

ENVIRONMENTAL SITE ASSESSMENT SUMMARY OF SUBSURFACE CONDITIONS

**GENERAL MOTORS CORPORATION -
FORMER FAIRFAX I PLANT SITE
KANSAS CITY, KANSAS**

JULY 2000

REF. NO. 12559 (7)

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1.0 INTRODUCTION

Prior to decommissioning of the Fairfax I Plant Site in Kansas City, Kansas (Site) in 1987, General Motors Corporation (GM) completed an Environmental Site Assessment (ESA) designed to determine potential impacts to soil, groundwater, and plant facilities. ESA activities were performed by HDR Engineering, Inc. (HDR). GM retained Conestoga-Rovers & Associates (CRA) to assist in future remedial activities at the Site under the Kansas Voluntary Cleanup and Property Redevelopment Program (VCPRP).

This document is intended to summarize the major investigations, sample results and data evaluations performed historically at the Site during its decommissioning starting in 1987. These investigations and evaluations were performed as part of GM's internal, property divestiture ESA program. For the purpose of preparing this ESA summary document, all applicable data from the HDR investigative reports were reviewed and have been used to prepare this document. Several of the historical reports incorporated into this summary document were prepared at the request of counsel and are subject to the Attorney-Client and Environmental Audit privileges. None of the findings, analysis, or conclusions from these reports are included in this summary document. Use of the data only from those privileged reports does not constitute a waiver of any privilege.

1.1 PURPOSE

The purpose of this summary document is to present an overview of the ESA, its findings and actions taken by GM in response to the ESA. The ESA activities occurred contemporaneously with plant decommissioning and building demolition. A program to assess and manage the interior portions of the building and demolition activities was also completed by GM. These interior (aboveground) studies and assessments are not included in this summary document.

The information presented in this document focuses on subsurface conditions encountered during the historical ESA performed by GM. The subsurface information is more applicable to GM's entry into the Kansas Department of Health and Environment (KDHE) VCPRP as all buildings, structures and identified source areas have been removed from the former Fairfax I plant property. Consequently, only subsurface soil and groundwater conditions are subject to VCPRP. The data summarized in this document formed the basis for future actions at the Site by GM after 1988 including:

- Routine property-wide groundwater monitoring;
- design, construction and operation of a groundwater remediation system; and

- a more recent focussed groundwater study.

Documentation of the above actions at the former Fairfax I Plant have been submitted to the KDHE in the past, or it is currently being submitted with the VCPRP application.

2.0 SITE LOCATION AND BACKGROUND

2.1 SITE LOCATION AND DESCRIPTION

The Site is located along Kindelberger Road and Fairfax Trafficway in Kansas City, Kansas. The Site is located south of a bend in the Missouri River, with the river located north, east, and southeast of the Site. A levee is present between the Site and the Missouri River. The elevation of the Site at ground surface is approximately 745 feet above mean sea level.

The former Fairfax I Plant facility was located on the northwestern portion of the Site, at 100 Kindelberger Road; the active Fairfax II Plant facility is located on the eastern portion of the Site, at 3201 Fairfax Trafficway. The Site location is shown on Figure 2.1. The Site plan is shown on Figure 2.2.

The Fairfax I Assembly Plant consisted of several buildings totaling approximately 2.2 million square feet of covered work area on a Site comprised of roughly 132 acres. As is typical of large industrial facilities, several support buildings like power houses, cooling towers and maintenance areas were present along with above and below ground product tanks and various waste storage areas.

2.2 SURROUNDING LAND USE AND FACILITIES

The Fairfax District is an industrial area. The Site is bounded to the west and south by industrial facilities, including industrial operations, chemical companies, and refining and pipeline facilities.

2.3 OPERATIONAL HISTORY

The U.S. Government constructed the Fairfax I Plant in 1940 for North American Aviation. North American Aviation assembled B-25 bombers at the facility through 1944 for use in World War II. In 1945, GM negotiated a lease for this facility from the U.S. Government and began assembling automobiles. During the Korean conflict GM assembled F84F jet aircraft in addition to continuing to assemble automobiles. GM purchased the facility from the U.S. Government in 1960 and continued automobile assembly operations until 1986/1987 when plant operations were terminated.

2.4 PLANT DECOMMISSIONING

In May of 1987 automobile production at the Site was permanently terminated at the Site. In preparation of the demolition of the buildings associated with this facility the ESA summarized in this report was performed between August of 1987 and January of 1988. Asbestos abatement activities were completed from June to October of 1988. All above ground storage tanks and below ground storage tanks (ASTs and USTs, respectively) were cleaned and removed from the Site during this same time period. The demolition of the Site buildings was conducted from July 1988 to May of 1989.

3.0 SUMMARY OF ENVIRONMENTAL SITE ASSESSMENT

3.1 GENERAL

GM retained HDR to perform due-diligence work under GM's internal ESA program. HDR completed the ESA in two phases performed in August of 1987 and January of 1988, respectively. The initial phase focused on the exterior of the Site while the latter concentrated on the interior of the Site buildings. Additional work was performed on specific areas of the exterior of the Site during the second mobilization based on data generated during the initial phase.

As indicated previously, completion of Site decommissioning was largely accomplished by May of 1989. As decommissioning of the Site included the cleaning, demolition and removal of the facility structures, data associated with samples collected from the materials used to build these structures have been excluded from this summary document. The remaining discussions presented herein focus on subsurface conditions encountered during ESA activities completed in 1987-1988.

3.2 IDENTIFICATION OF AREAS OF POTENTIAL CONCERN

ESA investigative activities focussed on, but were not limited to, the following areas which represented the greatest potential for impacted media:

- aboveground or underground storage tanks;
- product conveyance lines;
- waste and paint storage areas;
- process sumps;
- refuse burning areas; and
- fueling stations;

Historic spill incidents were also used by GM to determine potential areas of investigation in the ESA. As documented in correspondence to the KDHE, GM indicated that three reportable quantity spills had occurred during the active production phase of the Site (Appendix A). These areas were included in the investigation to verify that no residual effects of the spills remained.

3.3 SITE-SPECIFIC - IDENTIFIED AREAS OF CONCERN

Using the criterion provided in the previous section areas of potential concern were identified for investigation during the ESA. General areas targeted for investigation included the following:

- tank farm;
- underground storage tanks 1 and 2;
- underground storage tank A;
- underground storage tanks B and C;
- fuel island and truck maintenance facilities;
- underground storage tank 10 and baler room;
- powerhouse area;
- waste and paint sludge sump; and
- refuse burn area.

Given the nature of the facility, the majority of the areas identified for potential investigation focussed on bulk product storage tanks and their associated conveyance lines. Product was historically stored at the Site using a combination of ASTs and USTs, respectively.

As indicated in Section 2.4, the majority of the USTs were removed concurrent with the performance of the ESA in August 1987. A summary of the information associated with each of the USTs removed during the plant decommissioning is provided in Appendix B. ASTs associated with the Site were also removed later in the decommissioning process.

In general, soil and groundwater samples were collected from the identified areas of concern from locations most likely to have been impacted by past Site activities. Sampling locations were determined based on the past use of the Site, and in conjunction with information previously submitted to the KDHE concerning environmental impacts documented during the operation of the Site (Appendix A.)

General details on the ESA sampling program are provided in the following sections. Specific details concerning the investigative activities performed in each of the identified areas of concern are provided in Section 4.0. The locations of the identified areas of concern are provided in Figure 3.1.

3.3.1 SOIL SAMPLING

In total 76 soil borings were advanced during the ESA performed by HDR. Although these borings were advanced in areas most likely to have been impacted by plant operations, they were also placed to ensure that a representative characterization of the Site was developed during the ESA. Figure 3.2 provides the locations of the borings advanced during the ESA.

Soil borings S-1 through S-41 and S-101 through S-124 were advanced to depths of 30 feet below ground surface using hollow stem auger drilling techniques. Soil borings S-101 through S-106, S-109, S-110, S-113, S-123 and S-124 were sampled for stratigraphic logging purposes only. Eleven additional borings (F-11 through F-16 and F-23 through F-26, and F-28) were advanced to 5-feet below grade.

Soil samples were collected from the majority of these borings for chemical analyses using split-spoon sampling procedures at five-foot intervals to the base of the boring. Soil volume was taken for analyses from the lower 1.5 feet of each five-foot interval. The three 5-foot sample intervals from the upper 15 feet of each boring were analyzed. The remaining samples from the lower portion of the boring were archived pending the results from the upper 15 feet of the boring. Samples from borings S-8, S-29, and S-37 were the only borings in which analyses of the lower three sample intervals were requested.

A summary of the soil samples collected during the ESA is provided in Appendix C.

3.3.2 GROUNDWATER SAMPLING

In addition to soil sampling, groundwater samples were collected from the 30-foot borings during both phases of the investigation. Soil borings S-101 through S-106, S-109, S-110, S-113, S-123 and S-124 were sampled for groundwater only during the January 1988 phase of the investigation.

Groundwater samples were collected directly from the borehole using the hollow stem augers as casing. Samples were collected using a teflon bailer and without purging any volume of groundwater prior to sample collection. A summary of the groundwater samples collected during the ESA is provided in Appendix D.

4.0 SUMMARY OF ESA DATA - IDENTIFIED AREAS OF CONCERN

4.1 TANK FARM

A tank farm consisting of 4 ASTs within a bermed enclosure and 7 ASTs within a building was formerly located north of the assembly building (Figure 4.1). Various ancillary structures such as a railcar and truck unloading area, and pumping equipment used to transfer product were associated with this tank farm. Tanks in this area were formerly used to store gasoline and diesel fuel, paint thinner, and anti-freeze.

Soil borings (S-20, S-21, S-24 through S-34 and F-23 through F-26) were advanced in the vicinity of the tank farm during the ESA. Soil and groundwater samples were collected from the majority of these borings for VOC analysis. Samples were also collected for metal analysis from borings S-28 and S-31 through S-34. Soil and groundwater in the vicinity of the tank farm was found to contain VOCs. However, metals analytes were present at levels consistent with regional findings. A tabulated summary of the soil and groundwater VOC concentrations associated with the tank farm sampling events is provided in Appendix E, Table 8-10¹.

4.2 UNDERGROUND STORAGE TANKS 1 AND 2

Tanks 1 and 2 were formerly located to the north of the assembly plant, between the plant and the old hangar building. Tank 1 was formerly used to store gasoline and diesel fuel, while tank 2 was used to contain automatic transmission fluid. Both tanks were removed in August of 1987. Soil samples from beneath the tanks were collected in conjunction with this removal. Soil sample 87-201, collected from the center of the excavation, contained ethylbenzene and toluene at concentrations of 2,200 and 17,000 µg/kg, respectively. Tables 8.5 and 8.6 located in Appendix E provide a summary of these soil data.

Soil borings S-35, S-119 and S-120 were advanced during the ESA (Figure 4.1). Soil and groundwater samples were collected from each boring for laboratory analysis. Toluene was present in the groundwater sample collected from S-35 at a concentration of 39 µg/L. Table 8.3 located in Appendix E provides a summary of the groundwater data.

¹ Data tables provided in Appendix E are referenced directly from the data summary tables generated by HDR Engineering, Inc. following completion of the ESA investigation in January of 1988. Table references have not been changed from the original HDR transmittal and include only those tables necessary to summarize these data. Therefore, the tables contained in Appendix E are not referenced in sequence and gaps in the sequence are by intent.

USTs 1 and 2, associated soil, and appurtenances were removed on August 4, 1987

4.3 UNDERGROUND STORAGE TANK A

Tank A formerly located at the southeast corner of the assembly building was used to store gasoline. Three soil borings (S-39, S-123 and S-124) were advanced proximal to the tank location (Figure 4.1). Soil samples analyzed from S-39 did not contain VOCs. Groundwater samples collected from S-39 and S-124 contained 1,2-dichloroethene (1,2-DCE) at concentrations of 22 and 6 micrograms per kilogram ($\mu\text{g}/\text{kg}$), respectively. VOCs were not detected in groundwater collected from S-123.

4.4 UNDERGROUND STORAGE TANKS B AND C

Gasoline storage tanks B and C were formerly located at the southwest corner of the assembly building. Three soil borings (S-40, S-109 and S-110) were advanced proximal to the tank locations (Figure 4.1). Soil volume collected from S-40 did not contain VOCs. Groundwater samples collected from all three borings contained 1,2-DCE, tetrachloroethene, (PCE) and trichloroethene (TCE). A summary of the groundwater data generated from these borings is provided in Appendix E, Table 8.13.

4.5 FUEL ISLAND AND TRUCK MAINTENANCE FACILITIES

The Cooper Fuel Island and truck maintenance facilities were formerly located in the southwest corner of the Site. The fuel island used five USTs to store gasoline, diesel, lubricating oil and anti-freeze. Fuel oil and waste oil were stored in four USTs at the truck maintenance facility.

Consistent with Site decommissioning, the USTs in both areas were removed in August of 1987. During the removal of the USTs, samples of the soil beneath the tank beds were collected from both areas. Samples associated with the truck maintenance facility were not analyzed due to an exceedence of the sample holding time requirements. Two of the samples collected from beneath the fuel island USTs, 87-204 and 87-205, contained measurable concentrations of VOCs. Specifically, sample 87-204 contained ethylbenzene and total xylenes at concentrations of 1,500 and 2,600 $\mu\text{g}/\text{kg}$, respectively. Sample 87-205 contained only total xylenes at a concentration of 620 $\mu\text{g}/\text{kg}$. Tables 8.5 and 8.6

located in Appendix E provides a summary of the soil data associated with the removal of the tanks.

As part of the ESA, following the removal of the USTs, soil borings S-1 through S-3 were advanced near the fuel island and borings S-4 through S-6 were installed proximal to the maintenance facility (Figure 4.1). Soil and groundwater samples were collected at all six of these locations. VOCs were not detected in either the soil or groundwater in this area from five of the borings. Groundwater collected from soil boring S-4 contained benzene, toluene, ethylbenzene, and total xylene (BTEX) compounds at concentrations of 82, 40, 63, and 31 micrograms per liter ($\mu\text{g/L}$), respectively. Tables 8.3 and 8.4 located in Appendix E provides a summary of these groundwater data.

Six additional borings (S-101 through S-106) were advanced in January 1988 to delineate the area adjacent to the truck maintenance area. Groundwater samples were collected from each of these borings for VOC analysis. VOCs were not present in the groundwater samples collected in January 1988. Soil boring S-103 was converted into a monitoring well to aid in future groundwater monitoring activities.

USTs 12, 13, 14, and 15 (Cooper Fueling Station), associated soil, and appurtenances were removed on August 3, 1987. UST 16, associated soil, and appurtenances were removed on August 4, 1987. USTs 18, 19, and 20 (truck maintenance facility), associated soil, and appurtenances were removed on July 29, 1987.

4.6 UNDERGROUND STORAGE TANK 10 AND BALER ROOM

The baler room was formerly located approximately 200 feet north of the southwest corner of the assembly building. This area was used to collect the general plant refuse and contained a large trash compactor/baler used for waste consolidation. In this same area, UST 10, was located immediately adjacent to the northern exterior wall of the baler room. Prior to its removal in August of 1987, tank 10 was used to store gasoline for use in company vehicles.

Two soil borings, S-8 and S-9, were advanced in this area during the initial phase of the ESA (Figure 4.1). Soil and groundwater samples were collected from each boring for analysis. Soil collected from S-9 did not contain VOCs. The soil samples collected from 10 and 15 feet below ground surface in boring S-8 contained PCE at concentrations of 2,500 and 760 $\mu\text{g/kg}$, respectively. Soil analyzed from the lower intervals (20 to 30-feet below ground surface) did not contain VOCs. The groundwater sample collected from S-9 contained benzene (25 $\mu\text{g/L}$) and toluene (14 $\mu\text{g/L}$). Groundwater collected from

S-8 contained 1,2-DCE, PCE, and TCE. Soil and groundwater samples collected from the S-8 boring were also analyzed for metals, pesticides and polychlorinated biphenyls (PCBs). The concentrations of metal analytes fell into the expected background range. Pesticides and PCBs were not detected in either the soil or the groundwater.

Two additional soil borings, S-107 and S-108, were completed in this area during the January 1988 phase of investigation (Figure 4.1). Soil and groundwater were collected from each boring for VOC analysis. Soil samples did not contain VOCs. 1,2-DCE was present in both groundwater samples. Tables 8.1 through 8.4 located in Appendix E provide a summary of the soil and groundwater data.

UST 10, associated soil, and appurtenances were removed on August 14, 1987.

4.7 POWERHOUSE AREA

A total of eight USTs were formerly associated and/or located near the powerhouse and water treatment facility. The locations of the soil borings advanced during the ESA in this area are provided in Figure 4.1.

4.7.1 UNDERGROUND STORAGE TANKS 3 AND 4

Tanks 3 and 4 were used to store diesel fuel for use in the powerhouse. Both tanks were formerly located northwest of the powerhouse, immediately between the powerhouse and the water treatment facility. Concurrent with the tank removal in August 1987, soil samples were collected from the material beneath tanks 3 and 4. Soil sample 87-209 collected from the south end of the excavation contained 7,300 µg/kg of ethylbenzene. The sample collected from the middle of the excavation, 87-211, contained 1,200 µg/kg. Tables 8.5 and 8.6 located in Appendix E provide a summary of soil data associated with the removal of these tanks.

Soil borings S-15 and S-111, located to the north and the east of the former tank locations, respectively, were advanced during the ESA. VOCs were not detected in soil and groundwater samples collected from these borings with one exception. 1,2-DCE was present in the groundwater at S-111 at a concentration 15 µg/L.

UST 3, associated soil, and appurtenances were removed on August 10, 1987. UST 4, associated soil, and appurtenances were removed on August 11, 1987.

4.7.2 UNDERGROUND STORAGE TANKS 5, 6 AND 11

Tanks 5, 6 and 11 were formerly located immediately adjacent to the far northern extent of the powerhouse. Tanks 5 and 6 were used to store waste fuel oil and water from the powerhouse. Tank 11 was used for slop oil storage. Concurrent with their removal in August of 1987, soil samples were collected from the material beneath tanks 5 and 6 for analysis. Soil sample 87-206 contained PCE and total xylenes at concentrations of 626 and 1,100 µg/kg, respectively. Tables 8.1 and 8.6 located in Appendix E provide a summary of the soil data associated with these tank removals.

Soil borings S-16 through S-18 and S-112 were advanced in the vicinity of these tanks during the ESA and samples of soil and groundwater were collected for analysis. VOCs were not present in the soil collected from these borings. Groundwater collected from S-17 contained 1,2-DCE and PCE at concentrations of 16 µg/L. Groundwater collected from boring S-112 contained 1,2-DCE at a concentration of 133 µg/L. Tables 8.3 and 8.4 located in Appendix E provide a summary of these groundwater data.

USTs 5, 6, associated soil and appurtenances were removed on August 7, 1987. UST 11, and its associated soil and appurtenances were removed on August 19, 1987.

4.7.3 UNDERGROUND STORAGE TANKS 7, 8 AND 9

Tanks 7, 8, and 9 were removed on August 17, 1987. Each tank was used to store 66,000 gallons of fuel oil for use at the facility powerhouse. Correspondence from GM to KDHE indicates that impacted soil and concrete associated with these tanks was also removed during these activities (Appendix F). Soil samples were collected from the excavation at the time of the tank removal.

Soil borings S-19 through S-22 were advanced around the former tank perimeter during the ESA. Soil and groundwater samples were collected from each boring and analyzed for VOCs and PCBs. VOCs and PCBs were not detected in these soil samples.

USTs 7, 8, and 9, associated soil and appurtenances were removed on August 17, 1987.

4.8 WASTE AND PAINT SLUDGE SUMP

The waste and paint sludge sump was formerly located at the extreme northeast corner of the assembly building. Soil boring S-37 advanced in August of 1987 indicated that impacted soil was present proximal to the sump. Specifically, soil collected from 15 feet below ground surface contained concentrations of toluene (3,000 µg/kg), ethylbenzene (870 µg/kg), and xylenes (1,800 µg/kg). Soil collected from the next interval (20 feet below ground surface) contained only toluene at a concentration of 650 µg/kg. VOCs were not detected in the groundwater sample collected from S-37.

An additional soil boring, S-121, was advanced in January of 1988. VOCs were not detected in either the soil or groundwater samples collected from this boring.

4.9 REFUSE BURN AREA

The area located to the west of the former new car shipping area was historically used for the incineration of general refuse. A total of four soil borings (S-11, S-12, S-116, and S-117) were advanced in this area during the ESA (Figure 4.1). Soil and groundwater samples were collected from soil borings S-11 and S-12 for analysis of VOCs, metals, pesticides and PCBs. Metals were present in the samples at concentrations consistent with the region with the exception of lead in the S-12 sample from 10 feet below grade. Lead was present in this sample at a concentration of 81 milligrams per kilogram (mg/kg). VOCs, pesticides and PCBs were not detected in the remaining samples.

Two additional borings (S-116 and S-117) were advanced in January of 1988 (Figure 4.1). Soil and groundwater samples were collected for metals analysis. Elevated metal concentrations were not detected in either the soil or groundwater samples.

5.0 MONITORING WELLS

Four groundwater monitoring wells (MW-1 through MW-4) were installed around the western perimeter of the Site during the initial ESA mobilization. Monitoring wells were installed to a depth of 30 feet below ground surface with the lower 15 feet screened using 2-inch diameter polyvinyl chloride (PVC) materials. Soil and groundwater sampling for analytical purposes was not performed during these monitoring well installations. Two samples for geotechnical analyses were collected from each monitoring well boring.

During the January 1988 mobilization, 12 additional monitoring wells were installed. Specifically, MW-101, MW-102A, MW-102B, MW-102C, MW-103 through MW-108, S-103, and S-113 were installed using the same techniques and construction methods outlined above. The exceptions to these construction methods were:

- MW-102 was constructed as a cluster of three monitoring wells. The lower wells (102B and 102C) were constructed using 10-foot well screens;
- MW-103 was constructed of 4-inch diameter stainless steel materials for use as a potential pumping well; and
- MW-104 was constructed of 2-inch diameter stainless steel materials.

Following completion of the ESA investigation, GM initiated routine monitoring of groundwater at the Site using this monitoring well network as its basis. Construction specifications for each monitoring well installed during the ESA are summarized in Appendix F. The monitoring well locations associated with the ESA investigation are provided in Figure 5.1.

6.0 POST ESA ACTIVITIES

Upon completion of the ESA investigation GM initiated the following in response to the ESA findings:

1987-1988

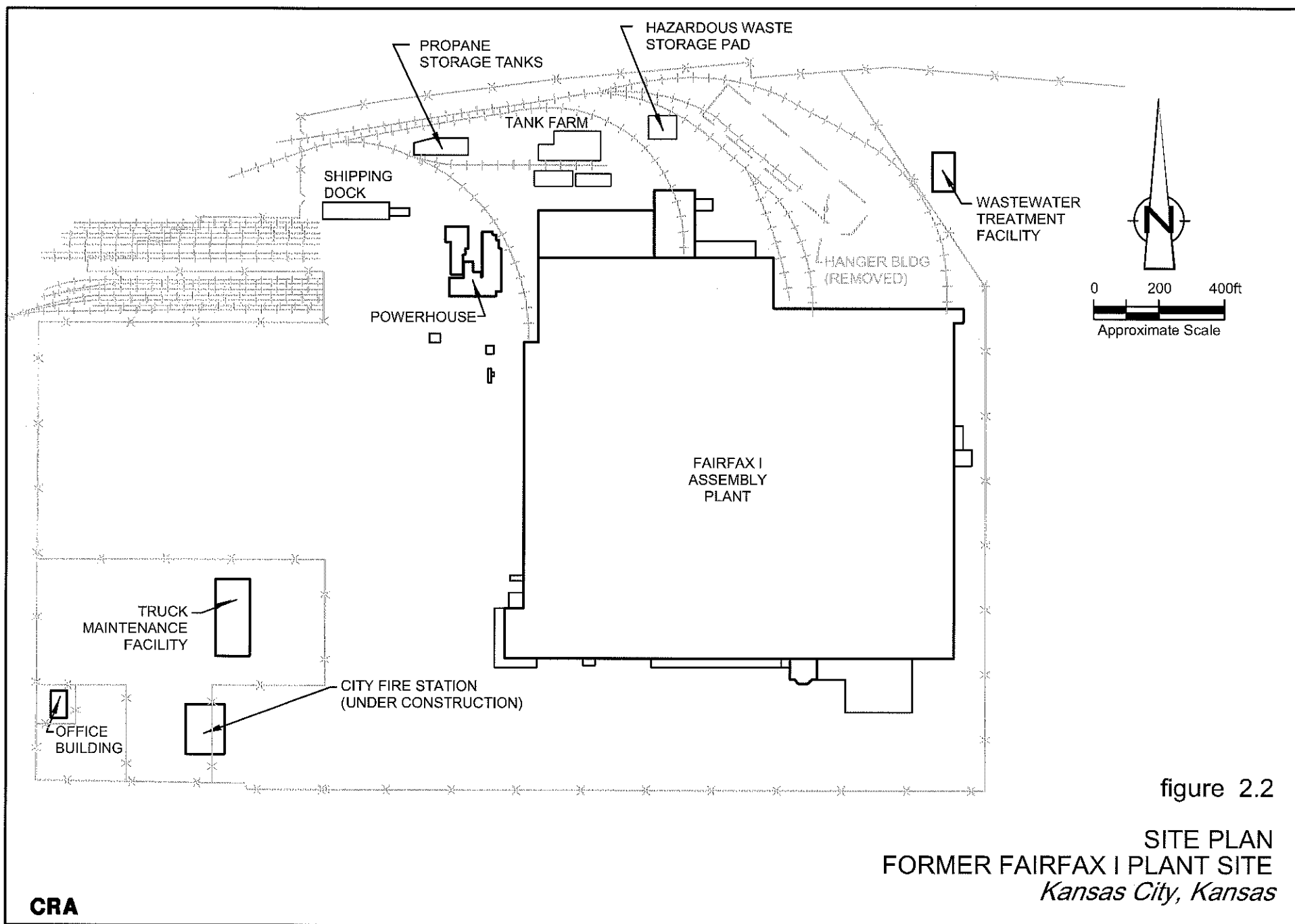
- Completed the decommissioning of the Fairfax I Plant;
- Coordinated future responses with KDHE based on findings;

1988-1995

- Implemented a groundwater monitoring program with submittal of data to KDHE;
- Developed remedial design alternatives designed to address ESA findings;
- Implemented selected groundwater remedial system;
- Coordinated future responses with KDHE based on findings;

1998-2000

- Performed additional Site characterization;
- Coordinated future responses with KDHE based on findings; and
- Commenced VCPRP application process.



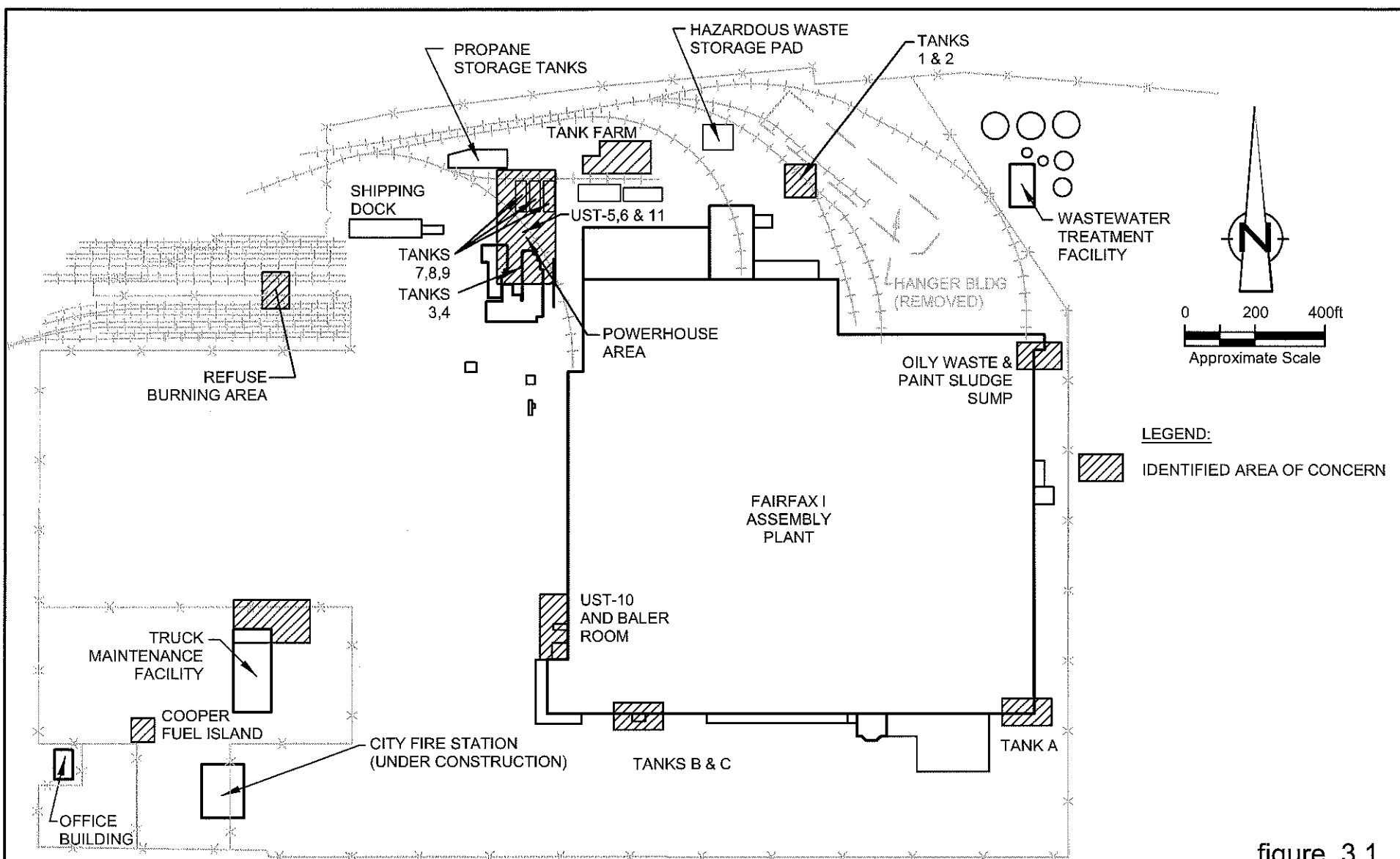
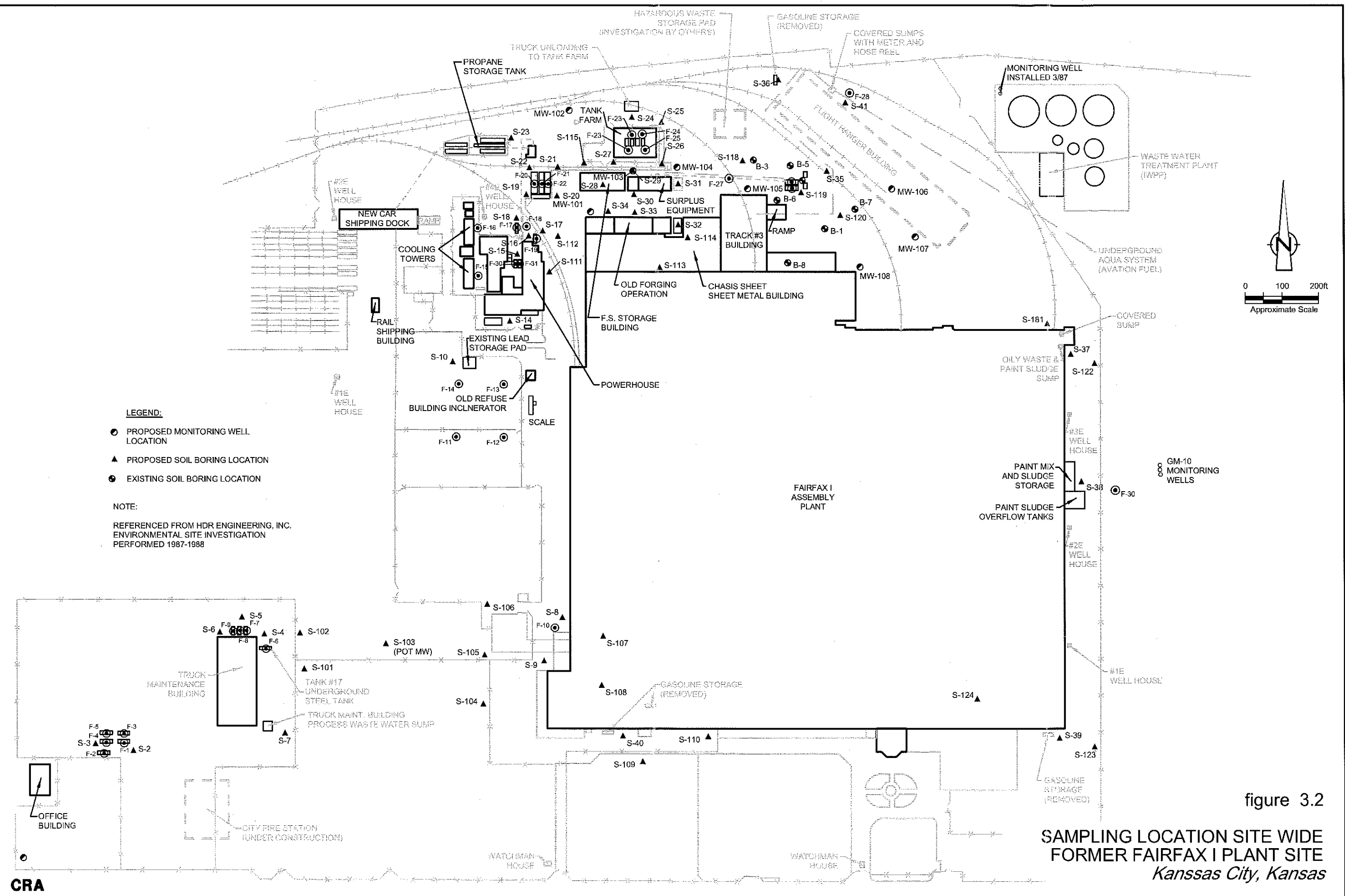
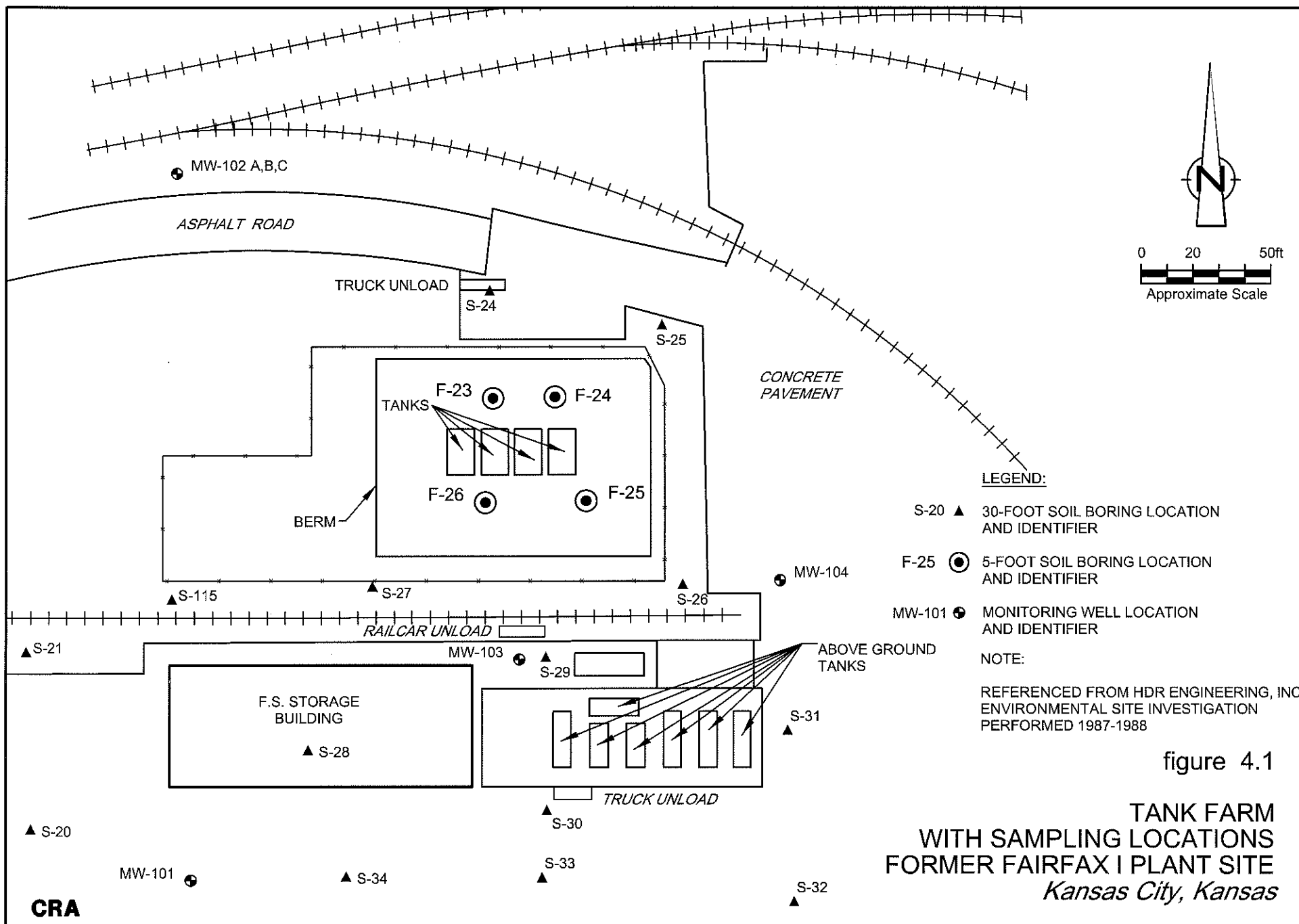


figure 3.1

AREAS OF CONCERN
FORMER FAIRFAX I PLANT SITE
Kansas City, Kansas





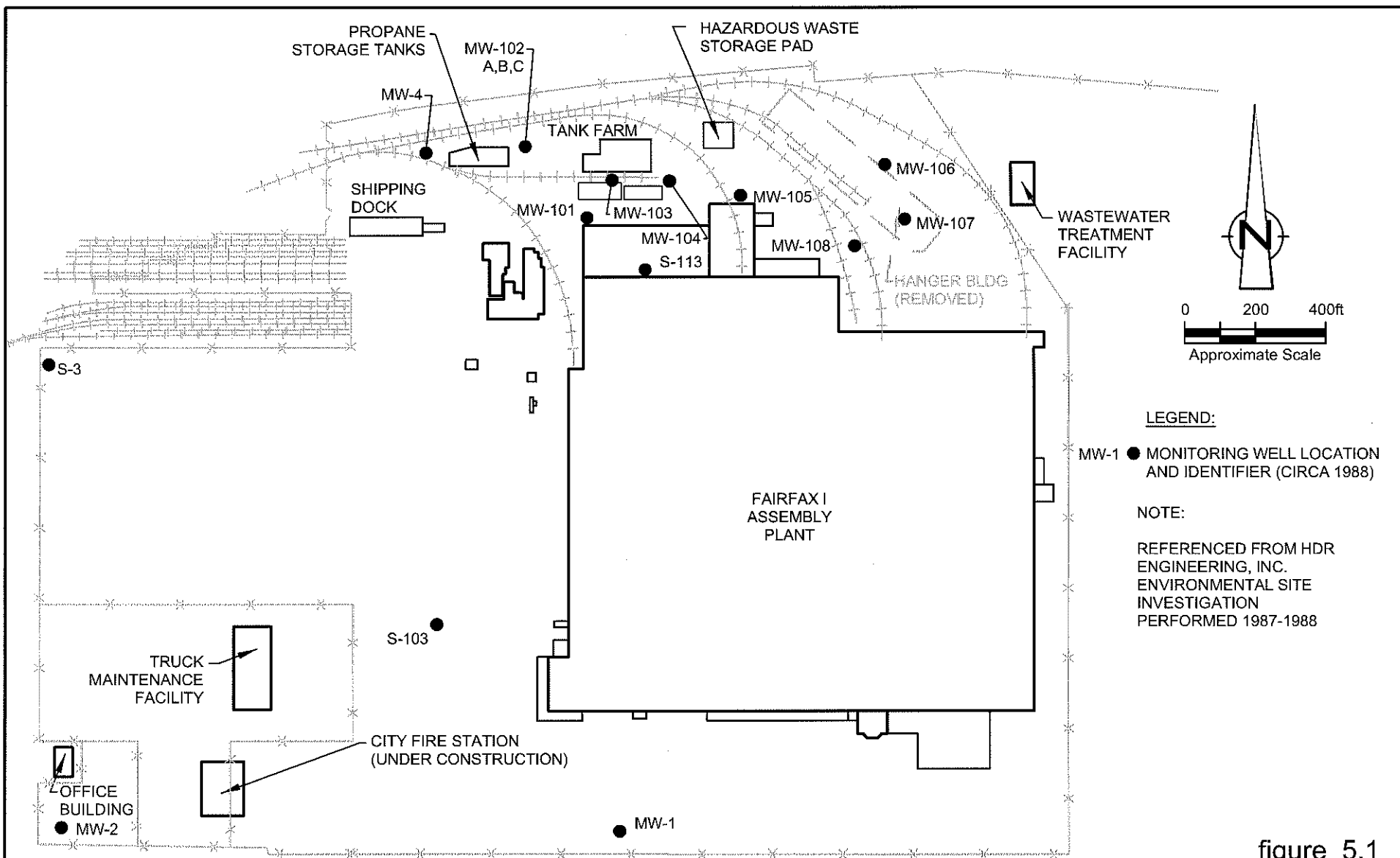


figure 5.1

MONITORING WELL LOCATIONS
FORMER FAIRFAX I PLANT SITE
Kansas City, Kansas

APPENDIX A
SPILL LOCATIONS DOCUMENTATION



GM Assembly Division

General Motors Corporation

Fairfax Plant
100 Kindelberger Road
Kansas City, Kansas 66115

February 11, 1980

Mr. Ronnae Coleman
Legal Branch, Enforcement Division
U. S. Environmental Protection Agency
Region VII
324 East Eleventh Street
Kansas City, Missouri 64106

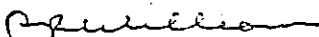
SUBJECT: Spill Report No. 79-489
EPA Information Request

Dear Mr. Coleman:

Attached is General Motors' response to Ms. Louise D. Jacob's certified letter received February 4, 1980 at the GM Assembly Division - Fairfax Plant, Kansas City, Kansas, requesting specific information concerning the report of a paint thinner spill from our facility on October 19, 1979. We have been asked to submit the requested information to EPA within 15 working days after receipt of their letter. Accordingly, a response is due on February 25, 1980.

If you have any questions concerning this response, please contact the writer at (913) 281-6337.

Very truly yours,


R. R. Williams
Plant Engineer

RRW:cld

Attachment

GENERAL MOTORS' RESPONSE TO U. S. EPA REGION VII
FEBRUARY 4, 1980, REQUEST FOR INFORMATION

General Information

1. General Motors Assembly Division, Fairfax Plant,
General Motors Corporation, 100 Kindelberger Road,
Kansas City, Kansas 66115
2. (913) 281-6337
3. Robert R. Williams, Plant Engineer; Telephone Number
(913) 281-6337.
4. The Owner and operator of the facility submitting this
information is identified in Item #1.
5. See response to Item #1.

Specific Information

1. The spill of purge thinner occurred at approximately 12:25
PM on October 19, 1979. This spill occurred when an employee,
while driving a hi-lo transporting a full 550 gallon thinner
tote from the east side of the plant around to the LCL truck
dock on the west side, crossed the #3 railroad track crossing,
and apparently struck a bolt or hole with the vehicle's tire,
causing the hi-lo to rock and tip the load off. The tote
landed on its side and the lid popped off, releasing approxi-
mately 300 gallons of thinner on the ground along the railroad
tracks. However, based on the cleanup efforts identified in
Item #9, approximately 30 gallons of the material entered the
storm sewer.

Plant Security was notified of the spill, as is outlined in
the SPCC Plan for this plant.

2. The U. S. Coast Guard Duty Officer, Lt. Commander Randburg,
at the National Response Center, was notified at approximately
6:00 PM on October 19, 1979. After notifying the Coast Guard,
a Mr. B. Keffer, of the Environmental Protection Agency, was
informed on the same date.
3. Appropriate notification to the Coast Guard was given.

4. The tote is a rectangular, aluminum portable storage tank with a round hatch on top which is sealed and clamped on by a steel ring like an open-top drum. The tote has a hose connection on both the top and bottom. The capacity of the tote is 550 gallons.
5. Approximately 30 gallons of thinner entered the north storm sewer into the Fairfax Drainage District, which is lifted into the Missouri River just northwest of this plant.
6. None to our knowledge.
7. None to our knowledge.
8. None to our knowledge.
9. To control the spill along the railroad tracks, sandbags and sand were used. Initially, sandbags were placed in the drainage trench for the trackwell inside the building, to the only storm drain in the area. This sandbagging was done prior to the thinner reaching this drain. Next, the material spilled was covered with sand. The lid was put back on the tote and the tote uprighted. After the drain trench was sandbagged, the storm sewer was checked for possible contamination and none was found. After the spill area was cleaned up, between 1:00 PM and 1:30 PM, the plant checked the storm again to find a thinner smell and oil-like droplets on the storm water surface. The next effort was to sandbag the storm sewer so the thinner and water flow could be stopped. The flow was too large to stop with sandbags, so straw was placed in front of the sandbags to strain the thinner off the surface. More layers of sandbags and straw were placed upstream of the sandbag dike to increase the filter thickness. At this point, a difference could be smelled between the upstream and downstream thinner concentration. A suction truck was called to skim remaining thinner off the water surface.
10. To prevent reoccurrence, the totes are loaded onto trucks at the east side of the plant; thus, keeping the hi-los from crossing the railroad tracks. Hi-lo drivers have been instructed to carefully load and transport totes.



Buick-Oldsmobile-Cadillac Group

General Motors Corporation

Fairfax Plant
100 Kindelberger Road
P.O. Box 15199
Kansas City, Kansas 66115

February 26, 1985

RECEIVED

MAR 04 1985

FAC ENGR

CERTIFIED MAIL

Kansas Department of Health and Environment
Bureau of Water Pollution Control
Forbes Field
Topeka, Kansas 66620

ATTENTION: Mr. D. Waldo

REFERENCE: Kansas Permit No. I-M025-C002
(Federal Permit No. KS0002038), Outfall No. 003

Dear Mr. Waldo:

This letter confirms our February 20, 1985, telephone report of a non-permitted discharge at the GMC - BOC - Fairfax Plant in Kansas City, Kansas, and satisfies all conditions of Item No. 7 of the above-referenced permit. The paint booth water system overflow was a result of a process upset that occurred when a portion of the solids removal equipment was temporarily taken out of service for maintenance. The incident occurred between 2:45 AM and 3:18 AM on February 20, 1985, when paint booth water overtopped the deactivated solids removal equipment and overflowed outside to a storm sewer trench. The overflow was terminated at 3:22 AM. Approximately 40,000 gallons of paint booth water was lost to the plant storm sewer. The BOC - Fairfax Plant's storm sewer discharges into the Fairfax Drainage District's storm sewer system, and subsequently into the Missouri River. On February 20, 1985, an inspection was completed by EPA representatives, and no adverse effects were noted at the Fairfax Drainage District's pump station.

Inspection of the storm sewer revealed some residual paint booth water. Clean-up action was initiated to rinse and vacuum paint booth water from the sewer for return to the paint booth water recirculation system at approximately 11:45 AM on February 20, 1985.

To prevent recurrence of the problem, a training meeting of affected personnel was conducted on February 21, 1985, explaining proper solids removal equipment shutdown and required supervision notification prior to maintenance work.

If there are any questions, please contact Mr. R. W. Ray at
(913) 281-6459.

Very truly yours,



R. R. Williams
Plant Engineer

RRW:R.W.Ray:cld:f6

cc: Messrs. R. P. Marolf
R. K. Baird
R. P. Johnston



Buick-Oldsmobile-Cadillac Group

General Motors Corporation

Fairfax Plant
100 Kindelberger Road
P.O. Box 15199
Kansas City, Kansas 66115
April 8, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bureau of Water Pollution Control
Forbes Field
Topeka, Kansas 66620

Attention: Mr. S. Casper

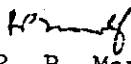
Dear Mr. Casper:

This letter confirms our March 20, 1985, telephone report of a suspected petroleum incident at the GMC-BOC Fairfax Plant in Kansas City, Kansas. As reported, a petroleum based odor was noted in soil excavated during the installation of an interceptor sewer for the new industrial wastewater pretreatment plant currently under construction. The source, time, and extent of contamination are unknown. The area of suspicion is in the proximity of a railroad spur, contractor sewer work, and a tank storage area. The area was also part of an old airport apron system when airplanes were built at the Fairfax Plant. Airplane fueling operations may also have occurred in this vicinity. No evidence of storm sewer or river contamination was noted.

The GMC-BOC Fairfax Plant is currently working with an engineering consultant to determine the extent and source of contamination. As progress is made in this area, your office will be advised.

If there are any questions, please contact Mr. R. W. Ray at 913/281-6459.

Yours truly,


R. P. Marolf
Acting Plant Engineer

RPM:R.W.Ray:aj

cc: Messrs. Bill Keffer, EPA
Dwight Brinkley, KDHE
G. P. Boszak, Facilities Engineering ✓
Bill Ward, EAS
R. P. Johnston

RECEIVED
APR 15 1985
FAC

APPENDIX B

SUMMARY OF UST SPECIFICATIONS



Chevrolet Pontiac Canada Group

Fairfax Plant
General Motors Corporation
3201 Fairfax Trafficway
Kansas City, Kansas 66115-1307

August 19, 1987

Ms. Lois Jasko
Kansas Department of Health and Environment
Office of Environmental Geology
Building 740, Forbes Field
Topeka, Kansas 66620

Subject: GMC - CPC Fairfax Plant
Underground Tanks

Dear Ms. Jasko:

The following is a listing of information for additional underground tanks removed from the existing GMC - CPC Assembly Plant.

County: Wyandotte

Legal Description: Northwest Quarter of Section 27, Township 10S, Range 25E

Address: 100 Kindelberger Road, Kansas City, Kansas 66115

<u>GM Tank No.</u>	<u>Date Removed</u>	<u>Approximate Tank Capacity</u>	<u>Tank Dimensions</u>	<u>Tank Material</u>	<u>Tank Contents</u>
17	7/29/87	10,000 gals	10'dia x 18'	Steel	Fuel Oil (abandoned)
18	7/29/87	12,000 gals	8'dia x 32'	Steel	Waste Oil
19	7/29/87	9,000 gals	8'dia x 25'	Steel	Waste Oil & Water
20	7/29/87	12,000 gals	10'dia x 20'	Steel	Waste Oil & Water
12	8/03/87	10,000 gals	8'dia x 27'	Steel	Diesel Fuel
13	8/03/87	10,000 gals	8'dia x 27'	Steel	Diesel Fuel
14	8/03/87	5,000 gals	8'dia x 18'	Steel	Unleaded Gasoline
15	8/03/87	1,000 gals	4'dia x 11'	Steel	Waste Oil
16	8/04/87	560 gals	4'dia x 6'	Steel	Anit-Freeze
1	8/04/87	25,000 gals	11'dia x 40'	Steel	Unleaded Gasoline & Diesel (abandoned)
2	8/04/87	25,000 gals	11'dia x 40'	Steel	Automatic Transmission Fluid (abandoned)
21	8/04/87	500 gals	3'-6"dia x 7'	Steel	Aqua Systems-Tank
22	8/04/87	500 gals	3'-6"dia x 7'	Steel	Aqua Systems-Tank
5	8/07/87	10,000 gals	7'dia x 34'	Steel	Waste No. 6 Fuel Oil
6	8/07/87	10,000 gals	7'dia x 34'	Steel	Waste No. 6 Fuel Oil
3	8/10/87	10,000 gals	7'dia x 35'	Steel	Diesel Fuel
4	8/11/87	10,000 gals	7'dia x 35'	Steel	Diesel Fuel

<u>GM Tank No.</u>	<u>Date Removed</u>	<u>Approximate Tank Capacity</u>	<u>Tank Dimensions</u>	<u>Tank Material</u>	<u>Tank Contents</u>
10	8/14/87	2,000 gals	5'-6" dia x 12'	Steel	Unleaded Gasoline
7	8/17/87	66,000 gals	10'-6" dia x 60'	Concrete	No. 6 Fuel Oil
8	8/17/87	66,000 gals	10'-6" dia x 60'	Concrete	No. 6 Fuel Oil
9	8/17/87	66,000 gals	10'-6" dia x 60'	Concrete	No. 6 Fuel Oil
11	8/19/87	375 gals	4' dia x 4"	Steel	Waste Oil

In addition, one tank was removed from the new GMC - CPC Assembly Plant site (Kansas City, Kansas old Fire Station 15).

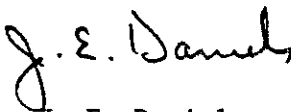
Legal Description: Southeast Quarter of Section 27, Township 10S, Range 25E

Address: 3201 Fairfax Trafficway, Kansas City, Kansas 66115

<u>Tank No.</u>	<u>Date Removed</u>	<u>Approximate Tank Capacity</u>	<u>Tank Dimensions</u>	<u>Tank Material</u>	<u>Tank Contents</u>
None	8/06/87	900 gals	5' dia x 6'	Steel	Diesel Fuel

If you should have any questions concerning the above, please contact Mr. Pete D. Zanoni at (913) 573-7872.

Very truly yours,



J. E. Daniels
Director, Plant Engineering

/mw:JED
/pdz2jasko:w6

cc: Mr. J. J. Martin
Mr. M. Zdyb

APPENDIX C

SAMPLE SUMMARY - SOIL

EXHIBIT I-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
 Chevrolet-Pontiac-Canada Group
 General Motors Corporation
 Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
S - 1 - 1001	-	5	YES	X				NO
S - 1 - 1002	-	10	YES	X				NO
S - 1 - 1003	-	15	YES	X				NO
S - 1 - 1004	-	20	NO	X				NA
S - 1 - 1005	-	25	NO	X				NA
S - 1 - 1006	-	30	NO	X				NA
S - 2 - 1007	-	5	YES	X				NO
S - 2 - 1008	-	10	YES	X				NO
S - 2 - 1009	-	15	YES	X				NO
S - 2 - 1010	-	20	NO	X				NA
S - 2 - 1011	-	25	NO	X				NA
S - 2 - 1012	-	30	NO	X				NA
S - 3 - 1013	-	5	YES	X				NO
S - 3 - 1014	-	10	YES	X				NO
S - 3 - 1015	-	15	YES	X				NO
S - 3 - 1016	-	20	NO	X				NA
S - 3 - 1017	-	25	NO	X				NA
S - 3 - 1018	-	25	NO	X				NA
S - 3 - 1019	-	30	NO	X				NA
S - 4 - 1020	-	5	YES	X				NO
S - 4 - 1021	-	10	YES	X				NO
S - 4 - 1022	-	15	YES	X				NO
S - 4 - 1023	-	20	NO	X				NA
S - 4 - 1024	-	25	NO	X				NA
S - 4 - 1025	-	30	NO	X				NA
S - 5 - 1026	-	5	YES	X				NO
S - 5 - 1027	-	10	YES	X				NO
S - 5 - 1028	-	15	YES	X				NO
S - 5 - 1029	-	20	NO	X				NA
S - 5 - 1030	-	25	NO	X				NA
S - 5 - 1031	-	30	NO	X				NA
S - 6 - 1032	-	5	YES	X				NO
S - 6 - 1033	-	10	YES	X				NO
S - 6 - 1034	-	15	YES	X				NO
S - 6 - 1035	-	20	NO	X				NA
S - 6 - 1036	-	25	NO	X				NA
S - 6 - 1037	-	25	NO	X				NA
S - 6 - 1038	-	30	NO	X				NA
S - 7 - 1039	-	5	YES	X				NO
S - 7 - 1040	-	10	YES	X				NO
S - 7 - 1041	-	15	YES	X				NO
S - 7 - 1042	-	20	NO	X				NA
S - 7 - 1043	-	25	NO	X				NA
S - 7 - 1044	-	30	NO	X				NA
S - 8 - 1045	-	5	YES	X	X		X	NO
S - 8 - 1046	-	10	YES	X	X		X	YES
S - 8 - 1047	-	15	YES	X	X		X	YES
S - 8 - 1048	-	20	YES	X	X		X	NO
S - 8 - 1049	-	25	YES	X	X		X	NO
S - 8 - 1050	-	30	YES	X	X		X	NO
S - 8 - 1051	-	30	YES	X	X		X	NO
S - 9 - 1052	-	5	YES	X				NO

EXHIBIT 1-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
 Chevrolet-Pontiac-Canada Group
 General Motors Corporation
 Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
S - 9 - 1053	-	10	YES	X				NO
S - 9 - 1054	-	15	YES	X				NO
S - 9 - 1055	-	20	NO	X				NA
S - 9 - 1056	-	25	NO	X				NA
S - 9 - 1057	-	30	NO	X				NA
S - 10 - 1058	-	5	YES		X			NO
S - 10 - 1059	-	10	YES		X			NO
S - 10 - 1060	-	15	YES		X			NO
S - 10 - 1061	-	20	NO		X			NA
S - 10 - 1062	-	25	NO		X			NA
S - 10 - 1063	-	30	NO		X			NA
S - 11 - 1064	-	5	YES	X	X	X		NO
S - 11 - 1065	-	10	YES	X	X	X		NO
S - 11 - 1066	-	10	YES	X	X	X		NO
S - 11 - 1067	-	15	YES	X	X	X		NO
S - 11 - 1068	-	20	NO	X	X	X		NA
S - 11 - 1069	-	25	NO	X	X	X		NA
S - 11 - 1070	-	30	NO	X	X	X		NA
S - 12 - 1071	-	5	YES	X	X	X		NO
S - 12 - 1072	-	10	YES	X	X	X		NO
S - 12 - 1073	-	15	YES	X	X	X		NO
S - 12 - 1074	-	20	NO	X	X	X		NA
S - 12 - 1075	-	25	NO	X	X	X		NA
S - 12 - 1076	-	30	NO	X	X	X		NA
S - 14 - 1077	-	5	YES	X				NO
S - 14 - 1078	-	5	YES	X				NO
S - 14 - 1079	-	10	YES	X				NO
S - 14 - 1080	-	15	YES	X				NO
S - 14 - 1081	-	20	NO	X				NA
S - 14 - 1082	-	25	NO	X				NA
S - 14 - 1083	-	30	NO	X				NA
S - 15 - 1084	-	5	YES	X				NO
S - 15 - 1085	-	10	YES	X				NO
S - 15 - 1086	-	15	YES	X				NO
S - 15 - 1087	-	20	NO	X				NA
S - 15 - 1088	-	25	NO	X				NA
S - 15 - 1089	-	30	NO	X				NA
S - 16 - 1090	-	5	YES	X				NO
S - 16 - 1091	-	10	YES	X				NO
S - 16 - 1092	-	15	YES	X				NO
S - 16 - 1093	-	20	NO	X				NA
S - 16 - 1094	-	20	NO	X				NA
S - 16 - 1095	-	25	NO	X				NA
S - 16 - 1096	-	30	NO	X				NA
S - 17 - 1097	-	5	YES	X				NO
S - 17 - 1098	-	10	YES	X				NO
S - 17 - 1099	-	15	YES	X				NO
S - 17 - 1100	-	20	NO	X				NA
S - 17 - 1101	-	25	NO	X				NA
S - 17 - 1102	-	30	NO	X				NA
S - 18 - 1103	-	5	YES	X				NO
S - 18 - 1104	-	5	YES	X				NO

EXHIBIT I-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
 Chevrolet-Pontiac-Canada Group
 General Motors Corporation
 Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
S - 18 - 1105	-	10	YES	X				NO
S - 18 - 1106	-	15	YES	X				NO
S - 18 - 1107	-	20	NO	X				NA
S - 18 - 1108	-	25	NO	X				NA
S - 18 - 1109	-	30	NO	X				NA
S - 19 - 1110	-	5	YES	X		X		NO
S - 19 - 1111	-	10	YES	X		X		NO
S - 19 - 1112	-	15	YES	X		X		NO
S - 19 - 1113	-	20	NO	X		X		NA
S - 19 - 1114	-	25	NO	X		X		NA
S - 19 - 1115	-	30	NO	X		X		NA
S - 20 - 1116	-	5	YES	X		X		NO
S - 20 - 1117	-	10	YES	X		X		NO
S - 20 - 1118	-	15	YES	X		X		NO
S - 20 - 1119	-	20	NO	X		X		NA
S - 20 - 1120	-	25	NO	X		X		NA
S - 20 - 1121	-	30	NO	X		X		NA
S - 21 - 1122	-	5	YES	X		X		NO
S - 21 - 1123	-	5	YES	X		X		NO
S - 21 - 1124	-	10	YES	X		X		NO
S - 21 - 1125	-	15	YES	X		X		NO
S - 21 - 1126	-	20	NO	X		X		NA
S - 21 - 1127	-	25	NO	X		X		NA
S - 21 - 1128	-	30	NO	X		X		NA
S - 22 - 1129	-	5	YES	X		X		NO
S - 22 - 1130	-	10	YES	X		X		NO
S - 22 - 1131	-	15	YES	X		X		NO
S - 22 - 1132	-	20	NO	X		X		NA
S - 22 - 1133	-	25	NO	X		X		NA
S - 22 - 1134	-	30	NO	X		X		NA
S - 23 - 1135	-	5	YES	X				NO
S - 23 - 1136	-	10	YES	X				NO
S - 23 - 1137	-	15	YES	X				NO
S - 23 - 1138	-	20	NO	X				NA
S - 23 - 1139	-	25	NO	X				NA
S - 23 - 1140	-	30	NO	X				NA
S - 24 - 1141	-	5	YES	X				NO
S - 24 - 1142	-	10	YES	X				NO
S - 24 - 1143	-	15	YES	X				NO
S - 24 - 1144	-	20	NO	X				NA
S - 24 - 1145	-	25	NO	X				NA
S - 24 - 1146	-	30	NO	X				NA
S - 25 - 1147	-	5	YES	X				NO
S - 25 - 1148	-	10	YES	X				NO
S - 25 - 1149	-	15	YES	X				NO
S - 25 - 1150	-	20	NO	X				NA
S - 25 - 1151	-	25	NO	X				NA
S - 25 - 1152	-	30	NO	X				NA
S - 26 - 1153	-	5	YES	X				NO
S - 26 - 1154	-	10	YES	X				YES
S - 26 - 1155	-	15	YES	X				NO
S - 26 - 1156	-	20	NO	X				NA

EXHIBIT I-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
 Chevrolet-Pontiac-Canada Group
 General Motors Corporation
 Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
S - 26 - 1157	-	25	NO	X				NA
S - 26 - 1158	-	30	NO	X				NA
S - 27 - 1159	-	5	YES	X				NO
S - 27 - 1160	-	10	YES	X				NO
S - 27 - 1161	-	15	YES	X				YES
S - 27 - 1162	-	20	NO	X				NA
S - 27 - 1163	-	25	NO	X				NA
S - 27 - 1164	-	30	NO	X				NA
S - 28 - 1165	-	5	YES	X	X			NO
S - 28 - 1166	-	10	YES	X	X			NO
S - 28 - 1167	-	15	YES	X	X			NO
S - 28 - 1168	-	20	NO	X	X			NA
S - 28 - 1169	-	20	NO	X	X			NA
S - 28 - 1170	-	25	NO	X	X			NA
S - 28 - 1171	-	30	NO	X	X			NA
S - 29 - 1172	-	5	YES	X				YES
S - 29 - 1173	-	10	YES	X				YES
S - 29 - 1174	-	15	YES	X				YES
S - 29 - 1175	-	20	YES	X				YES
S - 29 - 1176	-	25	YES	X				YES
S - 29 - 1177	-	30	YES	X				YES
S - 30 - 1178	-	5	YES	X				NO
S - 30 - 1179	-	10	YES	X				NO
S - 30 - 1180	-	15	YES	X				YES
S - 30 - 1181	-	20	NO	X				NA
S - 30 - 1182	-	25	NO	X				NA
S - 30 - 1183	-	30	NO	X				NA
S - 31 - 1184	-	5	YES	X	X			NO
S - 31 - 1185	-	10	YES	X	X			NO
S - 31 - 1186	-	15	YES	X	X			NO
S - 31 - 1187	-	15	YES	X	X			NO
S - 31 - 1188	-	20	NO	X	X			NA
S - 31 - 1189	-	25	NO	X	X			NA
S - 31 - 1190	-	30	NO	X	X			NA
S - 32 - 1191	-	5	YES	X	X			NO
S - 32 - 1192	-	10	YES	X	X			NO
S - 32 - 1193	-	15	YES	X	X			NO
S - 32 - 1194	-	20	NO	X	X			NA
S - 32 - 1195	-	25	NO	X	X			NA
S - 32 - 1196	-	30	NO	X	X			NA
S - 33 - 1197	-	5	YES	X	X			NO
S - 33 - 1198	-	10	YES	X	X			NO
S - 33 - 1199	-	15	YES	X	X			NO
S - 33 - 1200	-	20	NO	X	X			NA
S - 33 - 1201	-	25	NO	X	X			NA
S - 33 - 1202	-	30	NO	X	X			NA
S - 34 - 1203	-	5	YES	X	X			NO
S - 34 - 1204	-	10	YES	X	X			NO
S - 34 - 1205	-	15	YES	X	X			NO
S - 34 - 1206	-	20	NO	X	X			NA
S - 34 - 1207	-	25	NO	X	X			NA
S - 34 - 1208	-	30	NO	X	X			NA

EXHIBIT I-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
S - 35 - 1209	-	5	YES	X				NO
S - 35 - 1210	-	10	YES	X				NO
S - 35 - 1211	-	15	YES	X				NO
S - 35 - 1212	-	20	NO	X				NA
S - 35 - 1213	-	25	NO	X				NA
S - 35 - 1214	-	30	NO	X				NA
S - 36 - 1215	-	5	YES	X				NO
S - 36 - 1216	-	10	YES	X				NO
S - 36 - 1217	-	15	YES	X				NO
S - 36 - 1218	-	20	NO	X				NA
S - 36 - 1219	-	25	NO	X				NA
S - 36 - 1220	-	30	NO	X				NA
S - 37 - 1221	-	5	YES	X				NO
S - 37 - 1222	-	10	YES	X				NO
S - 37 - 1223	-	15	YES	X				YES
S - 37 - 1224	-	20	YES	X				YES
S - 37 - 1225	-	25	YES	X				NO
S - 37 - 1226	-	30	YES	X				NO
S - 38 - 1227	-	5	YES	X				NO
S - 38 - 1228	-	10	YES	X				NO
S - 38 - 1229	-	15	YES	X				NO
S - 38 - 1230	-	20	NO	X				NA
S - 38 - 1231	-	25	NO	X				NA
S - 38 - 1232	-	30	NO	X				NA
S - 39 - 1233	-	5	YES	X				NO
S - 39 - 1234	-	10	YES	X				NO
S - 39 - 1235	-	15	YES	X				NO
S - 39 - 1236	-	20	NO	X				NA
S - 39 - 1237	-	25	NO	X				NA
S - 39 - 1238	-	30	NO	X				NA
S - 40 - 1239	-	5	YES	X				NO
S - 40 - 1240	-	10	YES	X				NO
S - 40 - 1241	-	15	YES	X				NO
S - 40 - 1242	-	15	YES	X				NO
S - 40 - 1243	-	20	NO	X				NA
S - 40 - 1244	-	25	NO	X				NA
S - 40 - 1245	-	30	NO	X				NA
S - 41 - 1246	-	5	YES	X				NO
S - 41 - 1247	-	10	YES	X				NO
S - 41 - 1248	-	15	YES	X				NO
S - 41 - 1249	-	20	NO	X				NA
S - 41 - 1250	-	25	NO	X				NA
S - 41 - 1251	-	30	NO	X				NA
F - 11 - 1252	-	5	YES		X			NA
F - 12 - 1253	-	5	YES		X			NA
F - 13 - 1254	-	5	YES		X			NA
F - 13 - 1255	-	5	YES		X			NA
F - 14 - 1256	-	5	YES		X			NA
F - 15 - 1257	-	5	YES		X			NA
F - 16 - 1258	-	5	YES		X			NA
F - 23 - 1259	-	5	YES	X				NO
F - 24 - 1260	-	5	YES	X				NO

EXHIBIT I-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
 Chevrolet-Pontiac-Canada Group
 General Motors Corporation
 Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
F - 25 - 1261	-	5	YES	X				NO
F - 26 - 1262	-	5	YES	X				YES
F - 28 - 1263	-	5	YES	X				NO
F - 28 - 1264	-	5	YES	X				NO
S - 107 - 1	88-1383	5	YES	X				NO
S - 107 - 2	88-1384	10	YES	X				NO
S - 107 - 3	88-1385	15	YES	X				NO
S - 107 - 4	88-1380	20	YES	X				NO
S - 107 - 5	88-1381	25	YES	X				NO
S - 107 - 6	88-1382	30	YES	X				NO
S - 108 - 1	88-1360	5	YES	X				NO
S - 108 - 2	88-1361	10	YES	X				NO
S - 108 - 3	88-1362	15	YES	X				NO
S - 108 - 4	88-1363	20	YES	X				NO
S - 108 - 5	88-1364	25	YES	X				NO
S - 108 - 6	88-1365	30	YES	X				NO
S - 111 - 1	88-1087	5	YES	X				NO
S - 111 - 2	88-1088	10	YES	X				NO
S - 111 - 3	88-1089	15	YES	X				NO
S - 111 - 4	88-1090	20	YES	X				NO
S - 111 - 5	88-1091	25	YES	X				NO
S - 111 - 6	88-1092	30	YES	X				NO
S - 112 - 1	88-1101	5	YES	X				NO
S - 112 - 2	88-1102	10	YES	X				NO
S - 112 - 3	88-1103	15	YES	X				NO
S - 112 - 4	88-1104	15	YES	X				NO
S - 112 - 5	88-1105	20	YES	X				NO
S - 112 - 6	88-1106	25	YES	X				NO
S - 112 - 7	88-1107	30	YES	X				NO
S - 113 - 1	88-1318	5	YES	X				NO
S - 113 - 2	88-1319	10	YES	X				NO
S - 113 - 3	88-1320	15	YES	X				NO
S - 113 - 4	88-1321	20	YES	X				NO
S - 113 - 5	88-1322	25	YES	X				NO
S - 113 - 6	88-1323	30	YES	X				NO
S - 115 - 1	88-1187	5	YES	X				NO
S - 115 - 2	88-1188	10	YES	X				NO
S - 115 - 3	88-1189	15	YES	X				NO
S - 115 - 4	88-1190	20	YES	X				NO
S - 115 - 5	88-1191	25	YES	X				NO
S - 115 - 6	88-1192	30	YES	X				NO
S - 118 - 1	88-1024	5	YES	X				NO
S - 118 - 2	88-1025	10	YES	X				NO
S - 118 - 3	88-1026	15	YES	X				NO
S - 118 - 4	88-1027	20	YES	X				NO
S - 118 - 5	88-1028	25	YES	X				NO
S - 118 - 6	88-1029	30	YES	X				NO
S - 118 - 7	88-1030	15	YES	X				NO
S - 119 - 1	88-1052	5	YES	X				NO
S - 119 - 2	88-1053	10	YES	X				NO
S - 119 - 3	88-1054	15	YES	X				NO
S - 119 - 4	88-1055	20	YES	X				NO

EXHIBIT I-1
SOIL SAMPLES AND REQUESTED ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant
 Chevrolet-Pontiac-Canada Group
 General Motors Corporation
 Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	DEPTH	ANALYZED	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
				VOLATILES	METALS	PCB	PEST & PCB	
S - 119 - 5	88-1056	25	YES	X				NO
S - 119 - 6	88-1057	30	YES	X				NO
S - 120 - 1	88-1015	5	YES	X				NO
S - 120 - 2	88-1016	10	YES	X				NO
S - 120 - 3	88-1017	10	YES	X				NO
S - 120 - 4	88-1018	15	YES	X				NO
S - 120 - 5	88-1019	20	YES	X				NO
S - 120 - 6	88-1020	25	YES	X				NO
S - 120 - 7	88-1021	30	YES	X				NO
S - 121 - 1	88-1007	5	YES	X				NO
S - 121 - 2	88-1008	10	YES	X				NO
S - 121 - 3	88-1009	15	YES	X				NO
S - 121 - 4	88-1010	20	YES	X				NO
S - 121 - 5	88-1011	25	YES	X				NO
S - 121 - 6	88-1012	30	YES	X				NO
S - 122 - 1	88-1000	5	YES	X				NO
S - 122 - 2	88-1001	10	YES	X				NO
S - 122 - 3	88-1002	15	YES	X				NO
S - 122 - 4	88-1003	20	YES	X				NO
S - 122 - 5	88-1004	25	YES	X				NO
S - 122 - 6	88-1005	30	YES	X				NO
MW- 104 - 1	88-1194	5	YES	X				NO
MW- 104 - 2	88-1195	10	YES	X				NO
MW- 104 - 3	88-1196	15	YES	X				NO
MW- 104 - 4	88-1197	20	YES	X				NO
MW- 104 - 5	88-1198	25	YES	X				NO
MW- 104 - 6	88-1199	30	YES	X				NO
MW- 105 - 1	88-1094	5	YES	X				NO
MW- 105 - 2	88-1095	10	YES	X				NO
MW- 105 - 3	88-1096	10	YES	X				NO
MW- 105 - 4	88-1097	15	YES	X				NO
MW- 105 - 5	88-1098	20	YES	X				NO
MW- 105 - 6	88-1099	25	YES	X				NO
MW- 105 - 7	88-1100	30	YES	X				NO

APPENDIX D

SAMPLE SUMMARY - GROUNDWATER

**EXHIBIT 1-2
GROUNDWATER SAMPLES AND REQUESTED ANALYSES**

**Environmental Assessment
Site Investigation Report**

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
		VOLATILES	METALS	PEST & PCB	PCB	
S - 1 - 2001		X				NO
S - 2 - 2002		X				NO
S - 3 - 2003		X				NO
S - 4 - 2004		X				YES
S - 5 - 2005		X				NO
S - 6 - 2006		X				NO
S - 7 - 2007		X				NO
S - 8 - 2008		X	X	X		YES
S - 8 - 2009		X	X	X		YES
S - 9 - 2010		X				YES
S - 10 - 2011			X			NO
S - 11 - 2012		X	X		X	NO
S - 11 - 2013		X	X		X	NO
S - 12 - 2014		X	X		X	NO
S - 14 - 2015		X				NO
S - 14 - 2016		X				NO
S - 15 - 2017		X				NO
S - 16 - 2018		X				NO
S - 17 - 2019		X				YES
S - 18 - 2020		X				NO
S - 19 - 2021		X			X	NO
S - 20 - 2022		X			X	NO
S - 21 - 2023		X			X	NO
S - 22 - 2024		X			X	NO
S - 23 - 2025		X				NO
S - 24 - 2026		X				NO
S - 25 - 2027		X				NO
S - 26 - 2028		X				YES
S - 27 - 2029		X				NO
S - 28 - 2030		X	X			NO
S - 29 - 2031		X				YES
S - 30 - 2032		X				YES
S - 31 - 2033		X	X			NO
S - 31 - 2034		X	X			NO
S - 32 - 2035		X	X			YES
S - 33 - 2036		X	X			YES
S - 34 - 2037		X	X			YES
S - 35 - 2038		X				YES
S - 36 - 2039		X				NO
S - 37 - 2040		X				NO
S - 38 - 2041		X				NO
S - 39 - 2042		X				YES
S - 40 - 2043		X				YES

**EXHIBIT 1-2
GROUNDWATER SAMPLES AND REQUESTED ANALYSES**

**Environmental Assessment
Site Investigation Report**

Fairfax 1 Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

HDR SAMPLE NO.	GM ID NO.	ANALYSIS REQUESTED				ORGANIC CONTAMINATION
		VOLATILES	METALS	PEST & PCB	PCB	
S - 41 - 2044		X				NO
S - 101 - 1	88-1186	X				NO
S - 102 - 1	88-1324	X				NO
S - 103 - 1	88-1325	X				NO
S - 104 - 1	88-1110	X				NO
S - 105 - 1	88-1326	X				NO
S - 106 - 1	88-1109	X				NO
S - 107 - 7	88-1378	X				YES
S - 107 - 8	88-1379	X				YES
S - 108 - 7	88-1366	X				YES
S - 109 - 1	88-1328	X				YES
S - 110 - 1	88-1327	X				YES
S - 111 - 7	88-1087	X				YES
S - 112 - 8	88-1108	X				YES
S - 113 - 7	88-1329	X				NO
S - 115 - 7	88-1193	X				NO
S - 118 - 8	88-1031	X				YES
S - 119 - 7	88-1058	X				NO
S - 120 - 8	88-1022	X				NO
S - 120 - 9	88-1023	X				NO
S - 121 - 7	88-1013	X				NO
S - 122 - 7	88-1006	X				NO
S - 123 - -	88-1014	X				NO
S - 124 - 1	88-1079	X				YES

APPENDIX E

DATA SUMMARY TABLES

TABLE 8-1

**SOILS SAMPLES ORGANIC ANALYSES
(SAMPLES WITH CONTAMINATION ONLY)**

**Environmental Assessment
Site Investigation Report**

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE NO.	DEPTH (FEET)	BENZENE	TETRACHLORO- ETHENE	TOLUENE	ETHYLBENZENE	XYLENE (TOTAL)	4-METHYL- 2-PENTANONE
S - 8 - 1046	10	<500	2500	<500	<500	<500	<500
S - 8 - 1047	15	<500	760	<500	<500	<500	<500
S - 26 - 1154	10	4000	5600	<500	46000	<500	<500
S - 27 - 1161	15	<500	880	<500	450	<500	<500
S - 29 - 1172	5	<500	<500	30000	4600	15000	<500
S - 29 - 1173	10	<500	<500	34000	8100	24000	<500
S - 29 - 1174	15	5300	<500	490000	390000	820000	<500
S - 29 - 1175	20	<500	<500	380000	160000	380000	110000
S - 29 - 1176	25	<500	<500	74000	62000	110000	27000
S - 29 - 1177	30	<500	<500	1200	770	2400	850
S - 30 - 1180	15	1500	<500	<500	<500	<500	<500
S - 37 - 1223	15	<500	<500	3000	870	1800	<500
S - 37 - 1224	20	<500	<500	650	<500	<500	<500
F - 26 - 1262	5	<500	<500	<500	160000	410000	<500

Results in ug/kg (ppb)

TABLE 8-2

SOILS SAMPLES METALS ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant

Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE NO.	GM ID NO.	DEPTH	ARSENIC	BARIUM	CADMIUM	CHROMIUM	LEAD	MERCURY	SELENIUM	SILVER
S - 8 - 1045	-	5	1.4	88	1	5.8	7.4	<0.1	0.71	0.2
S - 8 - 1046	-	10	1.5	85	1.2	4.8	9.7	<0.1	0.68	0.59
S - 8 - 1047	-	15	2.8	180	1.5	6.00	8.2	<0.1	0.45	0.29
S - 10 - 1058	-	5	<2	120	2	10	13	<0.1	2.7	0.29
S - 10 - 1059	-	10	<2	130	1.9	9.9	16	0.1	<1	0.1
S - 10 - 1060	-	15	<2	120	1.7	9.3	13	<0.1	2	<0.1
S - 11 - 1064	-	5	2	94	1.5	8.5	15	0.33	<1	0.52
S - 11 - 1065	-	10	<2	110	1.5	7.4	9.4	<0.1	<1	0.44
S - 11 - 1066	-	10	<2	130	1.6	9.3	11	<0.1	<1	0.37
S - 11 - 1067	-	15	<2	70	1.3	6.3	14	<0.1	<1	0.54
S - 12 - 1071	-	5	<2	100	1.8	9.4	14	<0.1	<1	0.47
S - 12 - 1072	-	10	<2	84	1.4	6.2	81	<0.1	<1	1.1
S - 12 - 1073	-	15	<2	52	0.8	4.4	27	<0.1	<1	0.59
S - 28 - 1165	-	20	2.9	81	1.7	6.4	12	<0.1	<1	0.40
S - 28 - 1166	-	25	<2	87	1.5	8.1	9.2	<0.1	<1	0.2
S - 28 - 1167	-	30	<2	94	1.4	3.6	11	<0.1	<1	0.2
S - 31 - 1184	-	5	0.65	81	1.2	6.5	18	<0.1	0.66	0.3
S - 31 - 1185	-	10	1.2	140	2	9.5	32	<0.1	0.2	0.40
S - 31 - 1186	-	15	1.2	140	1.7	9.2	26	<0.1	0.2	0.56
S - 31 - 1187	-	15	0.68	120	1.5	6.7	20	<0.1	0.2	0.37
S - 32 - 1191	-	5	<2	68	1.1	7.2	350	<0.1	<1	0.33
S - 32 - 1192	-	10	<2	110	1.3	12	30	<0.1	<1	0.4
S - 32 - 1193	-	15	<2	130	1.7	23	44	<0.1	<1	0.6
S - 33 - 1197	-	5	5	140	2.7	9.7	13	<0.1	<1	0.2
S - 33 - 1198	-	10	<2	110	1.8	7.8	14	<0.1	<1	0.42
S - 33 - 1199	-	15	<2	98	1.7	7.4	12	<0.1	<1	0.35
S - 34 - 1203	-	5	<2	86	1.2	5.3	7.7	<0.1	<1	0.26
S - 34 - 1204	-	10	<2	110	1.6	7.2	7.6	<0.1	<1	0.18
S - 34 - 1205	-	15	<2	85	1.4	7.2	7.6	<0.1	<1	0.18

TABLE 8-2

SOILS SAMPLES METALS ANALYSES

Environmental Assessment
Site Investigation Report

Fairfax I Plant

Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE NO.	GM ID NO.	DEPTH	ARSENIC	BARIUM	CADMIUM	CHROMIUM	LEAD	MERCURY	SELENIUM	SILVER
F - 13 - 1255	-	5	<2	100	1.4	6.7	13	<0.10	<1	0.5
F - 14 - 1256	-	5	<2	83	1.2	6.5	9.8	<0.10	<1	0.45
F - 15 - 1257	-	5	<2	90	1.5	6.9	27	<0.10	<1	0.49
F - 16 - 1258	-	5	<2	94	1.5	7.5	7.4	<0.10	<1	0.41
F - 24 - 1260	-	5	<2	80	1.3	6.7	9.9	<0.10	<2	0.4
S - 114 - 1	1367	5	-	-	-	7.69	<2	-	-	-
S - 114 - 2	1368	10	-	-	-	4.45	<2	-	-	-
S - 114 - 3	1369	15	-	-	-	7.78	<2	-	-	-
S - 114 - 4	1370	20	-	-	-	<2	<2	-	-	-
S - 114 - 5	1371	25	-	-	-	3.23	<2	-	-	-
S - 114 - DB	-	-	-	-	-	<0.02	<0.02	-	-	-
S - 116 - 1	1066	5	1.58	91.5	0.96	6.86	6.71	<0.2	0.4	<0.2
S - 116 - 2	1067	10	0.4	63.6	1.15	3.94	75.8	<0.2	<0.2	0.3
S - 116 - 3	1068	15	0.25	61.4	0.77	4	24.6	<0.2	<0.2	<0.2
S - 116 - 4	1069	15	1.39	64.1	0.97	5.07	47.5	<0.2	<0.2	0.3
S - 116 - 5	1070	20	<0.2	17.9	0.27	3.23	<2.5	<0.2	<0.2	<0.2
S - 116 - 6	1071	25	<0.2	15.7	0.11	2.22	<2.5	<0.2	0.2	<0.2
S - 116 - 7	1072	30	<0.2	51	0.22	2.9	<2.5	<0.2	0.2	<0.2
S - 117 - 1	1059	5	0.7	120	1.7	9.44	13.6	<0.2	<0.2	0.4
S - 117 - 2	1060	10	2.1	120	1.06	6.72	5.63	<0.2	<0.2	0.3
S - 117 - 3	1061	15	2.01	120	1.68	10	13.5	<0.2	0.3	0.4
S - 117 - 4	1062	20	<0.2	24.4	0.43	3.23	<2.5	<0.2	<0.2	<0.2
S - 117 - 5	1063	25	<0.2	20	0.069	2.08	<2.5	<0.2	<0.2	<0.2
S - 117 - 6	1064	30	0.3	8.6	0.054	2.02	<2.5	<0.2	<0.2	<0.2

Results in mg/kg.

TABLE 8-3

**GROUNDWATER SAMPLES ORGANIC ANALYSES
(SAMPLES WITH CONTAMINATION ONLY)**

Environmental Assessment
Site Investigation Report

Fairfax I Plant

Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE NO.	ACETONE	1,2 DICHLORO- ETHENE (TOT)	2-BUTANONE	TRICHLORO- ETHENE	BENZENE	4-METHYL 2-PENTANONE	TETRACHLORO- ETHENE	TOLUENE	ETHYLBENZENE	XYLENE (TOTAL)	METHYL ISOBUTYL KETONE
S- 4 - 2004	<5	<5	<5	<5	82	<5	<5	40	63	31	-
S- 8 - 2008	<5	110	<5	93	<5	<5	160	<5	<5	<5	-
S- 8 - 2009	<5	140	<5	100	<5	<5	180	<5	<5	<5	-
S- 9 - 2010	<5	<5	<5	<5	25	<5	<5	14	<5	<5	-
S- 17 - 2019	<5	16	<5	<5	<5	<5	16	<5	<5	<5	-
S- 26 - 2028	<5	<5	<5	<5	320	<5	<5	<5	1600	3300	-
S- 29 - 2031	<5	<5	<5	<5	330	<5	<5	41000	5700	12000	18000
S- 30 - 2032	2400	<5	670	<5	44	820	<5	<5	<5	13	-
S- 32 - 2035	<5	<5	<5	<5	32	<5	<5	<5	<5	<5	-
S- 33 - 2036	<5	<5	<5	<5	29	260	<5	<5	<5	10	-
S- 34 - 2037	<5	<5	<5	<5	40	<5	<5	<5	<5	<5	-
S- 35 - 2038	<5	<5	<5	<5	<5	<5	<5	39	<5	<5	-
S- 39 - 2042	<5	22	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 40 - 2043	<5	13	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 107 - 7	<5	197	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 107 - 8	<5	202	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 108 - 7	<5	29	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 109 - 1	<5	23	<5	7	<5	<5	<5	<5	<5	<5	-
S- 110 - 1	<5	16	<5	13	<5	<5	5	<5	<5	<5	-
S- 111 - 7	<5	15	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 112 - 8	<5	133	<5	<5	<5	<5	<5	<5	<5	<5	-
S- 118 - 8	<5	18	<5	19	<5	<5	44	<5	<5	<5	-

TABLE 8-4

GROUNDWATER SAMPLES METALS ANALYSES

Environmental Assessment
Site Investigation ReportFairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE NO.	GM ID NO	ARSENIC	BARIUM	CADMIUM	CHROMIUM	LEAD	MERCURY	SELENIUM	SILVER
S - 8 - 2008	-	0.054	1.1	0.73	0.038	0.22	<0.001	<0.0010	0.009
S - 8 - 2009	-	0.12	3.6	0.12	1.26	0.70	<0.001	<0.010	0.019
S - 10 - 2011	-	0.066	2.9	0.050	0.20	0.34	<0.001	<0.010	0.007
S - 11 - 2012	-	0.14	0.88	0.028	0.30	0.41	<0.001	<0.010	0.010
S - 11 - 2013	-	0.044	0.62	0.045	0.080	0.20	<0.001	<0.010	0.004
S - 12 - 2014	-	0.032	1.00	0.028	0.21	0.44	<0.001	<0.010	0.006
S - 28 - 2030	-	0.028	0.49	0.029	0.088	0.075	<0.001	<0.010	0.004
S - 31 - 2033	-	0.042	2.1	0.038	0.30	0.54	<0.001	<0.010	0.014
S - 31 - 2034	-	0.037	1.4	0.044	0.19	0.38	<0.001	<0.010	0.007
S - 32 - 2035	-	0.045	2.7	0.038	0.25	0.49	<0.001	<0.010	0.006
S - 33 - 2036	-	<0.01	0.79	0.023	0.10	0.23	<0.001	<0.010	0.004
S - 34 - 2037	-	-	0.86	0.031	0.40	0.11	<0.001	<0.010	0.005
S - 114 - 7	88-1373	0.018	-	-	0.066	<0.02	-	-	-
DB - S - 114	-	-	-	-	<0.02	<0.02	-	-	-
S - 116 - 8	88-1073	<0.005	0.25	0.004	0.026	0.9	<0.002	<0.005	0.01
S - 117 - 7	88-1065	0.007	1.28	0.012	0.1	0.17	0.001	0.007	0.002

Results in mg/L (ppm)

TABLE 8-5

**UNDERGROUND TANK SOIL SAMPLES ORGANIC ANALYSES
(SAMPLES WITH CONTAMINATION ONLY)**

**Environmental Assessment
Site Investigation Report**

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE NUMBER	LOCATION	TETRACHLORO- ETHENE	TOLUENE	ETHYLBENZENE	XYLENE (TOTAL)
87-201	TANKS 1,2	<500	<500	2200	17000
87-204	TANKS 18,19,20	<500	<500	15000	26000
87-201	TANKS 1,2	<500	<500	2200	17000
87-204	TANKS 18,19,20	<500	<500	15000	26000
87-205	TANKS 18,19,20	<500	<500	<500	620
87-206	TANKS 5,6	626	<500	<500	1100
87-209	TANKS 3,4	<500	<500	7300	<500
87-211	TANKS 3,4	<500	1200	<500	<500

Results in ug/kg (ppb)
Refer to Figure 4-1

TABLE 8-6
UNDERGROUND TANK SOIL SAMPLES METALS ANALYSES

**Environmental Assessment
Site Investigation Report**

**Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas**

SAMPLE NO.	LOCATION	ARSENIC	BARIUM	CADMIUM	CHROMIUM	LEAD	MERCURY	SELENIUM	SILVER
87-203	TANKS 18,19,20	<1	88	7.9	7.1	26	<0.1	0.68	0.59
87-206	TANKS 5,6	1	56	3.3	5.6	25	<0.1	<1	0.42
87-207	TANKS 5,6	1	76	1.6	6.1	28	<0.1	<1	0.31
87-208	TANKS 5,6	<1	105	11	8.1	19	<0.1	<1	0.18

Results in mg/kg (ppm)
Refer to Figure 4-1

TABLE 8-10

**TANK FARM AREA
SAMPLE ANALYSIS SUMMARY
(SAMPLES WITH CONTAMINATION ONLY)**

Environmental Assessment
Site Investigation Report

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

SAMPLE	SAMPLE TYPE	DEPTH (FEET)	ACETONE	2-BUTANONE	BENZENE	4-METHYL 2-PENTANONE	TETRA-CHLOROETHENE	TOLUENE	ETHYLBENZENE	XYLENE (TOTAL)	METHYL ISOBUTYL KETONE
S - 26 - 1154	SOL	10	<500	<500	4000	<500	5600	<500	46000	<500	-
S - 26 - 2028	GROUNDWATER	NA	<500	<500	320	<500	800	<500	1600	3300	-
S - 27 - 1161	SOL	15	<500	<500	<500	<500	<500	<500	450	<500	-
S - 29 - 1172	SOL	5	<500	<500	<500	<500	<500	30000	4600	15000	-
S - 29 - 1173	SOL	10	<500	<500	<500	<500	<500	34000	8100	24000	-
S - 29 - 1174	SOL	15	<500	<500	5300	<500	<500	490000	390000	820000	-
S - 29 - 1175	SOL	20	<500	<500	<500	110000	<500	380000	160000	380000	-
S - 29 - 1176	SOL	25	<500	<500	<500	27000	<500	74000	62000	110000	-
S - 29 - 1177	SOL	30	<500	<500	<500	850	<500	1700	770	2400	-
S - 29 - 2031	GROUNDWATER	NA	<500	<500	330	<500	<500	41000	5700	12000	18000
S - 30 - 1180	SOL	15	<500	<500	1500	<500	<500	<500	<500	<500	-
S - 30 - 2032	GROUNDWATER	NA	2400	670	44	820	<500	<500	<500	13	-
S - 32 - 2035	GROUNDWATER	NA	<500	<500	32	<500	<500	<500	<500	<500	-
S - 33 - 2036	GROUNDWATER	NA	<500	<500	29	260	<500	<500	<500	10	-
F - 34 - 2037	GROUNDWATER	NA	<500	<500	40	<500	<500	<500	<500	<500	-
S - 26 - 1262	SOL	5	<500	<500	<500	<500	<500	<500	160000	410000	-

TABLE 8-13

**GASOLINE STORAGE TANKS B AND C
SUMMARY OF GROUND WATER ANALYTICAL RESULTS**

**Environmental Assessment
Site Investigation Report**

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

CONTAMINANT	CONTAMINANT LEVEL (ug/l)			KANSAS ACTION LEVEL (ug/l)
	S-40	S-109	S-110	
1,2-Dichloroethane*	13	23	16	140
Trichloroethene	<500	7	13	5
Tetrachloroethene	<500	<500	5	7
Total VOC	13	30	34	100

Results in ug/liter (ppb).

* Combined cis- and trans-1,2-dichloroethene.

APPENDIX F

MONITORING WELL CONSTRUCTION TABLE

MONITORING WELL SPECIFICATIONS

Environmental Assessment Site Investigation Report

Fairfax I Plant
Chevrolet-Pontiac-Canada Group
General Motors Corporation
Kansas City, Kansas

MONITORING WELL NUMBER	SUSPECTED CONTAMINATION SOURCE	WELL CASING DIAM.	TYPE OF CASING	TYPE OF FILTER PACK	SCREENED INTERVAL	DEPTH OF BORING	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION	STATIC WATER LEVEL
MW-1	PERIMETER WELL	2	PVC	GRAVEL	15.0'-30.0'	30	744.02	746.45	20.49'
MW-2	PERIMETER WELL	2	PVC	GRAVEL	16.4'-31.4'	31.4	744.9	GROUND	20.87'
MW-3	PERIMETER WELL	2	PVC	GRAVEL	14.5'-29.5'	29.5	744.88	747.28	21.02'
MW-4	PERIMETER WELL	2	PVC	GRAVEL	15.5'-30.5'	30.5	745.41	747.84	21.67'
MW-101	STORAGE TANKS	2	PVC	GRAVEL	15.5'-30.5'	30.5	744.46	747.44	20.98'
MW-102A	BACKGROUND WELL	2	PVC	GRAVEL	15.3'-30.3'	30.3	745.8	748.86	22.27'
MW-102B	BACKGROUND WELL	2	PVC	NATURAL SAND	52.0'-62.0'	62	745.76	749.17	22.24'
MW-102C	BACKGROUND WELL	2	PVC	NATURAL SAND	92.5'-102.5'	102.5	745.74	749.22	22.17'
MW-103	TANK FARM	4	S Sil. *	GRAVEL	15.0'-30.0'	30	744.51	747.32	20.37'
MW-104	TANK FARM	2	S Sil. *	GRAVEL	15.0'-30.0'	30	744.26	746.52	20.67'
MW-105	TANK FARM	2	PVC	GRAVEL	15.0'-30.0'	30	743.75	746.69	20.44'
MW-106	FUEL TRANSFER LINE	2	PVC	GRAVEL	15.0'-30.0'	30	744.93	747.75	21.68'
MW-107	FUEL TRANSFER LINE	2	PVC	GRAVEL	15.5'-30.5'	30.5	744.76	747.92	21.49'
MW-108	FUEL TRANSFER LINE	2	PVC	GRAVEL	15.0'-30.0'	30	744.32	747.25	20.97'
S-103*	UST AT TRUCK MAINT.	2	PVC	GRAVEL	15.0'-30.0'	30	744.51	747.32	20.84'
S-113*	STORAGE TANKS	2	PVC	NATURAL SAND	15.0'-30.0'	30	744.32	747.2	20.85'

*Soil borings completed by installing monitoring wells

Top of PVC Casing measured with cap removed

Static Water Level measurement in feet from ground surface

S Sil.---Stainless Steel

UST---Underground Storage Tanks