

**REPORT**

**Phase I Environmental Site  
Assessment  
MFD - Grand Blanc (Site #029)  
Area 2  
10800 South Saginaw Street  
Grand Blanc, Michigan**

Environmental Corporate  
Remediation Company, Inc.  
Pontiac, Michigan

October 2005

# REPORT

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Area 2 (Site #029)  
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Pontiac, Michigan*



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## Executive summary

O'Brien & Gere Engineers, Inc. (consultant) has conducted a Phase I Environmental Site Assessment (ESA) of the exterior areas of the General Motors Metal Fabricating Division (MFD) plant located at 10800 South Saginaw Street, Grand Blanc, Michigan (herein referred to as "the Site"). The purpose of the Phase I ESA was to identify and document the current and historical environmental conditions of the Site and the presence of substances which indicate an existing, past, or potential adverse environmental impact to the air, soil, ground water, or surface waters as a result of operations on the Site and adjacent and surrounding properties, and which indicate that further investigation may be necessary to evaluate potential environmental liabilities associated with the Site. Area 2 is located west of the main building and includes a die storage area and Storm Water Lagoon #2 (Figure 2). The MFD plant, associated areas immediately adjacent to the plant, and Areas 1 and 3 through 5 are not included in this Phase I ESA report.

This Phase I ESA was performed in general accordance with the ASTM E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, and other client-specified requirements. The investigation was intended to identify Recognized Environmental Conditions (RECs) as defined by the ASTM E 1527-00 Standard.

### A. Recognized Environmental Conditions

This assessment has revealed evidence of RECs currently in connection with the Site, as listed below:

- Historic production operations at the MFD may have impacted Area 2.
- Potential impacts from former underground storage tanks (USTs) in Area 2.
- Potential impacts to soil and ground water in the die storage area.
- Potential impacts from the crock sump pump discharge to the drainage ditch near the Dort Highway entrance to plant.
- Potential impacts to soil and ground water from former fire-training exercises.
- Polychlorinated biphenyls (PCBs) potential could have been used historical at the Site, especially in the electrical substation area.
- Former Well #5 could provide a pathway for contaminants to enter the groundwater if the well was not installed properly or is not closed properly.

### B. Historical RECs

The ASTM E 1527-00 Standard defines Historical RECs as environmental conditions "which in the past would have been considered a Recognized Environmental Condition, but which may or may not be considered a Recognized Environmental Condition currently."

This assessment did not reveal Historical RECs other than those indicated in Section A.

### C. Other Environmental Issues

In addition to the ASTM standard, this assessment evaluated other client-specified criteria for the Site including:

- Preliminary review of potential for radon gas presence and accumulation;
- Preliminary evaluation of asbestos-containing materials (ACM) presence;
- Preliminary evaluation of lead-based paint (LBP) presence;
- Preliminary evaluation of wetlands; and
- Preliminary observations regarding potential environmental regulatory compliance issues.

This assessment has revealed the following other environmental issues:

- Potential ACM and LBP in the die storage shed and the fire pump house.
- Potential chlorofluorocarbons (CFCs) (refrigerants) in the die storage shed air conditioner.

## 1. Introduction

A Phase I Environmental Site Assessment (ESA) has been performed for some of the exterior areas of the General Motors Metal Fabricating Division (MFD) plant located at 10800 South Saginaw Street, Grand Blanc, Michigan (herein referred to as “the Site”; see Figures 1 and 2, Appendix A). The Site is presently known as MFD – Grand Blanc, and the focus of this report is an approximately 38.5 acre area called Area 2.

The original portion of the Site was constructed in 1942 as a tank arsenal. After World War II, the plant was leased from the government by the Buick Motor Division and was purchased by General Motors in 1951. During the Korean Emergency, Fisher Body produced Patton M-48 Medium Tanks. In 1955, the Site was converted to automotive body metal fabricating. The Site currently fabricates automotive body parts, as well as assembles and repairs robotic systems for automotive plants.

For the purposes of this report, the Site was divided into the five exterior areas noted in Figure 2. Area 1 is located north-northwest of the main building and includes a parking lot. Area 2 fronts on Dort Highway and is located west of the main building and includes a die storage area and Storm Water Lagoon #2 (Figures 2 and 3). Area 3 fronts on South Saginaw Street and is located east of the main building and includes a lawn area and Storm Water Lagoon #1. Area 4 is located south of the main building and includes another die storage area, railroad siding areas, the power house and associated coal handling area, the wastewater treatment plant (WWTP), former underground storage tank (UST) farms, fuel storage areas, a former incinerator area, and the inactive Baler House. Area 5 is located southeast of the main building and includes an inactive land area, former waste lagoon area and Storm Water Lagoon #3. As shown in Figure 2, the five areas are located outside of the MFD plant where production operational activities occur. The MFD plant and associated areas, and Areas 1 and 3 through 5 are not included in this Phase I ESA report. The results of the Phase I ESA for Areas 1 and 3 through 5 are discussed in separate reports. Approximately, seventy-five acres located north of the Site were recently sold and were undergoing commercial development at the time of the site visit.

The purpose of this Phase I Environmental Site Assessment was to identify and document the current and historical environmental conditions of Area 2 and the presence of substances which indicate an existing, past, or potential adverse environmental impact to the air, soil, ground water or surface waters as a result of operations on the Site and adjacent and surrounding properties, and which indicate that further investigation may be necessary to evaluate environmental issues associated with the Site. The investigation was also intended to identify Recognized Environmental Conditions (RECs) as defined by the ASTM E 1527-00.

The ASTM standard defines an REC as *“the presence or likely presence of any hazardous substances or petroleum products on a property (Site) under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on a property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.”*

The conclusions regarding the potential impact of RECs on the Site are intended to help the client and other users of the report evaluate the “business environmental risk” associated with the Site, as defined in the ASTM E 1527-00 Standard. The ASTM Standard defines “business environmental risk” as “a risk which can have a material environmental or environmentally-driven financial impact on the business associated with the current or planned use of a parcel of commercial real estate.”

### 1.1. Scope of work

The following scope of work was undertaken, in accordance with ASTM Phase I ESA Standard (E1527-00) requirements and client-specified requirements:

Task 1            A Site reconnaissance was conducted to visually and physically observe the Site in an effort to obtain information suggesting the presence of Recognized Environmental Conditions, including:

- Observing and recording the physical setting of the Site.
- Observing and documenting the property and land use, including abutting and surrounding properties.
- Interviewing the current Site owner/tenants/environmental personnel/maintenance chief to obtain information on current and past operations that may have led to a release of oil, gasoline, solvents, or hazardous material(s) to the soil or ground water and information regarding the presence of underground storage tanks (USTs), hydraulic lifts, lead-based paint (LBP), polychlorinated biphenyls (PCBs), and related conditions on Site.
- Observing and documenting the Site conditions that may be indicative of past and present releases and practices, including taking color photographs showing the general property and surrounding areas.
- Observing and documenting the presence and/or absence and the condition and apparent regulatory compliance status of prior and current aboveground storage tanks (ASTs), USTs, chemical storage areas, hydraulic lifts, septic fields, drainage systems, oil/water separators, central vehicle fluid (*i.e.*, oil, grease, transmission fluid, or other petroleum fluids) dispensing systems, and other operational equipment, including taking color photographs showing the location and condition of these observed areas (Appendix C).
- Observing and recording the presence or absence of chemical substances and/or debris on site, including the number of drums/containers, size estimated quantity, and a description/identification of the contents where possible.

Task 2            A Site history review was performed to evaluate previous ownership and land use including:

- Local topography (see Figure 4),
- Local geology/hydrogeology,
- Ground water well inventory,
- Ground water use, and

- Review of historic aerial photographs, Sanborn or other fire insurance maps, and other sources described herein (Appendix D).

Task 3            An electronic database search report was generated for the Site by Environmental Data Resources, Inc. of Milford, Connecticut (EDR) to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced Agency records, located within the ASTM-specified search radii indicated below. The databases reviewed included, but were not limited to:

<u>Database</u>	<u>Search Radius</u>
• NPL sites:.....	1 mile
• CERCLIS sites:.....	0.5 mile
• CERCLIS NFRAP sites .....	0.25 mile
• Federal ERNS: .....	Site only
• RCRA non-CORRACTS TSD facilities: .....	0.5 mile
• RCRA CORRACTS TSD facilities: .....	1 mile
• RCRA Generators:.....	0.25 mile
• State Hazardous Waste Sites: .....	1 mile
• Registered Underground Storage Tanks: .....	0.25 mile
• State Landfills and Solid Waste Disposal Sites: .....	0.5 mile
• State Leaking Underground Storage Tanks:.....	0.5 mile

A summary of information is provided for each of the above-listed databases in Section 3 of this report. The complete environmental database report is provided in Appendix B.

The database search was supplemented with inquiries with appropriate regulatory agencies and municipalities regarding the Site, and to the extent practicable, adjacent properties. Inquiries were not made with regulatory agencies with regard to basic regulatory compliance issues for the Site, such as Site drainage, permits.

Task 4            A preliminary wetlands, asbestos-containing material (ACM), PCB, LBP, and radon review was performed based on: observations of the site reconnaissance and property location; the age(s) of the buildings; building materials; discussions with the owner/tenant/operator and the local utility company, and the results of the database search discussed in Task 3. Samples were not collected as part of this assessment.

Task 5            The findings of the ESA have been documented in this report, which presents a professional opinion as to the environmental disposition of the Site with regard to the presence of Recognized Environmental Conditions or other environmental issues.

## **1.2. Exceptions and deviations**

### Exceptions

The only exception to ASTM E1527-00 taken during this Phase I ESA was that some of the USTs or ASTs could not be visually inspected.

### Deviations

Deviations from the ASTM Standard 1527-00 included the addition of several client-specified, non-ASTM considerations.

- Preliminary review of potential for radon gas presence and accumulation;
- Preliminary evaluation of ACM presence;
- Preliminary evaluation of LBP presence;
- Preliminary evaluation of wetlands; and
- Preliminary observations regarding potential environmental regulatory compliance issues.

Evaluation of the Site for these criteria was performed for the purpose of providing a general indication of potential problems; this assessment does not serve as a substitute for radon/ACM/lead paint testing, wetland delineation or a regulatory compliance audit.

## **2. Assessment findings for Area 2**

Information obtained from the sources and activities described in Section 1.0 are presented in the following section for Area 2. Information supporting the observations and in this report are provided in the Appendices.

### **2.1 Site reconnaissance**

On August 23-25, 2005, Messrs. Clifford S. Yantz and David K. Meixell, P.E. on behalf of O'Brien & Gere Engineers, Inc. (consultant) completed a site inspection of Area 2 of the Site. Appendix E contains resumes for Messrs. Yantz and Meixell. The Site reconnaissance included an inspection of the Site and its structures, review of relevant Site records made available to the consultant, visual observations of adjacent properties as viewed from the Site and surrounding roadways, and interviews with individuals associated with the Site. The Site environmental manager and other appropriate GM personnel accompanied Messrs. Yantz and Meixell during the Site inspection. Site personnel provided information regarding Site operations and historical Site uses.

#### **2.1.1 Site location and description**

The MFD Site produces automotive sheet metal body parts and robotic systems for automotive manufacturing plants. The Site is located in an industrial and commercial area of Grand Blanc, Michigan. Area 2 consists of the exterior area of the MFD Site that fronts on Dort Highway and is located west of the main MFD plant (see Figure 2). Area 2 is used for die storage, with Storm Water Lagoon #2 located in the western corner of Area 2. A containment area for the dismantling of presses being readied for shipment off-site was recently constructed in Area 2 north of the main substation for the MFD Site. Area 2 also includes a small shed, pump house, and water tank.

Copies of Site photographs are presented in Appendix C.

#### **2.1.2 Adjacent properties**

Figure 5 provides a surrounding properties map. Area 2 is bordered:

- to the north by Area 1 and the property currently being developed for commercial uses,
- to the east by the MFD plant,
- to the south by the Shue and Volks Cartage Warehouse, and
- to the west by Dort Highway and commercial and residential areas.

Historical operations at the MFD building may represent a REC (see Figure 6 for approximate REC locations for Area 2).

### **2.1.3 Underground storage tanks**

Evidence of USTs, such as fill ports or vents, was not identified in Area 2 during the site reconnaissance. However, Site records indicate that a 500-gallon UST was previously located near the Well #5 Pump House and provided diesel fuel for a backup generator. Well #5 is located in the southwest corner of Area 2 near Dort Highway. Five soil samples were collected adjacent to the UST in 1989 and analyses indicated the presence of total petroleum hydrocarbons. The UST was removed from service in May 1990. It is unclear if impacted soil was identified during the UST removal and, if it was, how much was removed from the site. A February 9, 1995 Closure Report prepared by Advanced Environmental, Inc. was submitted to the Michigan Department of Natural Resources (MDNR), which is currently known as the Michigan Department of Environmental Quality (MDEQ), and was reviewed by O'Brien & Gere. This report indicates that the release had been remediated to Michigan Type A (historical criteria) cleanup levels. A March 14, 1995 response letter from MDNR (and reviewed by O'Brien & Gere) confirmed this conclusion. Section 7 provides a list of references for many of the reports reviewed during the Phase I ESA.

Site records indicate that in 1989 or 1990, a 5,000-gallon UST designated as Tank 13 was removed from the area near Storm Water Lagoon #2. This UST was part of an oil/water separation process at the lagoon. Potential impacts associated with former Tank 13 may represent a REC.

### **2.1.4 Aboveground storage tanks**

Two ASTs were noted in Area 2, one at Well #5 and another at the fire pump house. The AST at Well #5 is a replacement tank for the UST that was removed (see Section 2.1.3) and stores diesel fuel. The AST is located in a locked concrete vault that protects the tank from inclement weather. Site personnel visually estimated the tank capacity to be approximately 300 gallons. As the tank reportedly replaced the former UST that was previously discussed, the AST is approximately 15 years old. Another AST associated with the fire pump house was also noted in Area 2. Similarly, this AST is also located in a concrete vault that protects the tank from inclement weather and Site personnel estimate the tank capacity to be approximately 300 gallons and is probably of similar age to the AST at Well #5. Based on visual inspection of the ASTs, they do not appear to represent RECs.

### **2.1.5 Hydraulic lifts and elevators**

Active, former, or inactive/abandoned hydraulic lifts were not identified in Area 2. Therefore, hydraulic lifts and elevators do not appear to represent a REC.

### **2.1.6 Site drainage and discharge**

Area 2 is not developed, and site drainage either percolates into surface soils or runs across the pavement to on-site ditches or storm drains. Storm water in Area 2 appears to drain west towards Storm Water Lagoon #2. In addition to Storm Water Lagoon #2, Site drawings show a storm sewer that drains toward Dort Highway. Minor oil stains were observed on the gravel and pavement in the

die storage area. Storm water containing potential contaminants from die storage and press decommissioning may represent a REC.

### **2.1.7 Other hazardous substances and petroleum products**

No other hazardous substances or products were observed in Area 2 during the site walkthrough. However, fire-training drills were reportedly performed in areas around the combined site in the past.

### **2.1.8 Suspect asbestos-containing building materials**

An ACM survey was not conducted as part of this Phase I ESA, and suspect ACM was not directly observed during the site walkthrough. Buildings on Area 2 are limited to the fire pump building and the small die storage shed of uncertain age. ACM may potentially be present in these buildings, and may represent a REC, although any amount of ACM would likely be limited.

### **2.1.9 Lead-based paint**

A LBP survey was not conducted as part of this Phase I ESA. While there is the potential for LBP to be present in the fire pump building and the die storage shed, the amount of LBP would be small and would represent only a minimal REC.

### **2.1.10 Polychlorinated biphenyls**

The primary substation for the MFD Site is located in the southern corner of Area 2 (see Figure 2). This substation is owned by the utility company (Consumers Power Co). No other transformers were observed in Area 2. Dies stored in the storage area were observed to contain miscellaneous oils, and Site personnel indicated that they were not aware of PCBs being present in hydraulic oils that are or have been used at the Site. Analytical data reviewed in Site files also indicated that PCBs had not been detected in the sample results that were available. However, while PCBs have not been identified in hydraulic oils used at the Site, PCBs potential could have been used historical at the Site, especially in the electrical substation area.

### **2.1.11 Radon gas**

A radon investigation was not performed as part of this Phase I ESA. Site personnel were unaware of any radon gas testing having been conducted at the Site. The EDR report included in Appendix B includes a limited amount of federal and state radon data from the Site zip code (48439). Michigan radon data for this zip code ranges from <0.30 pCi/L to 17.30 pCi/L. More information regarding the locations of these samples was not available. The USEPA has determined Genesee County to be in a Zone 2 Radon Zone, with indoor air concentrations of radon anticipated to be between 2 and 4 pCi/L. The USEPA established action level for radon gas is 4 pCi/L.

Based on the public data, it is possible that radon gas accumulation in the fire pump building and AST vaults could exceed 4 pCi/L. Since the die storage shed rests on blocks above the ground, radon is unlikely to be an issue in this building.

### **2.1.12 Wetlands Identification**

A wetland survey or delineation was not conducted for this Phase I ESA. EDR conducted a records search of the U.S. Fish and Wildlife Service 2002 National Wetlands Inventory (NWI) for the Site and surrounding area. However, NWI electronic data coverage was not available for the area. Aside from Storm Water Lagoon #2 which is located in Area 2, O'Brien & Gere did not observe potential wetland areas during the site visit, based on the absence of standing water, wet areas, or vegetative characteristic of wetlands.

### **2.1.13 Solid and special waste**

Solid waste is collected in dumpsters and similar containers located throughout the combined site and disposed off-site by a commercial vendor. Acetylene was reportedly manufactured on-site in the past; but Site personnel were unaware of any on-site disposal of acetylene production by-product wastes in Area 2.

### **2.1.14 Hazardous waste**

The combined MFD Site is a small quantity generator of hazardous waste (USEPA ID number MID005356944). However, evidence of the generation of hazardous wastes was not observed in Area 2, and hazardous waste accumulation areas are located within the MFD building and hazardous waste storage is outside near the WWTP. Therefore, the current generation and management of hazardous wastes does not appear to be a REC with regards to Area 2.

### **2.1.15 Air emissions**

The die storage shed located in the die storage area appears to have a small wood stove for heating purposes. No other air emission sources were observed in Area 2.

Therefore, air emissions do not appear to represent a REC.

#### **2.1.16 Spills/releases**

Numerous minor oil stains were noted on the gravel and pavement in the die storage area. This material appeared to be associated with residual oils on the dies when they were moved to storage that subsequently had washed off the dies. In addition, while the areas are not specifically identified or documented, fire-training exercises were reportedly performed at various locations around the combined MFD site. Although there is no documentation nor any specific areas identified, based on the size and undeveloped nature of Area 2, there is a potential that training sessions were performed with gasoline, diesel fuel, and/or waste solvents in this area. If so, such training activities have typically resulted in releases of the organic chemicals to the environment. A crock sump pump discharges to a shallow ditch or low area located along the access road to the die storage area parallel to the back (truck) entrance off Dort Highway near the fire pump house. The manhole and culvert was created to allow access to the steam lines that run to the Pump House. The sump pump was installed to pump out ground water accumulating in the culvert around the steam lines. A slight oily appearance was noted in this discharge area, and it was not clear whether a discharge permit would be required for this discharge. Therefore, historic drainage may represent a REC.

#### **2.1.17 Ancillary buildings**

Two ancillary buildings exist within Area 2, including a small die storage shed and the Pump House. The die storage shed is about 15 foot by 8 foot and is apparently utilized as a break room for personnel working in the die storage yard. It contains a table and desk, and is heated with a wood-burning stove fueled by scrap wooden pallets. A wall-mounted air conditioner was observed within the shed to cool the shed during warm periods. The Pump House is an approximately 15 foot by 15 foot brick and concrete building housing a back up generator and pump(s) for fire suppression utilization. An approximately 50,000 gallon water storage tank is located adjacent to the Pump House, which provides additional water for fire suppression.

#### **2.1.18 Other issues**

The former Production Well #5 is located in Area 2. Site documentation was not clear as to how this production well was constructed. If it was not properly constructed or properly closed, it could act as a conduit for potential site contaminants.

#### **2.1.19 CERCLA liability potential**

The Site is not listed on the NPL or in the State Hazardous Waste Site Database. According to environmental personnel, the Site has never received notification from any government agency or third party of liability as a potential responsible party for any hazardous waste treatment, storage, or disposal on Site. The Site reportedly has never defended any environmental-related claims or litigation asserted by any governmental agency or third party, and no potential claims or litigation

presently exist to the best knowledge of environmental personnel, who were interviewed during the Site inspection. However, a CERCLA 103(c) notification was submitted for the former waste lagoons and associated filling activities conducted in the southeastern portion of the plant.

## 2.2. Site history review

### 2.2.1. Property usage

The original portion of the MFD Site was constructed in 1942 as a tank arsenal. After World War II, the plant was leased from the government by the Buick Motor Division and was purchased by General Motors in 1951. During the Korean Emergency, Fisher Body produced Patton M-48 Medium Tanks. In 1955, the Site was converted to automotive body metal fabricating. The Site currently fabricates automotive body parts, as well as assembles and repairs robotic systems for automotive plants.

#### City directories

A City directory abstract that reviewed city directories from 1957 through 2005 was obtained from EDR. Directory listings are summarized on the following table:

<b>Year(s)</b>	<b>Listing</b>
1967	Address not listed in Polk's City Directory
1971	Fisher Body Div. General Motors Corp. (auto body mfrs.)
1975	Fisher Body Div. General Motors Corp. (auto body mfrs.)
1980	Fisher Body Div. General Motors Corp. (auto body mfrs.)
1985	Fisher Body Div. General Motors Corp. (auto body mfrs.)
1990	Grand Blanc Metal Fab. Flint Riggers & Erectors
1995	General Motors Corp. Willard Safety Shoe
2000	General Motors Corp.
2005	Comprehensive Logistics Shively Brothers, Inc.

The address was not listed for the years prior to 1971. It is not clear why the Site was not listed, since the original Site was constructed in the 1940s, although it is possible that the address numbering system was changed or that the city directories did not extend to the area of the plant at the time of the earlier directories. In addition, it is not clear why other businesses are listed at the Site's address; however, they may have had offices within or phone numbers associated with the Site.

#### Sanborn fire insurance maps

Sanborn fire insurance maps assist in the identification of historic land use and commonly indicate the existence and location of aboveground and underground storage tanks, structures, improvements and Site operations.

Sanborn maps were reportedly not available for the Site in the EDR Historic Map Collection.

### **Aerial photographs**

Aerial photographs assist in the identification of Site features and outdoor activities of potential environmental concern. Aerial photographs were obtained for the combined Site for the years 1941, 1950, 1964, 1972, 1982, 1997 and 2004, as well as an undated oblique photograph. O'Brien & Gere reviewed these photographs, and copies are included in Appendix D. The following is a summary of O'Brien & Gere's interpretation of features observed on the aerial photographs for the combined MFD Grand Blanc site:

- 1941: The site of the General Motors MFD - Grand Blanc Site (including Area 2) appears to be under agricultural use at this time. Dirt roads and what may be farm buildings are located along South Saginaw Street, along with areas of a lighter color that appear to have possibly been disturbed.
- 1950: This photograph is prior to General Motors' acquisition of the property. The original portion of the MFD plant utilized for tank manufacturing had been built at this time. The area of the current Area 2 die storage area appears to contain a disturbed area in the central western portion of Area 2. In addition, what appears to have possibly been a test track for tanks is visible to the west of the plant.
- 1964: This photograph indicates that most of the current structures had been built by that time. Waste lagoons are visible near the southeast corner of the plant, as well as greatly expanded railroad sidings south of Area 2. The area north of the main building had been developed into a parking lot at that time. The area of disturbance near the western corner appears to be under a more organized use (with rows of dirt tracks apparently being present), although the exact nature of activities in this area is still unclear.
- 1972: This photograph has a slightly smaller scale, thereby providing a little less detail than the earlier photographs. Site features in Area 2 appear to be relatively the same in this photograph. The area near the waste lagoons appears to have changed, and it may be that the waste lagoons were no longer in use at that time and may be partially filled in.
- 1982: In this photograph Area 2 appear to be relatively the same as the 1972 photograph. The former waste lagoons appear to have been filled in and the area has been somewhat leveled.
- 1997: This photograph is in color and is a little darker than the prior photographs because it was also taken in summer time. Area 2 appears relatively the same as the 1982 photograph.
- 2004: This photograph is the most recent available photograph and is presented as the background to Figure 3 and has a larger scale than the other photographs. The photo

looks vary similar to the previous three photographs. Area 2 appears relatively the same.

### **Historic topographic maps**

Historic USGS topographic maps for the combined MFD Site were reviewed. In addition, Grand Blanc Township provided a topographic map for the site area as illustrated in Figure 4. These maps showed the following for the combined MFD Site:

- 1922: This map shows a building on the Site near South Saginaw Street and may represent the farm building noted on the 1941 aerial photograph. Structures are not noted in Area 2.
- 1969: This map shows the MFD plant building at near its current size. The area north of the main building had been developed into a parking lot. In addition, four waste lagoons are noted near the southeast corner of the MFD plant. The fire pump house, water tank and roadways are noted in Area 2.
- 1975: This is a photo-revision of the 1969 map. The waste lagoons are no longer shown, but what appears to be the waste treatment building has been added. The storm water lagoon along South Saginaw Street. Area 2 remains similar to the 1969 map.
- 2004: Figure 4 presents the most current topographic map for the site and generally represents the conditions at the site today. Area 2 remains similar to the 1975 map.

Potential RECs may exist in Area 2 due to the historic storage of materials in the die storage area.

### **2.2.2. Regional geology**

The site is underlain by unconsolidated glacial drift soils to a depths of about 120 to 160 ft beneath the subject property according to the Groundwater Resources Map Series for Grand Blanc Township (U of M – Flint, Nov. 1994). The EDR report noted the soils at the subject property consist of loam and clay loam from the Conover series with low infiltration rates. Soil boring and excavation logs conducted at the site indicate the soils beneath the subject site consist either of topsoil or fill soils, which are underlain by native clays with interbedded clayey sand, silt or sand seams. Some of the sand seams were observed to be about 2 to 5 ft thick. Two to twenty four inches of topsoil (generally 6 to 12 inches) was observed in areas where natural soils underlie the site. The observed fill soils consisted of sandy and/or clayey soils with varying amounts of debris (slag, metal, wood, concrete, asphalt, etc.) extending to depths from about 6 inches to 9 ft below grade (generally 1 to 5 ft) in areas where excavations or low area filling activities were conducted. At several locations buried topsoil was observed beneath the fill soils ranging between about 6 to 24 inches thick. The native clay soils underlying the topsoil or fill soils likely extend to the top of bedrock. The Groundwater Resources Maps indicate between 80 and 90 percent of the drift soils to a depth of 100 ft consist of clay in the area of the subject site.

The EDR report states that bedrock in the area of the subject property consists of a stratified sequence from the Paleozoic Era. The Bedrock Geology of Michigan (MDNR, 1987) map indicates the site is underlain by the Pennsylvanian age Saginaw Formation consisting of a fine-grained sandstone and siltstone interbedded with shale, limestone, coal and gypsum. The bedrock surface is reported to vary in elevation from about 720 to 680 ft above mean sea level (ft amsl) beneath the site and generally slopes toward the southwest.

### **2.2.3. Regional hydrogeology**

The depth to ground water is estimated at less than 20 feet, based on site observations including the storm water lagoons and drains in the site area. However, this may be indicative of perched ground water conditions. The Groundwater Resources Map Series for Grand Blanc Township (U of M – Flint, Nov. 1994) indicates the regional ground water table exists at elevations of about 770 to 780 ft amsl in the area of the subject property, which corresponds to depths of about 50 to 70 ft below grade. The Site area generally slopes from the MFD plant towards the west and southwest on the western part of the combined MFD Site and east towards South Saginaw Street on the east portion of the Site. Based on local topography, the shallow (potentially perched) ground water flow direction appears to be towards the west-southwest on the western portion of the site and east on the eastern portion of the site. However, deeper regional ground water flow is purported to flow towards the northwest (U of M – Flint, Nov. 1994).

### **2.2.4. Previous investigations**

The following previous Phase I ESA reports were prepared for the Site and were provided to O'Brien & Gere for review:

- *“Phase I and Limited Phase II Environmental Site Assessment Vacant Property Southwest of CLCD Plant, Grand Blanc, Michigan.” May 1994.*
- *“Phase I Environmental Site Assessment Vacant Land Adjacent to GMC-NAO Metal Fabricating Division, Grand Blanc Plant, 10800 South Saginaw Court, Genesee County, Grand Blanc, Michigan.” November 1994.*

The May 1994 Phase I and limited Phase II ESA was conducted for a portion of the property southwest of the plant. The other Phase I ESA was conducted for the property north of Area 1 that was sold by GM and was being developed for commercial uses at the time of O'Brien & Gere's site visit. Both ESAs concluded that the MFD Site could represent a REC due to historic leaking USTs at the Site.

Numerous additional letter reports and data were provided and reviewed by O'Brien & Gere during our file review activities. References for many of the reports reviewed by O'Brien & Gere are contained in Section 7.

### 3. Federal, state and local agency file review

#### 3.1. Environmental database search

O'Brien & Gere contracted Environmental Data Resources, Inc., of Milford, Connecticut, (EDR) to conduct a search of federal and state environmental databases. Based on the address of the Site, the database searches were completed to assist in the identification of conditions at the Site and within a radius distance specified in ASTM Standard E1527-00. A copy of the database search is presented in Appendix B. The following databases were searched with the findings regarding the entire MFD Site as follows:

##### 3.1.1 Federal database

1. National Priority List (NPL) - The NPL is a United States Environmental Protection Agency (USEPA) listing of the nation's worst uncontrolled or abandoned hazardous waste sites. NPL Sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980. In addition, the NPL Report includes information concerning cleanup agreements between the USEPA and potentially responsible parties, any liens filed against contaminated properties, as well as the past and current USEPA budget expenditures tracked within the Superfund Consolidated Accomplishments Plan (SCAP).

**Finding :** According to the databases searched, the MFD Site was not on the NPL. No sites within a one-mile radius of the Site were on the NPL.

2. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) – The CERCLIS List contains data on potentially hazardous waste sites that may have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites, which are either proposed to or on the NPL, and sites that are in the screening and assessment phase for possible inclusion on the NPL.

**Finding:** According to the databases searched, the MFD Site was not on the CERCLIS List. No sites within a half-mile radius of the Site were on the CERCLIS List. However, a CERCLA 103(c) notification was submitted for the former waste lagoons and associated filling activities conducted in the southeastern portion of the plant.

3. No Further Remedial Action Planned Sites Report (NFRAP) – As of February 1995, CERCLIS sites designated “No Further Remedial Action Planned” have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration. EPA has removed approximately 25,000 CERCLIS

sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

**Finding:** According to the databases searched, the MFD Site was not listed in the NFRAP Sites Report. No sites within a half-mile radius of the Site were listed in the NFRAP Sites Report.

4. Resource Conservation and Recovery Information System (RCRIS) - Non-Corrective Action Treatment, Storage and Disposal (TSD) Facilities Report - The RCRIS-TSD Report contains information regarding those facilities that either treat, store or dispose of USEPA-regulated hazardous waste. The following information also is included in the RCRIS-TS Report: information regarding the status of facilities tracked by the Resource Conservation and Recovery Act (RCRA) Administrative Action Tracking System (RAATS); inspections and evaluations conducted by Federal and State Agencies; all reported facility violations, the environmental statutes violated and any proposed and actual penalties; and a complete listing of USEPA-regulated hazardous wastes which are generated or stored on site.

**Finding:** According to the databases searched, the MFD Site was not listed in the RCRIS-TSD Report. No sites within a one-mile radius of the Site were listed in the RCRIS-TSD Report.

5. Resource Conservation and Recovery Act (RCRA) - Corrective Action (CORRACTS) Report - The CORRACTS Report contains information pertaining to hazardous waste treatment, storage and disposal facilities (RCRA TSDs) which have conducted or are currently conducting corrective actions as regulated by the Resource Conservation and Recovery Act. The following information also is included in the CORRACTS Report: information regarding the status of facilities tracked by the RAATS; inspections and evaluations conducted by Federal and State Agencies; all reported facility violations, the environmental statutes violated and any proposed and actual penalties; information pertaining to corrective actions undertaken by the site or the USEPA; and a complete listing of USEPA-regulated hazardous wastes which are generated or stored on site.

**Finding:** According to the databases searched, the MFD Site was not listed in the CORRACTS Report. No sites within a one-mile radius of the Site were listed in the CORRACTS Report.

6. Resource Conservation and Recovery Information System - Large Quantity Generators (RCRIS-LQG) Report - The RCRIS-LQG Report contains information regarding facilities that either generate more than 1,000 kilograms (kg) of USEPA-regulated hazardous waste per month or meet other applicable requirements of RCRA. The following information also is included in the RCRIS-LQG Report: information regarding the status of facilities tracked by the RAATS; inspections and evaluations conducted by Federal and State Agencies; all reported facility violations, the environmental statutes violated and any proposed and actual penalties; information pertaining to corrective actions undertaken by the site or the USEPA;

and a complete listing of USEPA-regulated hazardous wastes which are generated or stored on site.

**Finding:** According to the databases searched, the MFD Site was not listed in the RCRIS-LQG Report. No sites within a quarter-mile radius of the Site were listed in the RCRIS-LQG Report.

7. Resource Conservation and Recovery Information System - Small Quantity Generators (RCRIS-SQG) Report - The RCRIS-SQG Report contains information regarding facilities that either generate between 100 kg and 1,000 kg of USEPA-regulated hazardous waste per month or meet other applicable requirements of RCRA. The following information also is included in the RCRIS-SQG Report: information regarding the status of facilities tracked by the RAATS; inspections and evaluations conducted by Federal and State Agencies; all reported facility violations, the environmental statutes violated and any proposed and actual penalties; information pertaining to corrective actions undertaken by the site or the USEPA; and a complete listing of USEPA-regulated hazardous wastes which are generated or stored on site.

**Finding:** According to the databases searched, the MFD Site was listed in the RCRIS-SQG Report.

8. Emergency Response Notification System - ERNS records and stores information on reported releases of oil and hazardous substances.

**Finding:** According to the databases searched, the MFD Site was listed in the ERNS Database. This is probably related to the release of diesel fuel on two separate occasions due to train derailments at the site.

9. Toxic Chemical Release Inventory System (TRIS) - The TRIS Database identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

**Finding:** According to the databases searched, the MFD Site was listed in the TRIS Database. No other sites within a half-mile radius of the Site were listed in the TRIS Database.

### 3.1.2 State database

1. Underground Storage Tank (UST) Report – Underground Storage Tanks (USTs) are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

**Finding:** According to the databases searched, the MFD Site was listed in the UST database. There were eight other facilities within a quarter mile to the Site listed in this database.

2. Leaking Underground Storage Tank (LUST) Report - The LUST Report contains an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

**Finding:** According to the databases searched, the MFD Site was listed in the LUST Report, and appears to be associated with USTs that were previously discussed in this report.

The following additional sites within a half-mile radius of the Site were listed in the LUST Report:

<u>Site</u>	<u>Address</u>
• 1034GK	11350 S Saginaw St
• Grand Blanc Marathon	11410 S Saginaw St
• Grand Blanc Service, Inc.	11431 S Saginaw St
• Al Serra Chevrolet, Inc.	6167 S Saginaw Rd
• Grand Blanc Cement Products, Inc.	10709 Center Rd
• Dept. of Public Works	507 E Grand Blanc Rd
• Grand Blanc Parks & Recreation	131 E Grand Blanc Rd
• Grand Blanc Amoco	11843 S Saginaw St

According to the database, these locations are located at lower elevations, except for the Department of Public Works site, the Parks and Recreation site, and the Grand Blanc Amoco site. However, these incidents are considered closed by the MDEQ.

3. State Landfill List - The State Landfill List contains an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

**Finding:** According to the databases searched, the MFD Site was not on the State Landfill List. No sites within a half-mile radius of the Site were on the State Landfill List.

4. State Hazardous Waste Site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds are identified along with sites where potentially responsible parties will pay for the cleanup. Available information varies by State.

**Finding:** According to the databases searched, the MFD Site was not on the State Hazardous Waste Site list. No sites within a half-mile radius of the Site were on the list.

### 3.2 Regulatory agency contacts

Regulatory agencies were contacted as part of the Phase I ESA.

### **3.2.1 Water well survey**

EDR conducted a records search of the Federal USGS and FRDS Public Water Supply (PWS) System and state databases of well information for wells located within approximately one mile of the Site. Three wells were identified at the Site. However, Site reconnaissance records identify six wells on-site. Approximately 37 other wells were found on the Federal USGS and FRDS PWS System. The wells are located within one mile of the site. It should be noted that the state database may not contain all wells and has not been recently updated.

### **3.2.2 Utility services**

Water service is currently provided to the Site by the Grand Blanc municipal system, and Grand Blanc provides sanitary sewer service. Historically, the six onsite wells provided water service to the plant. Consumers Power Company provides electricity to the Site. Transformers were observed in the MFD substation, which is reportedly owned by the utility company.

As previously discussed, on-site storm sewers collect precipitation from parking lots and roof drains and discharge to surface waters. Floor drains in the production area inside the MFD plant and coal pile runoff are directed to the wastewater treatment plant for treatment prior to being discharged to the sanitary sewer system. On-site septic systems or drywells were not identified during the site inspection. Figure 7 provides a map of the known utilities within Area 2.

## 4. Conclusions

O'Brien & Gere (consultant) has conducted a Phase I ESA of Areas 2 of the General Motors MFD Site located at 10800 South Saginaw Street, Grand Blanc, Michigan. The purpose of the Phase I ESA was to identify and document the current and historical environmental conditions of the Site and the presence of substances which indicate an existing, past, or potential adverse environmental impact to the air, soil, groundwater, or surface waters as a result of operations on the Site and adjacent and surrounding properties, and which indicate that further investigation may be necessary to evaluate environmental issues associated with the Site.

This Phase I ESA was performed in general accordance with the ASTM E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, and other client-specified requirements. The investigation was intended to identify RECs as defined by the ASTM E 1527-00 Standard.

### A. Recognized Environmental Conditions

This assessment has revealed evidence of RECs currently in connection with the Site, as listed below:

- Historic production operations at the MFD may have impacted Area 2.
- Potential impacts from former USTs in Area 2.
- Potential impacts to soil and ground water in the die storage area.
- Potential impacts from the crock sump pump discharge to the drainage ditch near the Dort Highway entrance to plant.
- Potential impacts to soil and ground water from former fire-training exercises.
- PCBs potential could have been used historical at the Site, especially in the electrical substation area.
- Former Well #5 could provide a pathway for contaminants to enter the groundwater if the well was not installed properly or is not closed properly.

### B. Historical RECs

The ASTM E 1527-00 Standard defines Historical RECs as environmental conditions “which in the past would have been considered a Recognized Environmental Condition, but which may or may not be considered a Recognized Environmental Condition currently.”

This assessment did not reveal Historical RECs other than those indicated in Section A.

### C. Other Environmental Issues

In addition to the ASTM standard, this assessment evaluated other client-specified criteria for the Site including:

- Preliminary review of potential for radon gas presence and accumulation;
- Preliminary evaluation of ACM presence;
- Preliminary evaluation of LBP presence;

- Preliminary evaluation of wetlands; and
- Preliminary observations regarding potential environmental regulatory compliance issues.

This assessment has revealed the following other environmental issues:

- Potential ACM and LBP in the die storage shed and the fire pump house.
- Potential chlorofluorocarbons (CFCs) (refrigerants) in the die storage shed air conditioner.

## **5. Qualifications and limitations**

This Report was prepared pursuant to the agreement dated August 15, 2005 General Motors subsidiary, Environmental Corporate Remediation Company, Inc. (ENCORE) and O'Brien & Gere Engineers, Inc. (O'Brien & Gere). All uses of this Report are subject to, and deemed acceptance of, the conditions and restrictions contained in the referenced Agreement. The observations and conclusions described in this Report are based solely on the scope of services provided pursuant to the Agreement. O'Brien & Gere has not performed any additional observations, investigations, studies, or other testing not specified in the Agreement. O'Brien & Gere shall not be liable for the existence of any condition the discovery of which would have required the performance of services not authorized under the Agreement.

This Report is prepared for the exclusive use of General Motors and ENCORE. Use of this Report by any person or entity other than General Motors and ENCORE shall be at such other person's or entity's sole risk, and shall be without legal exposure or liability to O'Brien & Gere.

This Report reflects site conditions observed and described by records available to O'Brien & Gere as of the date of the Report. The passage of time may result in significant changes in site conditions or technology that could alter the findings and/or recommendations of the Report. Accordingly, O'Brien & Gere shall bear no liability for deviations from observed conditions or available records after the date of the Report.

O'Brien & Gere shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, not available or not fully disclosed at the time the assessment was conducted.

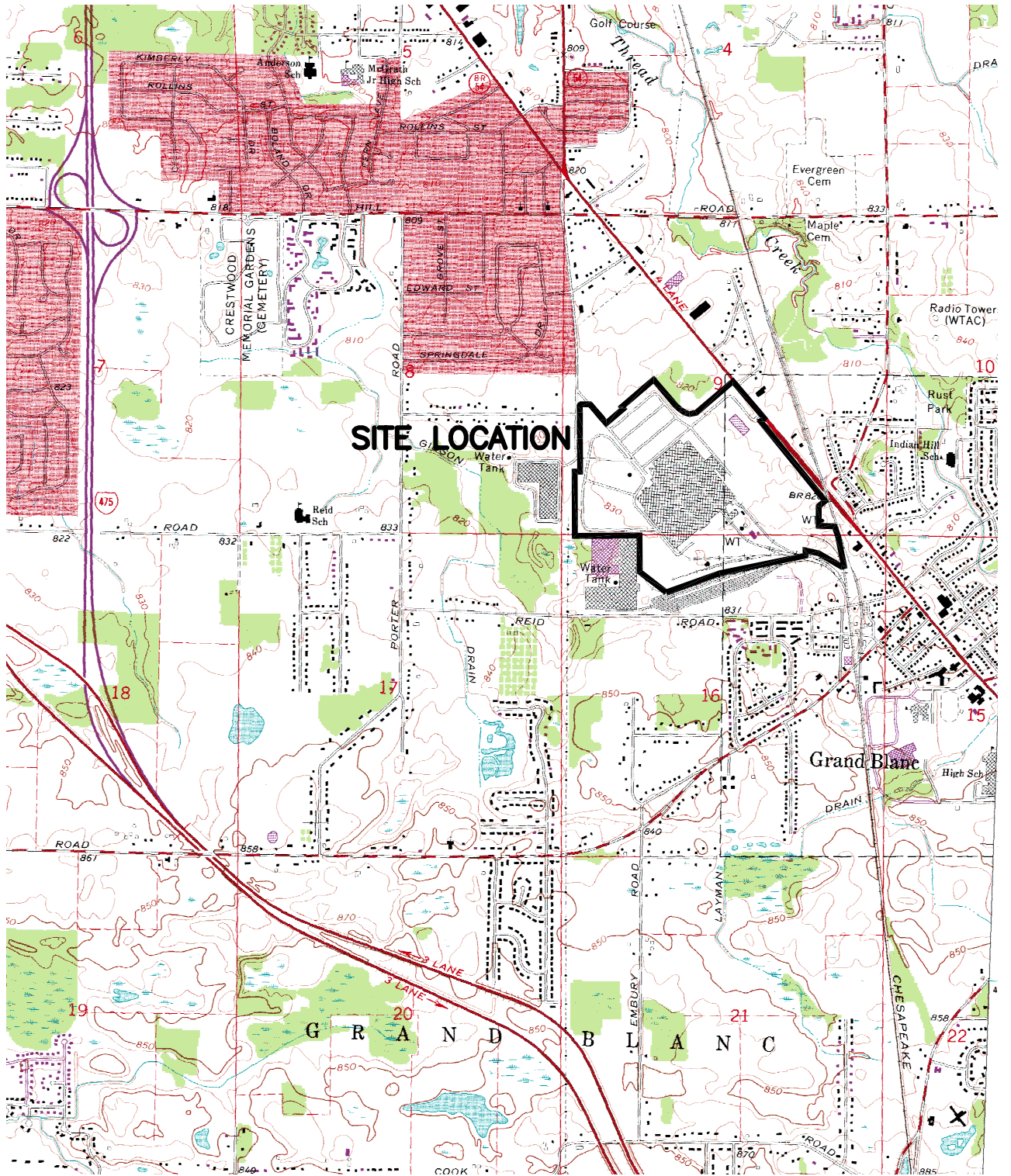
## 6. References

1. "Groundwater Resources Map Series, Grand Blanc Township, Genesee County, Michigan." Regional Groundwater Center, University of Michigan – Flint, November 1994.
2. "1987 Bedrock Geology of Michigan." Michigan Department of Natural Resources, 1987.
3. "Phase I and Limited Phase II Environmental Site Assessment Vacant Property Southwest of CLCD Plant, Grand Blanc, Michigan." GZA GeoEnvironmental, Inc., May 1994.
4. "Phase I Environmental Site Assessment Vacant Land Adjacent to GMC-NAO Metal Fabricating Division, Grand Blanc Plant, 10800 South Saginaw Court, Genesee County, Grand Blanc, Michigan." EnecoTech Inc., November 1994.
5. "Phase I Environmental Site Assessment, 83 Acre Site, Grand Blanc, Michigan." Soil and Materials Engineers, Inc., July 21, 2003.
6. "Phase II Environmental Site Assessment, 83 Acre Site, Grand Blanc, Michigan." Soil and Materials Engineers, Inc., August 21, 2003.
7. "UST Closure Assessment, Cadillac Motor Car Division, Grand Blanc Plant." Avendt Environmental, August 22, 1991. [Closure report for 200 gallon diesel fuel UST for Well # 2 Pump House]
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13. "Saginaw Street Underground Storage Vault Closure Report, Cadillac Motor Car Division, G.M.C., Grand Blanc Plant." The Avendt Group, Inc., circa. October 1994. [Closure report for storm water vault near entrance of the plant adjacent to Saginaw Street associated with Outfall 001]

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15. "Initial Site Characterization for Tanks 9 and 10, Cadillac Motor Car Division, G.M.C., Grand Blanc Plant." The AvenDt Group, Inc., circa. February 1990. [Fire Station Garage tanks]
16. "Underground Storage Tank Removal and Remediation Plan, Cadillac Motor Car Division, Grand Blanc, Michigan." The AvenDt Group, Inc., October 1989. [Work plan for removing Tank Farm USTs]
17. "Underground Storage Tank Removal and Free Product Release Report, Cadillac Motor Car Division, Grand Blanc, Michigan." The AvenDt Group, Inc., January 1990. [Tank Farm USTs]
18. "Site Characterization and Free Product Removal, Related to Underground Storage Tank Removal, Cadillac Motor Car Division, Grand Blanc, Michigan." The AvenDt Group, Inc., January 1990. [Tank Farm USTs]
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20. "UST Closure Assessment, Tank #11, Cadillac Motor Car Division, Grand Blanc Plant." AvenDt Environmental, August 22, 1991. [Closure report for 2,000 gallon Executive Garage Gas Tank]
21. "Restrictive Covenants for 2 Former UST Sites." General Motors Corporation, Grand Blanc Metal Center, June 20, 1996. [Restrictive Covenants for Tank Farm and Executive Garage Gas Tank]

## **Appendix A**

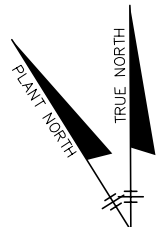
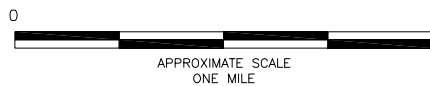
### **Figures**

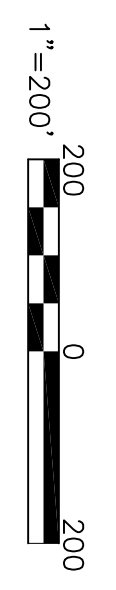
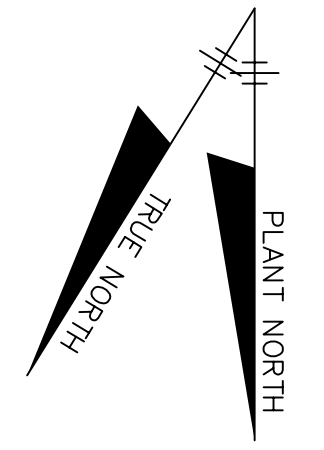
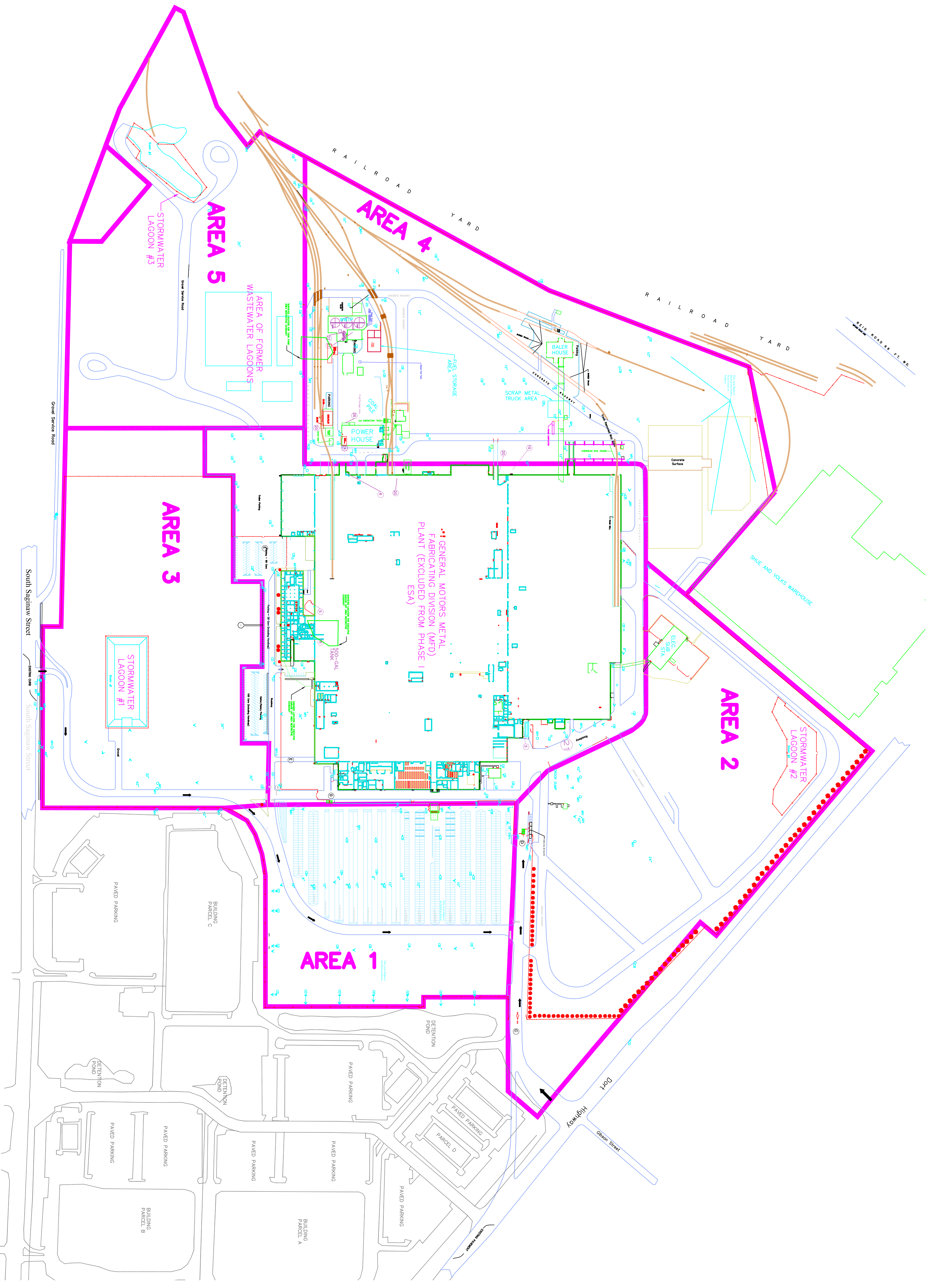


MICHIGAN  
QUADRANGLE LOCATION

4966.37404  
OCTOBER 2005

**GENERAL MOTORS  
MFD – GRAND BLANC  
GRAND BLANC, MICHIGAN  
SITE LOCATION**





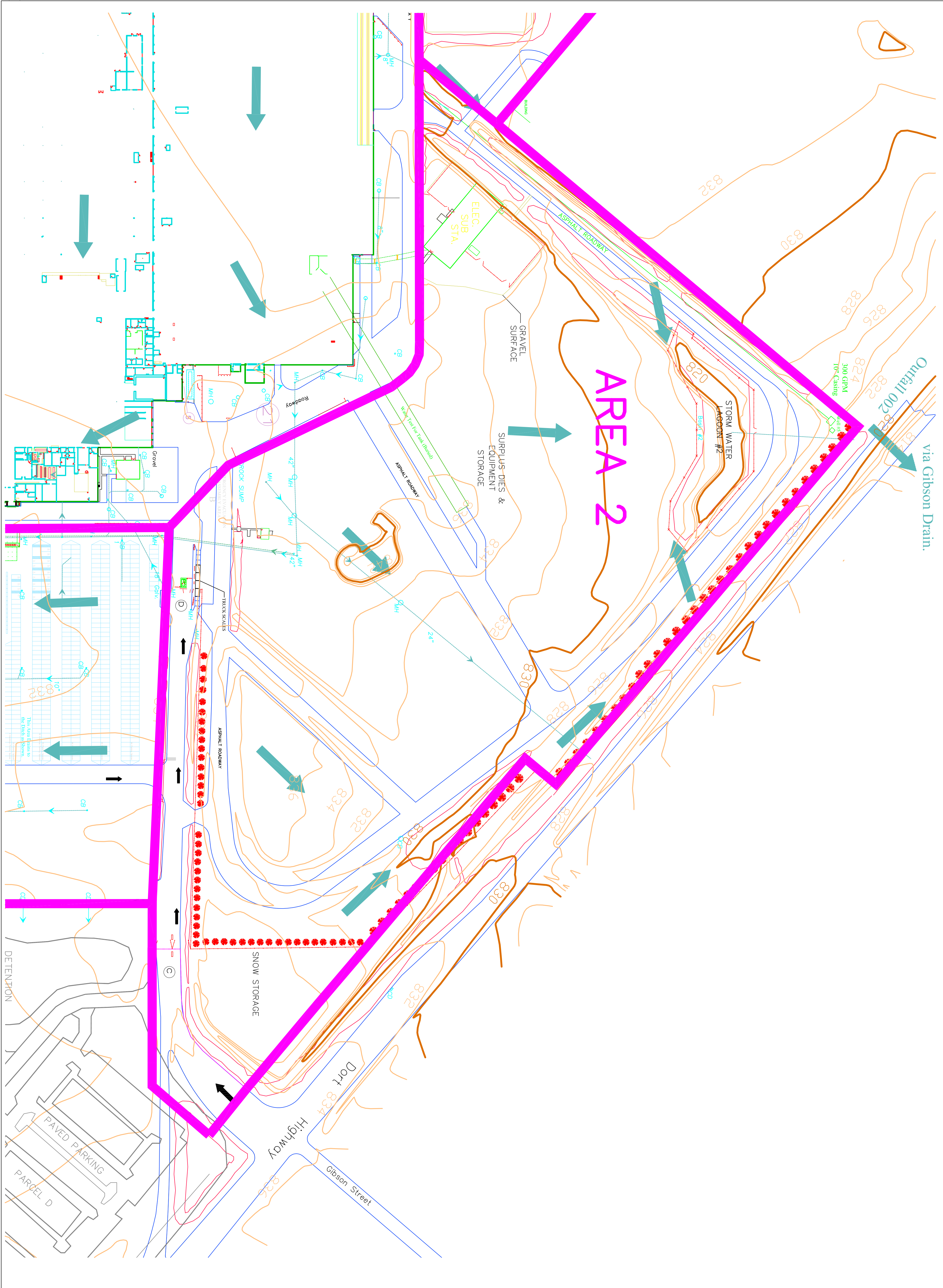
**SITE LAYOUT**

GENERAL MOTORS  
MFD - GRAND BLANC  
(SITE #29)  
GRAND BLANC, MICHIGAN

**FIGURE 2**

4966-37404.002  
OCTOBER 2005



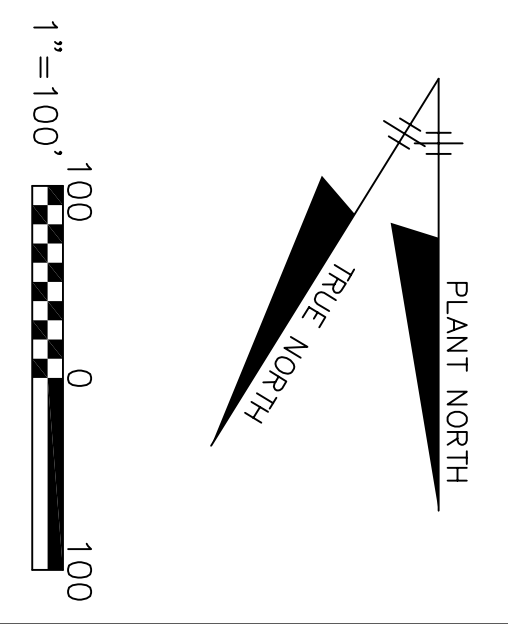
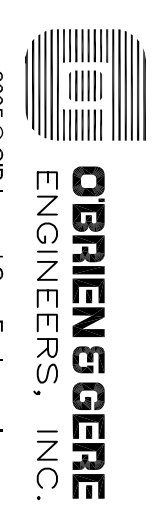


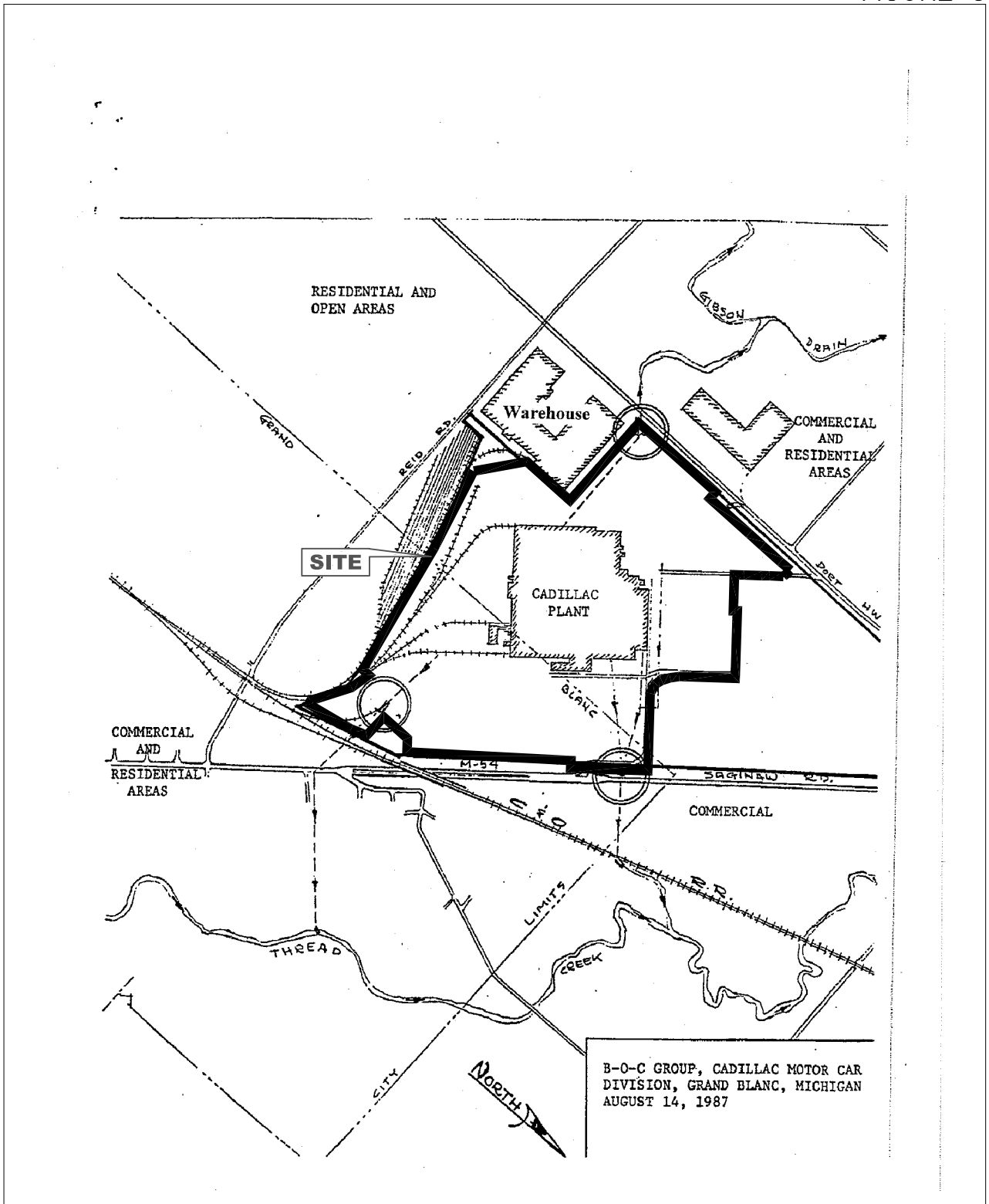
**AREA 2 SITE MAP  
WITH TOPOGRAPHY**

GENERAL MOTORS  
MFD - GRAND BLANC  
(SITE #29)  
GRAND BLANC, MICHIGAN

**FIGURE 4**

4966-37404.004  
OCTOBER 2005





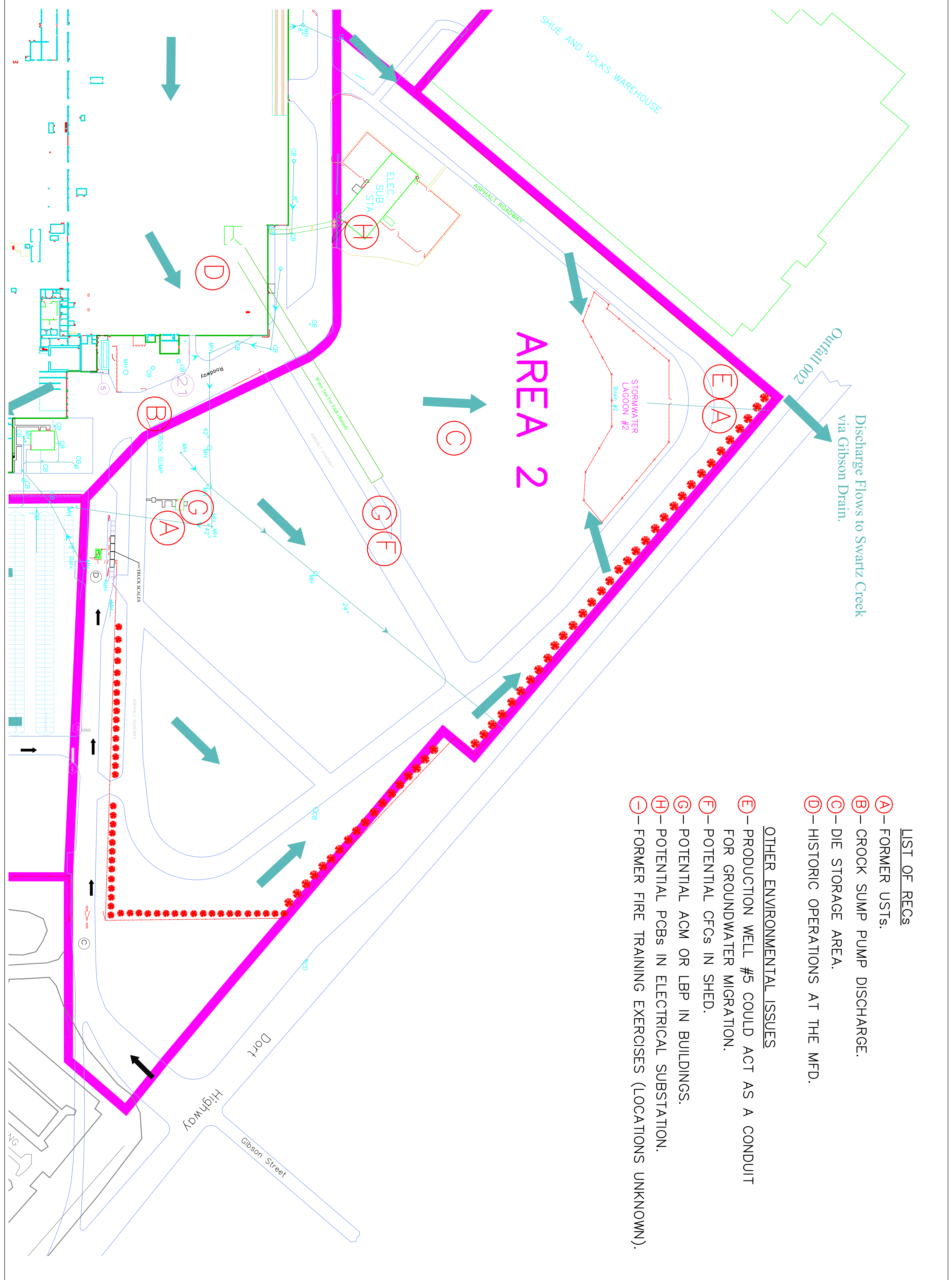
GENERAL MOTORS  
 MFD-GRAND BLANC (ENCORE SITE #29)  
 GRAND BLANC, MICHIGAN

**SURROUNDING PROPERTIES MAP**

4966.37404-005  
 NOVEMBER 2006

NOT TO SCALE





LIST OF RECS

- (A) - FORMER USTs.
- (B) - CROCK SUMP PUMP DISCHARGE.
- (C) - DIE STORAGE AREA.
- (D) - HISTORIC OPERATIONS AT THE MFD.

OTHER ENVIRONMENTAL ISSUES

- (E) - PRODUCTION WELL #5 COULD ACT AS A CONDUIT FOR GROUNDWATER MIGRATION.
- (F) - POTENTIAL CFCs IN SHED.
- (G) - POTENTIAL ACM OR LBP IN BUILDINGS.
- (H) - POTENTIAL PCBs IN ELECTRICAL SUBSTATION.
- (I) - FORMER FIRE TRAINING EXERCISES (LOCATIONS UNKNOWN).

AREA 2  
ENVIRONMENTAL  
RECOGNIZED  
CONDITIONS

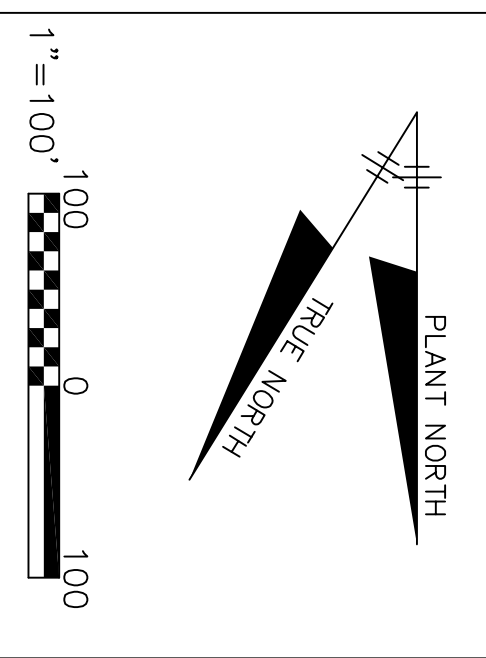
GENERAL MOTORS  
MFD - GRAND BLANC  
(SITE #29)  
GRAND BLANC, MICHIGAN

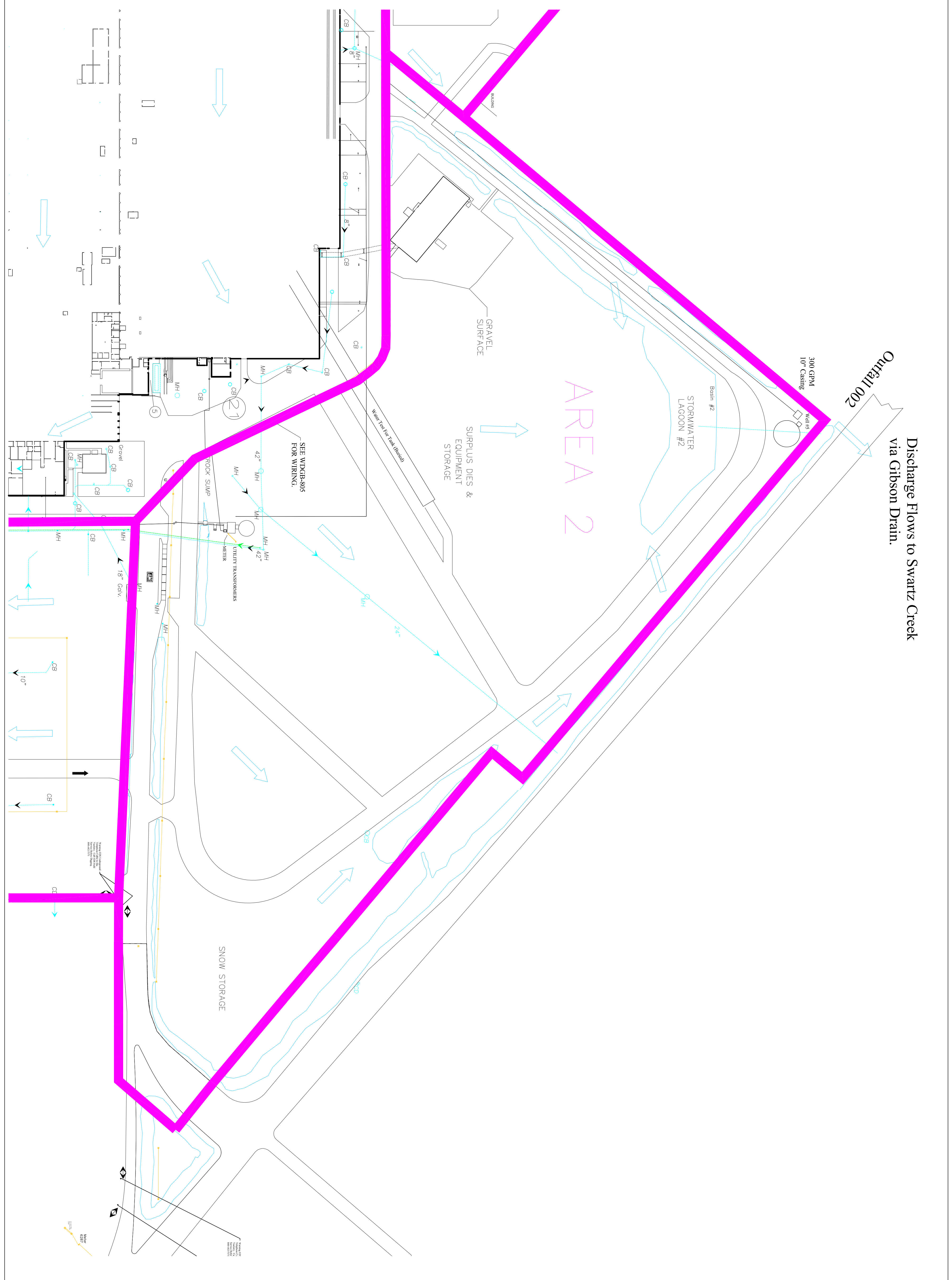
FIGURE 6

4966-37404.006  
OCTOBER 2005



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ENGINEERS, INC.  
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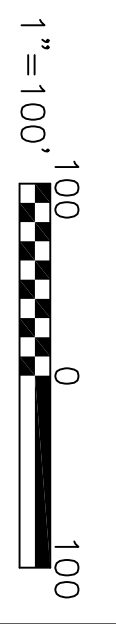
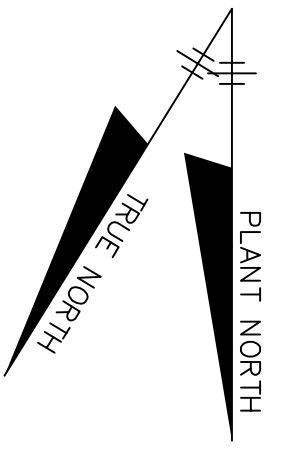


Discharge Flows to Swartz Creek  
via Gibson Drain.

Outfall 002

AREA 2

- LEGEND**
- SANITARY
  - STORM
  - WATER
  - ELECTRIC
  - GAS
  - FIBER OPTIC
  - SWALE
  - SURFACE DRAINAGE



**AREA 2  
UTILITY MAP**

GENERAL MOTORS  
MFD - GRAND BLANC  
(SITE #29)  
GRAND BLANC, MICHIGAN

**FIGURE 7**

4966-37404.007  
OCTOBER 2005



## **Appendix B**

### **Environmental Database Report**



**EDR**® Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**General Motors  
10800 South Saginaw Street  
Grand Blanc, MI 48439**

**Inquiry Number: 01491115.2r**

**August 19, 2005**

## **The Standard in Environmental Risk Management Information**

440 Wheelers Farms Road  
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***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

#### ADDRESS

10800 SOUTH SAGINAW STREET  
GRAND BLANC, MI 48439

#### COORDINATES

Latitude (North): 42.932300 - 42° 55' 56.3"  
Longitude (West): 83.642400 - 83° 38' 32.6"  
Universal Transverse Mercator: Zone 17  
UTM X (Meters): 284374.3  
UTM Y (Meters): 4756470.0  
Elevation: 836 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 42083-H6 FLINT SOUTH, MI  
Source: USGS 7.5 min quad index

### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
10800 S. SAGINAW ST. 10800 S. SAGINAW ST. GRAMBLING, MI 48439	ERNS	N/A
GMC METAL FABRICATING DIV 10800 S SAGINAW ST GRAND BLANC, MI 48439	PADS RCRA-SQG FINDS LUST TRIS UST	48439CDLLC10
10800 S. SAGINAW ST. 10800 S. SAGINAW ST. GRAND BLANC, MI	PEAS	N/A
GM - METAL FABRICATING DIVISION 10800 S SAGINAW ST GRAND BLANC, BB 48439	AST	N/A
CSX TRANSPORTATION INC 10800 S SAGINAW GRAND BLANC, MI 48439	RCRA-SQG	MIK882475114
10800 SOUTH SAGINAW ST 10800 SOUTH SAGINAW ST GRAND BLANC, MI 48439	ERNS	N/A

## EXECUTIVE SUMMARY

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

### FEDERAL ASTM STANDARD

<b>NPL</b> .....	National Priority List
<b>Proposed NPL</b> .....	Proposed National Priority List Sites
<b>CERCLIS</b> .....	Comprehensive Environmental Response, Compensation, and Liability Information System
<b>CERC-NFRAP</b> .....	CERCLIS No Further Remedial Action Planned
<b>CORRACTS</b> .....	Corrective Action Report
<b>RCRA-TSDF</b> .....	Resource Conservation and Recovery Act Information
<b>RCRA-LQG</b> .....	Resource Conservation and Recovery Act Information

### STATE ASTM STANDARD

<b>SWF/LF</b> .....	Solid Waste Facilities Database
<b>BEA</b> .....	BASELINE ENVIRONMENTAL ASSESSMENT DATABASE
<b>INDIAN UST</b> .....	Underground Storage Tanks on Indian Land

### FEDERAL ASTM SUPPLEMENTAL

<b>CONSENT</b> .....	Superfund (CERCLA) Consent Decrees
<b>ROD</b> .....	Records Of Decision
<b>Delisted NPL</b> .....	National Priority List Deletions
<b>HMIRS</b> .....	Hazardous Materials Information Reporting System
<b>MLTS</b> .....	Material Licensing Tracking System
<b>MINES</b> .....	Mines Master Index File
<b>NPL Liens</b> .....	Federal Superfund Liens
<b>US ENG CONTROLS</b> .....	Engineering Controls Sites List
<b>ODI</b> .....	Open Dump Inventory
<b>UMTRA</b> .....	Uranium Mill Tailings Sites
<b>FUDS</b> .....	Formerly Used Defense Sites
<b>INDIAN RESERV</b> .....	Indian Reservations
<b>DOD</b> .....	Department of Defense Sites
<b>RAATS</b> .....	RCRA Administrative Action Tracking System
<b>TSCA</b> .....	Toxic Substances Control Act
<b>SSTS</b> .....	Section 7 Tracking Systems
<b>FTTS INSP</b> .....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

<b>DEL SHWS</b> .....	Delisted List of Contaminated Sites
<b>DRYCLEANERS</b> .....	Drycleaning Establishments

### EDR PROPRIETARY HISTORICAL DATABASES

<b>Coal Gas</b> .....	Former Manufactured Gas (Coal Gas) Sites
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# EXECUTIVE SUMMARY

## BROWNFIELDS DATABASES

**US BROWNFIELDS** ..... A Listing of Brownfields Sites  
**US INST CONTROL** ..... Sites with Institutional Controls  
**BROWNFIELDS** ..... Brownfields and USTfield Site Database

## SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## FEDERAL ASTM STANDARD

**RCRAInfo:** RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act ( RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 05/20/2005 has revealed that there are 16 RCRA-SQG sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b><i>IMPACT AUTO COLLISION INC</i></b>	<b><i>332 UNION ST</i></b>	<b><i>1/2 - 1 SE</i></b>	<b><i>16</i></b>	<b><i>22</i></b>
<b><i>SELMURO LTD</i></b>	<b><i>3111 TRI PARK DR</i></b>	<b><i>1/2 - 1 SSW</i></b>	<b><i>D18</i></b>	<b><i>25</i></b>
<b><i>RAPID DESIGN SVC INC</i></b>	<b><i>3089 TRI PARK DR</i></b>	<b><i>1/2 - 1 SW</i></b>	<b><i>D19</i></b>	<b><i>25</i></b>
<b><i>MICHIGAN BELL TELEPHONE CO</i></b>	<b><i>226 W GRAND BLANC RD</i></b>	<b><i>1/2 - 1 SE</i></b>	<b><i>F23</i></b>	<b><i>35</i></b>
<b><i>GRAND BLANC LAWN EQUIPMENT</i></b>	<b><i>410 E GRAND BLANC RD</i></b>	<b><i>1/2 - 1 SE</i></b>	<b><i>25</i></b>	<b><i>36</i></b>
<b><i>GRAND BLANC CITY OF</i></b>	<b><i>507 GRAND BLANC RD</i></b>	<b><i>1/2 - 1 SE</i></b>	<b><i>G28</i></b>	<b><i>40</i></b>
<b><i>PRO CLEAN INC</i></b>	<b><i>509 W GRAND BLANC RD</i></b>	<b><i>1/2 - 1 SE</i></b>	<b><i>G29</i></b>	<b><i>40</i></b>
<b><i>GRAND BLANC CLEANERS</i></b>	<b><i>126E GRAND BLANC RD</i></b>	<b><i>1/2 - 1 ESE</i></b>	<b><i>H31</i></b>	<b><i>41</i></b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b><i>MARR PRINTING CC</i></b>	<b><i>11232 S SAGINAW ST</i></b>	<b><i>1/4 - 1/2ESE</i></b>	<b><i>7</i></b>	<b><i>16</i></b>
<b><i>METO KOTE CORPORATION</i></b>	<b><i>3085 REID RD</i></b>	<b><i>1/4 - 1/2SSW</i></b>	<b><i>B8</i></b>	<b><i>17</i></b>

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>PREMIERE PACKAGING INC</b>	<b>3085 E REID RD</b>	<b>1/4 - 1/2 SSW</b>	<b>B9</b>	<b>17</b>
<b>ARMOR ALL PRODUCTS CORP</b>	<b>3085 REID RD</b>	<b>1/4 - 1/2 SSW</b>	<b>B10</b>	<b>18</b>
<b>AL SERRA BUICK CHEVROLET GMC T</b>	<b>G6201 S SAGINAW</b>	<b>1/2 - 1 N</b>	<b>12</b>	<b>19</b>
<b>AL SERRA CHEVROLET INC</b>	<b>G6167 S SAGINAW</b>	<b>1/2 - 1 NNW</b>	<b>15</b>	<b>21</b>
<b>GRAND BLANC CEMENT PRODUCTS IN</b>	<b>10709 CENTER RD</b>	<b>1/2 - 1 NE</b>	<b>26</b>	<b>36</b>
<b>CLARK OIL CO</b>	<b>G9490 SAGINAW</b>	<b>1/2 - 1 ESE</b>	<b>32</b>	<b>41</b>

### STATE ASTM STANDARD

**SHWS:** The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, has revealed that there is 1 SHWS site within approximately 1.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
STEPHENSON TREE SURGEON	5283 SOUTH DORT HIGHWAY	1 - 2 NNW	34	46

**LUST:** The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 06/13/2005 has revealed that there are 8 LUST sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>DEPT OF PUBLIC WORKS</b>	<b>507 E GRAND BLANC RD</b>	<b>1/2 - 1 SE</b>	<b>G27</b>	<b>37</b>
GRAND BLANC PARKS & RECREATION	131 E GRAND BLANC RD	1/2 - 1 ESE	H30	40
<b>GRAND BLANC AMOCO</b>	<b>11843 S SAGINAW ST</b>	<b>1/2 - 1 ESE</b>	<b>33</b>	<b>42</b>

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
1034GK	11350 S SAGINAW ST	1/2 - 1 ESE	14	21
<b>GRAND BLANC MARATHON</b>	<b>11410 S SAGINAW ST</b>	<b>1/2 - 1 ESE</b>	<b>C17</b>	<b>23</b>
<b>GRAND BLANC SERVICE INC</b>	<b>11431 S SAGINAW ST</b>	<b>1/2 - 1 ESE</b>	<b>C20</b>	<b>26</b>
<b>AL SERRA CHEVROLET INC</b>	<b>6167 S SAGINAW RD</b>	<b>1/2 - 1 NNW</b>	<b>E21</b>	<b>32</b>
<b>GRAND BLANC CEMENT PRODUCTS IN</b>	<b>10709 CENTER RD</b>	<b>1/2 - 1 NE</b>	<b>26</b>	<b>36</b>

**UST:** The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 06/13/2005 has revealed that there are 8 UST sites within approximately 0.75 miles of the target property.

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CSX TRANSPORTATION INC	CHURCH ST	1/2 - 1 ESE	13	20
AMERITECH	226 W GRAND BLANC RD	1/2 - 1 SE	F22	34
<b>DEPT OF PUBLIC WORKS</b>	<b>507 E GRAND BLANC RD</b>	<b>1/2 - 1 SE</b>	<b>G27</b>	<b>37</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>GRAND BLANC MARATHON</b>	<b>11410 S SAGINAW ST</b>	<b>1/2 - 1 ESE</b>	<b>C17</b>	<b>23</b>
<b>GRAND BLANC SERVICE INC</b>	<b>11431 S SAGINAW ST</b>	<b>1/2 - 1 ESE</b>	<b>C20</b>	<b>26</b>
<b>AL SERRA CHEVROLET INC</b>	<b>6167 S SAGINAW RD</b>	<b>1/2 - 1 NNW</b>	<b>E21</b>	<b>32</b>
RON SLIVKA BUICK INC	G-10825 S SAGINAW ST	1/2 - 1 NNW	E24	35
<b>GRAND BLANC CEMENT PRODUCTS IN</b>	<b>10709 CENTER RD</b>	<b>1/2 - 1 NE</b>	<b>26</b>	<b>36</b>

**HIST LF:** The database contains historical information and is no longer updated..

A review of the HIST LF list, as provided by EDR, and dated 03/01/1997 has revealed that there is 1 HIST LF site within approximately 0.5 miles of the target property.

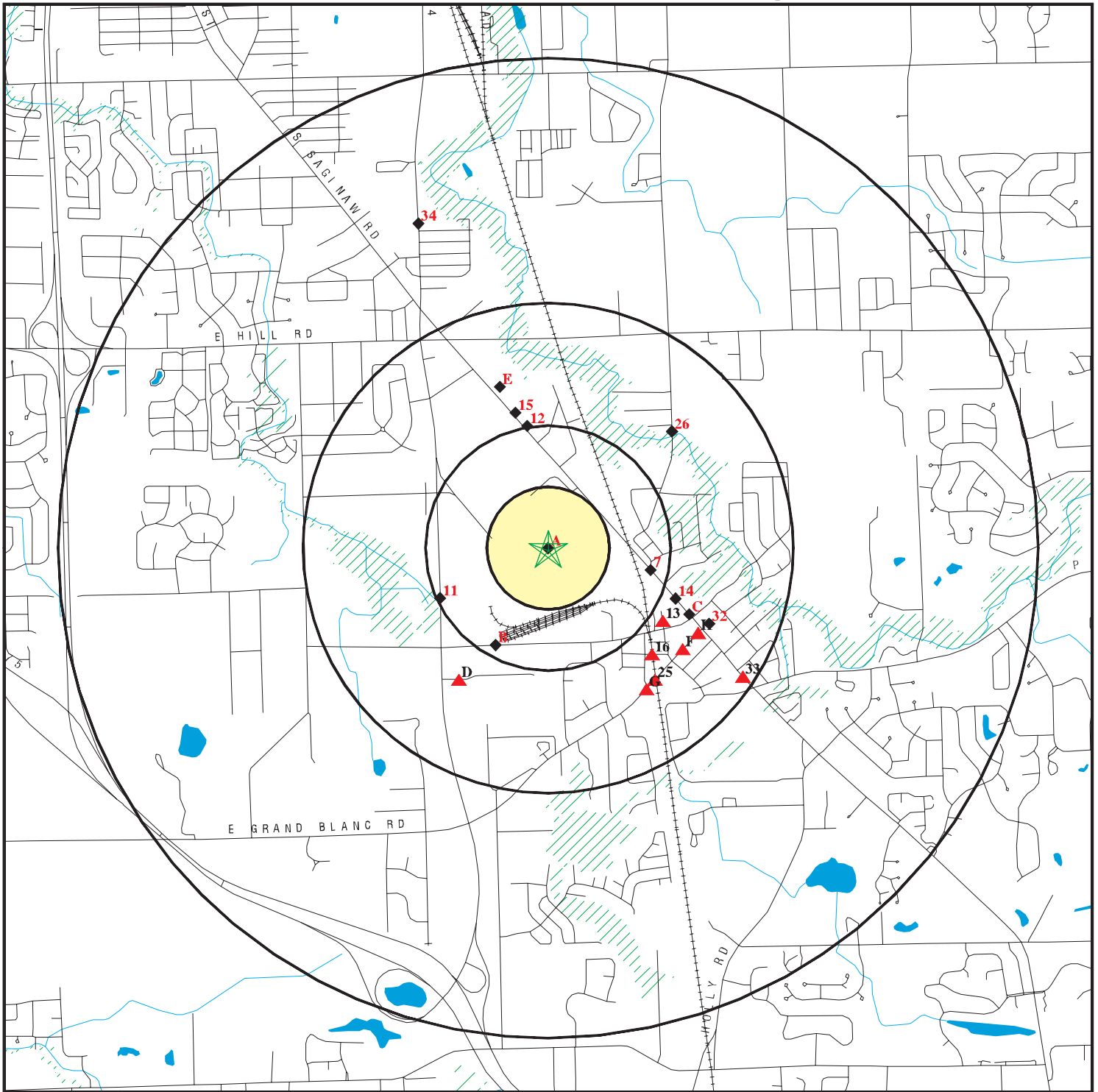
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
GERALD D ROSS	6434 DORT HWY	1/4 - 1/2 WSW	11	18

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
RICHFIELD RD AREA GW CONTAM	SHWS
SOUTHERN END OF HOLIDAY DRIVE	SHWS
PARCEL H-323 TORREY ROAD	SHWS
DISCOUNT MUFFLER	LUST, UST
SAGINAW & CARPENTER SHELL	LUST, UST
J AUSTIN OIL CO OF FLINT INC	LUST, UST
WARWICK HILLS COUNTRY CLUB - MAI	LUST
CHARTER TWP OF GRAND BLANC	LUST, UST
RON-SLIVKA BUICK - GMC TRUCK	LUST, UST
AL SERRA BUICK GMC INC	RCRA-SQG, FINDS, LUST, UST
GOVERNMENT CENTER	LUST, UST
HONDA OF GRAND BLANC	RCRA-SQG, FINDS
AMOCO OIL CO	RCRA-SQG
TCF NATIONAL BANK	BEA
G-5388 SOUTH SAGINAW STREET	BEA
G-9490 S. SAGINAW ROAD	BEA
SAGINAW & PERRY ROADS, SOUTHEAST CORNER	BEA
PORTION OF PARCEL #12-04-100-022	PEAS, BEA
PARCEL NUMBER 25-12-23-100-021	BEA
VANDERHORST PROPERTY	DEL SHWS

# OVERVIEW MAP - 01491115.2r - O'Brien & Gere Engineers, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

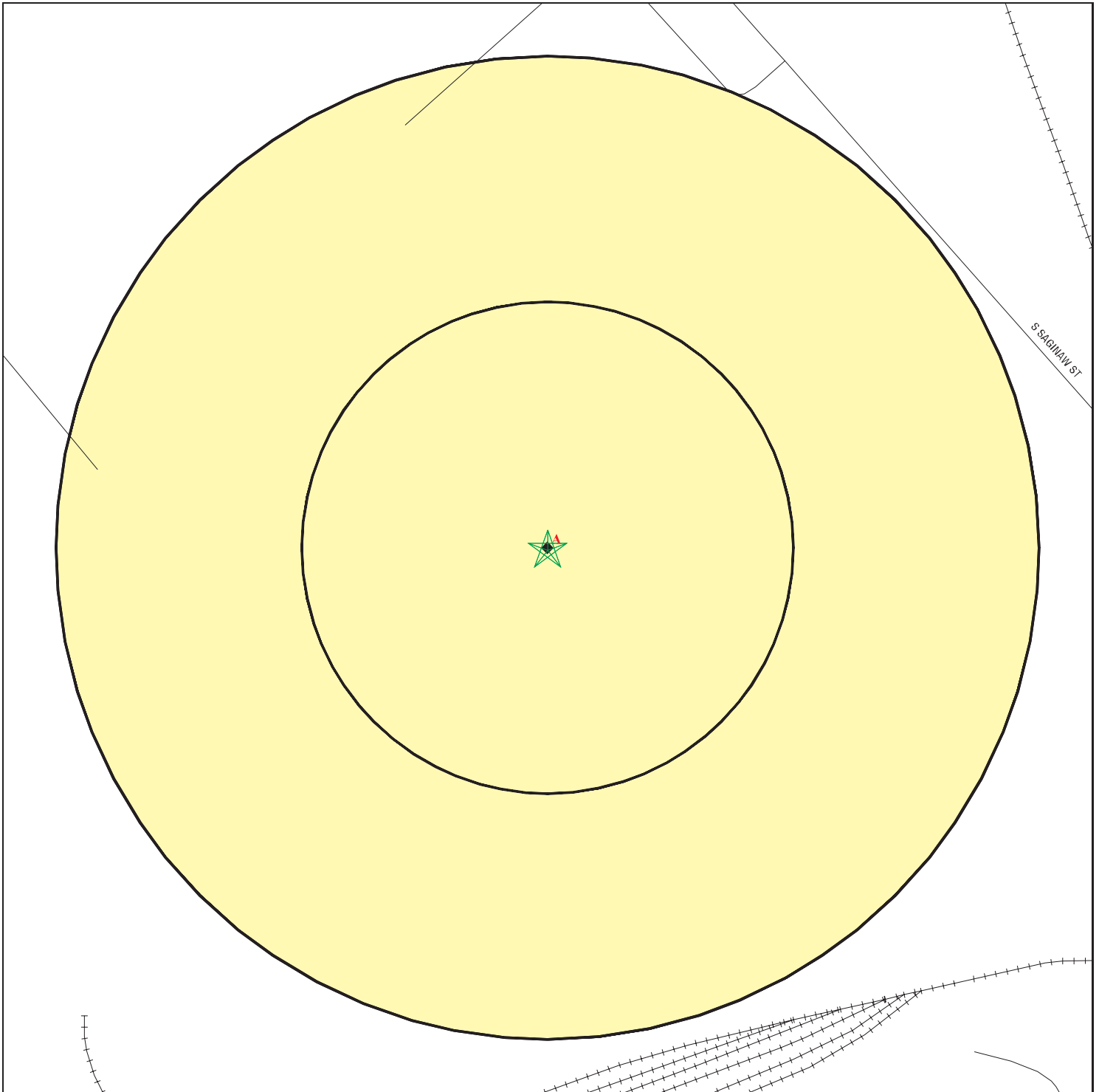
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone



**TARGET PROPERTY:** General Motors  
**ADDRESS:** 10800 South Saginaw Street  
**CITY/STATE/ZIP:** Grand Blanc MI 48439  
**LAT/LONG:** 42.9323 / 83.6424

**CUSTOMER:** O'Brien & Gere Engineers, Inc.  
**CONTACT:** Dave Meixell  
**INQUIRY #:** 01491115.2r  
**DATE:** August 19, 2005 9:07 am

**DETAIL MAP - 01491115.2r - O'Brien & Gere Engineers, Inc.**



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone



TARGET PROPERTY: General Motors  
 ADDRESS: 10800 South Saginaw Street  
 CITY/STATE/ZIP: Grand Blanc MI 48439  
 LAT/LONG: 42.9323 / 83.6424

CUSTOMER: O'Brien & Gere Engineers, Inc.  
 CONTACT: Dave Meixell  
 INQUIRY #: 01491115.2r  
 DATE: August 19, 2005 9:07 am

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL ASTM STANDARD</u></b>								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRA TSD		1.000	0	0	0	0	NR	0
RCRA Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRA Sm. Quan. Gen.	X	0.750	0	0	4	12	NR	16
ERNS	X	0.500	0	0	0	NR	NR	0
<b><u>STATE ASTM STANDARD</u></b>								
State Haz. Waste		1.500	0	0	0	0	1	1
State Landfill		1.000	0	0	0	0	NR	0
LUST	X	1.000	0	0	0	8	NR	8
UST	X	0.750	0	0	0	8	NR	8
BEA		0.500	0	0	0	NR	NR	0
INDIAN UST		0.750	0	0	0	0	NR	0
HIST LF		0.500	0	0	1	NR	NR	1
<b><u>FEDERAL ASTM SUPPLEMENTAL</u></b>								
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
PADS	X	TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
ODI		1.000	0	0	0	0	NR	0
UMTRA		1.000	0	0	0	0	NR	0
FUDS		1.500	0	0	0	0	0	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
DOD		1.000	0	0	0	0	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
TRIS	X	TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE OR LOCAL ASTM SUPPLEMENTAL</u></b>								
AST	X	TP	NR	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
DEL SHWS		1.000	0	0	0	0	NR	0
PEAS	X	TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
<b><u>EDR PROPRIETARY HISTORICAL DATABASES</u></b>								
Coal Gas		1.000	0	0	0	0	NR	0
<b><u>BROWNFIELDS DATABASES</u></b>								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0

**NOTES:**

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.**

**A1**  
**Target**  
**Property**

**10800 S. SAGINAW ST.**  
**10800 S. SAGINAW ST.**  
**GRAMBLING, MI 48439**

**ERNS** 2001555303  
 N/A

Site 1 of 6 in cluster A

**Actual:**  
 835 ft.

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

**A2**  
**Target**  
**Property**

**GMC METAL FABRICATING DIV**  
**10800 S SAGINAW ST**  
**GRAND BLANC, MI 48439**

**PADS** 1000254412  
**RCRA-SQG** 48439CDLLC10  
**FINDS**  
**LUST**  
**TRIS**  
**UST**

Site 2 of 6 in cluster A

**Actual:**  
 835 ft.

RCRAInfo:

Owner: GMC FISHER BODY GRAND BLANC  
 EPA ID: MID005356944  
 Contact: TIMOTHY RIENKS  
 (810) 236-5216

Classification: Small Quantity Generator  
 TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated:	Not reported
Area of Violation:	GENERATOR-OTHER REQUIREMENTS
Date Violation Determined:	09/01/1995
Actual Date Achieved Compliance:	06/20/1996
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	09/01/1995
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	02/08/1991
Actual Date Achieved Compliance:	12/05/1991
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	02/15/1991
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	05/25/1988
Actual Date Achieved Compliance:	08/29/1988
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	06/15/1988
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)
Date Violation Determined:	04/09/1987
Actual Date Achieved Compliance:	05/07/1987
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	04/16/1987

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**GMC METAL FABRICATING DIV (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**1000254412**

Penalty Type: Not reported

There are 4 violation record(s) reported at this site:

<u>Evaluation</u>	<u>Area of Violation</u>	<u>Date of Compliance</u>
Other Evaluation	GENERATOR-OTHER REQUIREMENTS	19960620
Compliance Evaluation Inspection	GENERATOR-OTHER REQUIREMENTS	19960620
Compliance Evaluation Inspection	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	19911205
Compliance Evaluation Inspection	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	19880829
Compliance Evaluation Inspection	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	19870507

NY MANIFEST

[Click this hyperlink](#) while viewing on your computer to access additional NY MANIFEST detail in the EDR Site Report.

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:

AEROMETRIC INFORMATION RETRIEVAL SYSTEM/AIRS FACILITY SYSTEM  
NATIONAL EMISSIONS INVENTORY  
PERMIT COMPLIANCE SYSTEM  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM  
TOXIC CHEMICAL RELEASE INVENTORY SYSTEM

**LUST:**

Facility ID: 00014278  
Release Number: Closed  
Release Date: Dec 12 1989  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Jul 12 1996  
Owner Contact : Not reported  
Owner Name : Cadillac Motors Car Div GMC  
Owner Address : 10800 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (313) 234-1236  
Contact : KEITH J. WILSON  
Facility Phone : (313) 234-1236  
Leak Number: C-1179-89

Facility ID: 00014278  
Release Number: Closed  
Release Date: Oct 27 1989  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Sep 14 1995  
Owner Contact : Not reported  
Owner Name : Cadillac Motors Car Div GMC  
Owner Address : 10800 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (313) 234-1236  
Contact : KEITH J. WILSON  
Facility Phone : (313) 234-1236  
Leak Number: C-0751-89

Facility ID: 00014278  
Release Number: Closed

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Release Date: Oct 27 1989  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Oct 3 1990  
Owner Contact : Not reported  
Owner Name : Cadillac Motors Car Div GMC  
Owner Address : 10800 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (313) 234-1236  
Contact : KEITH J. WILSON  
Facility Phone : (313) 234-1236  
Leak Number: C-0752-89

Facility ID: 00014278  
Release Number: Closed  
Release Date: Dec 20 1989  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Oct 3 1990  
Owner Contact : Not reported  
Owner Name : Cadillac Motors Car Div GMC  
Owner Address : 10800 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (313) 234-1236  
Contact : KEITH J. WILSON  
Facility Phone : (313) 234-1236  
Leak Number: C-0096-85

Facility ID: 00014278  
Release Number: Closed  
Release Date: Dec 13 1990  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Jul 12 1996  
Owner Contact : Not reported  
Owner Name : Cadillac Motors Car Div GMC  
Owner Address : 10800 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (313) 234-1236  
Contact : KEITH J. WILSON  
Facility Phone : (313) 234-1236  
Leak Number: C-2697-90

**UST:**

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 1  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Diesel  
Capacity: 500

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Tank Status: Removed from Ground  
Remove Date: Oct 14 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 9 1955  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 2  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Diesel  
Capacity: 200  
Tank Status: Removed from Ground  
Remove Date: Oct 14 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 9 1955  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 3  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: NEW OIL  
Capacity: 12000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1989  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1942

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Release Detection:

Tank: Not reported

Pipe: Not reported

Facility ID: 00014278

Facility Status: CLOSED

Tank ID: 4

Owner: Cadillac Motors Car Div GMC

Owner Country: USA

Owner Contact: Not reported

Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439

Owner Phone: (313) 234-1236

Product: Used Oil

Capacity: 12000

Tank Status: Removed from Ground

Remove Date: Dec 1 1989

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel, Galvanized Steel

Piping Type: Not reported

Contact: KEITH J. WILSON

Contact Phone: (313) 234-1236

Impressed Device: No

Install Date: May 8 1942

Release Detection:

Tank: Not reported

Pipe: Not reported

Facility ID: 00014278

Facility Status: CLOSED

Tank ID: 5

Owner: Cadillac Motors Car Div GMC

Owner Country: USA

Owner Contact: Not reported

Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439

Owner Phone: (313) 234-1236

Product: Used Oil

Capacity: 12000

Tank Status: Removed from Ground

Remove Date: Dec 1 1989

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel, Galvanized Steel

Piping Type: Not reported

Contact: KEITH J. WILSON

Contact Phone: (313) 234-1236

Impressed Device: No

Install Date: May 8 1942

Release Detection:

Tank: Not reported

Pipe: Not reported

Facility ID: 00014278

Facility Status: CLOSED

Tank ID: 6

Owner: Cadillac Motors Car Div GMC

Owner Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Diesel  
Capacity: 30000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1989  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1942  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 7  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Used Oil  
Capacity: 30000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1989  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1942  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 8  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Used Oil  
Capacity: 30000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1989  
Constr Material: Asphalt Coated or Bare Steel

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1942  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 9  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Gasoline  
Capacity: 2000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1989  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1942  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 10  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Gasoline  
Capacity: 2000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1989  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1942  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 11  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Gasoline  
Capacity: 2000  
Tank Status: Removed from Ground  
Remove Date: Oct 14 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 8 1980  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 12  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (313) 234-1236  
Product: Used Oil  
Capacity: 5000  
Tank Status: Removed from Ground  
Remove Date: Aug 3 1988  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel,Galvanized Steel  
Piping Type: Not reported  
Contact: KEITH J. WILSON  
Contact Phone: (313) 234-1236  
Impressed Device: No  
Install Date: May 9 1971  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014278  
Facility Status: CLOSED  
Tank ID: 13  
Owner: Cadillac Motors Car Div GMC  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10800 S Saginaw St  
Grand Blanc, MI 48439

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**GMC METAL FABRICATING DIV (Continued)**

**1000254412**

Owner Phone: (313) 234-1236  
 Product: Used Oil  
 Capacity: 5000  
 Tank Status: Removed from Ground  
 Remove Date: Aug 3 1988  
 Constr Material: Asphalt Coated or Bare Steel  
 Piping Material: Bare Steel, Galvanized Steel  
 Piping Type: Not reported  
 Contact: KEITH J. WILSON  
 Contact Phone: (313) 234-1236  
 Impressed Device: No  
 Install Date: May 9 1971  
 Release Detection:  
 Tank: Not reported  
 Pipe: Not reported

Facility ID: 00014278  
 Facility Status: CLOSED  
 Tank ID: 14  
 Owner: Cadillac Motors Car Div GMC  
 Owner Country: USA  
 Owner Contact: Not reported  
 Owner Address: 10800 S Saginaw St  
 Grand Blanc, MI 48439

Owner Phone: (313) 234-1236  
 Product: Used Oil  
 Capacity: 5000  
 Tank Status: Removed from Ground  
 Remove Date: Aug 3 1988  
 Constr Material: Asphalt Coated or Bare Steel  
 Piping Material: Bare Steel, Galvanized Steel  
 Piping Type: Not reported  
 Contact: KEITH J. WILSON  
 Contact Phone: (313) 234-1236  
 Impressed Device: No  
 Install Date: May 9 1971  
 Release Detection:  
 Tank: Not reported  
 Pipe: Not reported

**A3**  
**Target**  
**Property**

**10800 S. SAGINAW ST.**  
**GRAND BLANC, MI**

**PEAS S105975675**  
**N/A**

**Site 3 of 6 in cluster A**

**Actual:**  
**835 ft.**

MI PEAS:  
 PEAS Number : 386-00  
 Incident Date : 06/14/2000  
 Date Of PEAS Call : 06/15/2000  
 Complainant / Company : Dave Groat w/GM Metal Fab Plant  
 Complainant Location : Grand Blanc, MI  
 Complainant Address : 10800 S. Saginaw St.  
 Complainant Phone : 810-234-1236  
 Company Involved : Dave Groat w/GM Metal Fab Plant  
 Company Involved Address : 10800 S. Saginaw St.  
 Township Of Incident : Not reported  
 Name/Volume Of Contaminant : Diesel fuel/600 gallons  
 Surface Water Involved ? : Lagoon

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**(Continued)**

**S105975675**

Dispatched To District Staff : Carla Davidson  
 DEQ Division Involved : SWQD  
 Date Dispatch : 06/15/2000  
 Incident Desc : A train's engine derailed on their property. One fuel tank ruptured and spilled to the ground. It was contained on the property, but some of the diesel fuel went to a lagoon on the property. The lagoon has boomsto contain spills. A second call came in on this incident.

**A4 GM - METAL FABRICATING DIVISION**  
**Target 10800 S SAGINAW ST**  
**Property GRAND BLANC, BB 48439**

**AST A100171564**  
**N/A**

**Actual:  
 835 ft.**

**Site 4 of 6 in cluster A**

AST:

Facility ID: 91025102  
 Tank ID: 1  
 Type: ACTIVE  
 Tank Status: Currently In Use  
 Content: Flammable Liquid  
 Capacity: 2000  
 Owner: Gm Metal Fabricating Div  
 Owner Address: 10800 S Saginaw St  
 Grand Blanc, MI 48439  
 Owner Contact: Not reported  
 Owner Country: USA  
 District: Lansing District Office  
 Install Date: May 18 1990  
 Close Date: Not reported  
 Facility Phone: (810) 234-1236  
 Contact: KEITH WILSON

Facility ID: 91025102  
 Tank ID: 2  
 Type: ACTIVE  
 Tank Status: Currently In Use  
 Content: Flammable Liquid  
 Capacity: 3000  
 Owner: Gm Metal Fabricating Div  
 Owner Address: 10800 S Saginaw St  
 Grand Blanc, MI 48439  
 Owner Contact: Not reported  
 Owner Country: USA  
 District: Lansing District Office  
 Install Date: May 18 1990  
 Close Date: Not reported  
 Facility Phone: (810) 234-1236  
 Contact: KEITH WILSON

Facility ID: 91025102  
 Tank ID: 3  
 Type: ACTIVE  
 Tank Status: Currently In Use  
 Content: Flammable Liquid  
 Capacity: 5000  
 Owner: Gm Metal Fabricating Div  
 Owner Address: 10800 S Saginaw St  
 Grand Blanc, MI 48439  
 Owner Contact: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**GM - METAL FABRICATING DIVISION (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

Owner Country: USA  
 District: Lansing District Office  
 Install Date: May 18 1990  
 Close Date: Not reported  
 Facility Phone: (810) 234-1236  
 Contact: KEITH WILSON

**A100171564**

**A5**  
**Target**  
**Property**

**CSX TRANSPORTATION INC**  
**10800 S SAGINAW**  
**GRAND BLANC, MI 48439**

**RCRA-SQG 1007880659**  
**MIK882475114**

**Site 5 of 6 in cluster A**

**Actual:**  
**835 ft.**

RCRAInfo:  
 Owner: CSX TRANSPORTATION INC  
 EPA ID: MIK882475114  
 Contact: CARL GERHARDSTEIN  
 (904) 366-4303  
 Classification: Conditionally Exempt Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

**A6**  
**Target**  
**Property**

**10800 SOUTH SAGINAW ST**  
**10800 SOUTH SAGINAW ST**  
**GRAND BLANC, MI 48439**

**ERNS 93323893**  
**N/A**

**Site 6 of 6 in cluster A**

**Actual:**  
**835 ft.**

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

**7**  
**ESE**  
**1/4-1/2**  
**2260 ft.**

**MARR PRINTING CC**  
**11232 S SAGINAW ST**  
**GRAND BLANC, MI 48439**

**RCRA-SQG 1004724763**  
**FINDS MIR000012260**

**Relative:**  
**Lower**

RCRAInfo:  
 Owner: DALE MARR  
 EPA ID: MIR000012260  
 Contact: KENT AURAND  
 (810) 694-6511  
 Classification: Conditionally Exempt Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

**Actual:**  
**821 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**MARR PRINTING CC (Continued)**

**1004724763**

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**B8**  
**SSW**  
 1/4-1/2  
 2375 ft.

**METO KOTE CORPORATION**  
**3085 REID RD**  
**GRAND BLANC, MI 48439**

**RCRA-SQG 1001202400**  
**FINDS MIR000026302**

**Site 1 of 3 in cluster B**

**Relative:**  
**Lower**

RCRAInfo:  
 Owner: METOKOTE CORPORATION  
 EPA ID: MIR000026302  
 Contact: TONJA HARDIN  
 (419) 227-1100

**Actual:**  
**835 ft.**

Classification: Small Quantity Generator  
 TSD Activities: Not reported

**BIENNIAL REPORTS:**

Last Biennial Reporting Year: 2003

<u>Waste</u>	<u>Quantity (Lbs)</u>
D001	3211.01

Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 NATIONAL EMISSIONS INVENTORY  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM  
 TOXIC CHEMICAL RELEASE INVENTORY SYSTEM

**B9**  
**SSW**  
 1/4-1/2  
 2375 ft.

**PREMIERE PACKAGING INC**  
**3085 E REID RD**  
**GRAND BLANC, MI 48439**

**RCRA-SQG 1000136477**  
**FINDS MID094540812**

**Site 2 of 3 in cluster B**

**Relative:**  
**Lower**

RCRAInfo:  
 Contact: ENYICHUKWU OBIMBA  
 (313) 239-7650

**Actual:**  
**835 ft.**

Classification: Small Quantity Generator  
 TSD Activities: Not reported

Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

MAP FINDINGS

Map ID			
Direction			
Distance			
Distance (ft.)			EDR ID Number
Elevation	Site	Database(s)	EPA ID Number

<b>B10</b>	<b>ARMOR ALL PRODUCTS CORP</b>	<b>RCRA-SQG</b>	<b>1001117619</b>
<b>SSW</b>	<b>3085 REID RD</b>	<b>FINDS</b>	<b>MIR000016501</b>
<b>1/4-1/2</b>	<b>GRAND BLANC, MI 48439</b>		
<b>2375 ft.</b>			

**Site 3 of 3 in cluster B**

<b>Relative:</b>	RCRAInfo:		
<b>Lower</b>	Owner:	ARMOR ALL PRODUCTS CORP (PROD OWNER)	
	EPA ID:	MIR000016501	
<b>Actual:</b>	Contact:	JAMES R TUCKER	
<b>835 ft.</b>		(803) 805-5704	
	Classification:	Small Quantity Generator	
	TSDF Activities:	Not reported	
	Violation Status:	No violations found	

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

<b>11</b>	<b>GERALD D ROSS</b>	<b>HIST LF</b>	<b>S100069427</b>
<b>WSW</b>	<b>6434 DORT HWY</b>		<b>N/A</b>
<b>1/4-1/2</b>	<b>GRAND BLANC, MI 48439</b>		
<b>2562 ft.</b>			

<b>Relative:</b>	HIST LF:		
<b>Lower</b>	Facility ID:	25000011	Contact: Not reported
	District:	Shawassee	Active: No
<b>Actual:</b>	Facility Number:	000011	Township Section: 10
<b>814 ft.</b>	Application Type:	Private	Facility Type: Landfill Type II
	District:	Not reported	Business Type: Not reported
	Amount:	0.00	Fund Type: Not reported
	Issued Date:	Not reported	Facility Phone: Not reported
	Expires:	Not reported	License No: Not reported
	Expiry:	Not reported	Licensed: Not reported
	Facility Email:	Not reported	Permit Applicant: Not reported
	Permit Contact:	FRANK HAMBICKI	
		2425 RICHFIELD	
		FLINT, MI 48506	
	Applicant Phone:	Not reported	
	Owner:	GERALD D ROSS	
	Owner Contact:	Not reported	
		Not reported	
		Not reported	
	Owner Phone:	Not reported	
	Owner Fax:	Not reported	Owner Email: Not reported
	Owner Cont:	Not reported	
	Liner Information:	Not reported	
	Section Number:	Not reported	
	Facility Township:	Not reported	
	Township Section:	Not reported	
	Nature of Wastes Allowed:	Not reported	
	Date of Expiry of Current License:	Not reported	
	Acreege Currently Licensed:	0.000	
	Acres Certified Closed:	0.000	
	Issue of 1st Construction Permit Date:	Not reported	
	Acres Given in 1st Construction Permit:	0.000	
	Acres Given in 2nd Construction Permit:	0.000	
	Issue of 3rd Construction Permit Date:	Not reported	
	Acres Given in 3rd Construction Permit:	0.000	

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**GERALD D ROSS (Continued)**

**S100069427**

Restrictive Deed Covenant Filed:	Not reported
Perpetual Care Fund Signed:	Not reported
Perpetual Care Fund Agreement Signed:	Not reported
Perpetual Care Fund Type:	Not reported
Groundwater Monitoring System Exists:	Not reported
Date landfill Certified Closed:	Not reported
Liner Type:	Not reported
Reported Date:	Not reported
Received Waste on or After Oct. 9, 1991:	Not reported
Site Monitorable Under Definition of New Rules:	Not reported
County Code:	25
County Description:	Not reported
County 2 Description:	Not reported
Financial Instrument:	Not reported
Facility Fax:	Not reported
Facility Type 2:	Not reported
Facility Type 4:	Not reported
Staff:	Not reported
Permit Number:	Not reported
Facility Town:	GRAND BLANC
No Waste:	Not reported
Operator:	Not reported
Operator Contact:	Not reported
Operator Phone:	Not reported
Operator Email:	Not reported
Operator Fax:	Not reported
Enforcement:	Not reported
Exp Letters:	Not reported
Comments:	Not reported

Facility Contact:	Not reported
Facility Type 3:	Not reported
Facility Type:	Not reported
Permit Date:	Not reported
License Date:	/ /

**12 AL SERRA BUICK CHEVROLET GMC TRUCK INC**  
**North G6201 S SAGINAW**  
**1/2-1 GRAND BLANC, MI 48439**  
**2674 ft.**

**RCRA-SQG 1000433394**  
**FINDS MID017135112**

**Relative:** RCRAInfo:  
**Lower** Owner: NAME NOT REPORTED  
 EPA ID: MID017135112  
**Actual:** Contact: ROBERT HAMPTON  
**817 ft.** (810) 694-5600  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**  
 Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

13  
ESE  
1/2-1  
2927 ft.

CSX TRANSPORTATION INC  
CHURCH ST  
GRAND BLANC, MI 32202

UST U001148150  
N/A

Relative:  
Higher

UST:

Actual:  
841 ft.

Facility ID: 00036751  
Facility Status: CLOSED  
Tank ID: 1  
Owner: Csx Transportation Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 301 W Bay St Suite 800  
Jacksonville, FL 32202  
Owner Phone: (904) 633-4513  
Product: Diesel  
Capacity: 500  
Tank Status: Removed from Ground  
Remove Date: Oct 5 1992  
Constr Material: Unknown  
Piping Material: Unknown  
Piping Type: Not reported  
Contact: JOHN C. CALHOUN P.E.  
Contact Phone: (904) 359-7527  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00036751  
Facility Status: CLOSED  
Tank ID: SA-01  
Owner: Csx Transportation Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 301 W Bay St Suite 800  
Jacksonville, FL 32202  
Owner Phone: (904) 633-4513  
Product: Not reported  
Capacity: Not reported  
Tank Status: NON-Registered Tank  
Remove Date: Not reported  
Constr Material: Not reported  
Piping Material: Not reported  
Piping Type: Not reported  
Contact: JOHN C. CALHOUN P.E.  
Contact Phone: (904) 359-7527  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**14**      **1034GK**  
**ESE**      **11350 S SAGINAW ST**  
**1/2-1**      **GRAND BLANC, MI 48439**  
**2953 ft.**

**LUST**      **U003102568**  
                  **N/A**

**Relative:**  
**Lower**

LUST:

**Actual:**  
**823 ft.**

Facility ID:      00004635  
 Release Number: Closed  
 Release Date:    Sep 9 1988  
 Facility Status:    CLOSED  
 District:          Lansing District Office  
 Closed Date:      Mar 1 1995  
 Owner Contact :    Not reported  
 Owner Name :      OWNER ADDRESS UNKNOWN  
 Owner Address :    Not Recorded  
                           Not Recorded, XX 99999  
 Country :          USA  
 Owner Phone :     Not reported  
 Contact :          ROBERT D. PACER  
 Facility Phone :    (313) 694-2850  
 Leak Number:      C-0142-85

**15**      **AL SERRA CHEVROLET INC**  
**NNW**      **G6167 S SAGINAW**  
**1/2-1**      **GRAND BLANC, MI 48439**  
**3002 ft.**

**RCRA-SQG**      **1000352328**  
**FINDS**          **MID064202112**

**Relative:**  
**Lower**

RCRAInfo:

**Actual:**  
**818 ft.**

Owner:            JOSEPH SERRA  
 EPA ID:          MID064202112  
 Contact:          PAUL HOUSEHOLDER  
                           (810) 694-5440

Classification:    Small Quantity Generator  
 TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated:      Not reported  
 Area of Violation:        GENERATOR-RECORDKEEPING REQUIREMENTS  
 Date Violation Determined:    12/05/2000  
 Actual Date Achieved Compliance: 01/09/2001

Enforcement Action:        WRITTEN INFORMAL  
 Enforcement Action Date:    12/05/2000  
 Penalty Type:                Not reported

Regulation Violated:      Not reported  
 Area of Violation:        GENERATOR-PRE-TRANSPORT REQUIREMENTS  
 Date Violation Determined:    12/05/2000  
 Actual Date Achieved Compliance: 01/09/2001

Enforcement Action:        WRITTEN INFORMAL  
 Enforcement Action Date:    12/05/2000  
 Penalty Type:                Not reported

Regulation Violated:      Not reported  
 Area of Violation:        GENERATOR-CONTAINER  
 Date Violation Determined:    12/05/2000  
 Actual Date Achieved Compliance: 01/09/2001

Enforcement Action:        WRITTEN INFORMAL  
 Enforcement Action Date:    12/05/2000  
 Penalty Type:                Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

MAP FINDINGS

**AL SERRA CHEVROLET INC (Continued)**

EDR ID Number  
 EPA ID Number

Database(s)

**1000352328**

Regulation Violated:	Not reported
Area of Violation:	GENERATOR-LAND BAN REQUIREMENTS
Date Violation Determined:	12/05/2000
Actual Date Achieved Compliance:	01/09/2001
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	12/05/2000
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined:	11/03/2000
Actual Date Achieved Compliance:	01/09/2001
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	12/05/2000
Penalty Type:	Not reported
Regulation Violated:	Not reported
Area of Violation:	GENERATOR-MANIFEST REQUIREMENTS
Date Violation Determined:	11/03/2000
Actual Date Achieved Compliance:	01/09/2001
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	12/05/2000
Penalty Type:	Not reported

There are 6 violation record(s) reported at this site:

<u>Evaluation</u>	<u>Area of Violation</u>	<u>Date of Compliance</u>
Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	20010109
	GENERATOR-MANIFEST REQUIREMENTS	20010109
	GENERATOR-RECORDKEEPING REQUIREMENTS	20010109
	GENERATOR-PRE-TRANSPORT REQUIREMENTS	20010109
	GENERATOR-CONTAINER	20010109
	GENERATOR-LAND BAN REQUIREMENTS	20010109

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**16**  
**SE**  
**1/2-1**  
**3201 ft.**

**IMPACT AUTO COLLISION INC**  
**332 UNION ST**  
**GRAND BLANC, MI 48439**

**RCRA-SQG** **1000451766**  
**FINDS** **MID985583137**

**Relative:**  
**Higher**

RCRAInfo:  
 Owner: ZUEHLKE BOB  
 EPA ID: MID985583137  
 Contact: ROBERT ZUEHLKE  
 (810) 694-2999  
 Classification: Small Quantity Generator  
 TSDF Activities: Not reported

**Actual:**  
**839 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**IMPACT AUTO COLLISION INC (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000451766

Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**C17**  
**ESE**  
**1/2-1**  
**3357 ft.**

**GRAND BLANC MARATHON**  
**11410 S SAGINAW ST**  
**GRAND BLANC, MI 48439**

**LUST** **U000252905**  
**UST** **N/A**

**Site 1 of 2 in cluster C**

**Relative:**  
**Lower**

**LUST:**

**Actual:**  
**828 ft.**

Facility ID: 00017682  
Release Number: Open  
Release Date: Apr 10 2001  
Facility Status: ACTIVE  
District: Lansing District Office  
Closed Date: Not reported  
Owner Contact : Not reported  
Owner Name : Cam Fee  
Owner Address : 1471 Oyster Ln  
Holly, MI 48442  
Country : USA  
Owner Phone : (810) 750-1049  
Contact : CAM FEE  
Facility Phone : (810) 750-1049  
Leak Number: C-0219-01

**UST:**

Facility ID: 00017682  
Facility Status: CLOSED  
Tank ID: 1  
Owner: Cam Fee  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 1471 Oyster Ln  
Holly, MI 48442  
Owner Phone: (810) 750-1049  
Product: Gasoline  
Capacity: 8000  
Tank Status: Removed from Ground  
Remove Date: Apr 10 2001  
Constr Material: Not reported  
Piping Material: Not reported  
Piping Type: Not reported  
Contact: CAM FEE  
Contact Phone: (810) 750-1049  
Impressed Device: No  
Install Date: Apr 29 1986  
Release Detection:  
Tank: Not reported  
Pipe: Not reported  
  
Facility ID: 00017682  
Facility Status: CLOSED  
Tank ID: 2  
Owner: Cam Fee  
Owner Country: USA

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GRAND BLANC MARATHON (Continued)**

**U000252905**

Owner Contact: Not reported  
Owner Address: 1471 Oyster Ln  
Holly, MI 48442  
Owner Phone: (810) 750-1049  
Product: Gasoline  
Capacity: 8000  
Tank Status: Removed from Ground  
Remove Date: Apr 10 2001  
Constr Material: Cathodically Protected Steel,Polyethylene Tank Jacket  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Pressure  
Contact: CAM FEE  
Contact Phone: (810) 750-1049  
Impressed Device: No  
Install Date: Apr 29 1986  
Release Detection:  
Tank: Tank Tightness Testing,SIR  
Pipe: Automatic Line Leak Detectors,Line Tightness Testing,SIR

Facility ID: 00017682  
Facility Status: CLOSED  
Tank ID: 3  
Owner: Cam Fee  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 1471 Oyster Ln  
Holly, MI 48442  
Owner Phone: (810) 750-1049  
Product: Gasoline  
Capacity: 8000  
Tank Status: Removed from Ground  
Remove Date: Apr 10 2001  
Constr Material: Cathodically Protected Steel,Polyethylene Tank Jacket  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Pressure  
Contact: CAM FEE  
Contact Phone: (810) 750-1049  
Impressed Device: No  
Install Date: Apr 29 1986  
Release Detection:  
Tank: Tank Tightness Testing,SIR  
Pipe: Line Tightness Testing,SIR

Facility ID: 00017682  
Facility Status: CLOSED  
Tank ID: 4  
Owner: Cam Fee  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 1471 Oyster Ln  
Holly, MI 48442  
Owner Phone: (810) 750-1049  
Product: Used Oil  
Capacity: 500  
Tank Status: Removed from Ground  
Remove Date: Aug 31 2001  
Constr Material: Unknown

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GRAND BLANC MARATHON (Continued)**

**U000252905**

Piping Material: Unknown  
Piping Type: Not reported  
Contact: CAM FEE  
Contact Phone: (810) 750-1049  
Impressed Device: No  
Install Date: Jan 1 1985  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

**D18  
SSW  
1/2-1  
3377 ft.**

**SELMURO LTD  
3111 TRI PARK DR  
GRAND BLANC, MI 48439**

**RCRA-SQG 1001220222  
FINDS MIR000032177**

**Site 1 of 2 in cluster D**

**Relative:  
Higher**

RCRAInfo:  
Owner: THOMAS BARRETT  
EPA ID: MIR000032177  
Contact: TONYA SCHULTZ  
(810) 603-2117

**Actual:  
841 ft.**

Classification: Small Quantity Generator  
TSD Activities: Not reported  
Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**D19  
SW  
1/2-1  
3423 ft.**

**RAPID DESIGN SVC INC  
3089 TRI PARK DR  
GRAND BLANC, MI 48439**

**RCRA-SQG 1004724083  
FINDS MID985656552**

**Site 2 of 2 in cluster D**

**Relative:  
Higher**

RCRAInfo:  
Owner: RAPID DESIGN SVC INC  
EPA ID: MID985656552  
Contact: KATHY BLACK  
(313) 695-9630

**Actual:  
839 ft.**

Classification: Conditionally Exempt Small Quantity Generator  
TSD Activities: Not reported  
Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**C20**  
**ESE**  
**1/2-1**  
**3466 ft.**

**GRAND BLANC SERVICE INC**  
**11431 S SAGINAW ST**  
**GRAND BLANC, MI 48439**

**LUST** **U003102921**  
**UST** **N/A**

**Site 2 of 2 in cluster C**

**Relative:**  
**Lower**

**LUST:**

**Actual:**  
**831 ft.**

Facility ID: 00014316  
Release Number: Open  
Release Date: Jul 21 2003  
Facility Status: ACTIVE  
District: Lansing District Office  
Closed Date: Not reported  
Owner Contact : Not reported  
Owner Name : BRC Enterprises  
Owner Address : 11431 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (810) 694-6810  
Contact : Muhanad Jondy  
Facility Phone : (810) 694-6810  
Leak Number: C-0323-03

Facility ID: 00014316  
Release Number: Closed  
Release Date: Jan 17 1996  
Facility Status: ACTIVE  
District: Lansing District Office  
Closed Date: Jul 1 1996  
Owner Contact : Not reported  
Owner Name : BRC Enterprises  
Owner Address : 11431 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (810) 694-6810  
Contact : Muhanad Jondy  
Facility Phone : (810) 694-6810  
Leak Number: C-0041-96

Facility ID: 00014316  
Release Number: Closed  
Release Date: Jun 6 1987  
Facility Status: ACTIVE  
District: Lansing District Office  
Closed Date: Jul 1 1996  
Owner Contact : Not reported  
Owner Name : BRC Enterprises  
Owner Address : 11431 S Saginaw St  
Grand Blanc, MI 48439  
Country : USA  
Owner Phone : (810) 694-6810  
Contact : Muhanad Jondy  
Facility Phone : (810) 694-6810  
Leak Number: C-0098-85

**UST:**

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 1  
Owner: BRC Enterprises

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**GRAND BLANC SERVICE INC (Continued)**

**U003102921**

Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 8000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Cathodically Protected Steel  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 2  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 10000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Cathodically Protected Steel  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 3  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 550  
Tank Status: Currently In Use  
Remove Date: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GRAND BLANC SERVICE INC (Continued)**

**U003102921**

Constr Material: Cathodically Protected Steel  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Pressure  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 4  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439

Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 2000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Cathodically Protected Steel  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 5  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Diesel  
Capacity: 8000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Cathodically Protected Steel  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GRAND BLANC SERVICE INC (Continued)**

**U003102921**

Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 6  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Kerosene  
Capacity: 6000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Cathodically Protected Steel  
Piping Material: Fiberglass reinforced plastic  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: 7  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Used Oil  
Capacity: 2000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Cathodically Protected Steel  
Piping Material: NO PIPINGH  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: Yes  
Install Date: Oct 1 1988  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: R-1  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GRAND BLANC SERVICE INC (Continued)**

**U003102921**

Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 10000  
Tank Status: Removed from Ground  
Remove Date: Feb 9 1990  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Unknown  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: S-2  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 10000  
Tank Status: Removed from Ground  
Remove Date: Feb 9 1990  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Unknown  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: UNL-3  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 10000  
Tank Status: Removed from Ground  
Remove Date: Feb 9 1990  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Unknown  
Piping Type: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**GRAND BLANC SERVICE INC (Continued)**

**U003102921**

Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: UNL-4  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Gasoline  
Capacity: 10000  
Tank Status: Removed from Ground  
Remove Date: Feb 9 1990  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Unknown  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014316  
Facility Status: ACTIVE  
Tank ID: DIESEL-5  
Owner: BRC Enterprises  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 11431 S Saginaw St  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-6810  
Product: Kerosene  
Capacity: 1000  
Tank Status: Removed from Ground  
Remove Date: Feb 9 1990  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Unknown  
Piping Type: Not reported  
Contact: Muhanad Jondy  
Contact Phone: (810) 694-6810  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014316

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**GRAND BLANC SERVICE INC (Continued)**

**U003102921**

Facility Status: ACTIVE  
 Tank ID: DIESEL-6  
 Owner: BRC Enterprises  
 Owner Country: USA  
 Owner Contact: Not reported  
 Owner Address: 11431 S Saginaw St  
 Grand Blanc, MI 48439  
 Owner Phone: (810) 694-6810  
 Product: Diesel  
 Capacity: 20000  
 Tank Status: Removed from Ground  
 Remove Date: Feb 9 1990  
 Constr Material: Asphalt Coated or Bare Steel  
 Piping Material: Unknown  
 Piping Type: Not reported  
 Contact: Muhanad Jondy  
 Contact Phone: (810) 694-6810  
 Impressed Device: No  
 Install Date: Not reported  
 Release Detection:  
 Tank: Not reported  
 Pipe: Not reported

**E21  
 NNW  
 1/2-1  
 3526 ft.**

**AL SERRA CHEVROLET INC  
 6167 S SAGINAW RD  
 GRAND BLANC, MI 48439**

**LUST U002301181  
 UST N/A**

**Site 1 of 2 in cluster E**

**Relative:  
 Lower**

**LUST:**

**Actual:  
 816 ft.**

Facility ID: 00015108  
 Release Number: Closed  
 Release Date: Nov 2 1991  
 Facility Status: CLOSED  
 District: Lansing District Office  
 Closed Date: Jan 21 1993  
 Owner Contact : Not reported  
 Owner Name : Al Serra Chev Inc  
 Owner Address : 6167 S Saginaw Rd  
 Grand Blanc, MI 48439  
 Country : USA  
 Owner Phone : (313) 694-5440  
 Contact : JOSEPH O SERRA  
 Facility Phone : (810) 603-1400  
 Leak Number: C-2364-91

**UST:**

Facility ID: 00015108  
 Facility Status: ACTIVE  
 Tank ID: 1  
 Owner: Al Serra Chev Inc  
 Owner Country: USA  
 Owner Contact: Not reported  
 Owner Address: 6167 S Saginaw Rd  
 Grand Blanc, MI 48439  
 Owner Phone: (313) 694-5440  
 Product: MOTOR OIL  
 Capacity: 1000  
 Tank Status: Removed from Ground

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**AL SERRA CHEVROLET INC (Continued)**

**U002301181**

Remove Date: Nov 2 1991  
Constr Material: Asphalt Coated or Bare Steel,Composite(Steel w/Fiberglass)  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: JOSEPH O SERRA  
Contact Phone: (810) 603-1400  
Impressed Device: No  
Install Date: Apr 4 1985  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00015108  
Facility Status: ACTIVE  
Tank ID: 2  
Owner: Al Serra Chev Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 6167 S Saginaw Rd  
Grand Blanc, MI 48439  
Owner Phone: (313) 694-5440  
Product: Gasoline  
Capacity: 1000  
Tank Status: Removed from Ground  
Remove Date: Nov 2 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: JOSEPH O SERRA  
Contact Phone: (810) 603-1400  
Impressed Device: No  
Install Date: Apr 5 1975  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00015108  
Facility Status: ACTIVE  
Tank ID: 3  
Owner: Al Serra Chev Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 6167 S Saginaw Rd  
Grand Blanc, MI 48439  
Owner Phone: (313) 694-5440  
Product: Used Oil  
Capacity: 1000  
Tank Status: Removed from Ground  
Remove Date: Nov 2 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: JOSEPH O SERRA  
Contact Phone: (810) 603-1400  
Impressed Device: No  
Install Date: Apr 5 1975  
Release Detection:

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**AL SERRA CHEVROLET INC (Continued)**

**U002301181**

Tank: Not reported  
Pipe: Not reported  
  
Facility ID: 00015108  
Facility Status: ACTIVE  
Tank ID: 24  
Owner: Al Serra Chev Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 6167 S Saginaw Rd  
Grand Blanc, MI 48439  
Owner Phone: (313) 694-5440  
Product: Gasoline  
Capacity: Not reported  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Composite(Steel w/Fiberglass),Double Walled  
Piping Material: Double Walled,Fiberglass reinforced plastic  
Piping Type: Suction: No Valve At Tank  
Contact: JOSEPH O SERRA  
Contact Phone: (810) 603-1400  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Inter Monitoring Double Walled Tank  
Pipe: Interstitial Monitoring Double Walled Piping

**F22  
SE  
1/2-1  
3624 ft.**

**AMERITECH  
226 W GRAND BLANC RD  
GRAND BLANC, MI 60068**

**UST U003211027  
N/A**

**Site 1 of 2 in cluster F**

**Relative:  
Higher**

UST:  
Facility ID: 00011723  
Facility Status: ACTIVE  
Tank ID: 1  
Owner: Michigan Bell Telephone Co (dba) SBC Ameritech  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 36 S Fairview Floor #4  
Park Ridge, IL 60068  
Owner Phone: Not reported  
Product: Kerosene  
Capacity: 2000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Fiberglass Reinforced plastic  
Piping Material: Bare Steel,Double Walled,Fiberglass reinforced plastic  
Piping Type: Suction: Valve at Tank  
Contact: BUD FOUNTAIN  
Contact Phone: (313) 874-8979  
Impressed Device: No  
Install Date: May 8 1974  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Interstitial Monitoring Double Walled Piping

**Actual:  
851 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**F23**  
**SE**  
**1/2-1**  
**3624 ft.**

**MICHIGAN BELL TELEPHONE CO**  
**226 W GRAND BLANC RD**  
**GRAND BLANC, MI 48439**

**RCRA-SQG** **1004722998**  
**FINDS** **MID982633711**

**Site 2 of 2 in cluster F**

**Relative:**  
**Higher**

RCRAInfo:

Owner: MICHIGAN BELL TEL CO  
 EPA ID: MID982633711  
 Contact: MANDY BOHLMANN  
 (877) 648-2073

**Actual:**  
**851 ft.**

Classification: Conditionally Exempt Small Quantity Generator  
 TSDF Activities: Not reported

Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**E24**  
**NNW**  
**1/2-1**  
**3631 ft.**

**RON SLIVKA BUICK INC**  
**G-10825 S SAGINAW ST**  
**GRAND BLANC, MI 48439**

**UST** **U003082051**  
**N/A**

**Site 2 of 2 in cluster E**

**Relative:**  
**Lower**

UST:

Facility ID: 00009609  
 Facility Status: CLOSED  
 Tank ID: 1  
 Owner: Ron Slivka Buick Inc  
 Owner Country: USA  
 Owner Contact: Not reported  
 Owner Address: G-10825 S SAGINAW ST  
 GRAND BLANC, MI 48439  
 Owner Phone: (810) 694-5600  
 Product: Gasoline  
 Capacity: 2000  
 Tank Status: Removed from Ground  
 Remove Date: Nov 15 1994  
 Constr Material: Asphalt Coated or Bare Steel  
 Piping Material: Galvanized Steel  
 Piping Type: Not reported  
 Contact: JOHN LANCASTER  
 Contact Phone: (810) 694-5600  
 Impressed Device: No  
 Install Date: Apr 9 1985  
 Release Detection:  
 Tank: Not reported  
 Pipe: Not reported

**Actual:**  
**817 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**25**            **GRAND BLANC LAWN EQUIPMENT**  
**SE**            **410 E GRAND BLANC RD**  
**1/2-1**        **GRAND BLANC, MI 48439**  
**3649 ft.**

**RCRA-SQG**    **1001025975**  
**FINDS**        **MIR000003376**

**Relative:**  
**Higher**

RCRAInfo:  
 Owner:            MIKE CIECIWA  
 EPA ID:            MIR000003376  
 Contact:          MIKE CIECIWA  
                       (810) 695-3580  
 Classification:    Small Quantity Generator  
 TSDF Activities:   Not reported  
 Violation Status: No violations found

**Actual:**  
**842 ft.**

**FINDS:**  
 Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**26**            **GRAND BLANC CEMENT PRODUCTS INC**  
**NE**            **10709 CENTER RD**  
**1/2-1**        **GRAND BLANC, MI 48439**  
**3668 ft.**

**RCRA-SQG**    **1000308801**  
**FINDS**        **MID005374871**  
**LUST**  
**UST**  
**AST**

**Relative:**  
**Lower**

RCRAInfo:  
 Owner:            CORP NORMAN NELSON KEN MINNOCK  
 EPA ID:            MID005374871  
 Contact:          MIKE WARD  
                       (810) 694-7500  
 Classification:    Conditionally Exempt Small Quantity Generator  
 TSDF Activities:   Not reported  
 Violation Status: No violations found

**Actual:**  
**812 ft.**

**FINDS:**  
 Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**LUST:**  
 Facility ID:        00037265  
 Release Number:   Closed  
 Release Date:     Dec 10 1998  
 Facility Status:    CLOSED  
 District:           Lansing District Office  
 Closed Date:      Sep 12 1999  
 Owner Contact :   Not reported  
 Owner Name :     Grand Blanc Cement  
 Owner Address :   10709 Center Rd  
                       Grand Blanc, MI 48439  
 Country :          USA  
 Owner Phone :    (810) 694-7500  
 Contact :          RICK BARKER  
 Facility Phone :   (810) 694-7500  
 Leak Number:     C-1242-98

**UST:**  
 Facility ID:        00037265  
 Facility Status:    CLOSED  
 Tank ID:           1

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**GRAND BLANC CEMENT PRODUCTS INC (Continued)**

**1000308801**

Owner: Grand Blanc Cement  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 10709 Center Rd  
Grand Blanc, MI 48439  
Owner Phone: (810) 694-7500  
Product: Diesel  
Capacity: 12000  
Tank Status: Closed in Ground  
Remove Date: Dec 3 1998  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Bare Steel  
Piping Type: Suction: No Valve At Tank  
Contact: RICK BARKER  
Contact Phone: (810) 694-7500  
Impressed Device: No  
Install Date: Nov 14 1974  
Release Detection:  
Tank: Inventory Control, Tank Tightness Testing  
Pipe: Line Tightness Testing  
AST:  
Facility ID: 91084073  
Tank ID: 1  
Type: ACTIVE  
Tank Status: Currently In Use  
Content: Diesel  
Capacity: 12000  
Owner: Grand Blanc Cement  
Owner Address: 10709 Center Rd  
Grand Blanc, MI 48439  
Owner Contact: Not reported  
Owner Country: USA  
District: Lansing District Office  
Install Date: Oct 5 1998  
Close Date: Not reported  
Facility Phone: (810) 594-7500  
Contact: RICK BARKER

**G27  
SE  
1/2-1  
3702 ft.**

**DEPT OF PUBLIC WORKS  
507 E GRAND BLANC RD  
GRAND BLANC, MI 48439**

**LUST U003211098  
UST N/A**

**Relative:  
Higher**

**Site 1 of 3 in cluster G**

**Actual:  
843 ft.**

LUST:  
Facility ID: 00014803  
Release Number: Closed  
Release Date: Feb 1 1994  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Jul 6 1995  
Owner Contact : Not reported  
Owner Name : City Of Grand Blanc  
Owner Address : 200 HIGH ST  
GRAND BLANC, MI 48439  
Country : USA  
Owner Phone : (810) 694-5420  
Contact : JACK KIPP  
Facility Phone : (810) 694-5420

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

DEPT OF PUBLIC WORKS (Continued)

U003211098

Leak Number: C-0083-94  
  
Facility ID: 00014803  
Release Number: Closed  
Release Date: Mar 3 1994  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Jul 6 1995  
Owner Contact : Not reported  
Owner Name : City Of Grand Blanc  
Owner Address : 200 HIGH ST  
GRAND BLANC, MI 48439  
  
Country : USA  
Owner Phone : (810) 694-5420  
Contact : JACK KIPP  
Facility Phone : (810) 694-5420  
Leak Number: C-0182-94

Facility ID: 00014803  
Release Number: Closed  
Release Date: Apr 11 1994  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Jul 6 1995  
Owner Contact : Not reported  
Owner Name : City Of Grand Blanc  
Owner Address : 200 HIGH ST  
GRAND BLANC, MI 48439  
  
Country : USA  
Owner Phone : (810) 694-5420  
Contact : JACK KIPP  
Facility Phone : (810) 694-5420  
Leak Number: C-0311-94

UST:

Facility ID: 00014803  
Facility Status: CLOSED  
Tank ID: 1  
Owner: City Of Grand Blanc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 200 HIGH ST  
GRAND BLANC, MI 48439  
  
Owner Phone: (810) 694-5420  
Product: Gasoline  
Capacity: 4000  
Tank Status: Removed from Ground  
Remove Date: Feb 1 1994  
Constr Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: JACK KIPP  
Contact Phone: (810) 694-5420  
Impressed Device: No  
Install Date: Mar 6 1980  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

DEPT OF PUBLIC WORKS (Continued)

U003211098

Facility ID: 00014803  
Facility Status: CLOSED  
Tank ID: 2  
Owner: City Of Grand Blanc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 200 HIGH ST  
GRAND BLANC, MI 48439  
Owner Phone: (810) 694-5420  
Product: Used Oil  
Capacity: 1000  
Tank Status: Removed from Ground  
Remove Date: Feb 1 1994  
Constr Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: JACK KIPP  
Contact Phone: (810) 694-5420  
Impressed Device: No  
Install Date: Mar 6 1985  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00014803  
Facility Status: CLOSED  
Tank ID: 3  
Owner: City Of Grand Blanc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 200 HIGH ST  
GRAND BLANC, MI 48439  
Owner Phone: (810) 694-5420  
Product: Diesel  
Capacity: 1000  
Tank Status: Removed from Ground  
Remove Date: Jan 31 1994  
Constr Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: JACK KIPP  
Contact Phone: (810) 694-5420  
Impressed Device: No  
Install Date: Mar 6 1980  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**G28**  
**SE**  
 1/2-1  
 3702 ft.

**GRAND BLANC CITY OF**  
**507 GRAND BLANC RD**  
**GRAND BLANC, MI 48439**

**RCRA-SQG**  
**FINDS**

**1004722241**  
**MI0000180976**

**Site 2 of 3 in cluster G**

**Relative:**  
**Higher**

RCRAInfo:

Owner: GRAND BLANC CITY OF  
 EPA ID: MI0000180976  
 Contact: JACK KIPP  
 (810) 694-5420

**Actual:**  
**843 ft.**

Classification: Conditionally Exempt Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**G29**  
**SE**  
 1/2-1  
 3706 ft.

**PRO CLEAN INC**  
**509 W GRAND BLANC RD**  
**GRAND BLANC, MI 48439**

**RCRA-SQG**  
**FINDS**

**1000138583**  
**MID981791247**

**Site 3 of 3 in cluster G**

**Relative:**  
**Higher**

RCRAInfo:

Owner: PRO-CLEAN INC  
 EPA ID: MID981791247  
 Contact: AMANDA SIMPSON  
 (810) 694-4260

**Actual:**  
**843 ft.**

Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**H30**  
**ESE**  
 1/2-1  
 3708 ft.

**GRAND BLANC PARKS & RECREATION**  
**131 E GRAND BLANC RD**  
**GRAND BLANC, MI 99999**

**LUST** **S102852214**  
**N/A**

**Site 1 of 2 in cluster H**

**Relative:**  
**Higher**

LUST:

Facility ID: 50001006  
 Release Number: Closed  
 Release Date: Mar 3 1992  
 Facility Status: CLOSED  
 District: Lansing District Office  
 Closed Date: Dec 16 1993  
 Owner Contact: Not reported  
 Owner Name: Nrt Owner  
 Owner Address: Unknown  
 Unknown, MI 99999  
 Country: USA

**Actual:**  
**843 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**GRAND BLANC PARKS & RECREATION (Continued)**

**S102852214**

Owner Phone : Not reported  
Contact : Not reported  
Facility Phone : ( ) -  
Leak Number: C-0338-92

Facility ID: 50001006  
Release Number: Closed  
Release Date: May 19 1992  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: May 24 1993  
Owner Contact : Not reported  
Owner Name : Nrt Owner  
Owner Address : Unknown  
Unknown, MI 99999

Country : USA  
Owner Phone : Not reported  
Contact : Not reported  
Facility Phone : ( ) -  
Leak Number: C-0810-92

**H31  
ESE  
1/2-1  
3710 ft.**

**GRAND BLANC CLEANERS  
126E GRAND BLANC RD  
GRAND BLANC, MI 48439**

**RCRA-SQG 1001117641  
FINDS MIR000016725**

**Site 2 of 2 in cluster H**

**Relative:  
Higher**

RCRAInfo:  
Contact: ANTHONY MAINPRIZE  
(810) 695-6800

Classification: Small Quantity Generator  
TSD Activities: Not reported

Violation Status: No violations found

**Actual:  
842 ft.**

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

**32  
ESE  
1/2-1  
3836 ft.**

**CLARK OIL CO  
G9490 SAGINAW  
GRAND BLANC, MI 48439**

**RCRA-SQG 1000530429  
FINDS MID985629401**

**Relative:  
Lower**

RCRAInfo:  
Owner: CLARK OIL AND REFINING CO  
EPA ID: MID985629401

Contact: ERIC LARSON  
(734) 669-6155

Classification: Conditionally Exempt Small Quantity Generator  
TSD Activities: Not reported

**Actual:  
834 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**CLARK OIL CO (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

1000530429

Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

33  
ESE  
1/2-1  
5027 ft.

**GRAND BLANC AMOCO**  
**11843 S SAGINAW ST**  
**GRAND BLANC, MI 48439**

**LUST U000714671**  
**UST N/A**

**Relative:**  
**Higher**

**LUST:**

Facility ID: 00019461  
Release Number: Closed  
Release Date: Dec 21 1991  
Facility Status: CLOSED  
District: Lansing District Office  
Closed Date: Jun 10 2004  
Owner Contact : Not reported  
Owner Name : Zolten Inc  
Owner Address : 2105 Beech Lane Dr  
Troy, MI 48083  
Country : USA  
Owner Phone : 810-695-5434  
Contact : Not reported  
Facility Phone : Not reported  
Leak Number: C-2694-91

**Actual:**  
**843 ft.**

**UST:**

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 1  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Not reported  
Capacity: Not reported  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Not reported  
Piping Material: Not reported  
Piping Type: Not reported  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 2  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EPA ID Number  
EDR ID Number

**GRAND BLANC AMOCO (Continued)**

**U000714671**

Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Gasoline  
Capacity: 3000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Unknown  
Piping Type: Gravity Fed?  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Not reported  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 3  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Diesel  
Capacity: 6000  
Tank Status: Removed from Ground  
Remove Date: Feb 1 1992  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Apr 22 1975  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 4  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Gasoline  
Capacity: 12000  
Tank Status: Removed from Ground  
Remove Date: Feb 1 1992  
Constr Material: Asphalt Coated or Bare Steel, Cathodically Protected Steel  
Piping Material: Galvanized Steel

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

GRAND BLANC AMOCO (Continued)

U000714671

Piping Type: Not reported  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Apr 21 1981  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 5  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Gasoline  
Capacity: 4000  
Tank Status: Removed from Ground  
Remove Date: Dec 1 1991  
Constr Material: Asphalt Coated or Bare Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Jan 1 1965  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 6  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Gasoline  
Capacity: 12000  
Tank Status: Removed from Ground  
Remove Date: Feb 1 1992  
Constr Material: Asphalt Coated or Bare Steel, Cathodically Protected Steel  
Piping Material: Galvanized Steel  
Piping Type: Not reported  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Apr 21 1981  
Release Detection:  
Tank: Not reported  
Pipe: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EPA ID Number

EDR ID Number  
EPA ID Number

GRAND BLANC AMOCO (Continued)

U000714671

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 8  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Diesel  
Capacity: 12000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Composite(Steel w/Fiberglass)  
Piping Material: Double Walled,Fiberglass reinforced plastic  
Piping Type: Pressure  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Feb 1 1992  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors,Interstitial Monitoring Double Walled Piping

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 9  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083  
Owner Phone: 810-695-5434  
Product: Gasoline  
Capacity: 10000  
Tank Status: Currently In Use  
Remove Date: Not reported  
Constr Material: Composite(Steel w/Fiberglass)  
Piping Material: Double Walled,Fiberglass reinforced plastic  
Piping Type: Pressure  
Contact: Not reported  
Contact Phone: Not reported  
Impressed Device: No  
Install Date: Feb 1 1992  
Release Detection:  
Tank: Automatic Tank Gauging  
Pipe: Automatic Line Leak Detectors,Interstitial Monitoring Double Walled Piping

Facility ID: 00019461  
Facility Status: ACTIVE  
Tank ID: 10  
Owner: Zolten Inc  
Owner Country: USA  
Owner Contact: Not reported  
Owner Address: 2105 Beech Lane Dr  
Troy, MI 48083

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**GRAND BLANC AMOCO (Continued)**

**U000714671**

Owner Phone: 810-695-5434  
 Product: Gasoline  
 Capacity: 8000  
 Tank Status: Currently In Use  
 Remove Date: Not reported  
 Constr Material: Composite(Steel w/Fiberglass)  
 Piping Material: Double Walled,Fiberglass reinforced plastic  
 Piping Type: Pressure  
 Contact: Not reported  
 Contact Phone: Not reported  
 Impressed Device: No  
 Install Date: Feb 1 1992  
 Release Detection:  
 Tank: Automatic Tank Gauging  
 Pipe: Automatic Line Leak Detectors,Interstitial Monitoring Double Walled Piping

Facility ID: 00019461  
 Facility Status: ACTIVE  
 Tank ID: 7A  
 Owner: Zolten Inc  
 Owner Country: USA  
 Owner Contact: Not reported  
 Owner Address: 2105 Beech Lane Dr  
 Troy, MI 48083

Owner Phone: 810-695-5434  
 Product: Gasoline  
 Capacity: 4000  
 Tank Status: Removed from Ground  
 Remove Date: Dec 1 1991  
 Constr Material: Asphalt Coated or Bare Steel  
 Piping Material: Galvanized Steel  
 Piping Type: Not reported  
 Contact: Not reported  
 Contact Phone: Not reported  
 Impressed Device: No  
 Install Date: Jan 1 1965  
 Release Detection:  
 Tank: Not reported  
 Pipe: Not reported

34  
 NNW  
 > 1  
 7532 ft.

**STEPHENSON TREE SURGEON**  
**5283 SOUTH DORT HIGHWAY**  
**GRAND BLANC, MI 0null**

**SHWS S103085780**  
**N/A**

**Relative:**  
**Lower**

SHWS:  
 Facility ID: 25000324  
 Facility Status: Inactive - no actions taken to address contamination  
 Source: null  
 Pollutant(s): Diazinon; Lindane; Methoxychlor  
 SAM Score: 21  
 SAM Score Date: 1993-08-26 00:00:00.0  
 Township: 06N  
 Range: 07E  
 Section: 05  
 Quarter: NE  
 Quarter/Quarter: SE

**Actual:**  
**805 ft.**

## ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CANTON TOWNSHIP	S105254700	TCF NATIONAL BANK	SE CORNER OF CANTON CENTER RD. / FORD RD	48439	BEA
FLINT	U001777587	DISCOUNT MUFFLER	3600 S DORT WHY	48507	LUST, UST
FLINT	U000253482	SAGINAW & CARPENTER SHELL	G-5000 N SAGINAW	48507	LUST, UST
FLINT	S103595339	RICHFIELD RD AREA GW CONTAM	RICHFIELD AND TERM ST	48507	SHWS
FLINT	S103595357	SOUTHERN END OF HOLIDAY DRIVE	SOUTHERN END OF HOLIDAY DRIVE	48507	SHWS
FLINT	U003211273	J AUSTIN OIL CO OF FLINT INC	G-2452 W HILL RD	48507	LUST, UST
FLINT TWP.	S105144005	PARCEL H-323 TORREY ROAD	PARCEL H-323 TORREY ROAD	48507	SHWS
GRAND BLANC	S105965838	VANDERHORST PROPERTY	CORNER OF SAGINAW ST / DORT HWY	48439	DEL SHWS
GRAND BLANC	U000253553	WARWICK HILLS COUNTRY CLUB - MAI	G-9287 S SAGINAW	48439	LUST
GRAND BLANC	U000715529	CHARTER TWP OF GRAND BLANC	G-5015 S SAGINAW ST	48439	LUST, UST
GRAND BLANC	U002301225	RON-SLIVKA BUICK - GMC TRUCK	G-6201 S SAGINAW ST	48439	LUST, UST
GRAND BLANC	S105254457	G-5388 SOUTH SAGINAW STREET	G-5388 S. SAGINAW STREET		BEA
GRAND BLANC	S106096598	G-9490 S. SAGINAW ROAD	G-9490 S. SAGINAW ROAD		BEA
GRAND BLANC	1000265822	AL SERRA BUICK GMC INC	G6201 S. SAGINAW STREET	48439	RCRA-SQG, FINDS, LUST, UST
GRAND BLANC	1001220184	HONDA OF GRAND BLANC	G10825 SAGINAW	48439	RCRA-SQG, FINDS
GRAND BLANC	1007101740	AMOCO OIL CO	1183 S SAGINAW	48439	RCRA-SQG
GRAND BLANC	S104910237	SAGINAW & PERRY ROADS, SOUTHEAST CORNER	SAGINAW / PERRY ROADS, SOUTHEAST CORNER		BEA
GRAND BLANC	U002301177	GOVERNMENT CENTER	5371 S SAGINAW ST	48439	LUST, UST
GRAND BLANC TOWNSHIP	S105768428	PORTION OF PARCEL #12-04-100-022	GRAND BLANC TOWNSHIP	48439	PEAS, BEA
GRAND BLANC TOWNSHIP	S106174299	PARCEL NUMBER 25-12-23-100-021	G-8346 SOUTH SAGINAW STREET	48439	BEA

## EPA Waste Codes Addendum

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Elapsed ASTM days:** Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

## **FEDERAL ASTM STANDARD RECORDS**

### **NPL: National Priority List**

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/28/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

### **Proposed NPL: Proposed National Priority List Sites**

Source: EPA

Telephone: N/A

Date of Government Version: 04/27/05

Date Made Active at EDR: 05/16/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/04/05

Elapsed ASTM days: 12

Date of Last EDR Contact: 05/04/05

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/27/05

Date Made Active at EDR: 08/17/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 07/22/05

Elapsed ASTM days: 26

Date of Last EDR Contact: 07/22/05

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/17/05  
Date Made Active at EDR: 08/17/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 06/20/05  
Elapsed ASTM days: 58  
Date of Last EDR Contact: 06/20/05

## **CORRACTS:** Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/28/05  
Date Made Active at EDR: 08/08/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 07/05/05  
Elapsed ASTM days: 34  
Date of Last EDR Contact: 06/05/05

## **RCRA:** Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 05/20/05  
Date Made Active at EDR: 06/09/05  
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/24/05  
Elapsed ASTM days: 16  
Date of Last EDR Contact: 05/24/05

## **ERNS:** Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04  
Date Made Active at EDR: 03/24/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/05  
Elapsed ASTM days: 56  
Date of Last EDR Contact: 07/25/05

## **FEDERAL ASTM SUPPLEMENTAL RECORDS**

### **BRS:** Biennial Reporting System

Source: EPA/NTIS

Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/03  
Database Release Frequency: Biennially

Date of Last EDR Contact: 06/17/05  
Date of Next Scheduled EDR Contact: 09/12/05

### **CONSENT:** Superfund (CERCLA) Consent Decrees

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/14/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 07/25/05  
Date of Next Scheduled EDR Contact: 10/24/05

**ROD:** Records Of Decision

Source: EPA  
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/08/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/06/05  
Date of Next Scheduled EDR Contact: 10/03/05

**DELISTED NPL:** National Priority List Deletions

Source: EPA  
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/28/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/04/05  
Date of Next Scheduled EDR Contact: 08/01/05

**FINDS:** Facility Index System/Facility Registry System

Source: EPA  
Telephone: (312) 353-2000

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/11/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/05/05  
Date of Next Scheduled EDR Contact: 10/03/05

**HMIRS:** Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation  
Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/04  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/22/05  
Date of Next Scheduled EDR Contact: 10/17/05

**MLTS:** Material Licensing Tracking System

Source: Nuclear Regulatory Commission  
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/14/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/05/05  
Date of Next Scheduled EDR Contact: 10/03/05

**MINES:** Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/13/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/27/05  
Date of Next Scheduled EDR Contact: 09/26/05

## **NPL LIENS:** Federal Superfund Liens

Source: EPA  
Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/05  
Date of Next Scheduled EDR Contact: 08/22/05

## **PADS:** PCB Activity Database System

Source: EPA  
Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 03/30/05  
Database Release Frequency: Annually

Date of Last EDR Contact: 05/10/05  
Date of Next Scheduled EDR Contact: 08/08/05

## **DOD:** Department of Defense Sites

Source: USGS  
Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/13/05  
Date of Next Scheduled EDR Contact: 08/08/05

## **UMTRA:** Uranium Mill Tailings Sites

Source: Department of Energy  
Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 07/05/05  
Date of Next Scheduled EDR Contact: 09/19/05

## **ODI:** Open Dump Inventory

Source: Environmental Protection Agency  
Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/23/95  
Date of Next Scheduled EDR Contact: N/A

## **FUDS:** Formerly Used Defense Sites

Source: U.S. Army Corps of Engineers  
Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/04  
Database Release Frequency: Varies

Date of Last EDR Contact: 06/29/05  
Date of Next Scheduled EDR Contact: 10/03/05

**INDIAN RESERV:** Indian Reservations

Source: USGS  
Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/13/05  
Date of Next Scheduled EDR Contact: 08/08/05

**US ENG CONTROLS:** Engineering Controls Sites List

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 07/05/05  
Date of Next Scheduled EDR Contact: 10/03/05

**RAATS:** RCRA Administrative Action Tracking System

Source: EPA  
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 06/06/05  
Date of Next Scheduled EDR Contact: 09/05/05

**TRIS:** Toxic Chemical Release Inventory System

Source: EPA  
Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/03  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/13/05  
Date of Next Scheduled EDR Contact: 09/19/05

**TSCA:** Toxic Substances Control Act

Source: EPA  
Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02  
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 07/18/05  
Date of Next Scheduled EDR Contact: 10/17/05

**FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA  
Telephone: 202-566-1667

Date of Government Version: 04/13/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/20/05  
Date of Next Scheduled EDR Contact: 09/19/05

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SSTS:** Section 7 Tracking Systems

Source: EPA  
Telephone: 202-564-4203

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/18/05  
Date of Next Scheduled EDR Contact: 10/17/05

## **FTTS:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances  
Telephone: 202-566-1667

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/20/05  
Date of Next Scheduled EDR Contact: 09/19/05

## **STATE OF MICHIGAN ASTM STANDARD RECORDS**

### **SHWS:** Contaminated Sites

Source: Department of Environmental Quality  
Telephone: 517-373-9541

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 05/20/05  
Date Made Active at EDR: 06/21/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 05/24/05  
Elapsed ASTM days: 28  
Date of Last EDR Contact: 05/24/05

### **SWF/LF:** Solid Waste Facilities Database

Source: Department of Environmental Quality  
Telephone: 517-335-4035

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/01/05  
Date Made Active at EDR: 04/08/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 03/15/05  
Elapsed ASTM days: 24  
Date of Last EDR Contact: 07/25/05

### **LUST:** Leaking Underground Storage Tank Sites

Source: Department of Environmental Quality  
Telephone: 517-373-8168

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 06/13/05  
Date Made Active at EDR: 07/14/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 06/14/05  
Elapsed ASTM days: 30  
Date of Last EDR Contact: 06/14/05

### **UST:** Underground Storage Tank Facility List

Source: Department of Environmental Quality  
Telephone: 517-373-8168

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/13/05  
Date Made Active at EDR: 07/14/05  
Database Release Frequency: Annually

Date of Data Arrival at EDR: 06/14/05  
Elapsed ASTM days: 30  
Date of Last EDR Contact: 06/14/05

**BEA:** BASELINE ENVIRONMENTAL ASSESSMENT DATABASE  
Source: DEPT. OF ENVIRONMENTAL QUALITY  
Telephone: 517-373-9541

Date of Government Version: 06/15/05  
Date Made Active at EDR: 06/29/05  
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 06/15/05  
Elapsed ASTM days: 14  
Date of Last EDR Contact: 06/13/05

**INDIAN UST:** Underground Storage Tanks on Indian Land  
Source: EPA Region 5  
Telephone: 312-886-6136

Date of Government Version: 12/02/04  
Date Made Active at EDR: 02/04/05  
Database Release Frequency: Varies

Date of Data Arrival at EDR: 12/29/04  
Elapsed ASTM days: 37  
Date of Last EDR Contact: 05/25/05

**HIST LF:** Inactive Solid Waste Facilities  
Source: Department of Environmental Quality  
Telephone: 517-335-4034  
The database contains historical information and is no longer updated.

Date of Government Version: 03/01/97  
Date Made Active at EDR: 03/06/03  
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 02/28/03  
Elapsed ASTM days: 6  
Date of Last EDR Contact: 02/28/03

## STATE OF MICHIGAN ASTM SUPPLEMENTAL RECORDS

**AST:** Aboveground Tanks  
Source: Department of Environmental Quality  
Telephone: 517-373-8168  
Registered Aboveground Storage Tanks.

Date of Government Version: 06/27/05  
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 06/13/05  
Date of Next Scheduled EDR Contact: 09/12/05

**DEL SHWS:** Delisted List of Contaminated Sites  
Source: Department of Environmental Quality  
Telephone: 517-373-9541  
Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 05/26/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 05/23/05  
Date of Next Scheduled EDR Contact: 08/22/05

**PEAS:** Pollution Emergency Alerting System  
Source: Department of Environmental Quality  
Telephone: 517-373-8427  
Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 06/08/05  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 07/05/05  
Date of Next Scheduled EDR Contact: 10/03/05

**DRYCLEANERS:** Drycleaning Establishments  
Source: Department of Environmental Quality  
Telephone: 517-335-4586  
A listing of drycleaning facilities in Michigan.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/23/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 05/16/05  
Date of Next Scheduled EDR Contact: 08/15/05

## EDR PROPRIETARY HISTORICAL DATABASES

**Former Manufactured Gas (Coal Gas) Sites:** The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

### **Disclaimer Provided by Real Property Scan, Inc.**

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

## BROWNFIELDS DATABASES

### **US BROWNFIELDS:** A Listing of Brownfields Sites

Source: Environmental Protection Agency  
Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/10/05  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 06/13/05  
Date of Next Scheduled EDR Contact: 09/12/05

### **BROWNFIELDS:** Brownfields and USTfield Site Database

Source: Department of Environmental Quality  
Telephone: 517-373-4805

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process.

Date of Government Version: 05/24/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 05/23/05  
Date of Next Scheduled EDR Contact: 08/22/05

### **US INST CONTROL:** Sites with Institutional Controls

Source: Environmental Protection Agency  
Telephone: 703-603-8867

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/10/05  
Database Release Frequency: Varies

Date of Last EDR Contact: 07/05/05  
Date of Next Scheduled EDR Contact: 10/03/05

## **OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

### **Electric Power Transmission Line Data**

Source: PennWell Corporation  
Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

### **AHA Hospitals:**

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

### **Nursing Homes**

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

### **Public Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics  
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: Day Care Centers, Group & Family Homes**

Source: Bureau of REgulatory Services  
Telephone: 517-373-8300

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STREET AND ADDRESS INFORMATION

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

GENERAL MOTORS  
10800 SOUTH SAGINAW STREET  
GRAND BLANC, MI 48439

### TARGET PROPERTY COORDINATES

Latitude (North):	42.932301 - 42° 55' 56.3"
Longitude (West):	83.642403 - 83° 38' 32.6"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	284374.3
UTM Y (Meters):	4756470.0
Elevation:	836 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

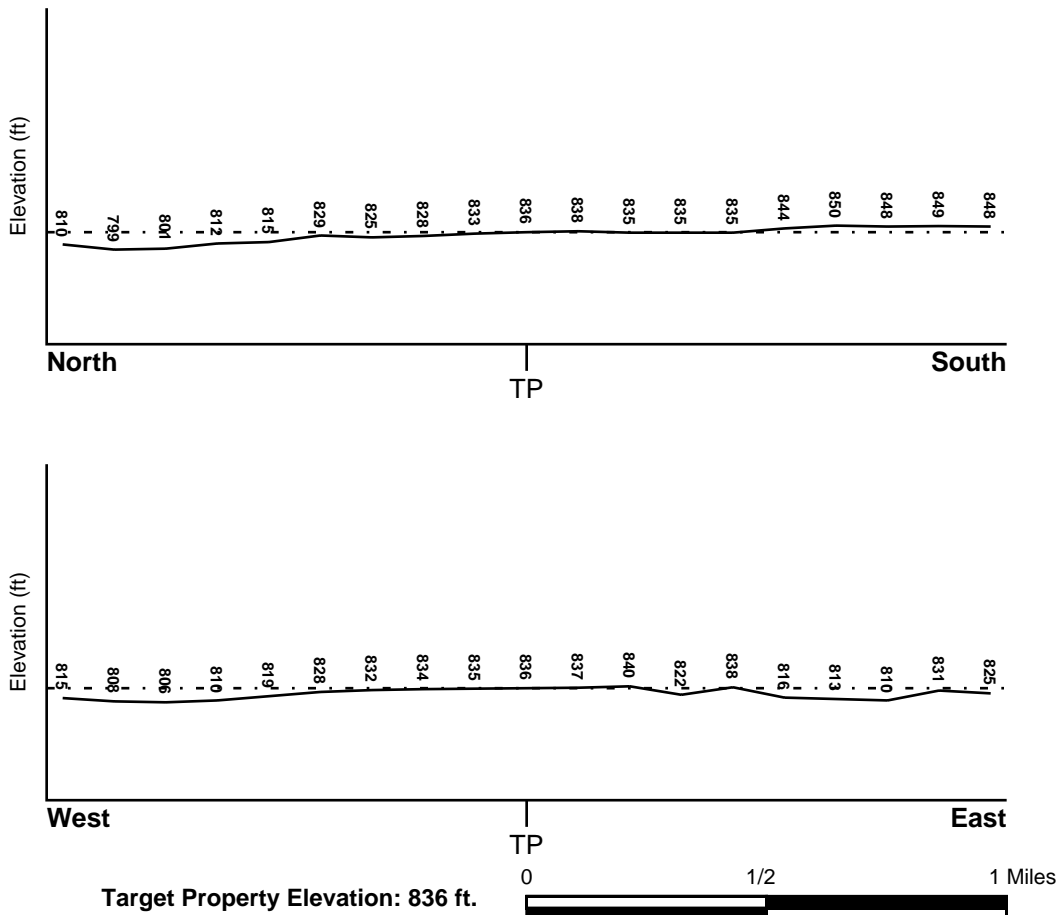
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 42083-H6 FLINT SOUTH, MI  
General Topographic Gradient: General NNW  
Source: USGS 7.5 min quad index

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Target Property County</u> GENESEE, MI	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
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Flood Plain Panel at Target Property: 2600790007B

Additional Panels in search area: 2600790004B  
2602550001B  
2600790008B

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u> FLINT SOUTH	<u>NWI Electronic Data Coverage</u> Not Available
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## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### ***Site-Specific Hydrogeological Data\*:***

Search Radius:	1.25 miles
Status:	Not found

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
12	1/2 - 1 Mile NNW	Not Reported
23	1/2 - 1 Mile ESE	S

For additional site information, refer to Physical Setting Source Map Findings.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### ROCK STRATIGRAPHIC UNIT

Era: Paleozoic  
System: Mississippian  
Series: Meramecian Series  
Code: M2 (*decoded above as Era, System & Series*)

### GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: CONOVER  
Soil Surface Texture: loam  
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.  
Soil Drainage Class: Somewhat poorly. Soils commonly have a layer with low hydraulic conductivity, wet state high in profile, etc. Depth to water table is 1 to 3 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.60
2	11 inches	27 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.60 Min: 0.20	Max: 7.30 Min: 5.60
3	27 inches	60 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.60 Min: 0.20	Max: 8.40 Min: 7.40

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand  
muck  
sandy loam

Surficial Soil Types: loamy sand  
muck  
sandy loam

Shallow Soil Types: silty clay loam  
loamy sand  
silt loam  
sandy loam  
sandy clay loam

Deeper Soil Types: fine sand  
silty clay loam  
muck  
gravelly - sand  
clay loam

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS State Database	Nearest PWS within 1 mile
	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	USGS2308450	0 - 1/8 Mile SE
A2	USGS2308449	0 - 1/8 Mile SE
3	USGS2308448	1/8 - 1/4 Mile ESE
K39	USGS2308447	1/2 - 1 Mile ESE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
C15	MI0005565	1/2 - 1 Mile ESE

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

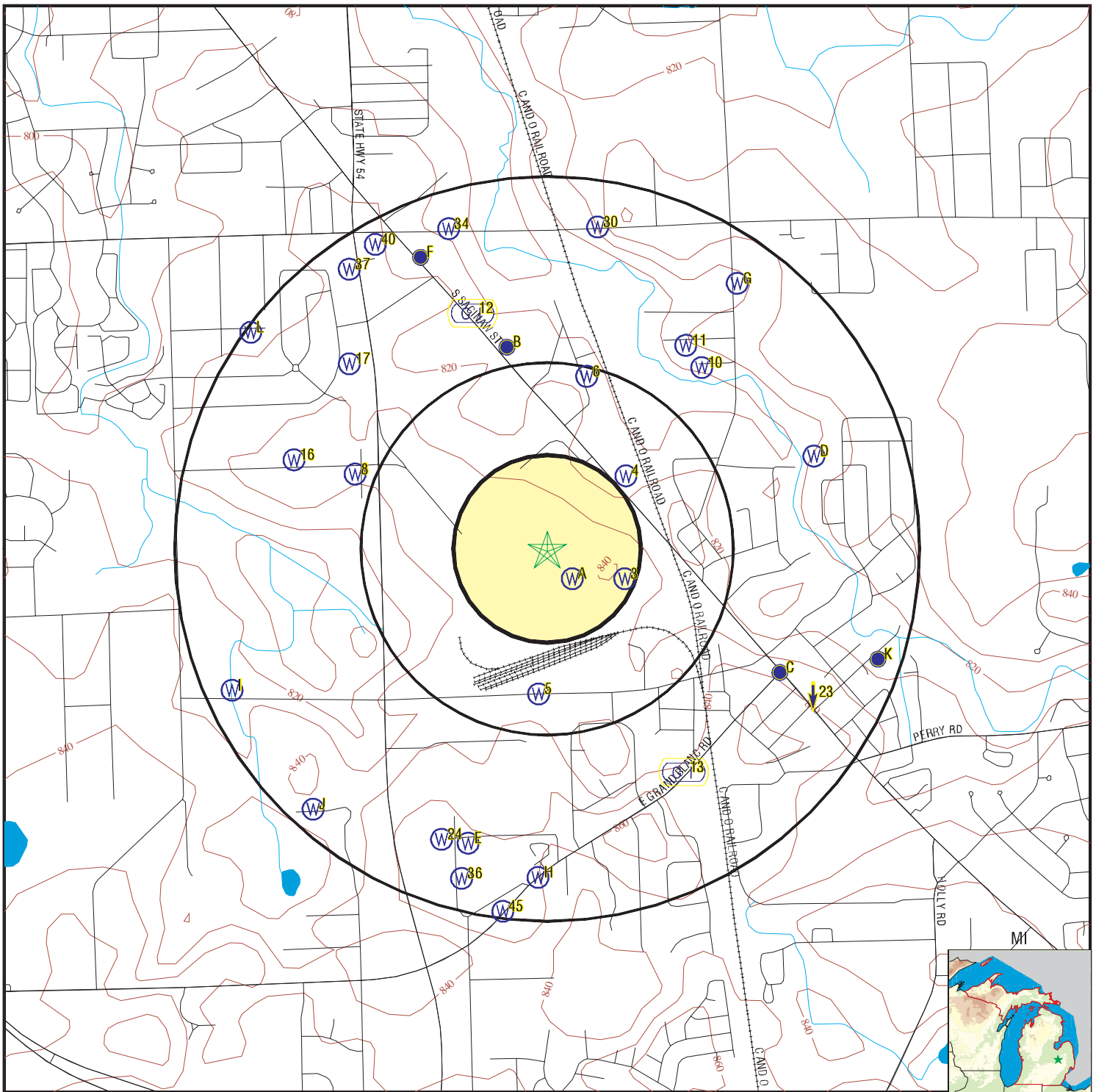
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
4	MI00161660	1/4 - 1/2 Mile NE
5	MI00160857	1/4 - 1/2 Mile South
6	MI00162064	1/4 - 1/2 Mile NNE
B7	MI00162194	1/2 - 1 Mile North
8	MI00161667	1/2 - 1 Mile WNW
10	MI00162105	1/2 - 1 Mile NE
11	MI00162233	1/2 - 1 Mile NE
16	MI00161729	1/2 - 1 Mile WNW
17	MI00162124	1/2 - 1 Mile NW
D18	MI00161738	1/2 - 1 Mile ENE
D19	MI00161742	1/2 - 1 Mile ENE

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

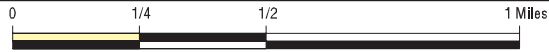
## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
E20	MI00160367	1/2 - 1 Mile SSW
E21	MI00160369	1/2 - 1 Mile SSW
E22	MI00160331	1/2 - 1 Mile SSW
24	MI00160350	1/2 - 1 Mile SSW
G26	MI00162510	1/2 - 1 Mile NE
E27	MI00160268	1/2 - 1 Mile SSW
F28	MI00162708	1/2 - 1 Mile NNW
H29	MI00160218	1/2 - 1 Mile South
30	MI00162833	1/2 - 1 Mile North
H31	MI00160198	1/2 - 1 Mile South
H32	MI00160185	1/2 - 1 Mile South
G33	MI00162580	1/2 - 1 Mile NE
34	MI00162824	1/2 - 1 Mile NNW
I35	MI00160893	1/2 - 1 Mile WSW
36	MI00160196	1/2 - 1 Mile SSW
37	MI00162634	1/2 - 1 Mile NW
J38	MI00160492	1/2 - 1 Mile SW
40	MI00162752	1/2 - 1 Mile NNW
K41	MI00160982	1/2 - 1 Mile ESE
J42	MI00160469	1/2 - 1 Mile SW
I43	MI00160852	1/2 - 1 Mile WSW
L44	MI00162260	1/2 - 1 Mile NW
45	MI00160062	1/2 - 1 Mile South
L46	MI00162327	1/2 - 1 Mile NW

# PHYSICAL SETTING SOURCE MAP - 01491115.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons



- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



<p><b>TARGET PROPERTY:</b> General Motors  <b>ADDRESS:</b> 10800 South Saginaw Street  <b>CITY/STATE/ZIP:</b> Grand Blanc MI 48439  <b>LAT/LONG:</b> 42.9323 / 83.6424</p>	<p><b>CUSTOMER:</b> O'Brien &amp; Gere Engineers, Inc.  <b>CONTACT:</b> Dave Meixell  <b>INQUIRY #:</b> 01491115.2r  <b>DATE:</b> August 19, 2005 9:07 am</p>
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# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**A1**  
**SE**  
**0 - 1/8 Mile**  
**Higher**

**FED USGS      USGS2308450**

Agency cd:	USGS	Site no:	425552083382821
Site name:	06N 07E 09DCCC01 GENESE FISHER BODY 2		
Latitude:	425552		
Longitude:	0833828	Dec lat:	42.93113882
Dec lon:	-83.64106335	Coor meth:	M
Coor accr:	M	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	049
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	837	Altitude method:	R
Altitude accuracy:	10	Altitude datum:	NGVD29
Hydrologic:	Flint. Michigan. Area = 1340 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	385	Hole depth:	Not Reported
Source of depth data:	Not Reported	Project number:	442600200
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**A2**  
**SE**  
**0 - 1/8 Mile**  
**Higher**

**FED USGS      USGS2308449**

Agency cd:	USGS	Site no:	425552083382801
Site name:	06N 07E 09DCCC01 GENESEE CO (FISHER BODY #2 WELL)		
Latitude:	425552		
Longitude:	0833828	Dec lat:	42.93113882
Dec lon:	-83.64106335	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	049
Country:	US	Land net:	06N 07E 09DCCC01
Location map:	FLINT SOUTH	Map scale:	24000
Altitude:	837	Altitude method:	M
Altitude accuracy:	5	Altitude datum:	NGVD29
Hydrologic:	Flint. Michigan. Area = 1340 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19510612
Date inventoried:	Not Reported	Mean greenwich time offset:	EST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	385	Hole depth:	385
Source of depth data:	Not Reported	Project number:	442600200
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1975-06-23
Water quality data end date:	1984-11-30	Water quality data count:	3
Ground water data begin date:	1951-06-12	Ground water data end date:	1951-06-12
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
-----		
1951-06-12	31.26	

**3**  
**ESE**  
**1/8 - 1/4 Mile**  
**Higher**

**FED USGS      USGS2308448**

Agency cd:	USGS	Site no:	425552083381801
Site name:	06N 07E 09DCDD01 GENESEE CO (FISHER BODY #1 WELL)		
Latitude:	425552		
Longitude:	0833818	Dec lat:	42.93113881
Dec lon:	-83.63828549	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	049
Country:	US	Land net:	06N 07E 09DCDD01
Location map:	FLINT SOUTH	Map scale:	24000
Altitude:	841.71	Altitude method:	L
Altitude accuracy:	.01	Altitude datum:	NGVD29
Hydrologic:	Flint. Michigan. Area = 1340 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	235	Hole depth:	Not Reported
Source of depth data:	Not Reported	Project number:	244500200
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**4**  
**NE**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI00161660**

Wellid:	25000001259	Import id:	25067709005
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	CARPENTER, MAX	Well addr:	6357 S. SAGINAW
Well depth:	180		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	169
Const date:	1978-07-16 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	106		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	100		
Test hours:	2		
Test rate:	33	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9351375395		
Longitude:	-83.6382192366		
Methd coll:	Interpolation-Map		
Elevation:	821		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001259	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	92		
Thickness:	92		
Aqtype:	D	Class:	CM
Effect:	0		

**5**  
**South**  
**1/4 - 1/2 Mile**  
**Higher**

**MI WELLS      MI00160857**

Wellid:	25000011616	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	Waretech Industrial Park	Well addr:	3085 Reid Rd
Well depth:	1		
Well type:	Type II public		
Wssn:	2153025		
Well num:	001	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was not grouted	Pmp cpcity:	0
Latitude:	42.92665783		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude: -83.64284015  
 Methd coll: Address Matching-House Number  
 Elevation: 833  
 Elev methd: Topographoc Map Interpolation

Wellid:	25000011616	Seqno:	1
Primlith:	No Log	Lithmod:	Not Reported
Depth:	1		
Thickness:	1		
Aqtype:	U	Class:	NA
Effect:	0		

**6**  
**NNE**  
**1/4 - 1/2 Mile**  
**Lower**

**MI WELLS      MI00162064**

Wellid:	25000001258	Import id:	25067709003
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	WERNER WEIERSTAHL BUILDING	Well addr:	6199 CASE AVENUE
Well depth:	140		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	99
Const date:	1978-01-23 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	88		
Screen frm:	0		
Screen to:	0		
Swl:	45		
Test depth:	75		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9390081406		
Longitude:	-83.6402969612		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001258	Seqno:	2
Primlith:	Sand	Lithmod:	Not Reported
Depth:	78		
Thickness:	18		
Aqtype:	D	Class:	AQ
Effect:	0		

**B7**  
**North**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00162194**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000000024	Import id:	25067709004
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	AL SERRA CHEVROLET	Well addr:	6179 S. SAGINAW
Well depth:	240		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	99
Const date:	1974-12-05 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	110		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	84		
Test hours:	1		
Test rate:	25	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9399800132		
Longitude:	-83.6440206699		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000000024	Seqno:	2
Primlith:	Gravel & Clay	Lithmod:	Not Reported
Depth:	100		
Thickness:	60		
Aqtype:	D	Class:	PCM
Effect:	0		

**8**  
**WNW**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00161667**

Wellid:	25000000022	Import id:	25067708006
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	8
Owner name:	GIBBS, CLIFFORD E.	Well addr:	2524 GIBSON
Well depth:	200		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	1196
Const date:	1972-07-07 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	150		
Screen frm:	0		
Screen to:	0		
Swl:	38		
Test depth:	100		
Test hours:	2		
Test rate:	8	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9352071476		
Longitude:	-83.652554462		
Methd coll:	Interpolation-Map		
Elevation:	831		
Elev methd:	Topographoc Map Interpolation		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000000022	Seqno:	2
Primlith:	Sand	Lithmod:	Not Reported
Depth:	70		
Thickness:	22		
Aqtype:	D	Class:	AQ
Effect:	0		

**10  
NE  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162105**

Wellid:	25000007017	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	JEFF BARAT	Well addr:	3504 KIRKEY STREET
Well depth:	180		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	482
Const date:	2000-09-01 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	100		
Screen frm:	0		
Screen to:	0		
Swl:	30		
Test depth:	4		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	12
Latitude:	42.9393497		
Longitude:	-83.63420566		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	Not Reported		

Wellid:	25000007017	Seqno:	2
Primlith:	Clay	Lithmod:	Not Reported
Depth:	74		
Thickness:	62		
Aqtype:	D	Class:	CM
Effect:	0		

**11  
NE  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162233**

Wellid:	25000001257	Import id:	25067709002
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	WRINKLE, LOYAL	Well addr:	3464 ESSON
Well depth:	200		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1876
Const date:	1987-04-11 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	120		
Screen frm:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Screen to:	0		
Swl:	40		
Test depth:	50		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9402138214		
Longitude:	-83.6350512607		
Methd coll:	Interpolation-Map		
Elevation:	820		
Elev methd:	Topographoc Map Interpolation		
Wellid:	25000001257	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	15		
Thickness:	15		
Aqtype:	D	Class:	CM
Effect:	0		

<b>12 NNW 1/2 - 1 Mile Lower</b>	Site ID:	250229		
	Groundwater Flow:	Not Reported	<b>AQUIFLOW</b>	<b>28289</b>
	Shallowest Water Table Depth:	5		
	Deepest Water Table Depth:	15		
	Average Water Table Depth:	Not Reported		
	Date:	04/13/1995		

<b>C15 ESE 1/2 - 1 Mile Higher</b>			<b>FRDS PWS</b>	<b>MI0005565</b>
	PWS ID:	MI0005565	PWS Status:	Active
	Date Initiated:	Not Reported	Date Deactivated:	Not Reported
	PWS Name:	PRADO PARK/THORNRIDGE CONDOS GRAND BLANC TWP DPW G-5375 S. SAGINAW, BX 1833 GRAND BLANC, MI 48439		
	Addressee / Facility:	Not Reported		
	Facility Latitude:	42 55 39	Facility Longitude:	083 37 48
City Served:	Not Reported			
Treatment Class:	Treated	Population:	00000150	
PWS currently has or had major violation(s) or enforcement:	No			

<b>16 WNW 1/2 - 1 Mile Lower</b>			<b>MI WELLS</b>	<b>MI00161729</b>
	Wellid:	25000001254	Import id:	25067708005
	County:	Genesee	Township:	Grand Blanc
	Town range:	06N 07E	Section:	8
	Owner name:	?	Well addr:	2435 GIBSON
	Well depth:	220		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1893
Const date:	1987-09-19 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	171		
Screen frm:	0		
Screen to:	78		
Swl:	78		
Test depth:	220		
Test hours:	1		
Test rate:	40	Test methd:	Unknown
Grout:	Was not grouted	Pmp cpcity:	0
Latitude:	42.935758698		
Longitude:	-83.6557972664		
Methd coll:	Interpolation-Map		
Elevation:	835		
Elev methd:	Topographoc Map Interpolation		
Wellid:	25000001254	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	68		
Thickness:	68		
Aqtype:	D	Class:	CM
Effect:	0		

**17  
NW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162124**

Wellid:	25000001256	Import id:	25067708302
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	8
Owner name:	GRAND BLANC TOWNSHIP	Well addr:	GRAND BLANC TWP NTL ESTS #4
Well depth:	300		
Well type:	Type I public		
Wssn:	2745		
Well num:	GRAND BLANC TWP NTL ESTS #4	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	10		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9394953847		
Longitude:	-83.652864181		
Methd coll:	Interpolation-Map		
Elevation:	828		
Elev methd:	Topographoc Map Interpolation		
Wellid:	25000001256	Seqno:	1
Primlith:	No Lithology Information	Lithmod:	Not Reported
Depth:	300		
Thickness:	300		
Aqtype:	U	Class:	NA
Effect:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**D18**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00161738**

Wellid:	25000001264	Import id:	25067710301
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	10
Owner name:	CITY OF GRAND BLANC	Well addr:	GRAND BLANC WELL #3 ABANDONED
Well depth:	304		
Well type:	Type I public		
Wssn:	2740		
Well num:	GRAND BLANC WELL #3 ABANDONED	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	12		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9358893226		
Longitude:	-83.6282705754		
Methd coll:	Interpolation-Map		
Elevation:	827		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001264	Seqno:	1
Primlith:	No Lithology Information	Lithmod:	Not Reported
Depth:	304		
Thickness:	304		
Aqtype:	U	Class:	NA
Effect:	0		

**D19**  
**ENE**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00161742**

Wellid:	25000010333	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	10
Owner name:	City of Grand Blanc	Well addr:	Not Reported
Well depth:	136.33		
Well type:	Type I public		
Wssn:	2740		
Well num:	3	Driller id:	0
Const date:	1961-09-30 00:00:00.000	Case type:	Steel-black
Case dia:	12		
Case depth:	136.33		
Screen frm:	0		
Screen to:	0		
Swl:	27		
Test depth:	128		
Test hours:	4		
Test rate:	400	Test methd:	Unknown
Grout:	Was not grouted	Pmp cpcity:	0
Latitude:	42.935923		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude: -83.628271  
 Methd coll: Interpolation-Map  
 Elevation: 823  
 Elev methd: Topographoc Map Interpolation

Wellid:	25000010333	Seqno:	1
Primlith:	Clay	Lithmod:	Hard
Depth:	15		
Thickness:	15		
Aqtype:	D	Class:	CM
Effect:	0		

**E20  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160367**

Wellid:	25000010393	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	PAUL HENDRICKSON	Well addr:	3137 MCGREGOR
Well depth:	260		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2152
Const date:	2002-11-11 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	187		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	70		
Test hours:	.5		
Test rate:	50	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	12
Latitude:	42.92116938		
Longitude:	-83.6464351		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		

Wellid:	25000010393	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	12		
Thickness:	12		
Aqtype:	D	Class:	CM
Effect:	0		

**E21  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160369**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000010188	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	DON ROGERS	Well addr:	7324 EMBURRY ROAD
Well depth:	200		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1634
Const date:	2002-10-05 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	171		
Screen frm:	0		
Screen to:	0		
Swl:	55		
Test depth:	0		
Test hours:	0		
Test rate:	20	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	10
Latitude:	42.92118823		
Longitude:	-83.6473409		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		

Wellid:	25000010188	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	55		
Thickness:	55		
Aqtype:	D	Class:	CM
Effect:	0		

**E22  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160331**

Wellid:	25000001292	Import id:	25067716003
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	BAERLIN, RICK	Well addr:	3148 MCGREGOR
Well depth:	262		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1590
Const date:	1987-10-21 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	186		
Screen frm:	0		
Screen to:	0		
Swl:	75		
Test depth:	262		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9208443206		
Longitude:	-83.6459698893		
Methd coll:	Interpolation-Map		
Elevation:	853		
Elev methd:	Topographoc Map Interpolation		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000001292	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	168		
Thickness:	168		
Aqtype:	D	Class:	CM
Effect:	0		

<b>23</b> <b>ESE</b> <b>1/2 - 1 Mile</b> <b>Higher</b>	Site ID:	250120		
	Groundwater Flow:	S	<b>AQUIFLOW</b>	<b>34495</b>
	Shallowest Water Table Depth:	3.97		
	Deepest Water Table Depth:	7.11		
	Average Water Table Depth:	Not Reported		
	Date:	05/1990		

<b>24</b> <b>SSW</b> <b>1/2 - 1 Mile</b> <b>Higher</b>			<b>MI WELLS</b>	<b>MI00160350</b>
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Wellid:	25000007655	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	Raymond Foust	Well addr:	7338 Embury
Well depth:	260		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2152
Const date:	2000-11-01 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	172		
Screen frm:	0		
Screen to:	0		
Swl:	55		
Test depth:	70		
Test hours:	.5		
Test rate:	40	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9210017		
Longitude:	-83.64798265		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		

Wellid:	25000007655	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	10		
Thickness:	10		
Aqtype:	D	Class:	CM
Effect:	0		

<b>G26</b> <b>NE</b> <b>1/2 - 1 Mile</b> <b>Lower</b>			<b>MI WELLS</b>	<b>MI00162510</b>
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## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000009763	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	RICHARD AUTEN	Well addr:	6122 S CENTER RD
Well depth:	220		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1893
Const date:	2002-07-30 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	140		
Screen frm:	0		
Screen to:	0		
Swl:	55		
Test depth:	220		
Test hours:	2		
Test rate:	75	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	12
Latitude:	42.94240122		
Longitude:	-83.63264897		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		

Wellid:	25000009763	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	105		
Thickness:	105		
Aqtype:	D	Class:	CM
Effect:	0		

**E27  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160268**

Wellid:	25000006789	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	GARDNER EXCAVATING	Well addr:	3240 PERRY CT.
Well depth:	220		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1886
Const date:	2000-09-06 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	168		
Screen frm:	0		
Screen to:	0		
Swl:	51		
Test depth:	200		
Test hours:	2		
Test rate:	40	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	10
Latitude:	42.92020722		
Longitude:	-83.64655391		
Methd coll:	Interpolation-Map		
Elevation:	0		
Elev methd:	Not Reported		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000006789	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	145		
Thickness:	145		
Aqtype:	D	Class:	CM
Effect:	0		

**F28  
NNW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162708**

Wellid:	25000011614	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	Papa Johns/ Attorney Offices	Well addr:	6044 S Saginaw St
Well depth:	1		
Well type:	Type II public		
Wssn:	2154325		
Well num:	001	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was not grouted	Pmp cpcity:	0
Latitude:	42.94368133		
Longitude:	-83.64946075		
Methd coll:	Address Matching-House Number		
Elevation:	804		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000011614	Seqno:	1
Primlith:	No Log	Lithmod:	Not Reported
Depth:	1		
Thickness:	1		
Aqtype:	U	Class:	NA
Effect:	0		

**H29  
South  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160218**

Wellid:	25000001291	Import id:	25067716002
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	DURHAM, PAULINE	Well addr:	3252 E. GRAND BLANC
Well depth:	280		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	169
Const date:	1985-07-07 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	200		
Screen frm:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Screen to:	0		
Swl:	60		
Test depth:	100		
Test hours:	2		
Test rate:	50	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9196881108		
Longitude:	-83.6421560267		
Methd coll:	Interpolation-Map		
Elevation:	849		
Elev methd:	Topographoc Map Interpolation		
Wellid:	25000001291	Seqno:	2
Primlith:	Sand & Clay	Lithmod:	Not Reported
Depth:	152		
Thickness:	20		
Aqtype:	D	Class:	PCM
Effect:	0		

**30  
North  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162833**

Wellid:	25000009651	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	GARY POTTER	Well addr:	3454 E. HILL RD.
Well depth:	190		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2152
Const date:	2002-04-26 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	120		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	60		
Test hours:	.5		
Test rate:	18	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	10
Latitude:	42.94481417		
Longitude:	-83.63971971		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		
Wellid:	25000009651	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	10		
Thickness:	10		
Aqtype:	D	Class:	CM
Effect:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**H31**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI00160198**

Wellid:	25000008987	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	VALETTA CALDER	Well addr:	3238 GRAND BLANC RD
Well depth:	280		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1893
Const date:	2001-08-29 00:00:00.000	Case type:	Steel-black
Case dia:	5		
Case depth:	205		
Screen frm:	0		
Screen to:	0		
Swl:	75		
Test depth:	280		
Test hours:	2		
Test rate:	100	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	12
Latitude:	42.91950378		
Longitude:	-83.64323586		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		
Wellid:	25000008987	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	70		
Thickness:	70		
Aqtype:	D	Class:	CM
Effect:	0		

**H32**  
**South**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI00160185**

Wellid:	25000009073	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	Not Reported	Well addr:	3238 E GRAND BLANC RD
Well depth:	204		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1893
Const date:	2001-08-23 00:00:00.000	Case type:	Unknown
Case dia:	-1		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	0		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was not grouted	Pmp cpcity:	0
Latitude:	42.91937064		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude: -83.643241  
 Methd coll: Address Matching-House Number  
 Elevation: 0  
 Elev methd: Not Reported

Wellid:	25000009073	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	70		
Thickness:	70		
Aqtype:	D	Class:	CM
Effect:	0		

**G33**  
**NE**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00162580**

Wellid:	25000001260	Import id:	25067710001
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	10
Owner name:	UNKNOWN	Well addr:	6075 S. CENTER
Well depth:	200		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	169
Const date:	1986-08-13 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	113		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	100		
Test hours:	2		
Test rate:	17	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9428486469		
Longitude:	-83.6320075544		
Methd coll:	Interpolation-Map		
Elevation:	818		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001260	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	67		
Thickness:	67		
Aqtype:	D	Class:	CM
Effect:	0		

**34**  
**NNW**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00162824**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000001215	Import id:	25067704002
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	4
Owner name:	AUKER, ELDON	Well addr:	4139 HILL
Well depth:	220		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	99
Const date:	1971-03-03 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	181		
Screen frm:	0		
Screen to:	0		
Swl:	55		
Test depth:	84		
Test hours:	1		
Test rate:	10	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9447485725		
Longitude:	-83.6476053047		
Methd coll:	Interpolation-Map		
Elevation:	815		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001215	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	31		
Thickness:	31		
Aqtype:	D	Class:	CM
Effect:	0		

**I35  
WSW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00160893**

Wellid:	25000000025	Import id:	25067717010
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	17
Owner name:	VAN ETTEN DISPOSAL	Well addr:	2353 REID
Well depth:	260		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	283
Const date:	1983-07-14 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	200		
Screen frm:	0		
Screen to:	0		
Swl:	60		
Test depth:	60		
Test hours:	1		
Test rate:	50	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9270716683		
Longitude:	-83.6586479486		
Methd coll:	Interpolation-Map		
Elevation:	830		
Elev methd:	Topographoc Map Interpolation		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000000025	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	180		
Thickness:	180		
Aqtype:	D	Class:	CM
Effect:	0		

**36  
SSW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160196**

Wellid:	25000001293	Import id:	25067716004
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	PECK, TED	Well addr:	7361 EMBURY
Well depth:	300		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1710
Const date:	1987-12-29 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	183		
Screen frm:	0		
Screen to:	0		
Swl:	60		
Test depth:	100		
Test hours:	2		
Test rate:	30	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9194835098		
Longitude:	-83.646918345		
Methd coll:	Interpolation-Map		
Elevation:	854		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001293	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	135		
Thickness:	135		
Aqtype:	D	Class:	CM
Effect:	0		

**37  
NW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162634**

Wellid:	25000001250	Import id:	25067708001
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	8
Owner name:	SMITH, DAVID	Well addr:	G-6044 S. DORT
Well depth:	200		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	99
Const date:	1977-08-16 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	140		
Screen frm:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Screen to:	0		
Swl:	80		
Test depth:	110		
Test hours:	2		
Test rate:	10	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9431747182		
Longitude:	-83.6528663934		
Methd coll:	Interpolation-Map		
Elevation:	822		
Elev methd:	Topographoc Map Interpolation		
Wellid:	25000001250	Seqno:	2
Primlith:	Sandstone	Lithmod:	Not Reported
Depth:	200		
Thickness:	65		
Aqtype:	R	Class:	AQ
Effect:	0		

**J38  
SW  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160492**

Wellid:	25000010178	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	17
Owner name:	DEBBIE PROFFER	Well addr:	7229 GREEN VALLEY
Well depth:	225		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2082
Const date:	2002-09-17 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	150		
Screen frm:	0		
Screen to:	0		
Swl:	60		
Test depth:	225		
Test hours:	0		
Test rate:	30	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.92227261		
Longitude:	-83.65464212		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		
Wellid:	25000010178	Seqno:	1
Primlith:	Clay & Stones	Lithmod:	Not Reported
Depth:	131		
Thickness:	131		
Aqtype:	D	Class:	PCM
Effect:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Database      EDR ID Number

**K39**  
**ESE**  
**1/2 - 1 Mile**  
**Lower**

**FED USGS      USGS2308447**

Agency cd:	USGS	Site no:	425541083373001
Site name:	49 GRANDBLANC 1		
Latitude:	425541		
Longitude:	0833730	Dec lat:	42.92808326
Dec lon:	-83.62495164	Coor meth:	M
Coor accr:	M	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	049
Country:	US	Land net:	Not Reported
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	Not Reported	Altitude method:	Not Reported
Altitude accuracy:	Not Reported	Altitude datum:	Not Reported
Hydrologic:	Not Reported		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	19860828	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported		
Source of depth data:	Not Reported		
Real time data flag:	0	Hole depth:	Not Reported
Daily flow data end date:	0000-00-00	Project number:	440013100
Peak flow data begin date:	0000-00-00	Daily flow data begin date:	0000-00-00
Peak flow data count:	0	Daily flow data count:	0
Water quality data end date:	1986-08-28	Peak flow data end date:	0000-00-00
Ground water data begin date:	0000-00-00	Water quality data begin date:	1986-08-28
Ground water data count:	0	Water quality data count:	1
		Ground water data end date:	0000-00-00

Ground-water levels, Number of Measurements: 0

**40**  
**NNW**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00162752**

Wellid:	25000000023	Import id:	25067709001
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	9
Owner name:	MORGAN CONSTRUCTION COMPANY	Wellbndr:	3024 HILL
Well depth:	220		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	99
Const date:	1985-11-11 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	140		
Screen frm:	0		
Screen to:	0		
Swl:	65		
Test depth:	90		
Test hours:	2		
Test rate:	33	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9441378911		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude: -83.6514888444  
 Methd coll: Interpolation-Map  
 Elevation: 824  
 Elev methd: Topographoc Map Interpolation

Wellid:	25000000023	Seqno:	1
Primlith:	Gravel & Clay	Lithmod:	Not Reported
Depth:	130		
Thickness:	130		
Aqtype:	D	Class:	PCM
Effect:	0		

**K41**  
**ESE**  
**1/2 - 1 Mile**  
**Lower**

**MI WELLS      MI00160982**

Wellid:	25000001288	Import id:	25067715302
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	15
Owner name:	CITY OF GRAND BLANC	Well addr:	GRAND BLANC WELL #2
Well depth:	309		
Well type:	Type I public		
Wssn:	2740		
Well num:	GRAND BLANC WELL #2	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	10		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9279483969		
Longitude:	-83.6248041026		
Methd coll:	Interpolation-Map		
Elevation:	828		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001288	Seqno:	1
Primlith:	No Lithology Information	Lithmod:	Not Reported
Depth:	309		
Thickness:	309		
Aqtype:	U	Class:	NA
Effect:	0		

**J42**  
**SW**  
**1/2 - 1 Mile**  
**Higher**

**MI WELLS      MI00160469**

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000007919	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	17
Owner name:	CHRIS VANDERLAAG	Well addr:	7219 GREEN VALLEY DR
Well depth:	220		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1710
Const date:	2000-11-29 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	138		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	100		
Test hours:	2		
Test rate:	30	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	10
Latitude:	42.92207853		
Longitude:	-83.65492153		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		

Wellid:	25000007919	Seqno:	2
Primplith:	Clay	Lithmod:	Not Reported
Depth:	72		
Thickness:	60		
Aqtype:	D	Class:	CM
Effect:	0		

**I43  
WSW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00160852**

Wellid:	25000012679	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	17
Owner name:	TONY STEFANSKI	Well addr:	2311 E REID RD
Well depth:	240		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1947
Const date:	2002-10-31 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	187		
Screen frm:	0		
Screen to:	0		
Swl:	55		
Test depth:	90		
Test hours:	1		
Test rate:	33	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	10
Latitude:	42.926528		
Longitude:	-83.659499		
Methd coll:	Address Matching-House Number		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	25000012679	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	140		
Thickness:	140		
Aqtype:	D	Class:	CM
Effect:	0		

**L44  
NW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162260**

Wellid:	25000001253	Import id:	25067708004
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	8
Owner name:	PHELTS, BONNIE	Well addr:	2366 EDWARDS
Well depth:	220		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	314
Const date:	1978-06-24 00:00:00.000	Case type:	Unknown
Case dia:	2		
Case depth:	152		
Screen frm:	0		
Screen to:	0		
Swl:	63		
Test depth:	84		
Test hours:	1		
Test rate:	6	Test methd:	Unknown
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.9404455998		
Longitude:	-83.658158495		
Methd coll:	Interpolation-Map		
Elevation:	821		
Elev methd:	Topographoc Map Interpolation		

Wellid:	25000001253	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	11		
Thickness:	11		
Aqtype:	D	Class:	CM
Effect:	0		

**45  
South  
1/2 - 1 Mile  
Higher**

**MI WELLS      MI00160062**

Wellid:	25000009762	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	16
Owner name:	BRIAN KOLINSKI	Well addr:	3198 E GRAND BLANC RD
Well depth:	287		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	1947
Const date:	2002-07-01 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	212		
Screen frm:	0		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Screen to:	0		
Swl:	90		
Test depth:	100		
Test hours:	1		
Test rate:	33	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	10
Latitude:	42.91820256		
Longitude:	-83.64473643		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		
Wellid:	25000009762	Seqno:	1
Primlith:	Clay	Lithmod:	Not Reported
Depth:	90		
Thickness:	90		
Aqtype:	D	Class:	CM
Effect:	0		

**L46  
NW  
1/2 - 1 Mile  
Lower**

**MI WELLS      MI00162327**

Wellid:	25000006334	Import id:	Not Reported
County:	Genesee	Township:	Grand Blanc
Town range:	06N 07E	Section:	8
Owner name:	JERRY MAI	Well addr:	2381 EDWARDS
Well depth:	205		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	2082
Const date:	2000-05-04 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	155		
Screen frm:	0		
Screen to:	0		
Swl:	44		
Test depth:	205		
Test hours:	0		
Test rate:	30	Test methd:	Air
Grout:	Was grouted	Pmp cpcity:	0
Latitude:	42.94099691		
Longitude:	-83.65800356		
Methd coll:	Address Matching-House Number		
Elevation:	0		
Elev methd:	Not Reported		
Wellid:	25000006334	Seqno:	1
Primlith:	Clay & Stones	Lithmod:	Not Reported
Depth:	143		
Thickness:	143		
Aqtype:	D	Class:	PCM
Effect:	0		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: MI Radon

### Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
Random	48439	0	3/21/88	LT 0.5			
Random	48439	1	3/23/88	LT 0.5			
Random	48439		4/16/87	1.0	28.7%		
Random	48439	0	10/30/87	1.2	18.1%		
Random	48439	0	3/17/88	1.9	16.6%	1.6	16.4%
Random	48439	0	3/13/88	2.7	8.0%		
Geographic	48439	0	4/28/88	1.9	14.0%		
Geographic	48439	0	4/8/88	2.5	9.4%		

State Database: MI Radon

### Radon Test Results

Zip	Less than sign	Pci/L
48439		1.70
48439		2.80
48439		1.20
48439		1.20
48439		0.70
48439	<	0.30
48439		12.50
48439		1.30
48439		4.10
48439		4.60
48439		0.50
48439		0.70
48439		1.00
48439	<	0.30
48439		1.80
48439		1.40
48439		0.70
48439		5.00
48439		1.90
48439		17.30
48439		2.40
48439		2.60
48439		4.20
48439	<	0.30
48439		3.30
48439	<	0.30
48439		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

48439		1.60
48439		3.70
48439		3.30
48439		2.50
48439		4.90
48439		1.10
48439		1.40
48439		2.00
48439		0.80
48439		2.00
48439		3.70
48439		2.20
48439		1.60
48439		3.50
48439		1.80
48439		3.70
48439		2.00
48439		1.30
48439		3.30
48439		7.70
48439		1.50
48439		0.50
48439		11.40
48439	<	0.30
48439		7.50
48439	<	0.30
48439		0.80
48439		0.60
48439		15.10
48439		2.60
48439		3.40
48439		2.60
48439		3.00
48439		2.90
48439		1.00
48439		0.90
48439		1.90
48439		0.80
48439		2.30
48439		2.60
48439		0.60
48439		3.40
48439		4.40
48439	<	0.30
48439		8.30
48439		14.80
48439		1.80
48439		0.90
48439		2.90
48439		2.00
48439		1.30
48439		6.50
48439		0.50
48439		1.60
48439		4.70
48439		1.00
48439		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

		1.60
48439		1.30
48439		1.90
48439		1.10
48439		2.30
48439		3.30
48439		2.40
48439		2.70
48439		6.80
48439		5.50
48439		0.90
48439		2.50
48439		1.70
48439		1.50
48439		1.10
48439		9.40
48439		0.80
48439	<	0.30
48439		3.00
48439		2.80
48439		0.80
48439		1.60
48439		1.60
48439	<	0.30
48439		1.50
48439		1.00
48439		0.60
48439		0.80
48439		1.00
48439	<	0.30
48439		2.60
48439		2.20
48439		5.00
48439		1.00
48439		1.20
48439		2.50
48439		1.50
48439		7.90
48439		6.60
48439		0.70
48439	<	0.30
48439		0.70
48439		3.50
48439		6.00
48439		4.20
48439		1.90
48439		5.80
48439		3.40
48439		2.60
48439		1.70
48439		0.70
48439		0.70
48439		2.20

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

Federal EPA Radon Zone for GENESEE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 48439

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.400 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.420 pCi/L	100%	0%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STATE RECORDS

### Water Well Data

Source: Department of Environmental Quality, Drinking Water and Radiological Protection Division  
Telephone: 517-335-9218

### Michigan Oil and Gas Wells

Source: Michigan Department of Natural Resources  
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

## RADON

### State Database: MI Radon

Source: Department of Environmental Quality  
Telephone: 517-335-9551  
Radon Test Results

### Michigan Radon Test Results

Source: Department of Environmental Quality  
Telephone: 517-335-8037  
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

### Area Radon Information

Source: USGS  
Telephone: 703-356-4020  
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

### EPA Radon Zones

Source: EPA  
Telephone: 703-356-4020  
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## OTHER

**Airport Landing Facilities:** Private and public use landing facilities  
Source: Federal Aviation Administration, 800-457-6656

**Epicenters:** World earthquake epicenters, Richter 5 or greater  
Source: Department of Commerce, National Oceanic and Atmospheric Administration

## **Appendix C**

### **Photographs**

Photograph Log



East side of Grand Blanc MFD facility



West side of Grand Blanc MFD facility

Photograph Log



Substation in Area 2 looking northwest



Storm Water Lagoon #2 in Area 2 looking southeast (MFD is in left and central background. Shue and Volks Cartage Warehouse is in right background)

Photograph Log



Well #5 and AST vault area (which is former UST area also) in Area 2 looking southwest



Die storage area in Area 2 looking toward the north

Photograph Log



Die storage area in Area 2 looking toward the east



Die storage area shed looking toward the east

Photograph Log



Stamping press processing pad in Area 2 looking west (die storage area is in background)



Crock Sump in Area 2 looking northwest

Photograph Log



Pump House and water tank in Area 2 looking northwest



Shue and Volks Cartage Warehouse adjacent to Areas 2 and 4

## **Appendix D**

### **Historical Information**



**EDR**® Environmental  
Data Resources Inc

**The EDR-City Directory**  
*Abstract*

**General Motors**  
**10800 South Saginaw Street**  
**Grand Blanc, MI 48439**

**August 23, 2005**

**Inquiry Number: 1491115-5**

**The Standard  
In Environmental  
Risk Management  
Information**

440 Wheelers Farms Road  
Milford, Connecticut 06460

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802

# Environmental Data Resources, Inc.

## City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources*. *Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-00, Section 7.3.2, page 12.)

EDR's City Directory Abstract includes a search and abstract of available city directory data.

### City Directories

City directories have been published for cities and towns across the U.S. since the 1700s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories are generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. ASTM E 1527-00 specifies that a *"review of city directories (standard historical sources) at less than approximately five year intervals is not required by this practice."* (ASTM E 1527-00, Section 7.3.2.1, page 12.)

### NAICS (North American Industry Classification System) Codes

NAICS is a unique, all-new system for classifying business establishments. Adopted in 1997 to replace the prior Standard Industry Classification (SIC) system, it is the system used by the statistical agencies of the United States. It is the first economic classification system to be constructed based on a single economic concept. To learn more about the background, the development and difference between NAICS and SIC, visit the following Census website: <http://www.census.gov/epcd/www/naicsdev.htm>.

Please call EDR Nationwide Customer Service at  
1-800-352-0050 (8am-8pm EST)  
with questions or comments about your report.  
*Thank you for your business!*

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**EDR**® Environmental  
Data Resources Inc

**EDR Historical  
Topographic Map  
Report**

**General Motors  
10800 South Saginaw Street  
Grand Blanc, MI 48439**

**Inquiry Number: 1491115.4**

**August 19, 2005**

**The Standard in  
Environmental Risk  
Management Information**

**440 Wheelers Farms Road  
Milford, Connecticut 06460**

**Nationwide Customer Service**

**Telephone: 1-800-352-0050**

**Fax: 1-800-231-6802**

**Internet: [www.edrnet.com](http://www.edrnet.com)**

# EDR Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources*. *Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.* To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-00, Section 7.3.2 page 12.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

## Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

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EDR® Environmental  
Data Resources Inc

"Linking Technology with Tradition"®

## Sanborn® Map Report

**Ship To:** Dave Meixell  
O'Brien & Gere  
5000 Brittonfield  
Syracuse, NY 13221

**Order Date:** 8/18/2005 **Completion Date:** 8/18/2005

**Inquiry #:** 1491115.3

**P.O. #:** GM - Grand Blanc

**Site Name:** General Motors

**Address:** 10800 South Saginaw Street

**City/State:** Grand Blanc, MI 48439

**Customer Project:** NA  
1051149ERK 315-437-6100

**Cross Streets:**

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

**NO COVERAGE**

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<u>PUR ID</u>	<u>Year</u>	<u>Uses</u>	<u>NAICS</u>	<u>Source</u>
	1962 (continued)	Address not listed in research source (10785)	N/A	
		Address not listed in research source (10801)	N/A	
		Address not listed in research source (10809)	N/A	
		Throop Equipment Co. (agrl. implts.) (10825)		
1967		<b>**SOUTH SAGINAW STREET**</b>		
		Address not listed in research source (10761)	N/A	Polk's City Directory
		Address not listed in research source (10775)	N/A	
		Address not listed in research source (10785)	N/A	
		Address not listed in research source (10801)	N/A	
		Address not listed in research source (10809)	N/A	
		Throop Equipment Co. (wldg.) (10825)		
1971		<b>**SOUTH SAGINAW STREET**</b>		
		Address not listed in research source (10761)	N/A	Polk's City Directory
		Address not listed in research source (10775)	N/A	
		Address not listed in research source (10785)	N/A	
		Address not listed in research source (10801)	N/A	
		Colonialage Furniture (10809)		
		Throop Equipment Co. (wldg.) (10825)		
1975		<b>**SOUTH SAGINAW STREET**</b>		
		Address not listed in research source (10761)	N/A	Polk's City Directory
		Address not listed in research source (10775)	N/A	
		Address not listed in research source (10785)	N/A	
		Address not listed in research source (10801)	N/A	
		Colonialage Furniture (10809)		
		Water-Land Sales (campers) (10825)		
1980		<b>**SOUTH SAGINAW STREET**</b>		
		Address not listed in research source (10761)	N/A	Polk's City Directory
		Address not listed in research source (10775)	N/A	
		Address not listed in research source (10785)	N/A	
		Address not listed in research source (10801)	N/A	
		Concord Manor (firm.) (10809)		
		Water-Land Sales (campers) (10825)		

<u>PUR ID</u>	<u>Year</u>	<u>Uses</u>	<u>NAICS</u>	<u>Source</u>
	1985	<b>**SOUTH SAGINAW STREET**</b>		
		Address not listed in research source (10761)	N/A	Polk's City Directory
		Address not listed in research source (10775)	N/A	
		Address not listed in research source (10785)	N/A	
		Address not listed in research source (10801)	N/A	
		Concord Manor an Ethan Allen Gallery (fum.) (10809)		
		Slivka Buick Prep. Shop (10825)		
	1990	<b>**SOUTH SAGINAW STREET**</b>		
		Century Tempy. Serv. (10761)		Bresser's Criss-Cross Directory
		Century Design Co. (10761)		
		J.S. Brayan, Inc. (10775)		
		Houska Industries (10775)		
		Address not listed in research source (10785)	N/A	
		Office Building (12 occupants) (10801)		
		Ethan Allen Gallery (10809)		
		Address not listed in research source (10825)	N/A	
	1995	<b>**SOUTH SAGINAW STREET**</b>		
		Century Tempy. Serv. (10761)		Bresser's Criss-Cross Directory
		Century Design Co. (10761)		
		Office Building (9 occupants) (10775)		
		Office Building (8 occupants) (10785)		
		Office Building (9 occupants) (10801)		
		Ethan Allen (10809)		
		Address not listed in research source (10825)	N/A	
	2000	<b>**SOUTH SAGINAW STREET**</b>		
		Office Building (8 occupants) (10761)		Bresser's Criss-Cross Directory
		Office Building (5 occupants) (10775)		
		Office Building (6 occupants) (10785)		
		Office Building (11 occupants) (10801)		
		Ethan Allen (10809)		
		Honda Auto Sales of Grand Blanc (10825)		
	2005	<b>**SOUTH SAGINAW STREET**</b>		
				Bresser's Criss-Cross Directory

#### 4. SUMMARY

- *City Directories:*

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1957 through 2005. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

**Date EDR Searched Historical Sources:**  
 City Directories Aug 23, 2005

**Target Property:**  
 10800 South Saginaw Street  
 Grand Blanc, MI 48439

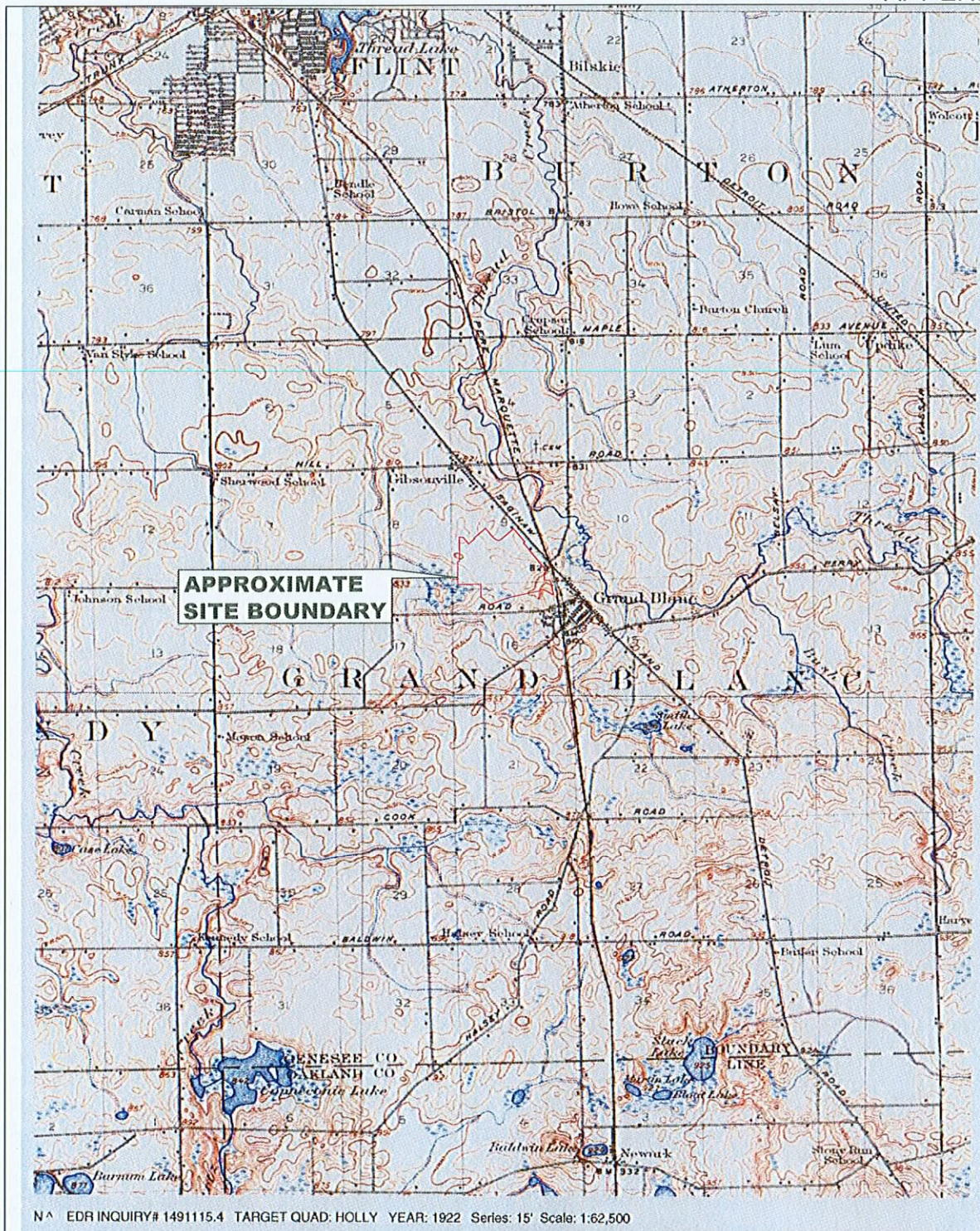
<u>PUR ID</u>	<u>Year</u>	<u>Uses</u>	<u>NAICS</u>	<u>Source</u>
--	1957	Address not Listed in Research Source	N/A	Polk's City Directory
--	1962	Address not Listed in Research Source	N/A	Polk's City Directory
--	1967	Address not Listed in Research Source	N/A	Polk's City Directory
--	1971	Fisher Body Div. General Motors Corp. (auto body mfrs.)		Polk's City Directory
--	1975	Fisher Body Div. General Motors Corp. (auto body mfrs.)		Polk's City Directory
--	1980	Fisher Body Div. General Motors Corp. (auto body mfrs.)		Polk's City Directory
--	1985	Fisher Body Div. General Motors Corp. (auto body mfrs.)		Polk's City Directory
--	1990	Grand Blanc Metal Fab. Flint Rigrs. & Erect.		Bresser's Criss-Cross Directory
--	1995	General Motors Corp. Willard Sfty. Shoe		Bresser's Criss-Cross Directory
--	2000	General Motors Corp.		Bresser's Criss-Cross Directory
--	2005	Comprehensive Logistics Shively Brothers, Inc.		Bresser's Criss-Cross Directory

**Adjoining Properties**

**SURROUNDING**  
 Multiple Addresses  
 Grand Blanc, MI 48439

<u>PUR ID</u>	<u>Year</u>	<u>Uses</u>	<u>NAICS</u>	<u>Source</u>
	1957	Address not Listed in Research Source	N/A	Polk's City Directory
	1962	<b>**SOUTH SAGINAW STREET**</b> Address not listed in research source (10761) Address not listed in research source (10775)	N/A N/A	Polk's City Directory

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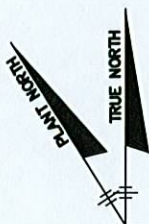


NAD EDR INQUIRY# 1491115.4 TARGET QUAD: HOLLY YEAR: 1922 Series: 15' Scale: 1:62,500

**NOTE:**

1. TOPOGRAPHICAL MAP DATED 1944.

PLOT DATE: 12/20/06 078 LAT



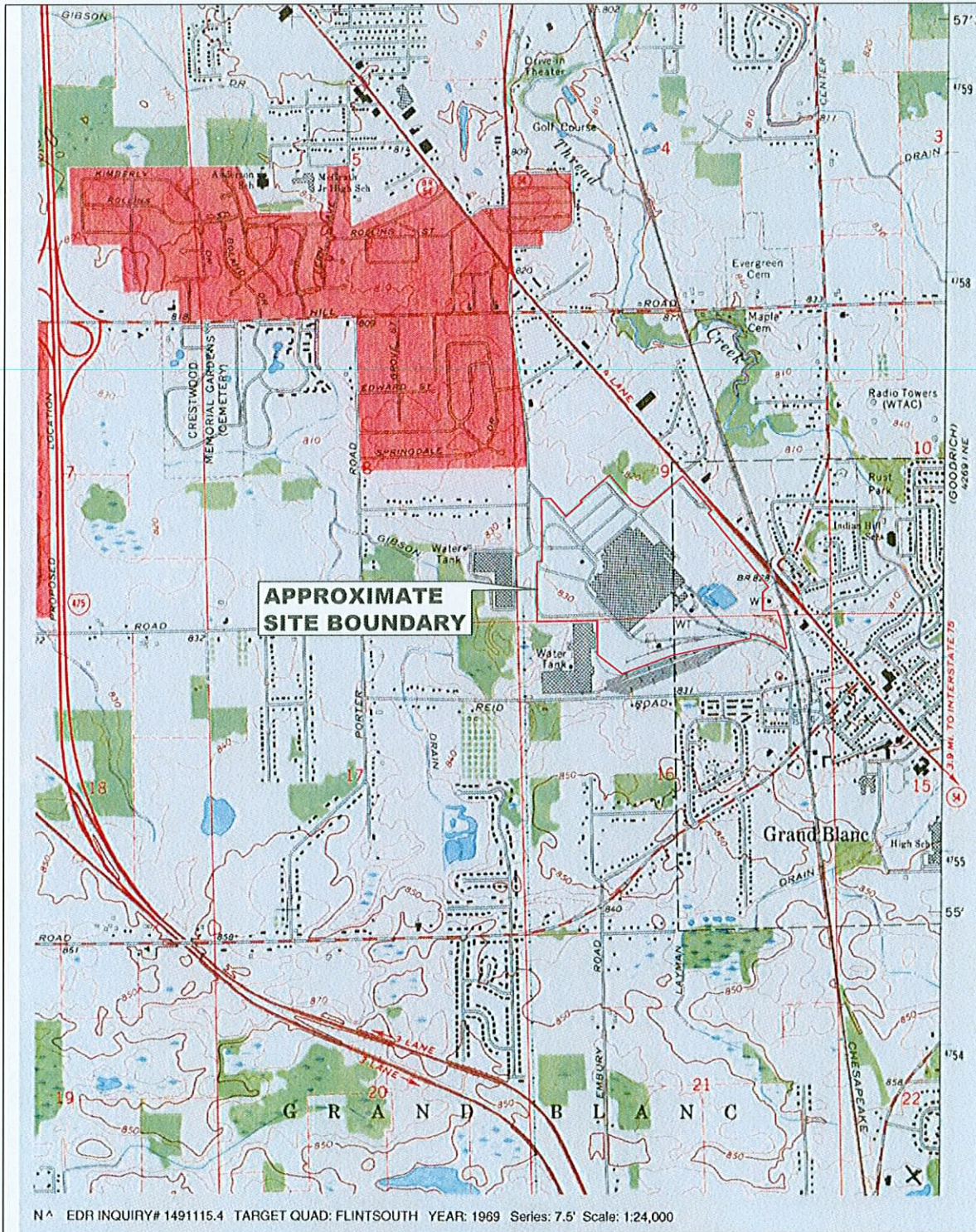
**GENERAL MOTORS  
MFD – GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN**

**HISTORICAL INFORMATION**

4966.37404-008  
OCTOBER 2006

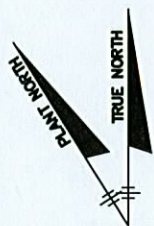
NOT TO SCALE





**NOTE:**

1. TOPOGRAPHICAL MAP DATED 1969.



**GENERAL MOTORS  
MFD – GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN**

**HISTORICAL INFORMATION**

4966.37404-008  
OCTOBER 2006

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**EDR**® Environmental  
Data Resources Inc

**The EDR Aerial Photo  
Decade Package**

**General Motors  
10800 South Saginaw Street  
Grand Blanc, MI 48439**

**1491115.6**

**August 22, 2005**

**The Standard in  
Environmental Risk  
Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06460

**Nationwide Customer Service**

Telephone: 1-800-352-0050

Fax: 1-800-231-6802

Internet: [www.edrnet.com](http://www.edrnet.com)

# Environmental Data Resources, Inc. Aerial Photography Print Service

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources*. *Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires "*All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful.*" (ASTM E 1527-00, Section 7.3.2, page 12.)

## Aerial Photographs

**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of local aerial photograph collections flown by public and private agencies. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at ten year intervals.

Please call Environmental Data Resources, Inc. Nationwide Customer Service at  
1-800-352-0050 (8am-8pm ET)  
with questions or comments about your report.  
*Thank you for your business!*

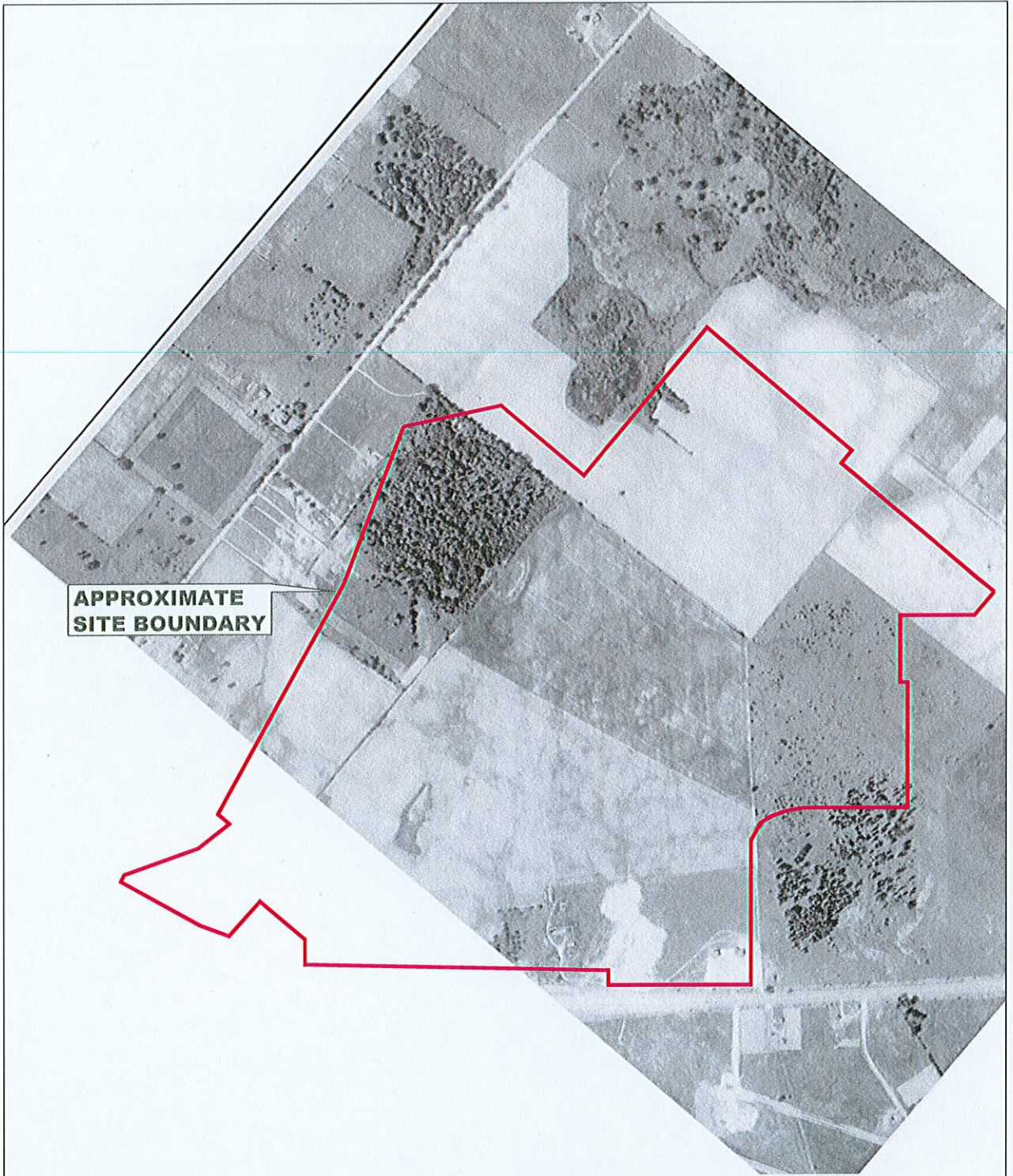
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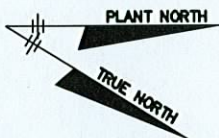
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DWG PATH: I:\078\PROJECTS\4966\37404\DWGS\FINAL DWG\_APP D\008-1941.DWG



NOTE:  
 1. AERIAL PHOTOGRAPH DATED 1941.

PLOT DATE: 10/17/06 078 LAT



**GENERAL MOTORS  
 MFD – GRAND BLANC (SITE #29)  
 GRAND BLANC, MICHIGAN  
 HISTORICAL INFORMATION**

4966.37404-008  
 OCTOBER 2005

NOT TO SCALE



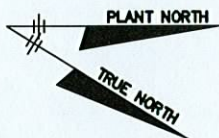
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APPROXIMATE  
SITE BOUNDARY

NOTE:  
1. AERIAL PHOTOGRAPH DATED 1950.

PLOT DATE: 10/17/06 078 LAT



GENERAL MOTORS  
MFD – GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN

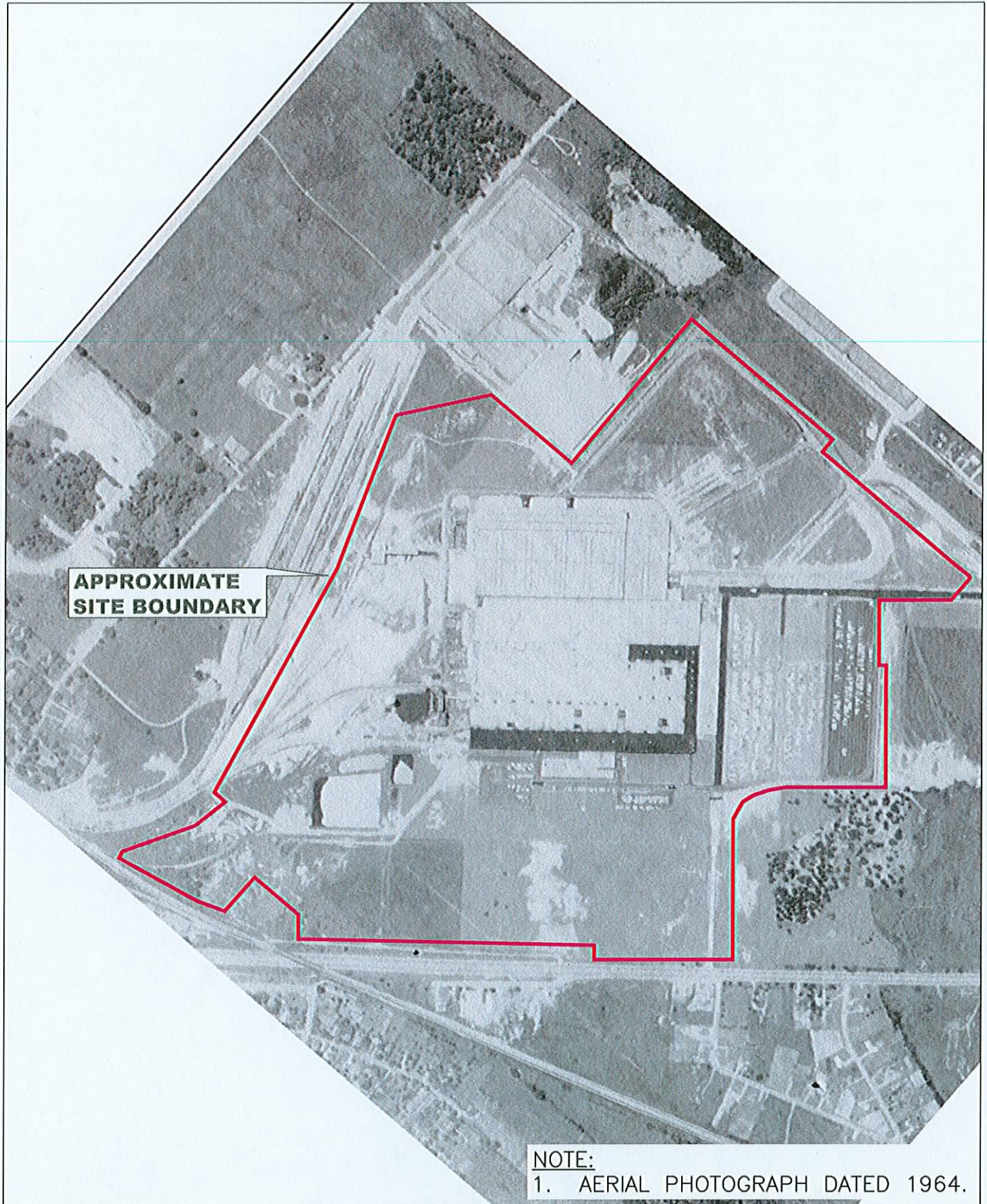
HISTORICAL INFORMATION

4966.37404-008  
OCTOBER 2005

NOT TO SCALE



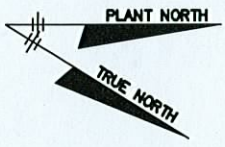
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**APPROXIMATE  
SITE BOUNDARY**

**NOTE:**  
1. AERIAL PHOTOGRAPH DATED 1964.

PLOT DATE: 10/17/06 078 LAT



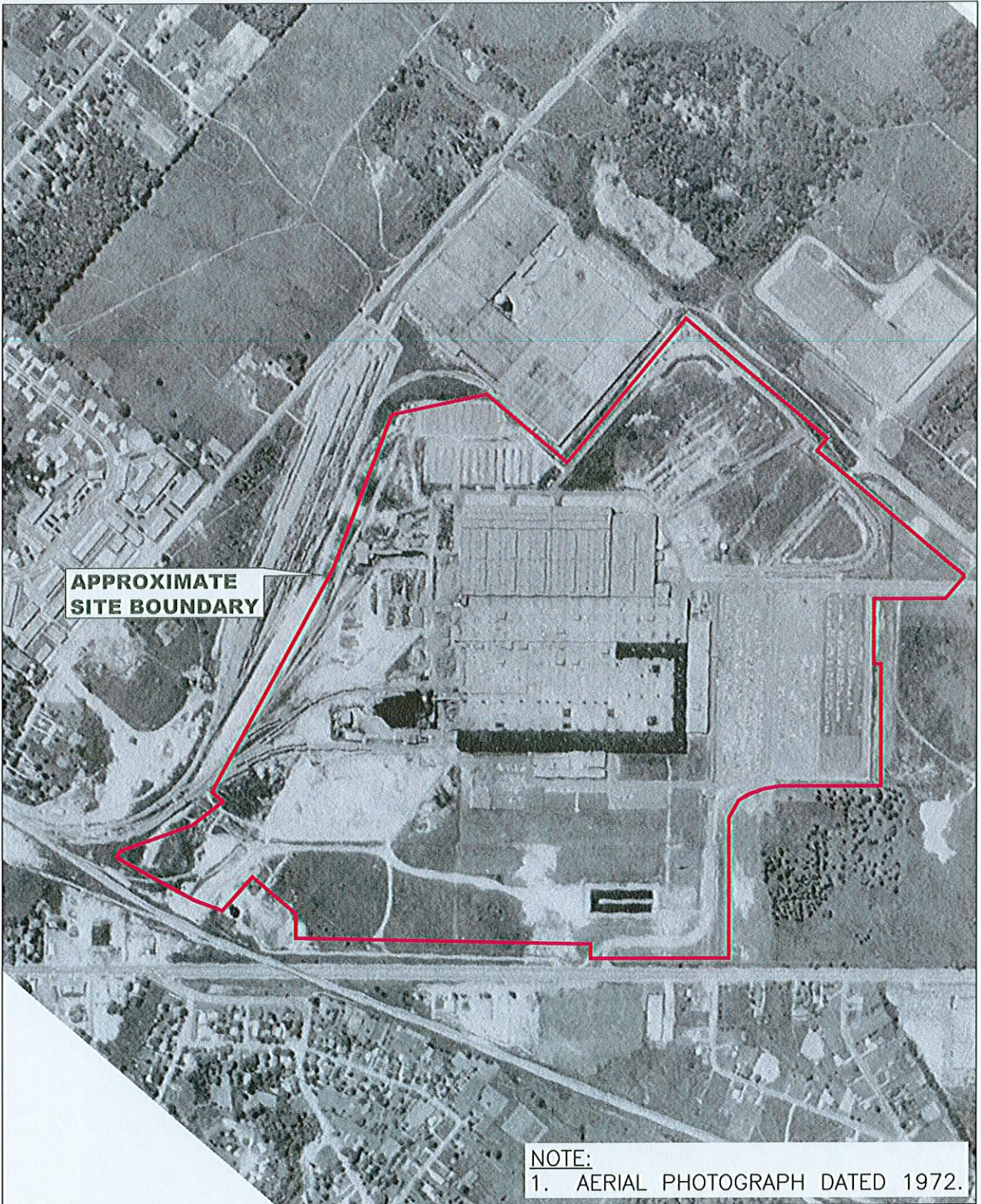
**GENERAL MOTORS  
MFD – GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN  
HISTORICAL INFORMATION**

4966.37404-008  
OCTOBER 2005

NOT TO SCALE



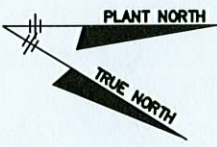
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**APPROXIMATE  
SITE BOUNDARY**

NOTE:  
1. AERIAL PHOTOGRAPH DATED 1972.

PLOT DATE: 10/17/06 078 LAT



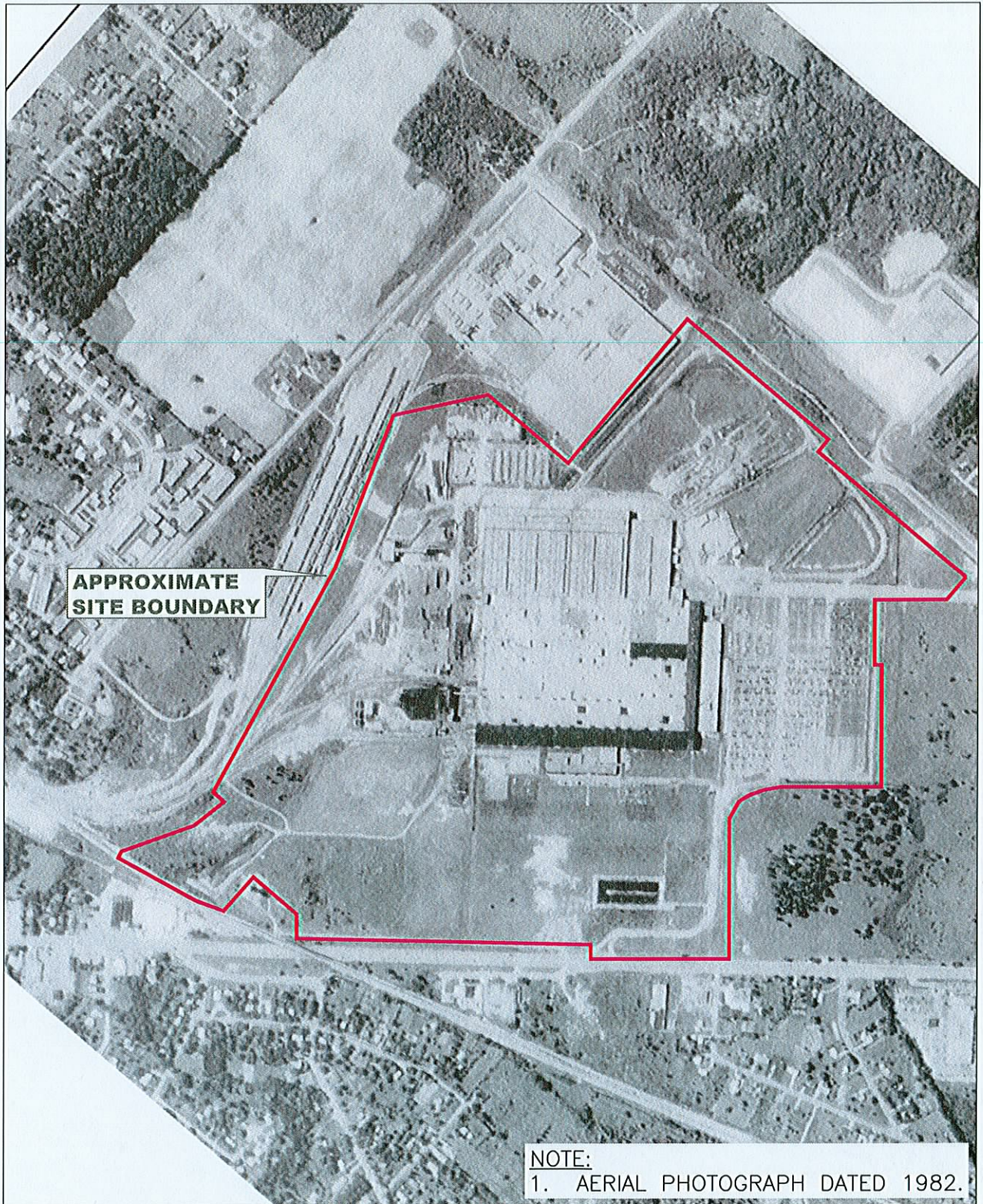
**GENERAL MOTORS  
MFD – GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN  
HISTORICAL INFORMATION**

4966.37404-008  
OCTOBER 2005

NOT TO SCALE



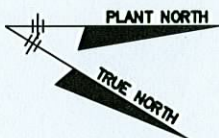
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**APPROXIMATE  
SITE BOUNDARY**

**NOTE:**  
1. AERIAL PHOTOGRAPH DATED 1982.

PLOT DATE: 10/17/06 078 LAT



**GENERAL MOTORS  
MFD – GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN**

**HISTORICAL INFORMATION**

4966.37404-008  
OCTOBER 2005

NOT TO SCALE



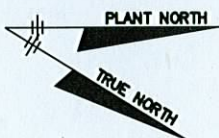
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**APPROXIMATE  
SITE BOUNDARY**

**NOTE:**  
1. AERIAL PHOTOGRAPH DATED 1997.

PLOT DATE: 10/17/06 078 LAT



**GENERAL MOTORS  
MFD - GRAND BLANC (SITE #29)  
GRAND BLANC, MICHIGAN  
HISTORICAL INFORMATION**

4966.37404-008  
OCTOBER 2005

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## **Appendix E**

### **Personnel Resumes**

# Clifford S. Yantz

Senior Project Scientist

## TECHNICAL EXPERTISE

- Project management
- Hydrogeologic/Remedial Investigations (RI)
- Hydrogeologic data analysis
- Feasibility Studies (FS)
- Ground water flow and fate & transport modeling
- Remedial Design and Remedial Action (RD/RA)
- LNAPL & DNAPL issues
- Wellhead protection
- System operation and maintenance

## PROJECT ASSIGNMENT

### YEARS OF EXPERIENCE

With O'Brien & Gere: <1

With Other Firms: 16

### EDUCATION

BS/1988/Geology  
University of Wisconsin-  
Milwaukee

### PROFESSIONAL REGISTRATION

Professional Geologist: WI

## PROFESSIONAL PROFILE

Mr. Yantz has over 16 years of experience in hydrogeology and hazardous waste management. He has performed and managed hydrogeologic investigations at over 100 sites in Michigan, Ohio, Indiana, Pennsylvania, Illinois, and Wisconsin, and was the project hydrogeologist at nine CERCLA sites. He specializes in the review and interpretation of hydrogeologic data to determine ground water flow and containment migration characteristics, including wellhead protection, natural attenuation, LNAPL and DNAPL issues and in the design of remediation systems. He has performed and managed numerous RI/FS, remedial designs and remedial/corrective actions at CERCLA (Superfund), state priority list, landfill, UST and industrial sites. He has also negotiating numerous work plans, remedial designs, and ground water flow and containment transport modeling scopes of work and results with the U.S. EPA (Region 5) and state agencies. Mr. Yantz has trained and/or mentored over two dozen junior staff members during his career.

As a Senior Project Scientist with O'Brien & Gere, Mr. Yantz is responsible for the management and completion of industrial and landfill projects and the review and interpretation of hydrogeologic data, remedial option evaluations and remedial design elements of projects. He provides supervision, data review, interpretation and reporting responsibilities for projects. He also assumes proposal and budgetary responsibilities for projects.

## REPRESENTATIVE EXPERIENCE

### Prior to O'Brien & Gere

### ENVIRONMENTAL SERVICES

**Yeoman Creek Remediation Group, Yeoman Creek Landfill, Waukegan, IL, Task Manager for O&M activities** – Managed ground water and LFG monitoring and GMS [flare station] operation). Conducted an engineering evaluation of the gas management system (GMS) at the site. Reviewed historical O&M records, inspected the system, and conducted LFG monitoring and field testing activities to evaluate the completed portions of the GMS and recommended short- and long-term enhancements to improve the performance, reliability and maintenance of the GMS. Provided oversight for GMS enhancements and managed the GMS O&M activities, including daily flare station operation and daily LFG monitoring activities. The GMS more effectively controls LFG migration at the site, although further improvements including finishing the GMS and landfill cap are ongoing.

**We Energies, Power Plant, Hazardous Material Assessment and Remediation, WI, Project Hydrogeologist** – Performed environmental activities associated with the conversion of a power plant from a coal-fired plant to a natural gas-fired plant. The work included abandonment of an artesian well; closure of bottom ash pits and coal pile runoff basins; investigation and remedial action of



## Clifford S. Yantz

*Senior Project Scientist*

large transformer bank, chlorinated VOC, diesel fuel oil, and coal handling areas; assessment and remedial action of recirculating intake and discharge tunnel sediments; and pre-demolition hazardous materials assessment activities.

**We Energies, Former Manufactured Gas Plant Sites, RI/FS and RA Activities, WI, Project Manager/Hydrogeologist** – Conducted assessment (RI/FS activities) and cleanup (RA activities) of former manufactured gas plant (MGP), substation, natural gas distribution and electrical utility sites. Investigation activities have included soil, ground water and sediment. The work included the assessment of non-MGP contaminant sources commingled with MGP sources. COCs at these sites include PAHs, VOCs (typically BETX constituents), heavy metals and cyanide.

**We Energies, Former MGP Facility, Engineering Evaluation, WI, Project Manager/Hydrogeologist** – Designed ground water extraction systems to conduct an engineering evaluation of an existing system at a former MGP facility. Coal tar, in the form of a DNAPL, and mineralization impacted several wells and the pumping system rendering the system ineffective in hydraulically controlling the plume at the site. Reviewed historical operations and maintenance (O&M) records, inspected the system, and conducted sampling and field testing activities to evaluate the existing system and recommend short- and long-term enhancements to improve the performance, reliability and maintenance of the existing system. Designed and provided oversight for the system enhancements, and provided system O&M management services. The system hydraulically controlled the plume at the site after the system enhancements were completed.

**Confidential Industrial Facility, Multiple Aquifer System, Kalamazoo, MI, Task Manager/Hydrogeologist** – Determined vertical and horizontal extent of a chlorinated solvent plume within a multiple aquifer system utilizing Roto-Sonic drilling and vertical aquifer sampling (VAS) techniques at and  $\frac{3}{4}$  miles downgradient of an industrial facility. The results of the investigation were utilized in negotiating a natural attenuation remedy for off-site impacts after completing a source remedial action (RA).

**Confidential Industrial Facility, LNAPL and DNAPL Site, Troy, MI, Task Manager/Hydrogeologist** – Determined vertical and horizontal extent of residual and free product LNAPLs and DNAPLs at an industrial facility within a residential area without alarming local residence. Ground water modeling techniques were utilized to design a ground water pump and treatment system to hydraulically control solute plumes. System continues to be operated and draws in free product and hydraulically controls dissolved plumes.

**Waste Management, State Priority List Site, Landfill, Wayland, MI, Task Manager/Hydrogeologist** – Negotiated the cessation of a state agency lead removal action at a landfill site with a large

## **Clifford S. Yantz**

*Senior Project Scientist*

quantity of buried drums (10,000+) in order to allow the PRPs to conduct an RI/FS for the site. Also negotiated the RI/FS work plans, performed the RI activities, prepared the RI and FS reports, and suggested the use of a vadose zone monitoring/SVE system to intercept contaminants before they reach the ground water table.

**Confidential Industrial Facility Investigation and Remediation, Gallopolis, OH, Manager/Hydrogeologist** – Project team conducted a file review, oversaw and reviewed a third party Phase II investigation, performed a delineation study, and estimated remedial cost to facilitate the sale of the property within nine months. Performed remediation of the site after negotiating a favorable sales agreement which guaranteed remediation of the property within six months of signing the sales agreement. Every aspect of the project was completed on time and under budget.

**Confidential Industrial Facility, Facility Investigation, Detroit, MI, Manager/Hydrogeologist** – Involved in a large industrial facility investigation to facilitate divestiture of the property. The Phase II investigation involved investigating a 57-acre railroad site in Detroit, Michigan. The site was utilized for railroad and other industrial operations since the mid-1800s. The site is situated adjacent to the Detroit River and perched ground water discharges to the Detroit River. Conducted an extensive investigation at the site (including test pitting, soil borings, temporary well installation, and permanent well installation) within a three-month period. Prepared and submitted a report to the MDEQ. Conducted negotiations to gain closure of the site as a Commercial III property.

### **Ground Water Flow and Fate & Transport Modeling**

Conducted ground water flow modeling for several sites, including four CERCLA sites, which were approved by state (Michigan and Indiana) and federal agencies as the basis for remedial design activities at the sites. Conducted fate and transport modeling for a few sites, including one CERCLA site. Highlights of his modeling experience are summarized below:

**Confidential Client, Ground Water Flow Modeling, MI, Manager/Ground Water Modeler** – Developed a ground water model using Visual MODFLOW (WHI software package) to simulate ground water flow for a well field impacted by salt mining brine. The uptake of salt, which exists as a separate phase, at the base of an almost 200 ft thick aquifer within the site area was assessed. Alterations in the pumping system to reduce salt uptake were recommended.

**Waste Management, Plainfield Township, State Disposal Landfill, MI, Task Manager/Hydrogeologist** – Developed a ground water model using FLOWPATH (WHI software package) to stimulate ground water flow at the site to assess the travel times and pathlines (flow direction) of contaminants released from the

## **Clifford S. Yantz**

*Senior Project Scientist*

landfill. MDEQ reviewed the model and decided a more extensive fate and transport modeling effort would be required to negotiate a no further action (natural attenuation) alternative for ground water at the site. Conducted ground water flow and contaminant fate and transport modeling of the site using Visual MODFLOW and MT3D. The model was reviewed by MDEQ and the model was utilized as the basis for the no further action (natural attenuation) alternative for the site. The feasibility of ground water extraction was also evaluated using the model. The fate and transport model predictions were used to size/design a wellhead treatment system for a municipal well field impacted by the site.

**PRP Group, Wayne Waste Oil, RI/FS and Remedial Action, Columbia City, IN, Project Hydrogeologist** – Developed a ground water flow model using MODFLOW to stimulate ground water flow at the site to assess the feasibility of slurry wall construction and a wellhead protection system. The model was used as the basis for the ground water extraction/well-head protection system implemented at the site, which included construction of a slurry wall, and installation of ground water extraction wells, SVE wells, and an air sparging system. The model was reviewed and accepted by the U.S. EPA and IDEM (Indiana Dept. of Environmental Management).

**Confidential Industrial Facility, LNAPL and DNAPL Site, Troy, MI, Task Manager/Hydrogeologist** – Developed a ground water flow model using FLOWPATH to stimulate ground water capture zones for a combination LNAPL and DNAPL site. The capture zone analysis was used to design a ground water extraction system to hydraulically control the solute plume at the site.

**Kent County Public Works, Kentwood Landfill, Ground Water Modeling, Kentwood, MI, Project Hydrogeologist** – Developed a ground water flow model using MODFLOW to stimulate ground water flow at the site. The model was submitted as part of the Additional Studies report for the site and was the basis for the ground water extraction system designed and implemented at the site. The model was reviewed and accepted by the MDEQ and U.S. EPA.

# David K. Meixell, PE

Senior Project Engineer

## TECHNICAL EXPERTISE

- Environmental compliance audits
- Hazardous waste management,
- Site investigations
- Environmental permitting

## PROJECT ASSIGNMENT

## YEARS OF EXPERIENCE

With O'Brien & Gere: 19

With Other Firms: 7

## EDUCATION

MS/1987/Resource Management and Policy; SUNY College of Environmental Science and Forestry

BS/1977/Environmental Resource Management; SUNY College of Environmental Science and Forestry

BS/1977/Forestry; Syracuse University

## PROFESSIONAL REGISTRATIONS

Professional Engineer: NY

## PROFESSIONAL PROFILE

Mr. Meixell has more than 26 years experience in environmental engineering services for a variety of industrial and municipal clients. As a Senior Project Engineer with O'Brien & Gere, he is currently responsible for completing contract documents, reviewing schedule and cost of ongoing projects, and technical overview of projects. He also reviews completed work under his supervision; and conducts research and investigation for compiling written reports. In addition, he maintains contact with clients during study, design, and construction, and is responsible for follow up following project completion.

Mr. Meixell has prepared a large number of SPCC plans for a variety of facilities, ranging from small fleet-fueling facilities to a petroleum storage terminal. Other facilities have included universities, power houses, and a range of manufacturing facilities. His work has included the inspection of facilities and the preparation of the SPCC plans. Where applicable, SPCC components were incorporated into the preparation of larger plans that also addressed the requirements of hazardous waste contingency plans, storm water pollution prevention plans, and other emergency plan components.

Mr. Meixell's experience in hazardous waste site investigations includes the preparation of investigation work plans, the implementation of field investigations, and the evaluation of investigation results. His work has included the identification of applicable cleanup standards and the identification of remedial measures. Programs have included heavy metals, volatile organics, semi-volatile organics, and PCBs.

## REPRESENTATIVE PROJECTS

### ENVIRONMENTAL COMPLIANCE AND REMEDIATION:

#### Spill Prevention Control & Countermeasure (SPCC) Plans

**Climax Manufacturing Company, SPCC Plans, Jefferson County, NY, Project Engineer** – Prepared SPCC plans for three paper converting facilities.

**LeMoyne College, SPCC Plans, Syracuse, NY, Project Manager** – Prepared SPCC plan for the storage of fuel oil, gasoline, diesel and waste kitchen grease.

**Confidential Client, SPCC Plans, Corning, NY, Project Manager** – Prepared SPCC plan for the storage of fuel oil at a central boilerhouse serving the facility's corporate headquarters.

**Matt Petroleum, Inc., SPCC Plan, Utica, NY, Project Manager** – Prepared a SPCC plan for a major oil storage facility (MOSF) consisting of a large petroleum storage terminal.



# **David K. Meixell, PE**

*Senior Project Engineer*

**North Hudson Woodcraft Corporation, SPCC Plan, Dolgeville, NY, Project Manager** – Prepared an SPCC plan for a wood manufacturing company that included the storage of fuel oil for heating, as well as gasoline and diesel fuel for site vehicles.

**Entemann's Bakery, SPCC Plan, Dallas, TX, Project Manager** – Prepared a SPCC plan that included bulk storage of mineral oil, as well as the bulk storage of other ingredients not required to be addressed in an SPCC plan.

## **Remedial Investigations/Feasibility Studies, Site Investigations And Evaluations**

**Multiple Clients, Phase I Environmental Site Assessments, Multiple Locations, Project Engineer** – Prepared Phase I environmental site assessments for over 100 sites ranging from small vacant parcels to large industrial facilities. Representative projects include the following:

**Special Metals Corp., RI/FS for NPL Site, Utica, NY, Project Engineer** – Investigated and developed an RI/FS of an NPL site which contained PCB-contaminated oils. Work included the development of a weighted caisson method for the excavation of impacted soils in the saturated zone, as well as the solidification of a large volume of soil to minimize the potential of PCB migration.. The site is located south of Utica, NY.

**Crucible Specialty Metals, Inc., Industrial Waste Landfill, Engineer** – Investigated hexavalent chromium wastes which were historically disposed in an industrial waste landfill. Tasks included the delineation of waste deposits, and an intensive investigation of impacts to soils, ground water, and an adjacent lake. Based on this investigation, a NYS Part 360 permit application was prepared and granted to continue operation of the landfill as a solid waste facility.

**The Rhino Trust, Contaminated Site, Brooklyn, NY, Project Engineer** – The Rhino Trust, a family-owned trust, purchased an 11 acre parcel in Brooklyn, New York, which was found to be contaminated as a result of 100 years of industrial use, including an asphalt plant, a wood preserving operation, and several thousand yards of unknown fill material. While part of this site was eventually listed on the New York State list of inactive hazardous waste sites, negotiations with regulatory agencies resulted in one parcel being able to be remediated without being listed and was subsequently sold. Tasks included the development of a Work Plan, implementation of a remedial investigation, and negotiations with regulatory agencies. An interim remedial measure was conducted and the site was eventually sold.

## **David K. Meixell, PE**

*Senior Project Engineer*

**Manufacturer of Medical Supplies, Fractured Bedrock Aquifer, Argyl, NY, Project Engineer** – Investigated probable source of Freon-12 in a fractured bedrock aquifer. Investigation included a review of past practices and a freedom of information request to review documentation of adjacent facility's operations. Prepared a submitted to Counsel a report identifying the adjacent facility as the probable source of contamination.

**Bond, Schoeneck & King, Contaminated Site, Syracuse, NY, Project Engineer** – Performed site evaluation of an electrical parts manufacturer to investigate several areas of suspected contamination resulting from approximately 100 years of industrial activities. Areas of concern included a former steel mill, porcelain glazing, fuel oil storage, on-site landfilling, and solvent storage. The investigation included a soil vapor survey, soil borings, and surface sampling. A report detailing these tasks and presenting recommendations for remedial measures was prepared.

**Niagara Mohawk Power Corporation, Contaminated Site, Utica, NY, Project Engineer** – Investigated a former coal gas manufacturing facility, including geophysical, hydrogeological and soil sampling. The extent and level of contamination was investigated as part of this evaluation, and a report was prepared documenting the findings of the investigation.

**Confidential Client, Hazardous Waste Investigation, Utica, NY, Project Engineer** – Investigated residual hazardous wastes at a former manufacturing facility. Approximately 1,700 containers of unknown materials were characterized, staged, and removed by a subcontractor for proper disposal. Tasks included coordinating sampling efforts and supervising the staging of compatible wastes for off-site disposal.

### **Interim Remedial Measures (IRMs)**

**The Rhino Trust, Interim Remedial Measure, New York, NY, Project Engineer** – Prepared a work plan for an IRM of a New York State listed inactive hazardous waste site. Following an intensive site investigation, identified two areas of elevated lead contamination. These areas were excavated, with contaminated soil being segregated for off-site disposal. The excavations were backfilled with clean fill and graded.

### **New York State Part 373 Permits for Storage of Mixed Wastes**

**New York Power Authority, James A. FitzPatrick Nuclear Power Plant, Oswego, NY, Project Engineer** - Prepared a NYS Part 373 Permit Application for the storage of mixed wastes.

**New York Power Authority, Indian Point Unit No. 3 Nuclear Power Plant, Buchanan, NY, Project Engineer** - Prepared a NYS Part 373 permit application for the storage of mixed wastes.



# **David K. Meixell, PE**

*Senior Project Engineer*

**Niagara Mohawk Power Corporation, Nine Mile Point Nuclear Station, Oswego, NY, Project Engineer** – Prepared a NYS Part 373 permit application for the storage of mixed wastes.

## **Hazardous Waste Permitting**

**Bausch & Lomb, Drum Storage Area, Rochester, NY, Project Engineer** – Prepared a RCRA Part B (New York State Part 373) permit application.

**Confidential Client, Fishkill Facility, Bulk and Drum Storage Facilities, Fishkill, NY, Project Engineer** – Prepared a RCRA Part B (New York State Part 373) permit application for the storage of a variety of hazardous wastes.

## **Compliance Audits Of TSD Facilities**

**Niagara Mohawk Power Corp., PCB Treatment Facility, Philadelphia, PA, Project Engineer** – Performed an environmental compliance audit of a transformer dismantling facility. This work was conducted as part of Niagara Mohawk's vendor audit program.

**Niagara Mohawk Power Corp., Audit of Waste Stabilization Facility, Detroit, MI, Project Engineer** – Performed an environmental compliance audit of a facility used by the client for treatment and stabilization of impacted soils prior to disposal.

**Niagara Mohawk Power Corp., Audit of Waste Oil Treatment Facility, Syracuse, NY, Project Engineer** – Performed an environmental compliance audit of a non-hazardous waste treatment and disposal facility used for waste oil disposal and the treatment of oil-impacted soils.

## **Closure Of Waste Facilities**

**Crucible Specialty Metals, Inc., Landfill Closure, Syracuse, NY, Project Engineer** – Designed industrial landfill closure and acquired the proper approvals.

**Newton Falls Paper Mill, Landfill Closure, Newton Falls, NY, Project Engineer** – Closure of a non-hazardous landfill containing paper mill sludge.

**Technicon, Inc., Hazardous Waste Storage Area, Tarrytown, NY, Project Engineer** – Verified closure of an interim status hazardous waste storage area which was subsequently operated as an under 90 day storage facility.

# David K. Meixell, PE

*Senior Project Engineer*

## **NPDES Applications**

**Independent Power Producer, Cogeneration Facilities, New York State, Project Engineer** – Prepared conceptual design and NPDES permit applications for five cogeneration facilities.

**Independent Power Producer, Cogeneration Facilities, New York State, Project Engineer** – Provided conceptual design and NPDES permit applications for two cogeneration facilities.

**Omega Wire, Wastewater Discharge Process, Williamstown, NY, Project Engineer** – Prepared a process wastewater discharge permit application for a wire mill. Application included a characterization of wastewater quality and a calculation of water quality limiting criteria.

**Amphenol Products, Inc., Electrical Modifications, Sydney, NY, Project Engineer** – Prepared NPDES renewal application with modifications for a manufacturer of electrical components. Modifications included addition of storm water discharges and discharges from ground water remediation facilities.

**Crucible Steel, Fundamentally Different Factors (FDF) Variance, Syracuse, NY, Project Engineer** – Prepared a Fundamentally Different Factors (FDF) variance for a specialty steel mill. Modifications from the Iron and Steel categorical standards were requested based on discrepancies between the Crucible mill and the mills used by the United States Environmental Protection Agency (USEPA) in developing the standards.

**Pyramid Companies, Ground Water Remediation, Syracuse, NY, Project Engineer** – Prepared a New York State SPDES permit application for the discharge of treated ground water from a remediation project. Parameters of concern included volatile organics, semi-volatiles, and PCBs. SPDES monitoring was also conducted following issuance of the permit.

## **Industrial Wastewater Pretreatment Programs**

**Onondaga County, Wastewater Administrative Program, Onondaga County, NY, Project Engineer** – Developed and prepared an industrial wastewater administrative program, as required by USEPA, to regulate industrial discharges to the County's sanitary sewage system. Tasks included a survey of industrial users, sampling of a wastewater treatment plant, and the calculation of a mass balance estimating the fate of various pollutants at the plant.

**Monroe County, Administrative Program Implementation, Monroe County, NY, Project Engineer** – Developed and helped implement an administrative program to regulate industrial discharges to the County's sanitary sewer system.

# **David K. Meixell, PE**

*Senior Project Engineer*

**City of Cortland, Wastewater Monitoring, Cortland, NY, Project Engineer** – Developed an administrative program to allow the City to monitor and control the discharge of industrial wastewaters to the sanitary sewer system.

## **Air Permitting**

**N.A. Taylor, Inc., Air Permit Applications, Gloversville, NY, Project Engineer** – Prepared and submitted 21 air permit applications for process sources including paint booths, ovens, plating lines and a solvent recovery still.

**Seneca Wire, Inc., Air Permit Applications, Syracuse, NY, Project Engineer** - Prepared air permit applications associated with wire drawing equipment.

**Young & Franklin, Inc., Air Permit Applications, Liverpool, NY, Project Engineer** – Prepared four air permit applications for a large machine shop. Process sources included paint booths, a degreaser, and a grinding operation.

## **Brownfields/Environmental Restoration**

**City of Geneva, Former Market Basket Site, Geneva, NY, Project Manager** – Prepared Sampling Plan for the investigation of the former industrial property following demolition of the buildings. Also assisted the City in preparing and submitting reimbursement applications with the New York State Department of Environmental Conservation (NYSDEC).

**City of Geneva, Former Geneva Foundry Site, Geneva, NY, Project Manager** – Prepared Sampling Plan for the investigation of possible lead contamination in residential yards surrounding the former Geneva Foundry site. Also assisted the City in preparing and submitting reimbursement applications with the NYSDEC.

**City of Geneva, Petroleum Site Remediation, Geneva, NY, Project Engineer** – Assisted the client in the removal of six underground storage tanks from former automotive repair facilities. Project included the remediation of soils and ground water

**Hollowick, Inc., Voluntary Cleanup Program, Manlius, NY, Project Manager** – Assisted the client in its assessment as to whether to enter the New York State Voluntary Cleanup Program. After consultation with the current owner of the property, the decision was made not to pursue the purchase of the property.

# David K. Meixell, PE

*Senior Project Engineer*

**City of Geneva, Hotel Construction Site Project, Geneva, NY, Project Manager** – Documented residual contamination from a former foundry operation on the subject property. However, the NYSDEC chose not to list the site in its environmental restoration program. Instead, the Spills Section of the NYSDEC provided regulatory oversight of the on-site remediation.

## **Environmental Site Assessments**

**Confidential Client, Environmental Liability Assessments, United States and Canada, Project Engineer** – Performed environmental liability assessments of seven tire manufacturing facilities. Environmental issues included air emissions, wastewater discharges, and hazardous waste management.

**W.R. Grace, Environmental Liability Assessment, Yorkshire, England/Nashua, NH, Project Engineer** – Participated directly in environmental liability assessments (ELAs) of two chemical plants, and provided advice for ELAs of four other domestic plants. These facilities were involved in the sale of W.R. Grace's Organic Chemicals Division.

**Wertheim Schroder & Co., Environmental Liability Assessment, Odessa, TX, Project Engineer** – Conducted an environmental liability assessment of a 500 acre petrochemical products manufacturing facility. This ELA was associated with the financial restructuring of the Rexene Corp.

**Sibley Mortgage Company, Environmental Liability Assessments, New York State, Project Engineer** – Conducted several ELAs of commercial properties associated with refinancing through Sibley Mortgage. Properties have included strip malls, light industrial facilities, and retail outlets.

**The Widewaters Group, Environmental Liability Assessments, New York State, Project Engineer** – Conducted numerous ELAs of office buildings, strip malls, and apartment buildings owned by The Widewaters Group.

## **Environmental Compliance Audits**

**City University of New York, Compliance Audit Program, New York, NY, Senior Auditor** - Performed a multi-year program for multi-media environmental compliance assessments of, and provide environmental compliance assistance to, the City University of New York (CUNY) system (18 campuses). It includes development of system-wide environmental policies and procedures, as well as a University environmental management system manual.

## **David K. Meixell, PE**

*Senior Project Engineer*

**Nassau Community College, Environmental Compliance Audit, Garden City, NY, Senior Auditor** – Performed a comprehensive, multi-media environmental compliance audit of the Garden City campus. Issues addressed include federal and state requirements regarding hazardous waste management, air emissions, bulk storage, wastewater, solid waste, storm water, PCBs, and other miscellaneous environmental compliance issues. Provided compliance assistance in several areas.

**Nuclear Power Plants, Environmental Compliance Audits, New York State, Project Engineer** - Performed environmental compliance audits of two nuclear power plants. Audits included the evaluation of water treatment systems, air, wastewater issues, waste management practices, and bulk storage facilities.

**Cogeneration Plants, Environmental Compliance Audits, NY; NJ, Project Engineer** - Performed annual environmental compliance audits of five cogeneration plants located in New York and New Jersey. Audits included comprehensive evaluations of plant operations with recommendations, as necessary, to improve environmental compliance.

**Bond, Schoeneck & King, Environmental Compliance Audits, Syracuse, NY, Project Engineer:**

- Performed an environmental compliance audit of a manufacturer of diesel engines and associated components. Under several different ownerships, the manufacture of steam and diesel engines has occurred at the facility for approximately 150 years. Diesel engines are currently manufactured at the site using a variety of milling, grinding, drilling, and other machining of steel products. The audit included an evaluation of current operations, historical practices which may have residual liabilities, and existing structures. Current operations were evaluated for proper air and wastewater permits, tank registrations, and waste management procedures and documentation. Historical practices were reviewed to evaluate the potential for abandoned tanks or on-site disposal areas. Finally, existing structures were evaluated for floor and process drains, or the presence of asbestos-containing materials and PCBs. Following the audit, technical assistance was provided to the facility in addressing issues of non-compliance and in performing additional site investigations.
- Performed an environmental compliance audit through counsel of a manufacturer of metal products. The facility had been previously purchased by the current owner without an environmental liability assessment. Issues identified as being of concern included wastewater discharges, air emissions, and hazardous waste management practices. Developed and assisted with corrective actions subsequently taken as necessary to reach compliance.

## **David K. Meixell, PE**

*Senior Project Engineer*

**Centro, Inc., Environmental Compliance Audits, Syracuse, NY, Project Engineer** – Performed environmental compliance audits of Centro's main bus servicing center and two regional terminals. Environmental issues included air emissions, wastewater discharges, and solid and hazardous waste management.

**Confidential Client, Environmental Compliance Audits, Newport, Wales/Wadsworth, OH/Pensacola, FL, Project Engineer** – Performed environmental compliance audits of three manufacturing facilities. These compliance audits included evaluations of wastewater discharges, air emissions, and solid and hazardous waste handling procedures.

### **Toxic Substances Control Act (TSCA)/PCBS**

**Philadelphia Shipyard, Record Review/Sampling Program, Philadelphia, PA, Project Engineer** – Designed a record review and sampling program to be used in conducting a PCB transformer inventory of the shipyard facility.

**Spring Hill Condominiums, Transformer Sampling Program, Camillus, NY, Project Engineer** – Performed a transformer sampling program to assess the status of existing transformers regarding PCBs in the fluids.

**Bond, Schoeneck & King, Sampling Program, Syracuse, NY, Project Engineer** – Developed sampling program for assessing TSCA status of 20 transformers located at an active industrial facility. Sampling was scheduled so manufacturing facilities were not disrupted.

### **Environmental Impact Statements and Assessments**

**Independent Power Producer, Environmental Impact Statements, NY, Project Engineer** – Prepared environmental impact statements for two proposed cogeneration facilities in New York State, in accordance with New York State Environmental Quality Review (SEQR) procedures. Tasks also included coordination with municipal governments and regulatory agency representatives to receive necessary approvals.

**Onondaga County, Environmental Impact Statement, Onondaga County, NY, Project Engineer** – Prepared environmental impact statement for an in-water combined sewer overflow abatement system. Environmental assessment included construction of alternatives and a comprehensive evaluation of the recommended option, including water quality impacts.

# **David K. Meixell, PE**

*Senior Project Engineer*

## **SPECIAL TRAINING**

OSHA 40-Hour Course in Hazardous Waste Operations Safety,  
1991

8-Hour Refresher Course, 1994

Fitness for Duty Training - James A. FitzPatrick Nuclear Power  
Plant

## **PROFESSIONAL AFFILIATIONS**

National Society of Professional Engineers