASSESSMENT, DECEMBER 19, 1994.

figure 1

COMPLETED SOIL BORING LOCATIONS
GENERAL MOTORS PONTIAC CENTERPOINT CAMPUS
VALIDATION CENTER
200 South Boulevard West, Pontiac, Michigan

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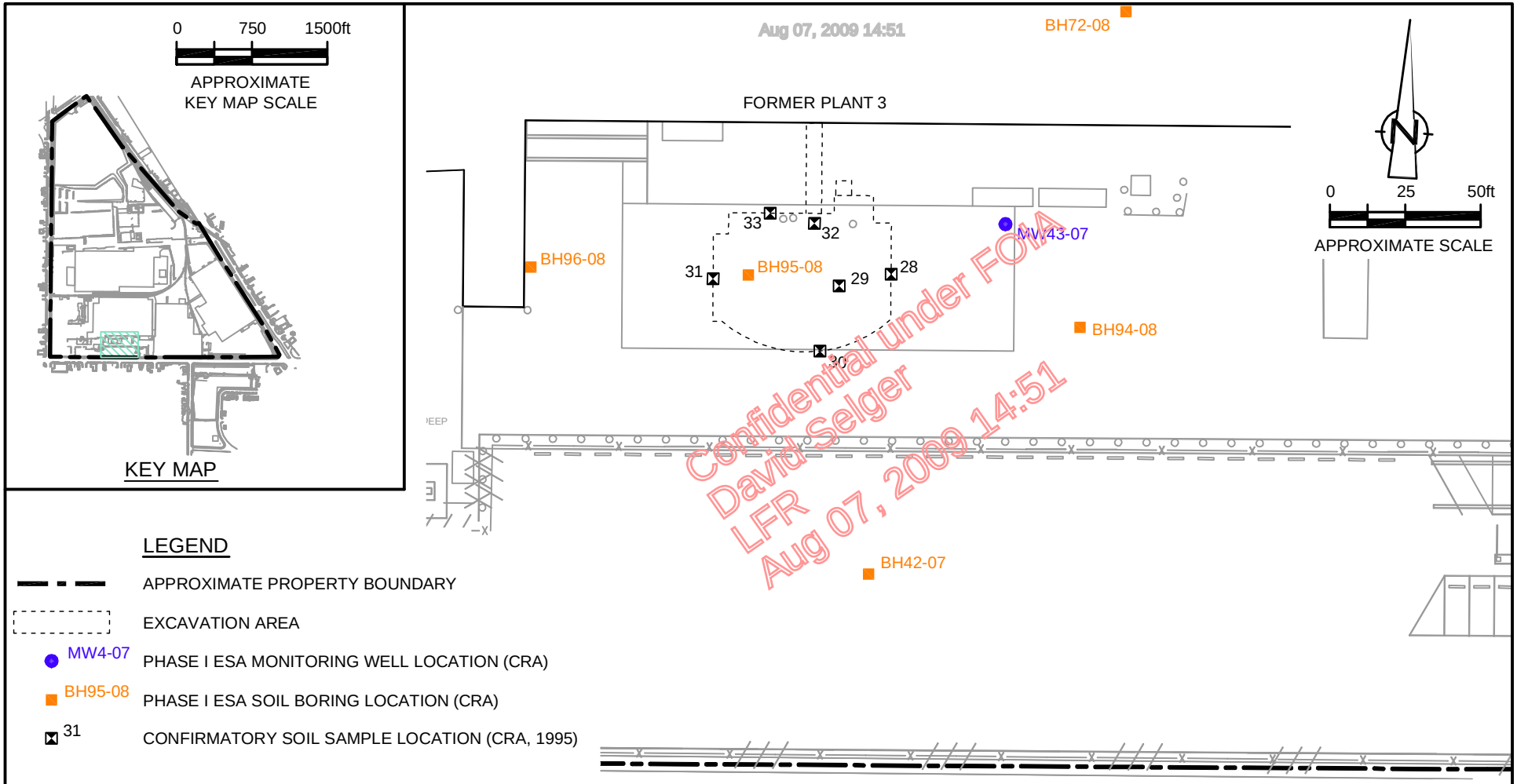

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HISTORICAL SITE PLAN SOURCE: GENERAL MOTORS CORPORATION NORTH AMERICA TRUCK PLATFORM WEST FACILITY PONTIAC, MICHIGAN, THE TRAVERSE GROUP, DRAFT PHASE I ENVIRONMENTAL ASSESSMENT, DECEMBER 19, 1994.

SOURCE: GIFFELS ASSOCIATES, INC., FEBRUARY 27, 1995

NOTES:
1. SITE PLAN IS HISTORICAL
2. RMT 1989 SAMPLE LOCATIONS ARE NOT KNOWN

figure 2

SUSPECTED GENERAL AREA OF HISTORIC XYLENE SOIL IMPACTS (RMT INVESTIGATION)
GENERAL MOTORS PONTIAC CENTERPOINT CAMPUS
VALIDATION CENTER

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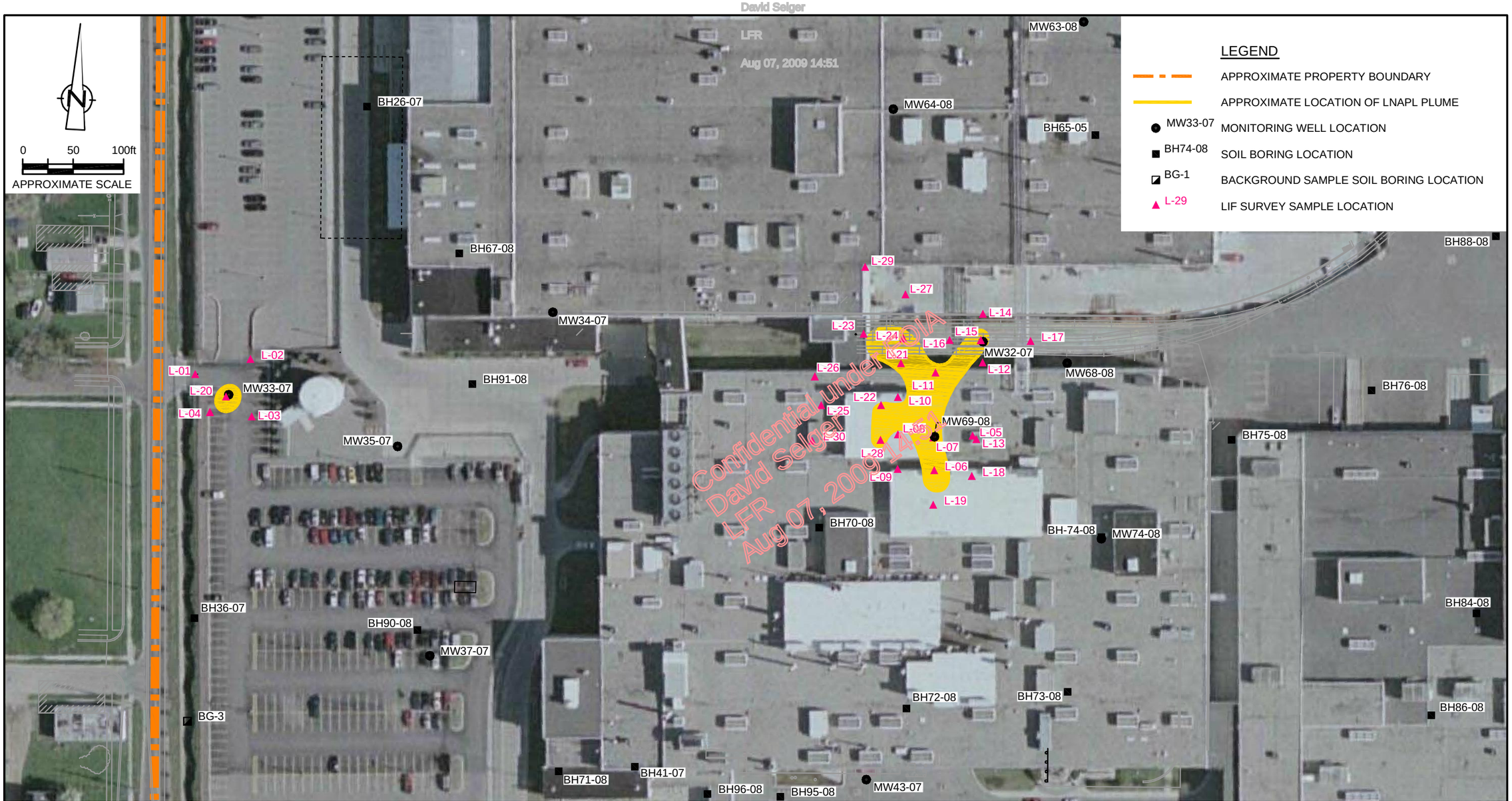

HISTORICAL SITE PLAN SOURCE: GENERAL MOTORS CORPORATION NORTH AMERICA TRUCK PLATFORM WEST FACILITY PONTIAC, MICHIGAN, THE TRAVERSE GROUP, DRAFT PHASE I ENVIRONMENTAL ASSESSMENT, DECEMBER 19, 1994.

NOTE: SITE PLAN IS HISTORICAL

figure 3

LIF INVESTIGATION LOCATIONS
GENERAL MOTORS PONTIAC CENTERPOINT CAMPUS VALIDATION CENTER
200 South Boulevard West, Pontiac, Michigan

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