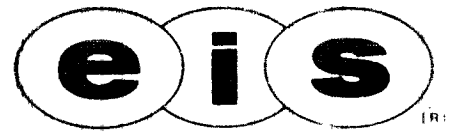


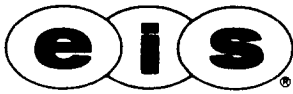
/

Phase I 802 S. Lafayette Hamilton
EIS 9/11/96

/



EIS ENVIRONMENTAL ENGINEERS, INC.



November 21, 1996

Mr. John Stark
Community and Economic Development
City of South Bend
1200 County-City Building
South Bend, IN 46601

Dear Mr. Stark:

EIS is submitting the following in response to your letter dated October 22, 1996.

- Is any other testing suggested (such as determining the presence of UST's or determining the nature of the staining of the ground)? If so, it should be stated in the report.
- As part of your report, could you locate the presence of the wells identified as MW-20S & MW-20D on a large scale map or aerial photograph?

American Society for Testing and Materials (ASTM) Standard E 1527-94 defines recommendations for Phase II testing as an additional service which should only be included in the report if so specified in the terms of engagement between the user and the environmental professional. As we stated on page 2 of 3 of our Phase I proposal dated June 19, 1996, recommendations for additional investigation would be included in the report only if you requested them. EIS did include a recommendation for collection and analysis of soil samples associated with each UST and its associated piping in the cover letter. We have since revised our Phase I Questionnaire format so that you need only check a box to have recommendations included in the report.

I have included an aerial photograph with the locations of MW-20S & MW-20D as an enclosure with this letter. I could only visually locate one monitoring well because vehicles were parked on the lot at the time and the wells are flush with the ground level.

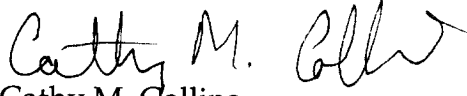
Mr. John Starke
Community and Economic Development
City of South Bend
November 21, 1996
Page 2

EIS does not believe sampling of the stains on the ground is practical or that the cost involved would provide a practical return. Based on the current and historical uses of the property, the stains originate from leakage of automobile fluids throughout the property.

If you have any other questions or would like to discuss recommendations for additional sampling at the property, please contact Wanada Baxter-Potter, P.E., or me at (219) 277-5715.

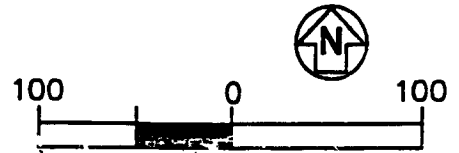
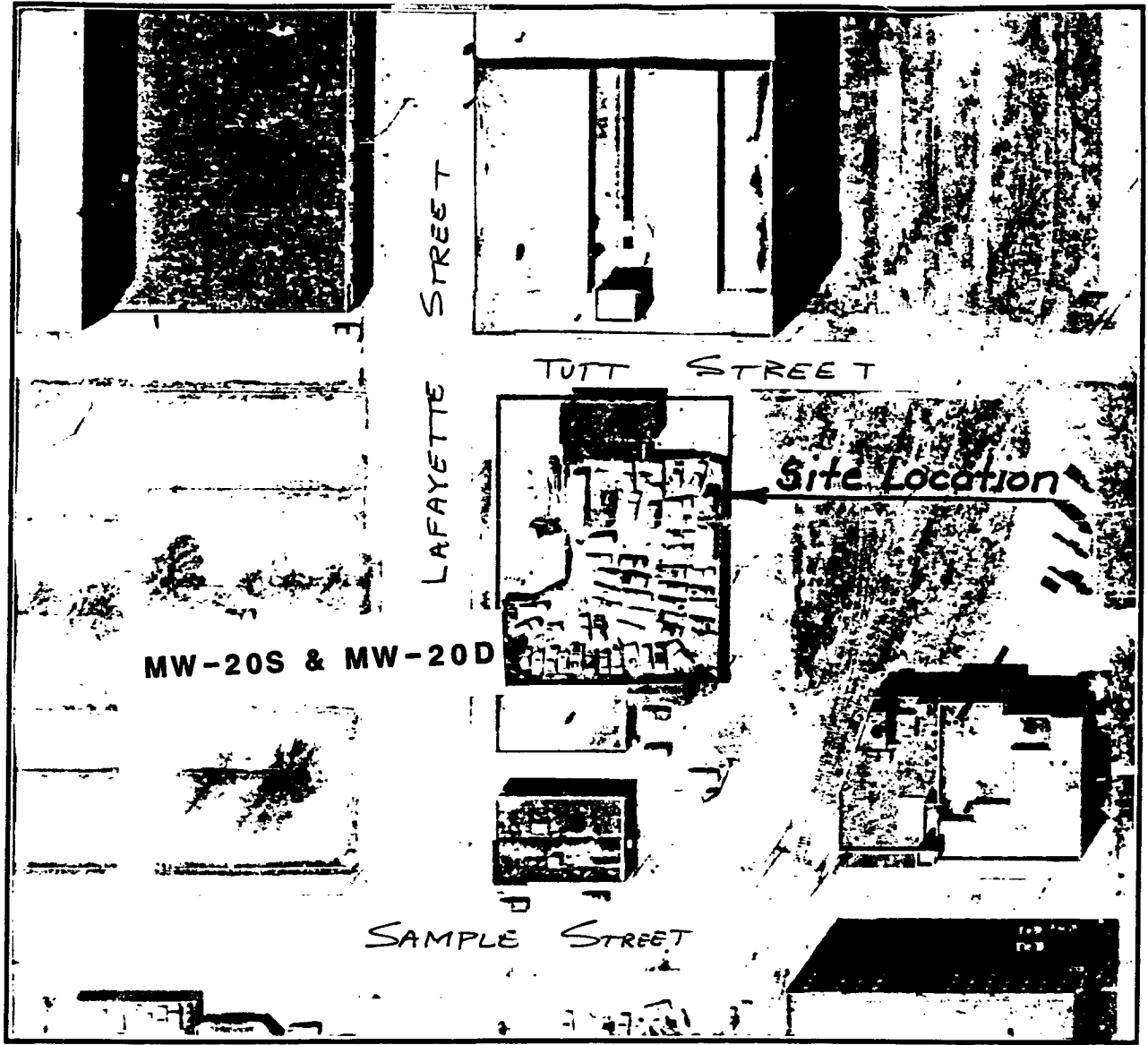
Sincerely,

EIS ENVIRONMENTAL ENGINEERS, INC.


Cathy M. Collins
Project Engineer

CMC:lcs
Enclosure

D:\SDSKPROJ\14569601\TITLES Wed Jul 10 09:03:59 1996 EIS ENVIRONMENTAL ENGINEERS, INC.



(IN FEET)
1 inch = 100 ft.



EIS ENVIRONMENTAL ENGINEERS, INC.

1701 North Ironwood Dr. South Bend, IN 46635
 Tele. (219) 277-5715 Fax. (219) 273-5693

**FIGURE 4.1
SITE PLAN**

Scale	Drawn	Approved	Date	Sheet No.
1:100	JEH	WBP	7/96	1456-9601-01



*locate on a map or drawing
MW-208 & MW 209*

*is any other testing suggested?
Presence of tanks? Staining of ground?*

September 11, 1996

Mr. John Stark
City of South Bend
Community and Economic Development
1200 County-City Building
South Bend, IN 46601

Dear Mr. Stark:

Enclosed please find one unbound and two bound copies of our report on the Phase I Environmental Site Assessment of 802 South Lafayette Street, Lots 187, 188, 189, 190, 191 and 192 of the Garst 1st Addition, South Bend, Indiana. As Wanada Baxter-Potter discussed with Ann Kolata, we will rely on the City to furnish the copy of the analytical results for the monitoring wells (Appendix E) which were promised to Hamilton Towing. We are also enclosing three copies of the Phase II letter report for the former Transwestern Building site. Because the attachments to the Phase II were voluminous, we have included only those attachments which are relevant.

Based on our findings, we believe that collection and analysis of soil samples associated with each underground storage tank and their associated piping may be appropriate.

I would be pleased to answer any questions you might have with respect to this report and appreciate this opportunity to work with you.

Sincerely,

EIS ENVIRONMENTAL ENGINEERS, INC.

Cathy M. Collins
Project Engineer

CMC:lcs
Enclosure

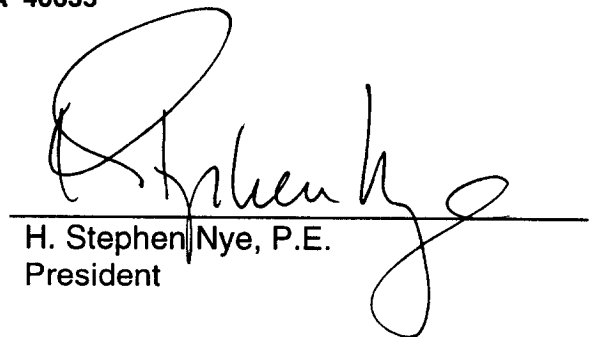
**PHASE I
ENVIRONMENTAL SITE ASSESSMENT
802 SOUTH LAFAYETTE STREET
SOUTH BEND, INDIANA**

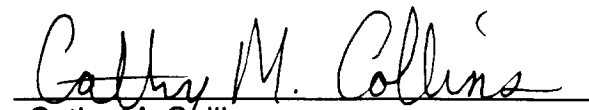
SEPTEMBER 11, 1996

**PREPARED FOR
CITY OF SOUTH BEND
COMMUNITY AND ECONOMIC DEVELOPMENT**

**PREPARED BY
EIS ENVIRONMENTAL ENGINEERS, INC.
1701 NORTH IRONWOOD DRIVE
SOUTH BEND, INDIANA 46635**


Shawn C. Albright
Project Geologist


H. Stephen Nye, P.E.
President


Cathy M. Collins
Project Engineer

EXECUTIVE SUMMARY

EIS Environmental Engineers, Inc., (EIS) of South Bend, Indiana, conducted a Phase I Environmental Site Assessment, in conformance with the scope and limitations of ASTM Practice E 1527, of the property located at 802 South Lafayette Street, Lots 187, 188, 189, 190, 191 and 192 of the Garst 1st Addition, South Bend, Indiana (the property). EIS also conducted an asbestos inspection of the building on the property, and collected and analyzed samples from two existing monitoring wells on the property. The site reconnaissance and asbestos inspection were conducted on **June 28, 1996**. At the time of the site reconnaissance, the property was used as a storage facility for Hamilton Towing and storage of automobiles that were impounded for the City of South Bend. The **monitoring wells were sampled on July 26, 1996, after impounded vehicles had been removed.**

The Assessment revealed two recognized environmental conditions:

- The property has a long history of occupancy by service stations and vehicle repair or storage facilities and formerly had underground storage tanks on the property. Based on available groundwater monitoring data, it is our opinion that it is unlikely that gross contamination due to these facilities exists in the groundwater and that **any soil contamination which may be present is likely to be limited**. The seriousness of any environmental affect on the property will depend in part on the intended use of the property.
- **There is soil and groundwater contamination present on the property which apparently comes from an off-site source, probably the Allied Products facility, which is directly upgradient.** It is our opinion that the presence of this contamination does not have a serious environmental effect on the property.

The Assessment revealed the following additional concern(s):

- **Two, unlabeled, 55-gallon drums on the property should be properly labeled and disposed of.**

The results of the non-ASTM scope considerations are:

- No evidence of wetlands was noted on the property or on the federal wetlands inventory.
- The following asbestos-containing materials were identified through laboratory analysis:
 - 9-inch floor tile
 - associated mastic

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APPENDIX

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1.0 INTRODUCTION

EIS Environmental Engineers, Inc., (EIS) performed a Phase I Environmental Site Assessment (Assessment) of the property located at 802 South Lafayette Street, South Bend, Indiana.

EIS was retained by the City of South Bend Community and Economic Development to perform this work. The June 21, 1996, letter authorizing EIS to proceed was issued by Vangelean Binion, Recording Secretary, City of South Bend Community and Economic Development.

The qualifications of the EIS environmental professionals who participated in this Assessment are provided in Appendix A.

1.1 Purpose

The purpose of this Assessment was to identify recognized environmental conditions in connection with the property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property 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 the 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.

This Assessment was conducted according to standard practice guidelines established in ASTM Practice E 1527 and was intended to satisfy one of the requirements to qualify for

the "innocent landowner defense" to CERCLA liability as cited in the 1986 Superfund Amendments and Reauthorization Act (SARA) legislation, 42 USC 9601(35)(B).

1.2 Special Terms and Conditions

No investigation can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. **Consequently, this report in no way expresses any warranty or guarantee with respect to recognized environmental conditions at the subject property.** However, the standard of care exercised for this work was in accordance with generally accepted practices at the time when, and at the place where, the services were rendered. Also, every reasonable effort was made to ensure that the information presented in this report is materially complete and accurate.

This report is provided for the sole use and benefit of the City of South Bend Community and Economic Development and may not be used or relied upon by any other party whatsoever.

1.3 Exceptions to the Standard ASTM Scope

There were no limitations or exceptions to the scope set forth in ASTM Practice E 1527.

1.4 Conditions Limiting Use of the ASTM Standard Practice

At the time of the inspection, the vehicle storage area within the security fence was almost entirely filled with stored vehicles. This did not allow visual observation of the areas beneath the vehicles.

1.5 Methods

The following people were interviewed or consulted:

<u>Name</u>	<u>Title/Organization</u>
John Starke	South Bend Community and Economic Development

<u>Name</u>	<u>Title/Organization</u>
Rick A. Hamilton	Hamilton Towing Company (Key Site Manager)
Eric Michaels	St. Joseph County Health Department
Rick C. Hamilton	Hamilton Towing Company
Bert Prawat	Chief, South Bend Fire Department

1.6 Non-Scope Activities Issues

This Assessment was limited to the scope set forth in ASTM Practice E 1527, with the following exceptions:

- The following additional non-ASTM scope considerations were addressed:

Wetlands.

Collection and analysis of asbestos samples.

Collection and analysis of groundwater samples from two existing monitoring wells located on the property.

In addition to the scope outlined in ASTM Practice E 1527, U.S. Fish and Wildlife Service wetland maps were consulted and the environmental professional conducting the site reconnaissance looked for obvious visual evidence of wetlands on the property.

During the site reconnaissance, a brief review of the building interior was conducted, the side lot was examined (inside automobiles as well); then back inside the building for a closer examination. Asbestos samples were collected at this time. Groundwater samples were collected on July 26, 1996. Please see Appendix E for the groundwater analytical reports and sampling documentation. Results of the asbestos inspection and sampling are provided in Appendix H.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The property, located at **802 South Lafayette Street**, Lots 187, 188, 189, 190, 191, and 192 of the Garst 1st Addition is part of the East 1/2, Southwest 1/4, Section 12, Township 37 North, Range 2 East, Portage Township, St. Joseph County, South Bend, Indiana. The property totals approximately 0.50 acre in area and is identified by parcel numbers 18-3042-1610, 18-3042-1609, 18-3042-1608, and 18-3042-1607.

The property is included on page 8-12E of the Portage Township Plot Plat Map Book located at the St. Joseph County Auditor's office.

A legal description was not provided by the City of South Bend, Community and Economic Development, however, the boundaries of the property were determined by following property lines indicated by city streets and fences.

2.2 Property and Vicinity Characteristics

The general area of the property is characterized by commercial/manufacturing and industrial properties. The topography of the property and adjacent properties is flat. The St. Joseph River is located 3/4 mile toward the east. A site location map is included in Section 4.

2.3 Description of Improvements

The property is occupied by a 1827-square-foot, concrete block and wood, single-story structure that was built in 1940. A gas-fired forced air system is used to heat the building. Public utilities serving the property are city water, city sewer, natural gas, and electricity. Portions at the front of the property are paved with asphalt.

The property is bounded by Lafayette Street to the west; Tutt Street to the north; and vacant land to the east and south of the property. The vacant land to the east is a former railroad right-of-way.

Two monitoring wells were installed on the property as part of the Allied Products Corporation Voluntary Remediation Program. These wells are designated MW-20S and MW-20D. MW-20S is screened at approximately 20 feet below ground surface and MW-20D is screened at about 40 feet below ground surface.

Photographs of the property, taken during the site reconnaissance, are included in Appendix C.

2.4 Environmental Liens, Specialized Knowledge or Experience

John Starke and Rick Hamilton each indicated that to his knowledge there are no environmental liens encumbering the property.

EIS was directed by John Starke to interview Rick Hamilton about any specialized knowledge he might have regarding the property. Rick Hamilton indicated that he did not have any specialized knowledge or experience that is material to recognized environmental conditions associated with the property.

2.5 Current Use of the Property

The facility is currently used for storage of automotive equipment and impounded vehicles.

The St. Joseph County Auditor's and Assessor's records as of July 1, 1996, indicate that the property is presently owned by James E. and Ruth Hamilton.

2.6 Past Use of the Property

The property has been used from 1937 until 1966 as a service/gasoline station or periodically as an automobile rental facility. From 1967 until the mid-1970s the property was occupied by a trucking firm.

Ownership and occupancy information is included in Table 2.1 and 2.2, respectively.

Some of these past operations on the property are of potential concern, including Bolin-Drive-Away-Company (auto rental), service stations and automobile and truck maintenance. These types of operations are likely to have used hazardous materials and/or petroleum products that could be sources of soil or groundwater contamination if improperly handled or discarded.

Aerial photographs of the area, taken in 1966, 1971, 1972, 1978, 1987, 1990 and 1993, were reviewed.

- **The 1966** photo (scale: 1 inch = 400 feet) shows a **single building** fronting on the south side of Tutt Street. The remainder of the property appears to be generally open space with a few vehicles visible.
- **The 1971** photo (scale: 1 inch = 100 feet) shows a **single building** fronting on Tutt Street and **possibly two pump islands**, one located about 25 feet from the southwest corner of the building and one approximately 15 feet south of the building.
- The 1972 photo (scale: 1 inch = 100 feet) is substantially the same as the 1971 photo.
- **The 1978** photo (scale: 1 inch = 100 feet) shows the same single building with a fenced lot containing automobiles and trucks, and the **possible southwest pump island** is still apparent.
- The photos from 1987 to 1993 show similar features, **except that by 1990 no indication of possible pump islands is apparent.**

A portion of the 1972 photo was selected for the base for Figure 4.1. Portions of the other aerial photographs reviewed are provided in Appendix B.

TABLE 2.1
OWNERSHIP HISTORY⁽¹⁾

<u>Name</u>	<u>Period of Ownership</u>
<u>808 South Lafayette Boulevard, Parcel #183042-1608, Lot #188-190</u>	
James E. And Ruth Hamilton	10-25-73 to Present
Portage Oil Corporation	10-7-49 to 10-25-73
Central Life Insurance Company of Illinois	Unknown to 10-7-49
<u>808/802 South Lafayette Boulevard, Parcel #18-3042-1609, Lots #190-191</u>	
James E. And Ruth Hamilton	10-25-73 to Present
Portage Oil Corporation	6-23-55 to 10-25-73
Vera and W. Schammel	Unknown to 6-23-55
<u>802 South Lafayette Boulevard, Parcel #18-3042-1610, Lots #191-192</u>	
James E. And Ruth Hamilton	10-25-73 to Present
Portage Oil Corporation	6-23-55 to 10-25-73
Vera and W. Schammel	Unknown to 6-23-55

⁽¹⁾ According to the St. Joseph County Assessor's records as of July 1, 1996.

TABLE 2.2
OCCUPANT HISTORY^{(1) (2)(3)}

<u>Occupant</u>	<u>Period of Occupancy</u>	<u>Activity</u>
No Listing	1978	Data Failure
Hamilton Body Shop, Inc.	1977	Store Equipment
Storage	1976	(Assumed to be Hamilton's from 1977 entry)
Facility Vacant	1975	Vacant
No Listing	1971 to 1974	Data Failure
Schwerman Trucking Company	1967 to 1970	Transporter
G & G Service Station/Gas Station	1956 to 1966	Gas/Service Station
Stuarts Service/Filling Station	1951 to 1955	Gasoline/Service
Portage Truck and Car Service Station	1950	Auto Service
Bolin Drive Away Company	1947 to 1949	Auto Rental
Stevens Truck Service Station	1943 to 1946	Batteries, Tires, Accessories
Bolin Drive Away Company	1936 or 1937 to 1942	Car Rental

Prior to 1936 the property was residential.

⁽¹⁾ According to the available Haines Criss-Cross South Bend City Directories. No information is available for 802 South Lafayette Street prior to 1937 or after 1978.

⁽²⁾ Aerial photographs dated 1966, 1971, 1972, 1978, 1987, 1990 and 1993 available in the St. Joseph County Auditor's Office.

⁽³⁾ Sanborn Fire Insurance Maps 1891, 1899, 1917 and 1936.

2.7 Current and Past Uses of Adjoining Property

The adjoining properties were observed from the property and from public roadways where possible. Immediate neighbors include Design Packaging, Inc., to the north; the Dew Drop Inn, a bar, to the south; and vacant land surrounding the rest of the property. **No obvious evidence of any recognized environmental condition was observed on the adjoining properties at the time of the site reconnaissance.** Aerial photographs of the general area of the property, taken in 1966, 1971, 1972, 1978, 1987, 1990 and 1993, were reviewed in order to identify any indications of recognized environmental conditions located on the adjoining properties and structures.

3.0 RECORDS REVIEW

3.1 Standard Environmental Records, State and Federal

EIS conducted a review of the standard environmental records, as identified in ASTM Practice E 1527, in order to help identify recognized environmental conditions in connection with the property. The standard environmental records consulted and facilities identified are as follows:

Federal NPL Site List

Date of List: May 19, 1995.

Approximate Minimum Search Distance: 1.0 mile.

1 Sales and Service

EPA Site Number 7500045

Federal CERCLIS List

Date of List: July 10, 1995.

Three facilities were identified within the approximate minimum search radius of 0.5 mile:

Facility

Status/Location

Avanti*

765 South Lafayette Street
South Bend, IN 46601

Admin. Rec. Comp./RMVL Event
Adjacent property

Industrial Fuels and Resources*

Chemical Solvents
604 South Scott Street
South Bend, IN 46626

No further remedial action planned.

1 Sales and Service*

National Lease
2020 West Sample Street
South Bend, IN 46619

Low priority

*Available CERCLIS Executive Summaries are included in Appendix D

Federal RCRA TSD Facilities List

Date of List: May 15, 1995.

Approximate Minimum Search Distance: 1.0 mile.

One facility was identified:

Environmental Services of America
(Formerly Industrial Fuels and Resources)
604 South Scott Street
South Bend, IN 46601

Federal RCRA Generators List

Date of List: May 15, 1995.

Approximate Minimum Search Distance: Property and adjoining properties.

No facilities were identified.

Federal ERNS List

Date of List: March 15, 1995.

Approximate Minimum Search Distance: Property only.

No facilities were identified.

IDEM List of Closure Sites

Date of List: June 10, 1994.

One facility was identified within the approximate minimum search radius of 1.0 mile:

Environmental Services of American - IN, Inc.
(Formerly Industrial Fuels and Resources))
604 South Scott Street
South Bend, IN 46601

IDEM List of State Cleanup Sites

Date of List: May 26, 1995.

Two facilities were identified within the approximate minimum search radius of 0.5 mile:

Avanti Motor Corporation
South Bend, IN
Site Number 0000020

Allied Products - Voluntary Cleanup
South Bend, IN
Site Number 6950501

IDEM List of Permitted Solid Waste Facilities

Date of List: June 30, 1994.

Approximate Minimum Search Distance: 0.5 mile.

No facilities were identified.

IDEM List of Registered Underground Storage Tanks

Date of List: July 18, 1996.

Approximate Minimum Search Distance: Property and adjoining properties

No facilities were identified.

IDEM List of Leaking Underground Storage Tank Sites

Date of List: July 18, 1996

Approximate Minimum Search Distance: 0.5 mile.

Five facilities were identified. Facility profiles are provided in Appendix G.

<u>Facility</u>	<u>Facility ID</u>
Old Fort Building Supply 1401 South Main Street	20897
Gates Chevrolet Corporation (Service) 333 Western Avenue	16396

City of South Bend 1130 South Main Street	18511
Allied Products Corporation 601 West Broadway	10470
Raitt Corporation 815 West Sample Street	8332

One of those facilities, Allied Products Corporation, is believed to have affected the soil and groundwater beneath the subject property. See Section 4.6 for a discussion of this facility. The other facilities not directly upgradient or are cross-gradient from the subject property and are unlikely to affect it.

3.2 Physical Setting Sources

USGS 7.5 Minute Topographic Maps of South Bend West, dated 1986, and South Bend East, dated 1992, were reviewed in order to assess the physical setting of the property. The 1991 Michiana Area Council of Governments (MACOG) Map of Potential Groundwater Contamination Sites was also reviewed.

3.3 Historical Use Information

A review of the St. Joseph County Auditor's and Assessor's records as well as the available Haines Criss-Cross Directories was conducted in order to identify prior uses of the property. Seven aerial photographs of the property available at the St. Joseph County Auditor's office were also reviewed. (Section 2.6 and Appendix B.)

3.4 Additional Record Sources

Additional environmental record sources were reviewed in order to provide further information regarding the environmental condition of the property. These sources included the following:

SBH List of Pre-1970 Solid Waste Sites in St. Joseph County

Date of List: December 18, 1970

Approximate Minimum Search Distance: 0.5 mile

No facilities were identified within the appropriate minimum search distance.

MACOG Map of Potential Groundwater Contamination Sites

Date of List: January 1991

Approximate Minimum Search Distance: 0.5 mile

Three facilities were identified within the approximate minimum search distance.

Gates Chevy World - Known Groundwater Contamination Site

South Bend Street Department - Salt Storage Facility

South Bend Auto Parts - Auto/Junk/Scrap Facility

The South Bend Street Department salt storage facility is identified on the Michiana Area Council of Governments (MACOG) map as being located upgradient from the property with respect to the regional groundwater flow direction and, consequently, could potentially affect the groundwater beneath the subject property. However, any effect would be mitigated by the availability and use of city water.

County Health Department

The St. Joseph County Health Department (SJCHD) was consulted about their knowledge regarding any known environmental conditions associated with the property and/or adjoining properties. **According to the SJCHD, to their knowledge, property has no environmental complaints or violations** filed against it and there are no recognized environmental conditions that would negatively affect the property.

Additional Records

Excerpts from documents filed by Allied Products with the Indiana Department of Environmental Management in connection with Allied's Voluntary Remediation effort

were reviewed. A Phase II investigation at the former Transwestern site was also reviewed. These documents were supplied to EIS by the City of South Bend. The excerpts from the Allied Products documents are provided in Appendix E. See **Section 4.6** for a discussion of the results of this review.

4.0 SITE RECONNAISSANCE AND INTERVIEW INFORMATION

4.1 Hazardous Substances and Petroleum Products with Identified Use and Hazardous Wastes

Numerous containers of automobile fluids, coolants, gasoline and lubricants were observed on the property. These containers were reportedly transported onto the property in the impounded vehicles and many were empty. One five-gallon container of gasoline was also observed on the property.

A number of small, oil-like stains were observed on the crushed stone areas where the vehicles were parked.

4.2 Unidentified Substances and Hazardous Substances with No Identified Use

Two 55-gallon unlabeled drums with unknown contents were observed behind the front door.

No indications of the locations of former service station pump islands were noted during the site reconnaissance.

4.3 Underground and Above Ground Tanks

No above ground tanks were observed during the site reconnaissance. No evidence of underground storage tanks was observed during the site reconnaissance; however, this property was used as a gasoline station and did at one time utilize at least one underground storage tank which is noted on old tax records. No documentation related to the disposition of the tank(s) was found in state or fire department records. Rick C. Hamilton indicated that the tanks had been pulled in about 1988 or 1989 and that two large fuel tanks and one smaller waste oil tank had been removed. Mr. Hamilton could not locate the photographic documentation which he believes exists. It is unknown whether any release associated with these tanks occurred prior to or during their removal. Underground storage tanks can be significant sources of both

soil and groundwater contamination but, under favorable conditions, petroleum hydrocarbon contamination can degrade if the source is removed. See Section 4.6 for a discussion of the potential for gross contamination associated with these tanks to be present on the subject property.

4.4 PCB-Containing Equipment

No major equipment suspected of containing Polychlorinated Biphenyls (PCBs) was observed on the property.

4.5 Solid Waste Disposal

During the site reconnaissance, a substantial quantity of debris was observed including cars, car parts, metal scrap, wood and other miscellaneous debris. Some staining and/or residue was observed associated with this debris. Stained areas were observed in association with a few of the impounded vehicles.

4.6 Physical Setting Analysis

The property is located within the St. Joseph Aquifer system. The aquifer generally consists of 40 to 120 feet of sand and gravel with numerous interspersed clay layers underlain by a moderately thick clay/till layer. Depths to groundwater in the area of the property are approximately 20 to 25 feet based on existing monitoring well data. The aquifer is classified as a sole source aquifer and has a moderately high potential for contamination due to the relatively permeable soil types present above the aquifer. According to the Michiana Area Council of Governments (MACOG) Map of Potential Groundwater Contamination Sites, the general regional groundwater flow is to the northeast. A review of the Allied Products and Transwestern documents, and of the results of the July 26, 1996, sampling and analysis of monitoring wells MW-20S (a.k.a. SW-Well) and MW-20D (a.k.a. NE-Well) revealed the following:

- The Allied Products report indicated 17 underground storage tanks with a total capacity of 151,000 gallons were located about 1/4 mile upgradient of the property. Based on the documents reviewed, it appears these tanks contained various petroleum products, including gasoline and diesel fuel, and perchloroethylene (PCE).
- Monitoring wells MW-20S and MW-20D are located on the subject property, but are upgradient from most of the subject property. Monitoring wells MW-18S and MW-18D, which are off-site, are downgradient from the subject property.
- 1996 groundwater monitoring results for the upgradient wells were similar to 1995 results for the downgradient wells. Petroleum hydrocarbons were detected in both deep wells and were not detected in either shallow well.
- A soil sample collected from a depth of 42 feet (15 to 20 feet below the water table) during the installation of the upgradient deep well contained petroleum hydrocarbons which were described as "degraded diesel" at a concentration of 290 parts per million.
- The Allied Products report described a petroleum-hydrocarbon-impacted soil layer at a depth of 38 to 40 feet below grade, and reported that petroleum hydrocarbon contamination in the groundwater was greater in the deep wells. This type of distribution pattern is unusual for petroleum hydrocarbons, which are commonly referred to as "floaters" and tend to be encountered in the highest concentrations at and near the groundwater surface, decreasing in concentration as depth increases. The Allied Products Corporation investigation report suggested that a possible explanation for this unusual distribution pattern could be that three (3) large, high capacity production wells had previously been operated at the Allied Products Corporation facility. These production wells were capable of significantly lowering the natural water table in the immediate vicinity. Petroleum hydrocarbon contamination at the facility would have followed the depressed water table downward and then have been trapped in the soils as a continuing deep source of

contamination when pumping ceased and the groundwater returned to natural levels. The occurrence of petroleum hydrocarbon contamination at a depth consistent with the contamination reported for the Allied Products Corporation facility strongly suggests that the contamination detected in deep wells and in the deeper soils is from an off-site upgradient source which was affected by the Allied Products Corporation production wells.

- Low concentrations of chlorinated volatile organic compounds were also detected in both the upgradient and downgradient deep wells, and in the upgradient shallow well. None of these compounds exceeded federal maximum contaminant levels (MCL) for drinking water or state voluntary cleanup criteria for non-residential areas.
- The absence of petroleum hydrocarbon contamination in the shallow wells, particularly the downgradient shallow well (MW-18S), suggests that there is probably no gross contamination of the groundwater due to the underground storage tanks which were formerly located on the subject property. Any soil or groundwater contamination which might exist can reasonably be expected to be limited.

4.7 Other Conditions of Concern

- Possible Asbestos-Containing Materials (ACM)
Although the U.S. EPA attempted to ban the use of asbestos in most building materials in 1989, that ban was successfully challenged and many asbestos-containing products continue to be manufactured and used. There can be no assurance, based on age alone, that a building is asbestos-free. State regulations require that buildings be inspected, prior to demolition or renovation, by an accredited inspector in order to identify suspect asbestos-containing materials. Sampling and analysis are necessary to conclusively identify asbestos-containing materials.

EIS completed an asbestos survey of the building on the property and collected a limited number of samples of suspect materials. The results of that inspection are provided separately.

- **Odors**

No strong, pungent or noxious odors were detected during the site reconnaissance.

- **Pools of Liquid**

No areas of standing surface water and no pools or sumps containing liquid likely to be hazardous substances or petroleum products were observed during the site reconnaissance.

- **Floor Drains and Sumps**

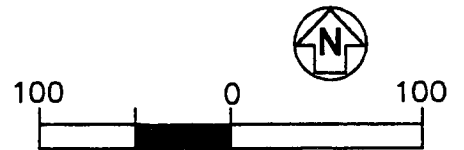
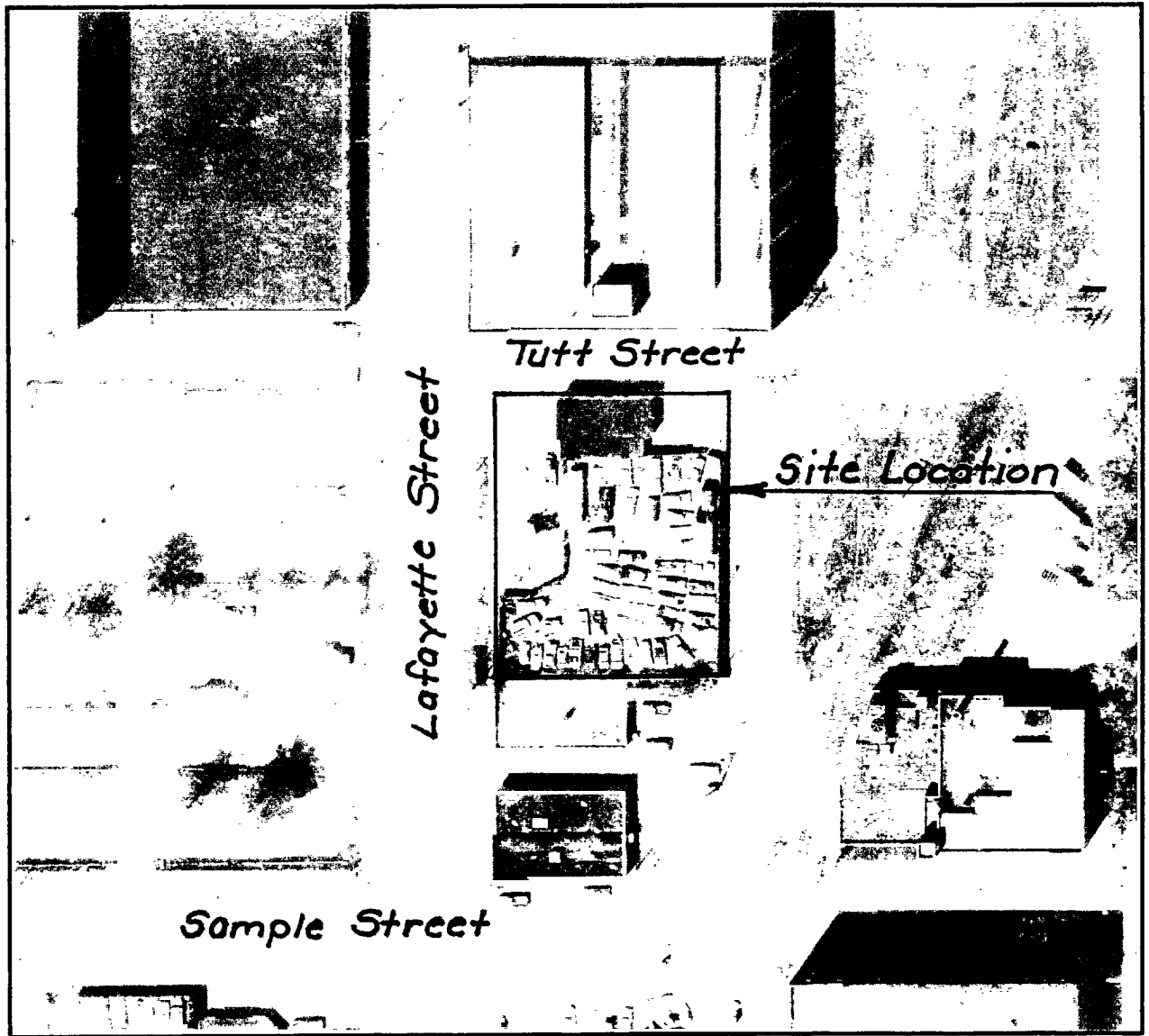
No floor drains or sumps were observed during the site reconnaissance.

- **Pits, Ponds, Lagoons**

No pits, ponds, or lagoons, were observed on the property or on adjoining properties during the site reconnaissance.

- **Wastewater**

No wastewater discharges from the property were observed during the site reconnaissance.



(IN FEET)
1 inch = 100 ft.



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**FIGURE 4.1
SITE PLAN**

Scale	Drawn	Approved	Date	Project No.
1:100	JEH	WBP	7/96	145-0001-01

5.0 FINDINGS, CONCLUSIONS AND OPINIONS

We (EIS) have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of 802 South Lafayette Boulevard, Lots 187, 188, 189, 190, 191 and 192 of the Garst 1st Addition, South Bend, Indiana (the property). Any exceptions to, or deletions from, this practice are described in Section 1.0 of this report. This Assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- The property has been occupied by service stations and vehicle repair or storage facilities for approximately 60 years, and formerly had underground storage tanks located on the property. These types of facilities and underground storage tanks can be significant sources of soil and groundwater contamination. However, based on existing groundwater monitoring data, it is our opinion that it is unlikely that gross contamination due to these facilities exists in the groundwater and that any soil contamination which may be present is likely to be limited. The seriousness of any environmental effect on the property will depend in part on the intended use of the property.
- **The groundwater and saturated sediments beneath the property are contaminated with petroleum hydrocarbons in the deeper (40-foot) strata.** Low levels of other volatile organic compounds are also present in the groundwater, particularly in the deeper strata. **The apparent source of this contamination is the Allied Products site which is almost directly upgradient from the property.** Any effects of this contamination are mitigated by the availability and use of city water on the property. Also, in May 1995 EPA issued a general policy statement regarding the liability of owners of uncontaminated property containing groundwater that has been contaminated by a neighboring property. The policy statement provides assurance that EPA does not anticipate suing the property owner for groundwater contamination if the owner did not cause or contribute to the contamination. It is

our opinion that the presence of this contamination does not have a serious environmental effect on the property.

Other items of potential concern include:

- **Two, unlabeled, 55-gallon drums** were observed on the property. The contents of these drums should be identified and properly disposed of. Such containers should be properly labeled and stored.

6.0 NON-ASTM SCOPE CONSIDERATIONS

- **Wetlands**

A U.S. Department of Interior National Wetlands Inventory Map for this area, South Bend, West, dated 1985, was reviewed. No portion of the property was identified on the Wetlands Inventory map for this area. Also, no obvious evidence of a wetland area was observed on the property during the site reconnaissance.

- **Asbestos**

Results of the asbestos inspection conducted by EIS are reported in Appendix H.

- **Groundwater Samples**

Results of the groundwater sampling and analysis have been discussed in Section 4.6. Complete analytical reports and sampling documentation are provided in Appendix G.

APPENDIX A

**QUALIFICATIONS OF PARTICIPATING
EIS ENVIRONMENTAL PROFESSIONALS**

H. STEPHEN NYE, P.E. - EIS ENVIRONMENTAL ENGINEERS, INC.

Education

University of Notre Dame
M.S. Environmental Health Engineering, 1976

Indiana University
A.B. Zoology, 1968

Professional Registrations

Professional Engineer
Indiana Certificate No. 20154
Professional Engineer
Ohio Certificate No. 47923
Industrial Wastewater Treatment Plant Operator
Indiana No. 4938, Michigan No. 1270
USEPA AHERA/IDEM Accredited Building
Inspector Certificate No. 190410030

Professional Affiliations

National Society of Professional Engineers (1983)
American Society of Civil Engineers (1977)
Water Environment Federation (1973)
Air and Waste Management Association (1973)

Experience

Mr. Nye's environmental engineering career began in 1968 with the Bureau of Engineering, Industrial Waste Section of Indiana State Board of Health. In 1973, he co-founded EIS Environmental Engineers, Inc. where he is President.

At EIS, Mr. Nye is the Principal-In-Charge of all engineering and consulting services related to air quality management, engineering design, construction management, hazardous waste management and environmental audits and assessment. He is directly involved with planning, administration and final review and approval of all engineering and consulting projects in these service areas. These projects have included: Air permitting, source and ambient air testing, engineering design and preparation of permit applications for solid and hazardous waste landfills, preparation of Closure/Post-closure Plans, Groundwater Monitoring Plan, Administration and Certification of Closure for RCRA treatment, storage and disposal facilities, preparation of Study Plans and Final Reports for Hydrogeological Studies and numerous remedial investigations related to soil and groundwater contamination by heavy metals and volatile organic compounds.

Mr. Nye has extensive experience conducting internal environmental audits for operating industrial facilities and environmental assessments related to the transfer of property. He is an AHERA Certified Inspector and he has conducted surveys and prepared specifications for asbestos abatement projects. He has also completed the OSHA training for Health and Safety Management for Hazardous Waste Projects and Emergency Response (HAZWOPER).

Publications

McFarland, A.R., H.S. Nye and C.M. Erickson. Development of a low pressure impactor, Final Report, Contract 68-02-0563 U.S. Environmental Protection Agency, National Environmental Research Center, Research Triangle Park, NC (1973).

Nye, H.S., "Collection of SubMicron Particles by Low Pressure Inertial Impaction", M.S. Thesis, University of Notre Dame (1976).

CATHY M. COLLINS - EIS ENVIRONMENTAL ENGINEERS, INC.

Education: Purdue University
B.S. Chemical Engineering, 1984

Professional Affiliations: American Institute of Chemical Engineers
Environmental Division

Continuing Education: OSHA 40-Hour Safety Course plus 8-Hour Refresher
Bioenvironmental Engineering Course, U.S. Air Force
Graduate Course in Water and Wastewater Management,
Illinois Institute of Technology

Experience:

Ms. Collins has worked in environmental compliance and permitting, industrial hygiene, and chemical safety since 1984. Ms. Collins served three years in the United States Air Force as a bioenvironmental engineer. Following her discharge her professional experience includes positions as a laboratory safety specialist at Northwestern University, and as a consultant to the U.S. Environmental Protection Agency (EPA) in Regions 4, 5, 6, and 7; the Indiana Department of Environmental Management (IDEM), the U.S. Army Corps of Engineers, and the Army Material Command.

RCRA

Ms. Collins has conducted RCRA hazardous waste compliance evaluation inspections for IDEM, and EPA Regions 5 and 7. These inspections consisted of reviewing facility recordkeeping, hazardous waste monitoring, waste characterization, and hazardous and solid waste management practices. She has also conducted hazardous waste sampling and classification and preparation of contingency plan. These inspections were conducted at oil refineries, foundries, food processing facilities, power plants, universities, heavy equipment manufacturers, and inorganic chemical processing facilities. Ms. Collins has also conducted boiler and industrial furnace compliance evaluation inspections at petrochemical facilities on behalf of EPA Region 6.

Ms. Collins has conducted over 80 preliminary assessment visual site inspections (PA/VSI) and prepared over 30 reports for EPA Region 5. These inspections and reports consisted of identifying solid waste management units, assessing past and future potential for release and identifying areas of concern where releases of hazardous constituents to environmental media may have occurred. Inspections were conducted at oil refineries, foundries, automobile manufacturers, rubber manufacturers, electroplating operations, fiberglass manufacturing facilities, and nuclear and fossil fuel power plants. She has also reviewed RCRA Facility Investigation work plans submitted for RCRA corrective action at an organic chemical

manufacturing facility in Ohio. Ms. Collins provided oversight on behalf of EPA of a voluntary removal action

CERCLA

Prepared hazard ranking system focused site inspection prioritization reports to determine the potential for sites to be placed on the national priorities list (NPL). Ms. Collins also assisted in the preparation of a remedial investigation/feasibility study (RI/FS) for a Superfund site in Michigan. She provided oversight on behalf of EPA of landfill construction activities for a Superfund site in Michigan and has prepared a Quality Assurance Project Plan (QAPP) for split sampling for a Superfund site in Illinois.

Superfund Innovative Technology Evaluation

Preparation of QAPP for an advance oxidation remediation system technology demonstration. Ms. Collins participated in the Technology demonstration which consisted of the remediation of groundwater containing organic chlorinated and aromatic compounds. Ms. Collins prepared a technology evaluation report of an innovative technology consisting of the thermal removal of polychlorinated biphenyls in soil.

Air Compliance

Ms. Collins has assisted with the preparation of Title V air permits in the state of Illinois. Ms. Collins has conducted environmental audits of fuel terminals which included assessment of compliance with air regulations in the states of California and Rhode Island and prepared an emissions inventory for Nellis Air Force Base, Nevada.

Industrial Hygiene

Ms. Collins has conducted numerous industrial hygiene surveys at Nellis Air Force Base, Nevada, which consisted of personal air sampling, lighting surveys, noise surveys, ionizing and nonionizing radiation surveys, and ventilation surveys. Ms. Collins has also conducted numerous laboratory safety surveys at Northwestern University which consisted of evaluating chemical storage procedures, adequacy of ventilation systems, and laboratory biological safety cabinets and procedures. Her experience also includes the design of industrial ventilation systems.

SHAWN C. ALBRIGHT - EIS ENVIRONMENTAL ENGINEERS, INC.

Education

Ball State University
August 1990 - May 1994
Muncie, Indiana
B.S., Geology

Holy Cross College
August 1988 - May 1990
Notre Dame, Indiana
Associates Degree, General Studies

Professional Training

Confined Space Safety Training

Professional Registrations

USEPA AHERA/IDEM Accredited Building
Inspector
Certificate No. 191206016

National Groundwater Association Member
Membership No. 3022848
Expires 06/96

Experience

Mr. Shawn C. Albright has experience in descriptive and statistical analysis of sediments. He has performed studies involving the occurrence and movements of subsurface water and its effects on the environment.

As a Project Geologist at EIS, Mr. Albright conducts Phase I and Phase II Environmental Site Assessments. He supervises the installation of both permanent and temporary monitoring wells in compliance with state regulations and project specifications. He is also responsible for the collection of environmental samples from a variety of media such as soil, groundwater, surface water, wastewater, industrial sludge and suspect asbestos-containing materials. Mr. Albright's duties involve him in the construction and start up phases of soil vapor extraction (SVE) systems. He is also responsible for the maintenance and monitoring of an active free product recovery system.

APPENDIX B
EXCERPTS FROM AERIAL PHOTOGRAPHS

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(IN FEET)
1 inch = 100 ft.

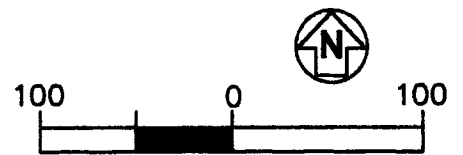


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EXCERPT FROM 1990
AERIAL PHOTOGRAPH PRODUCED BY
CLYDE E. WILLIAMS & ASSOCIATES, INC.

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(IN FEET)
1 inch = 100 ft.



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EXCERPT FROM 1978
AERIAL PHOTOGRAPH PRODUCED BY
CLYDE E. WILLIAMS & ASSOCIATES, INC.

Scale	Drawn	Approved	Date	Project No.
1:100	JEH	WBP	7/96	1456-9601-01