APPENDIX E

REGULATORY REVIEW

205 W. Allegan Street

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL RESPONSE DIVISION

FOR DEQ USE ONLY
BEA Disclosure # B10020060754

DISCLOSURE OF A BASELINE ENVIRONMENTAL ASSESSMENT
(FORM EQP4446(REV.3/99))

(Under the authority of Part 201, 1994 Act 451, as amended, and the Rules promulgated thereunder)

DO NOT use this form for requesting a Baseline Environmental Assessment ("BEA") adequacy determination, OR if the property is not a facility, OR if the BEA was complete before the effective date of the BEA rules. *Please answer the following questions as completely as possible.*

Name and address of submitter (individual or legal entity):*
Boji Group of Lansing, LLC
124 West Allegan Street
Lansing, Michigan 48933

Status relative to the property:

	Former	Current	Prospective
Owner*	☐	☐	☐
Operator*	☐	☒	☐

Address/location of property where BEA was conducted:
205 West Allegan
Lansing, Michigan

County: Ingham

Provide the property tax identification number(s) or, if applicable, the ward and item number(s) for the property identified in the BEA. Required pursuant to Rule 907.
Parcel Identification Number 33-01-01-16-327-102

Contact person: Mr. Eliya Boji Telephone #: (517)-377-3000

If the address of the person seeking liability protection above is different from the address that should be used to correspond with the contact person, please provide the contact person's address:

Check the appropriate response to each of the following questions.

	YES	NO
1. Is it known that the source of contamination at the property is primarily from any of the following?		
• **A leaking underground storage tank (UST) regulated under Part 213, 1994 PA 451, as amended.**	☐	☒
• **A licensed landfill or solid waste management facility.**	☐	☒
• **A licensed hazardous waste treatment, storage, or disposal facility.**	☐	☒
• **Oil and gas development related activities.**	☐	☒

The source of the release that resulted in this property becoming a "facility" will determine which DEQ division will maintain a file regarding this BEA.

2. Based on the Part 201 Rules, this BEA is a:

Category N ☒
Category D ☐
Category S ☐

	YES	NO
3. Is the property at which the BEA was conducted a "facility"* as defined by Section 20101? If the answer to this question is NO, do not submit the BEA to the DEQ.	☒	☐

4. **Was the BEA conducted* prior to or within 45 days after the date of purchase*, occupancy, or foreclosure of the property, whichever is earliest, and completed* not more than 15 days after the date required by Section 20126(1)(c) or Rule 299.5903(8)?** If the answer to either portion of this question is no, you are ineligible for an exemption from liability based on the BEA. YES ☒ NO ☐

5. **Is the BEA being disclosed to the DEQ no later than 8 months after the earliest of the date of purchase, occupancy, or foreclosure?** All disclosures pursuant to Rule 919(3) must be submitted to the DEQ no later than 8 months after the earliest of the date of purchase, occupancy, or foreclosure. YES ☒ NO ☐

6. **Are any USTs or abandoned or discarded containers identified in the BEA?** If yes, this information must be provided on Form EQP4476. YES ☐ NO ☒

7. **Does this BEA rely on an isolation zone or an engineering control that requires an affidavit pursuant to Rule 299.5909(3) or 299.5909(4)?** If yes, a completed affidavit, Form EQP4479, must be attached or the BEA will not be considered complete. YES ☐ NO ☒

With my signature below, I certify that the enclosed BEA and all related materials are complete and accurate to the best of my knowledge and belief. I understand that intentionally submitting false information to the DEQ is a felony and may result in fines up to $25,000 for each violation.

Signature of Submitter: Eliya Boji
(Person legally authorized to bind the person seeking liability protection)

1-4-2007
Date

Name (Typed or Printed) Mr. Eliya Boji

Title Member, Boji Group of Lansing, LLC

CONTENTS

LETTER OF TRANSMITTAL

AKTPEERLESS
environmental services

WE ARE SENDING YOU: ☒ **Attached** ☐ **Under separate cover** ____

☐ Report ☐ Prints ☐ Change Order ☐ Copy of Letter ☐ Proposal

TO: MDEQ-ERD	**DATE: 1/17/02**	**JOB: 3252s**
Shiawassee District Office	**RE:**	
10650 Bennett Drive		
Morrice, Michigan 48857-9792		

☐ Plans ☐ Samples ☐ Specifications ☐

COPIES	DATE	DESCRIPTION
1	12/17/01	Baseline Environmental Assessment for 205 West Allegan, Lansing, Michigan

TRANSMITTED AS CHECKED BELOW :

☐ Approved as Noted ☐ Approved as Submitted ☐ As Requested ☐ Copies for Approval

☐ Copies for Distribution ☐ Corrected Prints ☐ For Approval ☐ Returned After Loaned to Us

☐ For Your Use ☐ Rejected ☐ Resubmit ☐ Return

☐ Submit ☐ Returned for Corrections

REMARKS:

Please call if you have any questions.

COPY TO:

SIGNED: Janelle A. Rizzo

☒ **SAGINAW OFFICE**
230 S. Washington Ave, Ste. 300
Saginaw, Michigan 48605
Phone No. (517) 754-9896
Fax No. (517) 754-3804

☐ **FARMINGTON HILLS OFFICE**
24073 Research Drive
Farmington Hills, Michigan 48335
Phone No. (248) 615-1333
Fax No. (248) 615-1334

☐ **JACKSON OFFICE**
100 W. Washington
Jackson, Michigan 49201
Phone No. (517) 787-3393
Fax No. (517) 787-4508

☐ **DETROIT OFFICE**
220 Bagley Avenue, Ste. 318
Detroit, Michigan 48226
Phone No. (313) 961-5400
Fax No. (313) 961-4377

AKTPEERLESS
environmental services

BASELINE ENVIRONMENTAL ASSESSMENT
Conducted Pursuant to Section 20126(1)(c)
of 1994 PA 451, Part 201, as amended,
and the Rules promulgated thereunder

205 WEST ALLEGAN
LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 3252S-4-26

1.0 IDENTIFICATION OF AUTHOR AND DATE BEA WAS CONDUCTED AND DATE BEA WAS COMPLETED

AKT Peerless Environmental Services (AKT Peerless) was retained by the Lansing Board of Brownfield Redevelopment (LBRA) to prepare a Baseline Environmental Assessment (BEA) on behalf of the City of Lansing and the Boji Group of Lansing, LLC, the submitters. The person primarily responsible for the data assembly, interpretation, and technical conclusions was Mr. David A. Van Haaren, Branch Manager/Senior Project Manager. The BEA was conducted by December 17, 2001, and completed by December 26, 2001, with final administrative review and revision.

2.0 INTRODUCTION

This BEA has been prepared for a property located at 205 West Allegan Street, Lansing, Saginaw County, Michigan (the "subject property").

The BEA was conducted pursuant to Section 20126(1)(c) of the Natural Resources and Environmental Protection Act (NREPA), of 1994, PA 451, as amended, and the Rules promulgated thereunder. The BEA reasonably defines known existing environmental conditions and circumstances at the subject property so that in the event of a subsequent release, there is a means of distinguishing a new release from existing contamination.

The BEA was completed as a Category "N" BEA in accordance with the Michigan Department of Environmental Quality's (MDEQ), "*Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analysis to the Michigan Department of Environmental Quality and for Requesting Optional Determinations*", dated March 11, 1999.

The Boji Group of Lansing, LLC signed a lease to the subject property on November 30, 2001. The City of Lansing may become an operator of the subject property at a later date. The Boji Group of Lansing, LLC and the City of Lansing are disclosing this BEA to the MDEQ, Environmental Response Division (ERD) to qualify for an exemption from liability under Part 201, NREPA.

3.0 PROPERTY DESCRIPTION & INTENDED HAZARDOUS SUBSTANCE USE

3.1 LEGAL DESCRIPTION

The description of the subject property provided in the tax assessment document is as follows:

Parcel Number 33-01-01-16-327-102:
Lots 1, 2, & 3 Block 116 Original Plat

3.2 PROPERTY AND SURROUNDING AREA DESCRIPTION

The subject property is located at 205 West Allegan Street in Saginaw, Michigan and consists of a parking ramp (the "Ellis Ramp"), which rests on a single, 0.75-acre parcel. The subject property is situated in the northeast ¼ of the southwest ¼ of Section 16, Township 4 North, Range 2 West, in the downtown area of Lansing, Ingham County, Michigan.

Refer to Figure 1, Topographic Location Map and Figure 2, Soil Boring Location Map. Photographs taken by Mr. Bradley C. Clark during AKT Peerless' site inspection are provided as an appendix in the attached Phase I ESA, Appendix A.

The subject property is bordered to the north by West Allegan Street, beyond which is the Michigan State Capitol building; to the east by South Capitol Avenue, beyond which is the Farnum Building (office building), Cooley Law Building, to the south by the Accident Fund (office building); and to the west by the State of Michigan Parking Lot.

In general, the subject property is level with adjacent properties and is located in the downtown commercial business area of the City of Lansing. According to local tax assessment records, the subject property is owned by Ellis Parking Company, Inc. and is zoned G-1 Business.

3.3 PROPERTY HISTORY

On August 27, 2001, AKT Peerless completed a Phase I ESA, which included the subject property along with three additional parcels. For the purpose of this BEA, the property for which the Phase I ESA was conducted will be referred to as "Parcels A through D." The scope of work for the Phase I ESA was based on the *"Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,"* ASTM Designation: E 1527, which defines good commercial and customary practice for conducting an ESA and establishing "due diligence." The Phase I ESA is provided in Appendix A.

The Phase I ESA revealed the following recognized environmental conditions in connection with Parcels A through D:

1. The adjoining property to the east and south at 232 South Capitol Avenue was identified as a SHWS. Subsurface investigations at the property, indicate the presence of contamination at the site. Historical information indicates the property was occupied by a gasoline (filling) station and commercial building with gasoline tanks from approximately 1945 to at least 1972.

2. The southern portion of the subject property was occupied by a dry cleaner for at least 10 years in the 1950's.

3. The past use of the eastern and southern portions of the subject property included repair and service stations in the 1920's and 1930's.

4. The past use of an adjoining property to the south beyond Washtenaw and west beyond Townsend Street included a service station.

5. During the completion of the site visit a UST vent and fill pipe were observed on the adjoining property to the south and east.

6. The northwestern and northeastern portions of the subject property were occupied by churches. The churches were demolished in the late 1960's and 1970's, and fill material was likely brought to the subject property following demolitions to restore grade. It is unknown where the fill material was obtained.

On August 27, 2001 and September 24, 2001, AKT Peerless mobilized to Parcels A through D to conduct a Phase II ESA. The purpose of the Phase II ESA was to evaluate the recognized environmental conditions, identified in the Phase I ESA, and to complete all appropriate inquiry into the subject property consistent with good commercial or customary practice. The Phase II ESA was completed on November 28, 2001.

During the Phase II, AKT Peerless advanced a total of fourteen soil borings (B-1 through B-14) to a maximum depth of twenty feet below surface grade (bsg). Temporary monitoring wells (TMW 1 through 3) were installed in three of the soil borings. Soil samples were collected for laboratory analysis from each soil boring at an interval most likely to be impacted based on field screening results described in the Phase II ESA report. A water sample was collected from TMW-1 for laboratory analysis. AKT Peerless adhered to quality assurance objectives and procedures outlined in the May 2001 Quality Assurance Project Plan (QAPP) approved by Region V of the U.S. Environmental Protection Agency (EPA) under the LBRA, Brownfield Assessment Demonstration Pilot Project.

Laboratory analytical results were compared to MDEQ Generic Cleanup Criteria (GCC), Residential and Commercial I Criteria developed under the authority of Part 201 of the NREPA,

Of the contaminants detected in the Phase II ESA, contaminants were detected in samples collected from the subject property (Parcel A) at concentrations exceeding the current GCC (June 2000). Existing contamination identified at the subject property is discussed in Section 4.0, Known Contamination and Basis for Facility Determination. Phase II sampling activities, findings and conclusions are provided in further detail in the attached Phase II ESA report attached as Appendix B.

3.4 INTENDED HAZARDOUS SUBSTANCE AND PETROLEUM PRODUCT USE

The Boji Group of Lansing, LLC signed a lease to the subject property on November 30, 2001. The City of Lansing may become an operator of the subject property at a later date.

The subject property is a portion of a proposed multi-story building development for commercial office and retail use. The development will also include additional parking. The building and additional parking ramp will be constructed on the adjacent parcels to the subject property and will incorporate the existing "Ellis Ramp" on the subject property.

The Boji Group of Lansing, LLC and the City of Lansing will not use, store, handle, or manage, at any time, hazardous substances or petroleum products in quantities that exceed those commonly used for typical residential or office purposes.

4.0 KNOWN CONTAMINATION AND BASIS FOR FACILITY DETERMINATION

4.1 KNOWN CONTAMINATION

As discussed in Section 3.3, AKT Peerless completed a Phase II ESA at the subject property to evaluate recognized environmental conditions revealed during a Phase I ESA. AKT Peerless compared laboratory results to applicable Part 201 Residential and Commercial I GCC. Of the contaminants detected in the Phase II ESA, contaminants were detected in samples collected from the subject property (Parcel A) at concentrations exceeding the current GCC (June 2000).

Laboratory analytical results for soil samples collected during the Phase II ESA, reported detectable concentrations of xylenes, ethylbenzene, n-proylbenzene, 1,3,5-trimethylbenzne, 1,2,4-trimethylbenzene, and sec-butyl benzene at the subject property at concentrations exceeding the current GCC. The following table illustrates specific contaminants identified exceeding GCC and the highest concentration of each contaminant identified.

HIGHEST CONCENTRATIONS EXCEEDING
PART 201 Generic Cleanup Criteria and Screening Levels
SOIL: RESIDENTIAL AND COMMERCIAL I CRITERIA

COMPOUND	CAS #	LOCATION	DEPTH	CONCENTRATION (µg/kg)	APPLICABLE GCC (µg/kg)
1,2,4-trimethylbenzene	95636	B-12	15.0-15.5'	310,000	2,100[1]
1,3,5-trimethylbenzne	108678	B-12	15.0-15.5'	53,000	1,800[1]
Ethylbenzene	100414	B-12	15.0-15.5'	36,000	1,500[1]
N-proylbenzene	103651	B-12	15.0-15.5'	25,000	1,600[1]
Sec-butyl benzene	135988	B-12	15.0-15.5'	6,800	1,600[1]
Total xylenes	1330207	B-12	15.0-15.5'	110,000	5,600[1]

[1] Residential Drinking Water Protection Criteria.

Laboratory analytical results are provided as an Appendix in the attached Phase II ESA report. A summary of Soil Analytical Results is provided in Table 1.

The detection of xylenes, ethylbenzene, n-proylbenzene, 1,3,5-trimethylbenzne, 1,2,4-trimethylbenzene, and sec-butylbenzene in soil at the subject property at concentrations exceeding applicable Part 201 GCC demonstrates the subject property is a "*facility*[2]," as the term is defined in Part 201 of the NREPA.

4.2 KNOWN ABANDONED CONTAINERS OF HAZARDOUS SUBSTANCES

During the completion of the Phase I ESA and Phase II ESA, no abandoned or discarded containers, aboveground storage tanks, underground storage tanks, barrels, other receptacles, or surface impoundments were identified on the subject property.

5.0 LIKELIHOOD OF OTHER CONTAMINATION

The Phase II Site Investigation completed at the subject property was designed to evaluate the area most likely to contain contaminants based on historical, observed, and recorded site conditions. This BEA pertains to the known areas of contamination remaining on the subject property. While all prudent and reasonable investigation has been performed on the subject property, no investigation can ensure all contamination was identified. However, based on the results of the investigation conducted, subject property conditions appear to be adequately characterized for the purpose of this BEA.

[2] "Facility" means any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of Sections 20120a(1)(a) or (17) or the cleanup criteria for unrestricted residential use under Part 213 has been released, deposited, disposed of, or otherwise comes to be located. Facility does not include any area, place, or property at which response activities have been completed which satisfy the cleanup criteria for the residential category provided for in section 20120a(1)(a) and (17) or at which corrective action has been completed under Part 213 which satisfies the cleanup criteria for unrestricted residential use.

6.0 CONCLUSIONS

Boji Group of Lansing, LLC signed a lease agreement to the subject property on November 30, 2001. The City of Lansing may become an operator of the subject property at a later dates. Therefore, Boji Group of Lansing, LLC and the City of Lansing are disclosing this BEA to the MDEQ, ERD to qualify for an exemption from liability under Part 201, NREPA.

Known contamination at the subject property includes total xylenes, ethylbenzene, n-proylbenzene, 1,3,5-trimethylbenzne, 1,2,4-trimethylbenzene, and sec-butylbenzene in soil at concentrations exceeding Part 201 GCC.

The subject property is a portion of a proposed multi-story building development for commercial office and retail use. Boji Group of Lansing, LLC and the City of Lansing will not use any significant quantities of hazardous substances at the subject property. This stipulated condition is, therefore, the basis for being able to distinguish existing contamination from a new release.

7.0 REFERENCES

Listed below are documents utilized to aid in the completion of this BEA. Data presentation, summaries and conclusions presented in this BEA are general in nature and should not be considered apart from respective documents.

- *"Environmental Remediation,"* Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
- *"Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analysis to the Michigan Department of Environmental Quality and for Requesting Optional Determinations,"* dated March 11, 1999
- "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,*" American Society for Testing and Materials, Designation: E 1527.
- "*Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process,*" ASTM Designation: E 1903-97.
- *"Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations,"* ASTM Designation: D 6282-98.
- *"Quality Assurance Project Plan-Lansing Board of Brownfield Redevelopment,"* AKT Peerless Environmental Services, May 8, 2001.
- "*Phase I Environmental Site Assessment, 205 West Allegan/217 Townsend, Lansing, Michigan,*" AKT Peerless Environmental Services, August 27, 2001.

- *"Phase II Environmental Site Assessment, 205 West Allegan/217 Townsend, Lansing, Michigan,"* AKT Peerless Environmental Services, November 29, 2001.

8.0 ATTACHMENTS

Attached with this submittal are the following:

Figure 1	Topographic Location Map
Figure 2	Soil Boring Location Map
Table 1	Summary of Analytical Results
Appendix A	Phase I ESA
Appendix B	Phase II ESA

9.0 DUE CARE RESPONSIBILITIES

Section 20107a(1) states: "A person who owns or operates property that he or she has knowledge is a facility shall do all of the following with respect to hazardous substance at the facility:

a) Undertake measures as are necessary to prevent exacerbation of the existing contamination.

b) Exercise due care by undertaking response activities necessary to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the facility in a manner that protects the public health and safety.

c) Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that foreseeably could result from those acts or omissions."

10.0 GENERAL COMMENTS

In performing its inspection, AKT Peerless has used reasonable care and has performed its work in keeping with industry standards and standard agency procedures as appropriate. AKT Peerless can offer no assurances and assumes no responsibility for site conditions or activities outside the limited scope of the inquiry requested by the client. There can be no assurance, and AKT Peerless offers no assurance, that site conditions do not exist or could not exist in the future which could lead to liability in connection with the subject property. Accordingly, AKT Peerless has analyzed the information obtained in its limited investigation in keeping with existing environmental standards and enforcement practices, but cannot accurately predict what actions

any given agency may take presently or what standards and practices may apply to the subject property in the future.

Although reasonable due diligence has been exercised in the design and conduct of this study, it must be noted that the results of this investigation do not provide sufficient information to warranty that no environmental risks are associated with well disguised or illegal chemical and/or waste management activities.

This report has been prepared for the sole use of Boji Group of Lansing, LLC and the City of Lansing. This report and the findings contained herein shall not be relied upon by any third party, in whole or in part, without the prior written consent of AKT Peerless. This report and the findings contained herein shall not be disclosed, disseminated or conveyed to any third party, in whole or in part, except as directed by Boji Group of Lansing, LLC, the City of Lansing., or as required by law or regulation.

This report has been prepared by:
AKT Peerless Environmental Services

Janelle A. Pistro
Environmental Consultant

David A. Van Haaren
Branch Manager/Senior Project Manager

11.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

The data assembly, interpretation, report production, and technical conclusions reached herein, were completed by Ms. Janelle A. Pistro and Mr. David A. Van Haaren of AKT Peerless Environmental Services, Saginaw, Michigan.

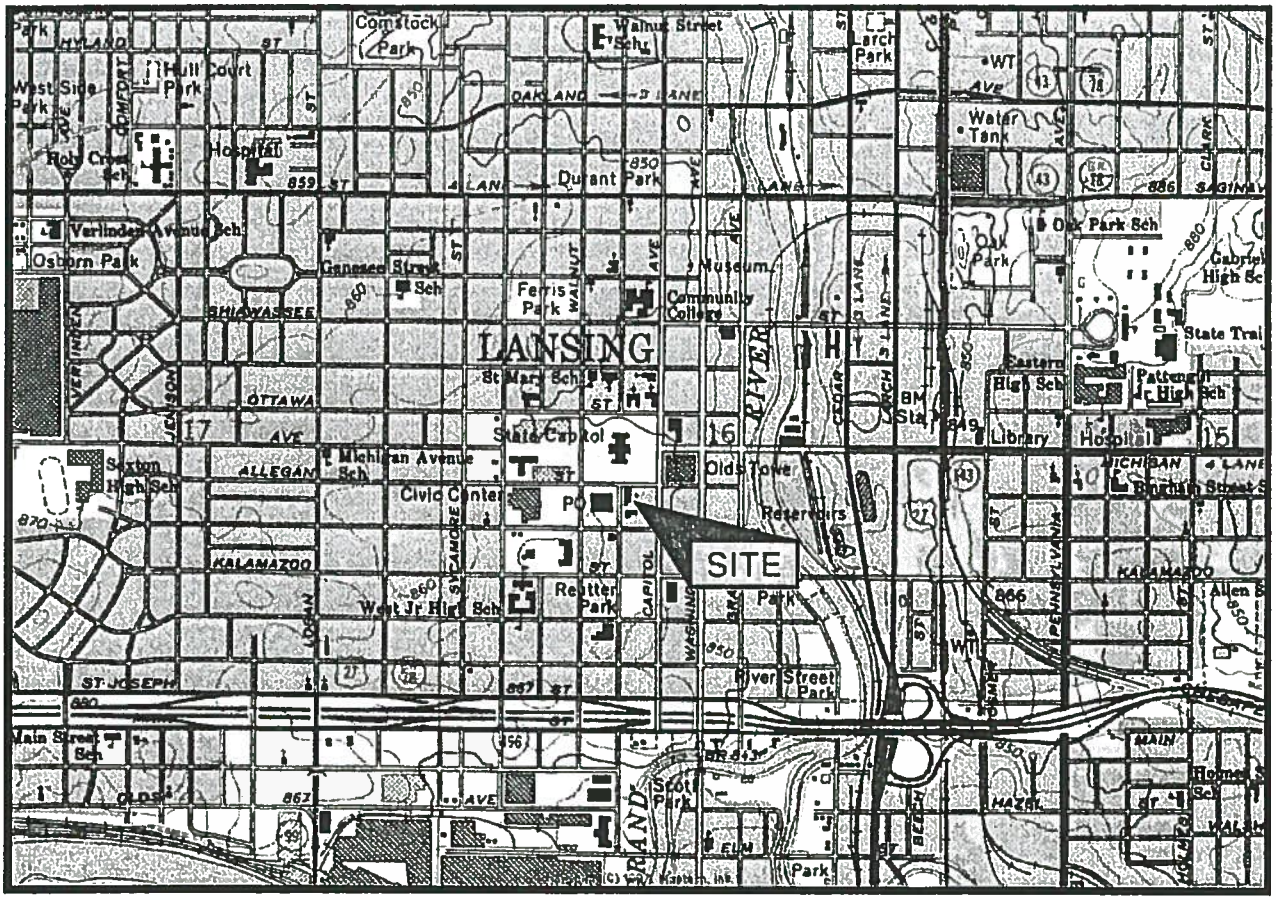
Ms. Pistro, Environmental Scientist, has two years of environmental science experience. She received her Bachelor of Science Degree from the University of Findlay where she studied Environmental and Hazardous Materials Management.

Mr. Van Haaren, Branch Manager/Senior Project Manager, has eight years of environmental consulting experience. He received his Bachelors of Science Degree in Industrial and Environmental Health Management/Hazardous Waste Management from Ferris State University.

LANSING SOUTH QUADRANGLE

MICHIGAN – INGHAM COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.4 N. – R.2 W.

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN QUADRANGLE LOCATION

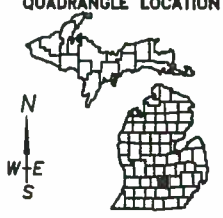


IMAGE TAKEN FROM 1965 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1973

AKTPEERLESS environmental services

230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax: (989)754-3804

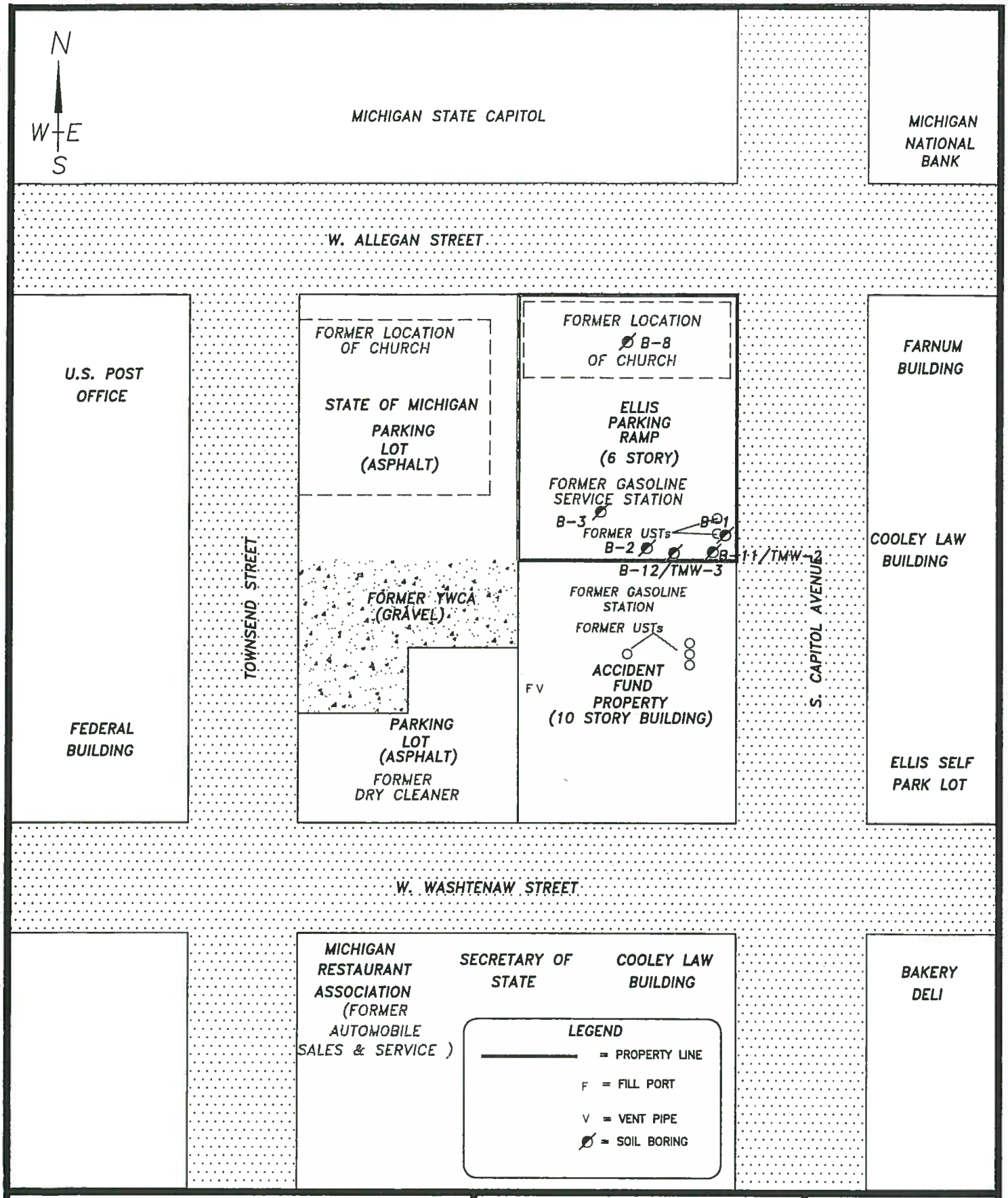
TOPOGRAPHIC LOCATION MAP

BOJI

205 W. ALLEGAN
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : TOPO 2

DRAWN BY: OGO
DATE: 08-01-01

FIGURE 1



AKTPEERLESS environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax: (989)754-3804

SOIL BORING LOCATION MAP
BOJI
205 W. ALLEGAN
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : SB MAP.2

DRAWN BY: OGO
DATE: 08-28-01

0 50 100
SCALE: 1"= 100'±

FIGURE 2

Table 1
Summary of Soil Analytical Results
BOJI Property
Lansing, Michigan
AKT Peerless Project Number 3252s

Sample Identification and Date		B-1 6.5'-7.0' 8/27/01	B-2 6.5'-7.0' 8/27/01	B-3 7.0'-7.5' 8/27/01	B-8 6.0'-6.5' 8/2701	B-11 17.0'-17.5' 9/24/01	B-12 12.0'-12.5' 9/24/01	B-12 15.0'-15.5' 9/24/01	MDEQ Statewide Default Background Levels	MDEQ Residential and Commercial I Drinking Water Protection Criteria	MDEQ Residential and Commercial I Soil Direct Contact Criteria
Parameters (µg/kg)	**CAS#**										
VOCs											
Total Xylenes (I)	1330207	<150	<150	<150	<150	<150	37,000	110,000	NA	5,600	150,000 (C)
Ethylbenzene (I)	100414	<50	<50	<50	<50	68	13,000	36,000	NA	1,500	140,000 (C)
Toluene (I)	108883	<50	<50	<50	<50	<50	<1,000*	1,500	NA	16,000	250,000 (C)
2-Butanone (I)	78933	<250	<250	<250	<250	<250	8,500	<5,000*	NA	260,000	27,000,000 (C, AD)
Isopropylbenzene	98828	<100	<100	<100	<100	<100	8,100	14,000	NA	91,000	390,000 (C)
N-Propylbenzene (I)	103651	<100	<100	<100	<100	<100	13,000	25,000	NA	1,600	2,500,000
1,3,5-Trimethylbenzene (I)	108678	<100	<100	<100	<100	<100	29,000	53,000	NA	1,800	94,000 (C)
1,2,4-Trimethylbenzene (I)	95636	<100	<100	<100	<100	<100	84,000	310,000	NA	2,100	110,000 (C)
sec-butylbenzene	135988	<50	<50	<50	<50	<50	4,200	6,800	NA	1,600	2,500,000
Remaining VOCs		ND	ND	ND	ND	ND	ND	ND	Various	Various	Various
Michigan Metals (µg/kg)	**CAS#**										
Arsenic (B)	7440382	NT	NT	NT	1,300	NT	NT	NT	5,800	23,000	7,600
Barium	7440393	NT	NT	NT	10,000	NT	NT	NT	75,000	1,300,000	37,000,000
Cadmium (B)	7440439	52	<50	<50	<50	68	70	50	1,200	6,000	550,000
Chromium (VI)	18540229	6,800	7,500	6,100	5,000	7,800	7,400	4,900	18,000	30,000	2,500,000
Copper	7440508	NT	NT	NT	4,300	NT	NT	NT	32,000	5,800,000	20,000,000
Lead	7439921	4,500	3,900	3,400	2,400	3,200	6,700	15,000	21,000	700,000	400,000
Mercury (inorganic)	7439976	NT	NT	NT	<100	NT	NT	NT	130	1,700	160,000
Selenium (B)	7782492	NT	NT	NT	390	NT	NT	NT	410	4,000	2,600,000
Silver (B)	7440224	NT	NT	NT	<500	NT	NT	NT	1,000	4,500	2,500,000
Zinc (B)	7440666	NT	NT	NT	9,800	NT	NT	NT	47,000	2,400,000	170,000,000
PNAs (µg/kg)	**CAS#**										
Napthalene	91203	<330	<330	<330	NT	<330	2,200	27,000	NA	35,000	16,000,000
2-Methylnapthalene	91576	<330	<330	<330	NT	<330	1,900	20,000	NA	57,000	8,100,000
Remaining PAHs		ND	ND	ND	NT	ND	ND	ND	Various	Various	Various
PCBs (µg/kg)	**CAS#**										
Polychlorinated biphenyls (PCBs) (J) (T)	1336363	ND	ND	ND	NT	ND	ND	ND	NLL	NLL	4,000

Notes:

* - Raised detection limit due to sample matrix.

(B)-Background, as defined by Rule 299.5701 (c), may be substituted if higher than calculated cleanup criteria.

(C)-Value presented is a screening level based on chemical-specific generic soil saturation concentration(Csat) since the calculated risk -based criterion is greater than Csat.

(D)-Calculated criterion exceeds 100%, hence it is reduced to 100%.

(G)-GSI pH or water hardness dependent.

(I)-Hazardous substance may exhibit the characteristic of ignitability as defined in 40 CFR 261.21.

(M)-Calculated criterion is below the analytical Target Detection Limit (TDL) therefore, the criterion defaults to the TDL.

(X)-The GSI criterion shown is not protective for surface water that is used as a drinking water source.

AD - Hazardous substance causes developmental effects.

ID - Inadequate data to develop criterion

NA - Not applicable.

ND - Not detected above laboratory method detection limits.

NT - Not tested

NLL - Not likely to leach.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

APPENDIX A

PHASE I ENVIRONMENTAL SITE ASSESSMENT
205 WEST ALLEGAN/217 TOWNSEND
LANSING, MICHIGAN

for

THE LANSING BROWNFIELD REDEVELOPMENT AUTHORITY
LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 3252S-2-17
AUGUST 27, 2001

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(Continued)

AKTPEERLESS
environmental services

PHASE I ENVIRONMENTAL SITE ASSESSMENT
205 WEST ALLEGAN/217 TOWNSEND
LANSING, MICHIGAN

FOR

LANSING BROWNFIELD REDEVELOPMENT AUTHORITY
LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 3252S-2-17

1.0 INTRODUCTION

The Lansing Brownfield Redevelopment Authority (LBRA) retained AKT Peerless Environmental Services (AKT Peerless) to conduct a Phase I Environmental Site Assessment (ESA) for the property located at 205 West Allegan and 217 Townsend, Lansing, Michigan. AKT Peerless' scope of work and methodology is based on its proposal number 3252s dated July 19, 2001 and the terms and conditions of the agreement.

AKT Peerless' proposed scope of work is based on American Society for Testing and Materials' (ASTM's) *"Standard Practice For Environmental Site Assessments: ESA E-1527"*, which defines good commercial and customary practice for conducting an ESA and establishing "due diligence." The Phase I ESA is intended to satisfy the due-diligence requirements to qualify for the innocent landowner defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

This Phase I ESA was performed for the benefit of the LBRA, and said party may rely on the contents and conclusions presented in this report. A subsurface investigation of the subject property was not conducted as part of this assessment.

1.1 PURPOSE

The purpose of AKT Peerless' Phase I ESA is to provide an independent, professional opinion of identified Recognized Environmental Conditions (RECs) associated with the subject property prior to a potential property transaction. According to ASTM's standard E 1527, 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: (1) an existing release, (2) a past release, or (3) a material threat of a release of any hazardous substances or petroleum products into structures on the subject property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimis conditions that generally: (1) do not present a material risk of harm to public health or the environment and (2)

would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

AKT Peerless used appropriate industry standards in maintaining innocent landowner defense options available to purchasers, sellers, and/or lenders under the Superfund Amendments and Reauthorization Act (SARA). Performance of this Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with a property. A subsurface investigation was not conducted as part of this assessment.

1.2 PROJECT RESOURCES

AKT Peerless referred to the following resources between July 20, 2001, and August 10, 2001 to complete its Phase I ESA:

- United States Environmental Protection Agency (USEPA), Region 5
- United States Department of Agriculture (USDA) Soil Conservation Service
- United States Geological Survey (USGS)
- Michigan Department of Environmental Quality (MDEQ)
- MDEQ Storage Tank Division (STD)
- MDEQ Environmental Response Division (ERD)
- MDEQ Geological Survey Division (GSD)
- MDEQ Waste Management Division (WMD)
- Ingham County Health Department
- City of Lansing Fire Department
- City of Lansing Tax Assessor's Office
- City of Lansing Building Department
- Environmental Data Resources (EDR), Inc.
- R.L. Polk Directories

AKT Peerless conducted and/or attempted to conduct interviews with the following personnel between July 20, 2001, and August 10, 2001 to complete its Phase I ESA:

- State of Michigan/Department of Management and Budget, Previous Owners
- Mr. Mike Ellis, Current Owner
- Mr. Ed Steelman, Consumers Energy
- Ms. Vicki Barnard, MDEQ/GSD, Saginaw Bay District Office, Bay City, Michigan
- Ms. Karen Munro, MDEQ/STD, Shiawassee District Office, Morrice, Michigan
- Ms. Rita Monette, MDEQ/ERD, Shiawassee District Office, Morrice, Michigan
- Mr. Seth Phillips, MDEQ/WMD, Shiawassee District Office, Morrice, Michigan
- Mr. Greg Martin, Fire Chief, City of Lansing Fire Department

1.3 LIMITATIONS AND EXCEPTIONS OF THE ESA

AKT Peerless encountered the following limitations or exceptions in completing the ESA:

- Evaluation of soil and groundwater features at and near the subject property was based only on published maps and other readily available information. AKT Peerless used this information to assess soil types and groundwater flow directions to determine if any nearby sites present an environmental risk to the subject property.
- AKT Peerless does not typically review nearby sites in detail unless the site appears to present a likely environmental risk to the subject property.
- Unless specifically noted, invasive investigation of any kind has not been performed. Observation under floors, above ceilings, behind walls, within surface and subsurface soils, within groundwater, within confined spaces, or inaccessible areas has not been performed.
- Based on ASTM Standard Practice E 1527 and AKT Peerless' understanding of the purpose of this assessment, AKT Peerless' ESA did not include investigation for lead in drinking water or lead-based paint.
- Nothing in this report constitutes a legal opinion or legal advice. For information regarding individual or organizational liability AKT Peerless recommends consultation with independent legal counsel.
- AKT Peerless attempted to obtain records pertaining to the subject property from the City of Lansing Building Department. The City of Lansing Building Department indicated records were not readily available for review.
- At the completion of this Phase I ESA, AKT Peerless was unable to contact Mr. Roy Swan, a representative of the current owner for a portion of the subject property, for information pertaining to that portion of the subject property.

1.4 SPECIALIZED INFORMATION REPORTED BY CLIENT

To assist AKT Peerless in identifying conditions of potential environmental concern at the subject property, AKT Peerless attempted to request the following information from the LBRA:

- Known environmental liens identified during a land title records search.
- Specialized knowledge or experience that is material to identifying environmental concerns in connection with the property.
- Environmental records or reports regarding potential or known environmental liabilities associated with the subject property.

AKT Peerless was not provided any information related to land title records. The LBRA provided AKT Peerless with a previous assessment report completed by Soil and Material Engineers, Inc. (SME) on July 5, 2001, for the western portion of the subject property.

The LBRA also provided AKT Peerless with the following previous assessment reports completed by SME for the adjoining property to the southeast.

- Letter discussing possible effects on employees due to contaminants found during Phase II Environmental Study, August 31, 1993 for 232 South Capitol Avenue.
- Phase I Environmental Site Assessment, July 7, 1993 for 232 South Capitol Avenue.
- Phase II Environmental Studies, July 9, 1993 for 232 South Capitol Avenue.
- Site Investigation Work Plan, February 16, 1994 for 232 South Capitol Avenue.
- Additional Phase II Environmental Investigation, March 4, 1994 for 232 South Capitol Avenue.

The reports for the adjoining property to the southeast are discussed in Section 3.2. The Phase I ESA for the western portion of the subject property is discussed in Section 3.5.

2.0 SITE DESCRIPTION

2.1 LOCATION

The subject property is comprised of three parcels and a portion of a fourth parcel. These parcels are identified as follows: Parcel A – Ellis Parking Ramp, 205 West Allegan (#33-01-01-16-327-102); Parcel B – State of Michigan Parking Lot, northwest corner of West Allegan and Townsend Street (#33-01-01-16-327-001); Parcel C – Former YWCA, 217 Townsend Street (#33-01-01-16-327-012); and Parcel D – Accident Fund Parking Lot, southwest corner of Townsend Street and West Washtenaw Street (a portion of # 33-01-01-16-327-052). The subject property encompasses approximately 2.25 acres and is situated in the northeast ¼ of the southwest ¼ of Section 16, Township 4 North, Range 2 West, in the downtown area of Lansing, Ingham County, Michigan.

Refer to Figure 1, Property Location Map; Figure 2, Property/Surrounding Area Map; and Figure 3, Topographic Location Map. The legal description of the subject property is provided in Appendix A. Photographs taken during AKT Peerless' site inspection are provided in Appendix B.

2.2 SITE AND VICINITY CHARACTERISTICS

In general, the subject property is level with adjacent properties and is located in the downtown commercial business area of the City of Lansing. According to local tax assessment records, Parcel A is owned by Ellis Parking Company, Inc., Parcel B is owned by the State of Michigan

and Parcels C and D are owned by Accident Fund Company. All parcels on the subject property are zoned G-1 Business.

The subject property is bordered to the north by West Allegan Street, beyond which is the Michigan State Capitol building; to the east by South Capitol Avenue, beyond which is the Farnum Building (office building), Cooley Law Building, and the Accident Fund Building (office building); to the south by West Washtenaw Street, beyond which are the Michigan Restaurant Association, the Secretary of State Office, and Cooley Law Building; and to the west by Townsend Street, beyond which is a federal building and the U.S. Post Office.

2.3 STRUCTURES/OTHER IMPROVEMENTS

One structure is located on Parcel A of the subject property. General information regarding this building is described in the following table.

Building Type	Construction and Number of Stories	Approximate Total Square Footage	Construction and Improvements Dates
Above Ground Parking Ramp	Six-story parking ramp, poured concrete foundation and floors; with concrete and steel beam support.	133,824 sq.ft of floor area	Original construction date of the structure is 1973.

Improvements for the surrounding area include paved roadway access, municipal water and sewer, telephone, electric, and natural gas services.

2.4 UTILITIES AND MUNICIPAL SERVICES

AKT Peerless reviewed the type and supplier of utilities and municipal services for the subject property. These services are described in the following table.

Utility/Service	Type	Utility Company or Municipality	Historical Services
Heating	Natural Gas	Consumers Energy	Municipal/Steam Heat
Municipal waste	None currently generated	Not Applicable	None identified
Potable water	Municipal	Lansing Board of Water and Light	None identified
Electrical	Transformer	Lansing Board of Water and Light	None identified
Sewerage disposal	Municipal Available	City of Lansing	None identified

AKT Peerless contacted Mr. Ed Steelman, Consumers Energy Engineering Department, regarding availability of utilities and natural gas to the subject property. Mr. Steelman indicated natural gas is available to the subject property, and it appears new lines were installed in 1995 along Capital Avenue and 1997 along Townsend Street. Mr. Steelman indicated natural gas was

likely available prior to 1995, but his reports only indicate connection currently available. Water and electric were supplied by Lansing Board of Water and Light since at least 1976, however, they had no information prior to that date.

AKT Peerless contacted the Lansing Board of Water & Light, regarding municipal water service information in regard to the subject property. Water Department personnel indicated the subject property is currently hooked up to municipal water and water service has been provided since at least 1976. Information pertaining to the subject property was not available from the Water Department prior to 1974.

AKT Peerless contacted the Lansing Engineering Division, regarding municipal sewer service information in regard to the subject property. Engineering Division personnel indicated the subject property is currently hooked up to municipal sewer, which has been available since 1927.

2.5 CURRENT USES OF THE PROPERTY

At the time of the Phase I ESA, the subject property was utilized as a parking ramp and open parking lots. Historical uses of the subject property are discussed in Section 3.3.

2.6 CURRENT USES OF ADJOINING PROPERTIES

The current uses of adjoining and other select surrounding properties are described in the following table.

Adjoining Property Use	Recognized Environmental Conditions
To the north of the subject property is West Allegan Street, beyond which is the Michigan State Capitol.	None
To the east of the subject property is South Capitol Avenue, beyond which is an office building, a law school building, and the Accident Fund office building.	None
To the south of the subject property is West Washtenaw Street, beyond which are office buildings.	None
To the west of the subject property is Townsend Street, beyond which is a federal building and post office.	None

Based on AKT Peerless' observations and evaluation of the current uses, adjoining properties do not appear to pose a potential environmental concern to the subject property. However, as indicated in Section 3.2. The accident fund company was identified as a potential concern. Historical uses of the adjoining properties are discussed in Section 3.3.

3.0 ENVIRONMENTAL RECORDS REVIEW

The objective of the records review is to evaluate the information contained in reasonably ascertainable databases, historical records, and physical setting records to help identify RECs at the property and, to the extent identifiable, at surrounding properties.

3.1 PHYSICAL SETTING RECORDS

AKT Peerless reviewed USDA soil conservation surveys and geological survey maps to determine geologic, hydrologic, and topographic conditions which might affect potential contaminant migration to the subject property.

3.1.1 Topography and Area Hydrogeology

Based on a review of the USGS Topographic Map titled *Lansing South Quadrangle* (See Figure 3), the subject property rests at an elevation of approximately 855 feet above the National Geodetic Vertical Datum. Based on the topographic contours, the regional surface water discharge appears to be to the east. Typically, the water table aquifer flows toward a major drainage feature (the Grand River is located approximately 1,000 feet to the east of the subject property) or in the same direction as the drainage basin. Therefore, it is likely groundwater in the area of the subject property flows to the east. However, both surface water and groundwater flow may be influenced by local manmade obstructions and diversions (e.g., buildings, roads, sewer systems, and utility service lines). To determine the site-specific groundwater flow direction, subsurface information would be necessary.

3.1.2 Area Soils

According to the United States Department of Agriculture, *Soil Survey of Ingham County, Michigan,* the dominant soil in the area is classified as Urban Land. These soils are described as *"nearly level and gently sloping areas covered by streets, parking lots, buildings, and other structures."* These soils have been covered or altered in about 85% of the areas.

According to the Michigan Geological Survey Division's publication, *Quaternary Geology of Southern Michigan,* soils in the area are medium-textured glacial till. These soils are described as gray, grayish brown or reddish brown, non-sorted glacial debris; matrix is dominantly loam and silt loam texture, with variable amounts of cobbles and boulders. These soils occur as ground moraine, till plain, or undifferentiated ground moraine-end moraine complexes, and includes areas of coarser or finer-textured tills as well as small areas of outwash. The thickness is highly variable locally and can range from as little as 10 meters to as much as 20-30 meters.

3.2 FEDERAL AND STATE DATABASES

AKT Peerless retained EDR, Inc., to compile federal and state environmental database information. The purpose of obtaining this data was to evaluate potential environmental

concerns associated with the subject property, adjoining sites, and nearby sites located within specified search parameters. See Appendix C for the EDR report.

Typically, sites at a distance greater than a 1/2-mile radius represent only a remote chance of affecting the subject property. However, the maximum search distance extends to a 1-mile radius for some databases and conforms to ASTM Approximate Minimum Search Distances.

The subject property was not listed on the databases reviewed by EDR.

AKT Peerless reviewed the databases (including the orphan list) and considered the potential or likelihood of contamination from adjoining and nearby sites. To evaluate which of the adjoining and nearby sites identified in the EDR report present an environmental risk to the subject property, AKT Peerless considered the following criteria:

1. Type of database on which the site was identified.
2. Location, direction, and distance of the site relative to the subject property.
3. Anticipated groundwater flow direction in the area of the subject property.
4. Local soil conditions in the area of the subject property.
5. Surface and subsurface obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines, rivers, lakes, and ditches) present near the subject property.

Based on AKT Peerless' evaluation of the above criteria, those sites, which could pose an environmental risk to the subject property, are further evaluated by reviewing MDEQ file information. MDEQ files are not reviewed for sites which, based on AKT Peerless' evaluation of the above criteria, do not appear to present an environmental risk to the subject property.

The federal and state databases accessed by EDR and the number of adjoining and nearby sites identified are described in the following table.

Environmental Database	Approx. Min. Search Distance	No. of Sites Identified
National Priority List (NPL)	1.0 mile	0
Resource Conservation and Recovery Information System-Treatment, Storage or Disposal Facility (RCRIS-TSDF)	0.5 mile	0
State Hazardous Waste Sites (SHWS)	1.0 mile	14
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5 mile	0
CERC-No Further Remedial Action Planned (NFRAP)	0.25 mile	0

Environmental Response and Notification System (ERNS)	Target Property	0
Solid Waste Facilities/Landfill Sites (SWF/LS)	0.5 mile	0
Leaking underground storage tank (LUST)	0.5 mile	17
Registered underground storage tank (UST)	0.25 mile	12
RCRIS-Small-Quantity Generator (SQG)	0.25 mile	10
RCRIS-Large-Quantity Generator (LQG)	0.25 mile	0

Based on an evaluation of the above criteria and a review of readily available information, AKT Peerless identified one adjoining site in the EDR report which may present an environmental concern to the subject property. Information obtained from the EDR report is summarized as follows.

Accident Fund Company

This site adjoins the subject property to the east and south at 232 South Capitol Avenue. This site is identified as a SHWS. Contaminants identified on the site include benzene, xylenes, and ethylbenzene. AKT Peerless obtained previous reports completed for the site, which indicate the likely source of contamination is from the historical use of a portion of the site as a gasoline (filling) station. The LBRA provided AKT Peerless with subsurface investigation reports completed for the site which indicate soil contamination is present at approximately 20-feet below surface grade. In AKT Peerless' opinion, this site appears to represent a REC to the subject property due to: (1) the past use of hazardous substances at the site, (2) the documented results indicated hazardous substance contamination at the subject property, (3) the close proximity to the subject property, (4) the horizontal extent of contamination has not yet been determined, and (5) the moderate permeability of the soils. The past use of this site is discussed further in Section 3.3.

3.3 HISTORICAL USE INFORMATION

The objective of reviewing historical sources is to: (1) develop a history of previous uses or specific occupancies of the subject property, (2) identify those uses or specific occupancies which are likely to have led to recognizable environmental conditions at the subject property, and to the extent identifiable, at adjoining properties, and (3) identify obvious uses of the subject property from the present, back to the *property's obvious* first developed use, or back to 1940, whichever is earlier.

Based on information obtained during a review of city directories, aerial photographs, Sanborn Fire Insurance Maps, and tax assessment cards, the subject property (including all parcels), was developed from at least 1892 and was initially utilized for churches and private residences.

Parcel A was historically occupied by a church, private residences, the YWCA, a gas/service station, and as an automobile parking garage. The gas/service station was located on Lot 3 of

Parcel A. Parcel B was historically occupied by a church, private residence, and an automobile parking lot. Parcel C was historically occupied by a private residence, the YWCA, and an automobile parking lot. Parcel D was historically used as private residence, various commercial businesses (including automobile sales and service, automobile service garage, and a dry cleaning business), and an automobile parking lot.

Based on a review of historical information, the adjoining properties have consisted of private residences and various commercial businesses (including gas/service stations) since at least 1892.

3.3.1 Aerial Photographs

AKT Peerless obtained aerial photographs for the subject property from the Ingham County Equalization Department. AKT Peerless' observations noted during the review of these photographs are summarized in the following table.

Photo Dates	Observations (Subject Property)	Recognized Environmental Conditions
1974	One building occupies the subject property. The building is located on the southwestern portion of the subject property and appears to be a multi-story building. The location of this building corresponds with the location of the former Y.W.C.A. facility. The northeast portion of the subject property appears to be in the process of being developed. A crane and other machinery are depicted on the aerial photograph. The location of the development and dates correspond with the building of the Ellis Parking Ramp. The northwestern portion of the subject property appears to be occupied by a vacant lot. The remaining portions of the subject property appear to be developed as parking lots.	None
1988, 1995	Two buildings occupy the subject property. One building appears to be the parking garage, which is located on the northeast corner of the subject property. The second building is located in the southwestern portion of the subject property and appears to be a multi-story building. The location of this building corresponds with the location of the former Y.W.C.A. The remaining portions of the subject property appear to be developed as parking lots.	None

During the aerial photograph review, AKT Peerless did not observe any obvious landfilling or drum-storage areas, pits, artificial ponds, lagoons, or other obvious land features, which could be associated with a REC on the subject property.

AKT Peerless' review of historical aerial photographs of the adjoining properties is summarized in the following table.

Photo Dates	Observations (Adjoining Properties)	Recognized Environmental Conditions
1974	The subject property is bordered to the north by West Allegan Street beyond which is the Michigan State Capitol Building; to the west by Townsend Street beyond which is a large building and parking area (corresponds with the current use as a post office); to the south by West Washtenaw Street beyond which are commercial businesses; to the east by two multi-story buildings (office buildings) and associated parking lots; and to the southeast by two commercial businesses and associated parking lots.	None
1988, 1995	The subject property is bordered to the north by West Allegan Street beyond which is the Michigan State Capitol Building; to the west by Townsend Street beyond which is a large building and parking area (corresponds with the current use as a post office); to the south by West Washtenaw Street beyond which are commercial businesses; to the east by two multi-story buildings (office buildings) and associated parking lots; and to the southeast by a large multi-story office building (corresponds with the current use as the Accident Fund Office Building).	None

During the aerial photograph review, AKT Peerless did not observe any obvious landfilling or drum-storage areas, pits, artificial ponds, lagoons, or other obvious land features, which could be associated with a REC on the adjoining properties.

3.3.2 Plat Maps

AKT Peerless reviewed the plat maps for the subject property at the State of Michigan Historical Library, Lansing, Michigan. The subject property and surrounding properties are depicted as part of the City of Lansing with no individual property owner information given.

3.3.3 Tax Assessment Records

AKT Peerless reviewed tax assessment records for the subject property from the City of Lansing Assessment Office. The potential environmental concerns considered are summarized in the following table.

Environmental Issue	Comments
Storage Tanks	None identified
Asbestos-Containing Materials	None identified
PCB Materials	None identified
Onsite Well/Septic System	None identified
Disposal Facilities/Fill Material (Lagoons, Pits, Landfills)	None identified

According to the records, the Ellis Parking Building was built in 1973 and a work permit was issued in December 1973 for the construction of a public parking ramp. The assessment card for Parcel C indicated a building permit was obtained for demolition of the former Y.W.C.A. building in December 2000. The assessment card for Parcel C also indicates a building permit was issued to complete improvements to the first floor in December 1992 for a day care center.

3.3.4 Building Department Records

Records pertaining to the subject property were not readily available for review at the City of Lansing Building Department.

3.3.5 City Directories

To evaluate historical information regarding potential past uses of the subject property, AKT Peerless reviewed Polk directories at the State Library of Michigan, Lansing, Michigan for addresses listed at the subject property along West Allegan Street, Townsend Street, South Capitol Street, and West Washtenaw Street. Addresses listed in the Polk Directory for businesses with the potential for an environmental concern are summarized in the following tables:

Dates	200 Block of South Capitol Street Occupant Names or Businesses
1925	212-Hafner's Wash & Grease 214-Motor Oil Service Station
1930	212-216-Hafner's 24 Hour Service
1935	212/216-Dall's Day & Night Service
1940	210/216-Auto Park

It should be noted the adjoining property to the south was identified as Tribes Crown Service at 222-224 South Capitol Street in the 1945 Polk Directory.

Dates	200 Block of West Washtenaw Occupant Names or Businesses
1935	220-Cadillac & LaSaber Sales and Service
1945	220-Neller's Garage
1950, 1955	226-Rice Building (E.E. Rice Dry Cleaners)
1960	226-Lansing Laundry & Dry Cleaners

The Polk Directory review for 1935 indicated an adjoining property to the south at 227 West Washtenaw Street was occupied by Lansing Ford Parts & Service.

AKT Peerless personnel reviewed Polk Directories for the properties along the 200 Block of West Allegan and the 200 Block of Townsend Street and did not identify any potential environmental concerns associated with the past uses of the properties. However, an adjoining property to the west on Townsend was identified as the "Biggest Little Garage" in the 1925 Polk Directory.

An address which is not listed typically indicates: (1) the property was vacant at the time, (2) a potential building was unoccupied at the time, (3) a previously existing address was different than the current address, (4) the building was not represented in the directory because of a "lag time" between building the structure and compiling the list, or (5) occupant information was not available for inclusion into the directory.

During the city directory review, AKT Peerless identified several past uses of the subject property and adjoining properties which could be associated with a REC in connection with the subject property. In AKT Peerless' opinion, the past use of the subject property as service stations and a dry cleaner represents a potential REC in connection with the subject property. The past use of adjoining properties as service stations also represents a potential REC in connection with the subject property due to: (1) the likely use of hazardous substances, (2) the close proximity to the subject property, (3) the lack of information regarding the past operations, and (4) the moderate permeability of soils.

3.3.6 Fire Insurance Maps

AKT Peerless retained EDR to research for available historical *Sanborn Fire Insurance Maps for the subject property*. Fire insurance maps were found for the years 1892, 1906, 1913, 1951, 1966, and 1972. Information obtained from the reviewed fire insurance maps is summarized in the following table:

Dates	Observations (Subject Property)	Potential Environmental Concerns
1892, 1906	The northwest and northeast portions of the subject property are occupied by churches. Dwellings are located on the north, central, eastern, and western portions of the subject property. The southwestern and southern portions of the subject property are occupied by commercial businesses with dwellings.	None
1906	The northwest and northeast portions of the subject property are occupied by churches. The northwest portion of the subject property is also occupied by a dwelling. The eastern portion of the subject property is occupied by the Y.W.C.A. and a dwelling. The southwest portion of the subject property is occupied by dwellings, the western portion of the subject property is occupied by dwellings and the "Quincy Apartments", and the southern portion of the subject property is occupied by commercial businesses with dwellings.	None

1951	The northwest portion of the subject property is occupied by a church and a commercial business with a dwelling. The northeast portion of the subject property is occupied by a parking lot. The eastern portion of the subject property is occupied by a commercial building with auto parking. Two gas tanks are depicted on the eastern boundary of the subject property. The western portion of the subject property is depicted as the Y.W.C.A., and the southwest corner is depicted as a commercial store. The southern portion of the subject property is occupied by the "Wolverine Insurance Company"(main office) and a "picture frame" store.	The past use of two gasoline tanks on the eastern portion of the subject property.
1966	The northwest portion of the subject property is occupied by a church and a dwelling with an office. The northeastern and eastern portion of the subject property is depicted as "parking" with a small "office". The western portion of the subject property is occupied by the Y.W.C.A, and the southwestern portion of the subject property is occupied by a "store". The southern portion of the subject property is occupied by an "office" and a "picture framing" shop.	None
1972	The northern and eastern portions of the subject property are occupied by parking, and a dwelling with an office located on the northern property boundary. A small office is located on the eastern portion of the subject property. The Y.W.C.A. is depicted on the western portion of the subject property and a store is depicted on the southwest portion of the subject property. The southern portion of the subject property is depicted with an office and a "picture framing" shop.	None

As presented above, the fire insurance maps identified underground storage tank (UST) systems at the subject property. The past use of gasoline tanks at the subject property represents a REC due to the lack of information regarding the former tanks and the potential for a past release of hazardous substances to the subject property.

Historical information regarding the adjoining properties, obtained from AKT Peerless' review of the available Sanborn Fire Insurance Maps, is presented in the following table.

Dates	Observations (Adjoining Property)	Potential Environmental Concerns
1892	The subject property is bound to the west by Townsend Street, beyond which is a "public school" and two dwellings; to the south by Washtenaw Street, beyond which are three dwellings; to the east by Capitol Avenue, beyond which are five dwellings; to the north by Allegan Street, beyond which is not depicted; and to the south and east by four dwellings and one commercial building with a dwelling.	None

1906	The subject property is bound to the west by Townsend Street, beyond which is "Townsend Street School" and two dwellings; to the south by Washtenaw Street, beyond which are four dwellings; to the east by Capitol Avenue, beyond which are five dwellings and a "Masonic Temple"; to the north by Allegan Street, beyond which is the "Michigan State Capitol Building"; and to the south and east by two dwellings and three commercial buildings with dwellings.	None
1913	The subject property is bound to the west by Townsend Street, beyond which is "Townsend Street School" and two dwellings; to the south by Washtenaw Street, beyond which are four dwellings; to the east by Capitol Avenue, beyond which are five dwellings and a "Masonic Temple"; to the north by Allegan Street beyond which is the "Michigan State Capitol Building"; and to the south and east by two dwellings, three commercial buildings with dwellings, a boarding house, and an auto sales business.	None
1951	The subject property is bound to the west by Townsend Street, beyond which is a "Post Office" and "Offices of the Board of Education"; to the south by Washtenaw Street, beyond which is an "auto sales and service", four stores, and "auto parking"; to the east by Capitol Avenue, beyond which are three stores, "Masonic Temple" and a "Veterans War Memorial"; to the north by Allegan Street, beyond which is the "Michigan State Capitol Building"; and to the south and east by a "filling station" with three gasoline tanks, one dwelling, an office, and "Wolverine Insurance Company Offices".	Past use of adjoining properties as an "auto sales and service" and "filling station" with gasoline tanks
1966	The subject property is bound to the west by Townsend Street, beyond which is a "Post Office" and a "Parking Lot"; to the south by Washtenaw Street, beyond which are offices and six stores; to the east by Capitol Avenue, beyond which is a "Masonic Temple" and the "Stoddard Building"; to the north by Allegan Street, beyond which is the "Michigan State Capitol Building"; and to the south and east by a commercial building with gasoline tanks, two office, one dwelling, and "Wolverine Insurance Company Offices".	Past use of gasoline tank on an adjoining property
1972	The subject property is bound to the west by Townsend Street, beyond which is a "Post Office" and a "parking lot"; to the south by Washtenaw Street, beyond which are offices and four stores; to the east by Capitol Street, beyond which is a "Masonic Temple" and "Stoddard Building"; to the north by Allegan Street, beyond which is the "Michigan State Capitol Building"; and to the south and east by a commercial building with a gasoline tank, two offices, one commercial building, and "Wolverine Insurance Company Offices".	Past use of gasoline tanks on an adjoining property

In AKT Peerless' opinion, the past use of the adjoining properties to the south and east as an "auto sales and service" and filling stations represents a REC in connection with the subject property due to: (1) the lack of information regarding past operation, (2) the potential for the past use of hazardous substances, (3) the close proximity to the subject property, and (4) the moderate permeability of soils.

A copy of the Sanborn Fire Insurance Maps is provided in Appendix D.

3.3.7 50-Year Chain of Title

AKT Peerless' scope of work did not include conducting a review of property title documentation. It has been AKT Peerless' experience that reviewing title search information generally does not yield information beneficial in completing a Phase I ESA.

3.4 ADDITIONAL INFORMATION

3.4.1 Property Owner Interview

AKT Peerless attempted to contact Mr. Roy Swan (representative of Accident Fund), the current owners of a portion of the subject property, for information pertaining to the subject property. At the completion of this Phase I ESA, the information had not been received by AKT Peerless. This is a limitation of this Phase I ESA.

AKT Peerless also contacted Mr. Mike Ellis, current owner of the Ellis Parking Garage, for information pertaining to the subject property. Mr. Ellis was not aware of the past use of the subject property, and he indicated he purchased this portion of the subject property in 1980. Mr. Ellis indicated he was not aware of the past or existing use of USTs at the subject property.

AKT Peerless contacted Mr. Adrian Cazal, Legislative Liaison and representative of the State of Michigan (current owner of a portion of the subject property). Mr. Cazal indicated the State of Michigan purchased a portion of the subject property in 1972 and have used the property as a parking lot since 1975. Mr. Cazal indicated he was not aware of any environmental conditions associated with the subject property. Mr. Cazal provided a timeline, which indicates the past uses of the portion of the subject property from 1868. The timeline indicated a church occupied this portion of the subject property for approximately 100 years until the property was transferred to the State of Michigan by Public Act 166 of 1972. The timeline was based upon information from files of Jerry Lawler, Early Lansing Historian.

Copies of the questionnaires are provided in Appendix E.

3.4.2 Local Fire Department

AKT Peerless submitted an environmental questionnaire to Mr. Greg Martin, Fire Chief, City of Lansing Fire Department, to obtain available information regarding registered storage tanks or incident reports on the subject property. AKT Peerless personnel reviewed the information provided by the City of Lansing Fire Department, which was limited to several notices of

violations at the former YWCA for various fire code violations. The information provided by the City of Lansing Fire Department did not indicate a potential REC in connection with the subject property.

3.4.3 Local Health Department

AKT Peerless submitted an environmental questionnaire to the Ingham County Health Department. Health Department personnel, responded stating a file does not exist for the subject property.

3.4.4 MDEQ STD

AKT Peerless contacted Ms. Karen Munro, of the MDEQ/STD, Shiawassee District Office, regarding environmental information related to the subject property. Ms. Munro indicated a STD file did not exist for the subject property.

3.4.5 MDEQ ERD

AKT Peerless contacted Ms. Rita Monette, of the MDEQ/ERD, Shiawassee District Office, regarding environmental information related to the subject property. Ms. Monette indicated a file did not exist for the subject property.

3.4.6 MDEQ GSD

AKT Peerless contacted the MDEQ-GSD to review available records regarding geological activities, permits, inspections or violations associated with the subject property. Ms. Vicky Barnard, MDEQ-GSD, Saginaw Bay District Office, indicated there were no documented oil wells located in Section 16 of Township 4 North, Range 2 West, of Ingham County.

3.4.7 MDEQ WMD

AKT Peerless contacted the MDEQ/WMD, Shiawassee District Office, regarding environmental information related to the subject property. Mr. Seth Phillips, MDEQ-WMD, Shiawassee District Office, indicated a file did not exist for the subject property.

3.4.8 Radon

Sampling or analysis for radon was not a part of AKT Peerless' scope of work and, therefore, was not conducted during the assessment. However, the Michigan Department of Public Health's document, *Indoor Radon in Michigan Report to the Governor*, states that in counties where greater than 15% of the homes are estimated by the Michigan Indoor Radon Survey to have screening levels above the USEPA-recommended action level, additional evaluation could be recommended.

The percentage of homes in Ingham County estimated to have a screening level greater than the USEPA-recommended action level of 4 picocuries per liter (pCi/l) is between 15 and 20 %. However, because the subject property has no basement, a radon survey does not appear to be warranted at this time.

3.4.9 Baseline Environmental Assessment

AKT Peerless reviewed MDEQ's November, 2000 Report of Statewide Baseline Environmental Assessment (BEA) Activity. Based on AKT Peerless' review of this information, no BEA reports pertaining to the subject property have been submitted to the MDEQ.

3.5 PREVIOUS ENVIONMENTAL REPORTS

On July 5, 2001, SME completed a Phase I ESA for the majority of the subject property, excluding the Ellis Parking Garage. SME's Findings and Conclusions were as follows; "At the time of SME's Property walkover, the Property was divided into two parking lots. SME observed no evidence of staining, stressed vegetation, pits, ponds, lagoons, underground storage tank systems (USTs) such as fill ports, vent pipes, dispensers, concrete pads or areas of replaced pavement, or above ground storage tanks systems. SME identified no RECs associated with the Property walkover. Historical information reviewed during SME's Phase I ESA indicated the Property was developed since at least 1892. RECs were not identified in connection with historical uses of the Property. SME reviewed lists of sites of environmental concern. SME identified no RECs associated with the regulatory database review. SME identified no RECs in connection with the Property based on interviews with the current owner of the Property or from review of records regarding 217 Townsend Street provided by the City of Lansing Fire Department. Based on the results of the Phase I ESA, in SME's opinion, no RECs were identified in connection with the Property." SME recommended no further environmental assessment of the Property."

The Phase I ESA completed by SME is attached as Appendix F.

4.0 SITE INSPECTION

The objective of the site inspection was to identify RECs such as evidence of hazardous materials, oil releases or surface staining, storage tank systems, polychlorinated bipenyls (PCBs) and asbestos sources, as well as other obvious environmental conditions associated with the subject property.

On July 30, 2001, Mr. Bradley C. Clark, of AKT Peerless, conducted a site inspection of the subject property. See Appendix G for AKT Peerless' completed Site Inspection Checklist. The following sections discuss the potential environmental concerns considered during the site inspection.

4.1 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

AKT Peerless did not observe any evidence of hazardous substance or petroleum product use, storage, or releases at the subject property.

4.2 HAZARDOUS AND NON-HAZARDOUS WASTE

AKT Peerless did not observe any evidence of hazardous or non-hazardous waste generation, storage, or releases at the subject property during the site inspection.

4.3 UNIDENTIFIED SUBSTANCES

AKT Peerless did not observe any evidence of unidentified substances on the subject property during the site inspection.

4.4 STORAGE TANK SYSTEMS

AKT Peerless noted the presence of a vent pipe and fill pipe on the property to the east (Accident Fund Building) along with a 1,000-gallon diesel tank utilized for the fueling of a back-up generator. The UST is located along the boundary between the Accident Fund Property and the subject property. A UST on the adjoining property to the east represents the potential for a past release, an existing release, or material threat of a release of hazardous substances to the subject property and is a REC in connection with the subject property.

4.5 SUSPECT PCB SOURCES

AKT Peerless inspected the subject property for the presence of liquid-cooled electrical units such as transformers and large capacitors. These types of units may be potential PCB sources. No suspect PCB sources were identified during the site inspection.

4.6 SUSPECT ASBESTOS SOURCES

AKT Peerless noted observable materials (e.g., materials that are readily accessible and visible without dismantling permanent structures, such as walls, floors, and plaster ceilings) that may contain asbestos. No suspect asbestos sources were identified during the completion of the site visit.

4.7 SUSPECT WETLAND HABITAT

AKT Peerless did not observe any obvious evidence of potential wetland habitat on the subject property.

4.8 OTHER POTENTIAL ENVIRONMENTAL CONDITIONS

As previously discussed, two churches were present on the northwest and northeast portions of the subject property. The churches were demolished in the 1960's and 1970's. Fill material was brought onto the site, and no information could be obtained indicating the source of the fill material. The use of fill material at the subject property represents a REC due to: (1) the potential for contamination present in the fill material and (2) the source of the material is not know.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of AKT Peerless' Phase I ESA was to provide a professional opinion of the RECs associated with the subject property. AKT Peerless' scope of work is based on ASTM's *"Standard Practice For Environmental Site Assessments: ESA E-1527"*. Further, AKT Peerless' assessment is intended to satisfy due-diligence requirements to qualify for the innocent landowner defense under CERCLA. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

This assessment has revealed no evidence of "Recognized Environmental Conditions" in connection with the Property except the following:

1. As discussed in Section 3.2, the adjoining property to the east and south at 232 South Capitol Avenue was identified as a SHWS. Subsurface investigations at the property, indicate the presence of contamination at the site. Historical information indicates the property was occupied by a gasoline (filling) station and commercial building with gasoline tanks from approximately 1945 to at least 1972.

2. As discussed in Section 3.3.5, the southern portion of the subject property was occupied by a dry cleaner for at least 10 years in the 1950's.

3. As discussed in Section 3.3.5 and 3.3.6, the past use of the eastern and southern portions of the subject property included repair and service stations in the 1920's and 1930's.

4. As discussed in Section 3.3.6 and 3.3.7, the past use of an adjoining property to the south beyond Washtenaw and west beyond Townsend Street included a service station.

5. As discussed in Section 4.4, during the completion of the site visit a UST vent and fill pipe were observed on the adjoining property to the south and east.

6. As discussed in Section 4.8, the northwestern and northeastern portions of the subject property were occupied by churches. The churches were demolished in the late 1960's and 1970's, and fill material was likely brought to the subject property following demolitions to restore grade. It is unknown where the fill material was obtained.

AKT Peerless recommends a subsurface investigation be conducted at the subject property to evaluate subsurface conditions.

6.0 LIMITATIONS

The information and opinions obtained in this report are for the exclusive use of the LBRA. No distribution to or reliance by other parties may occur without the express written permission of AKT Peerless. AKT Peerless will not distribute this report without the LBRA's written consent or as required by law or by a Court order. The information and opinions contained in the report are given in light of that assignment. The report must be reviewed and relied upon only in conjunction with the terms and conditions expressly agreed-upon by the parties and as limited therein. Any third parties who have been extended the right to rely on the contents of this report by AKT Peerless (which is expressly required prior to any third-party release), expressly agrees to be bound by the original terms and conditions entered into by AKT Peerless and the LBRA.

Subject to the above and the terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing the assignment and preparing reports in accordance with the normal standards of the profession. Although AKT Peerless believes the results contained herein are reliable, AKT Peerless cannot warrant or guarantee the information provided is exhaustive or the information provided by third parties, is complete or accurate.

Report submitted by: Janelle A. Pistro

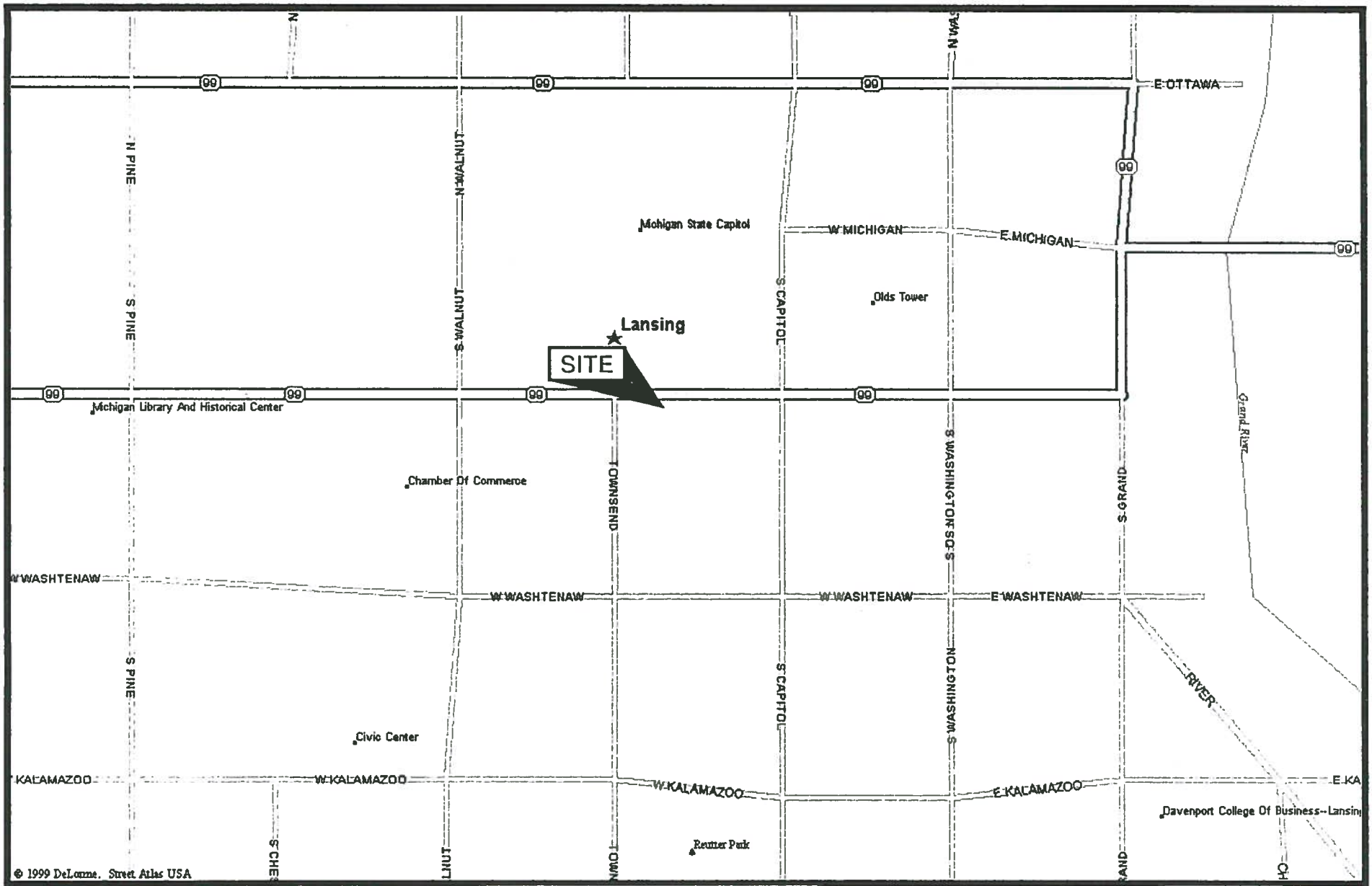
Janelle A. Pistro
Environmental Consultant
AKT PEERLESS ENVIRONMENTAL SERVICES

Bradley C. Clark
Project Manager
AKT PEERLESS ENVIRONMENTAL SERVICES

AUGUST 27, 2001

PHASE I ENVIRONMENTAL SITE ASSESSMENT

FIGURES



AKTPEERLESS environmental services

230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax: (989)754-3804

PROPERTY LOCATION MAP

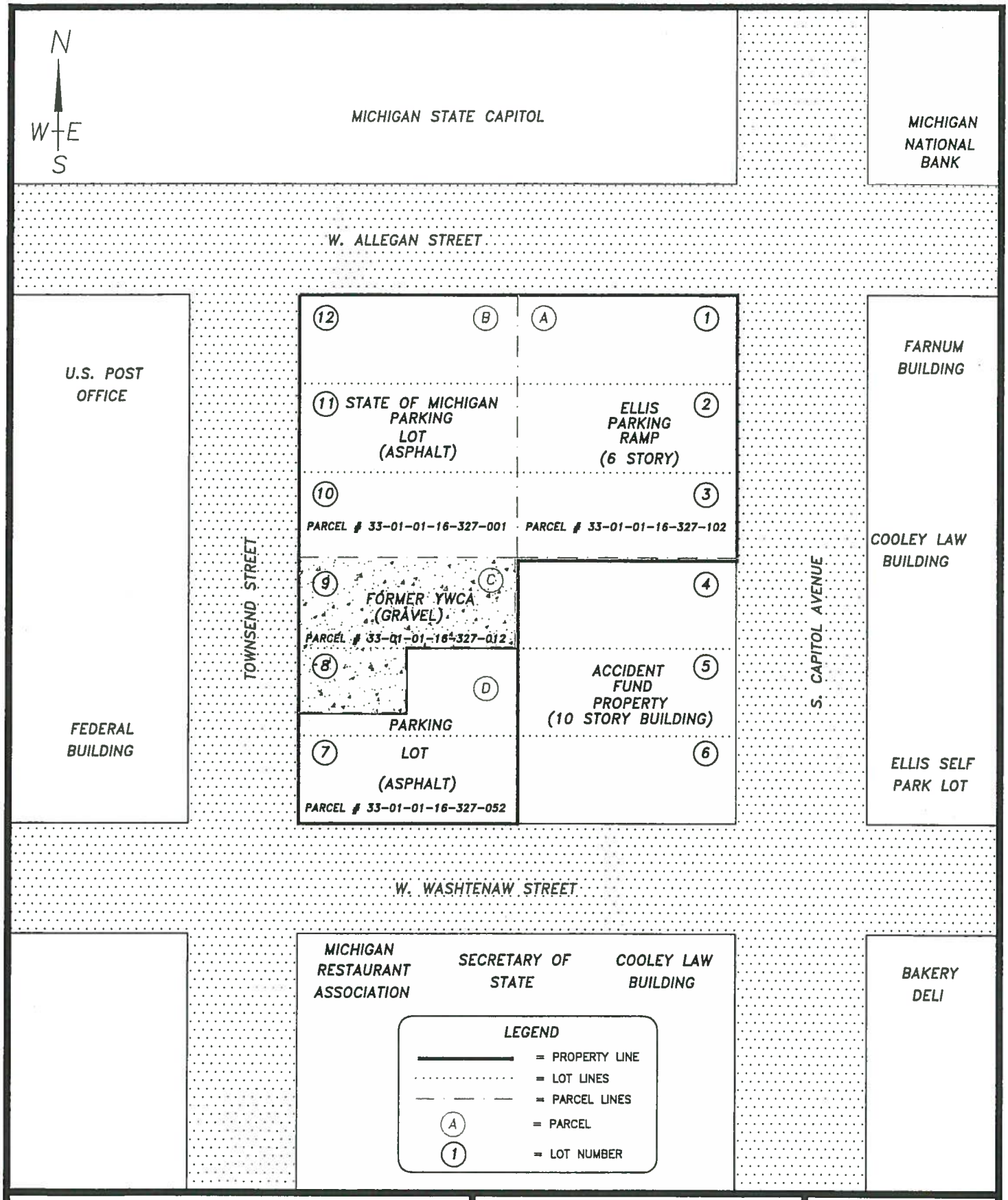
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : LOCATION MAP

LEGEND

N
W E
S

DRAWN BY: OGO
DATE: 08-01-01

FIGURE 1



AKTPEERLESS environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax: (989)754-3804

PROPERTY/SURROUNDING AREA MAP
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : PM 1

DRAWN BY: OGO
DATE: 08-01-01

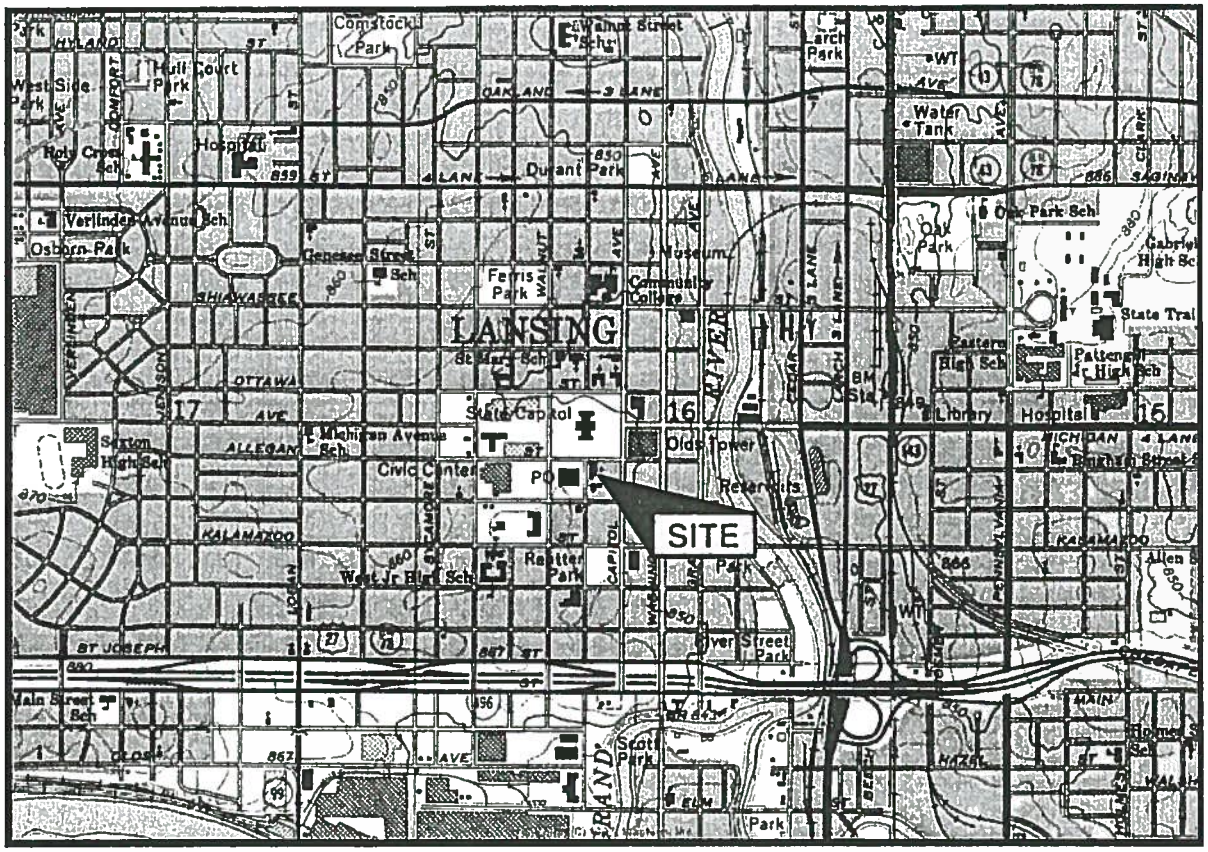
0 50 100
SCALE: 1"= 100'±

FIGURE 2

LANSING SOUTH QUADRANGLE

MICHIGAN – INGHAM COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.4 N. – R.2 W.

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

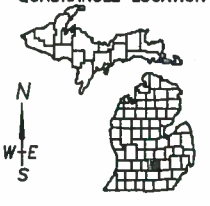


IMAGE TAKEN FROM 1965 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1973

AKTPEERLESS
environmental services

230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48606
Phone: (989)754-9896 Fax (989)754-3804

TOPOGRAPHIC LOCATION MAP
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : TOPO 1

DRAWN BY: OGO
DATE: 08-01-01

FIGURE 3

Parcel Number: 33-01-01-16-327-001 Jurisdiction: Unit '33' County: INGHAM/EATON Printed on 07/30/2001

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address

W ALLEGAN ST

Owner's Name/Address

STATE OF MICHIGAN
%LEGISLATIVE SERVICE BUREAU
PO BOX 30036
LANSING, MI 489097536

Legal Description

LOTS 10, 11 & 12 BLOCK 116 ORIG PLAT

Comments/Influences

Class: Commercial | Zoning:

School: 04 LANSING TIFA #4

Hmstd 0%

Map #: B 0116 -0029

2002 Est TCV

Building Permit(s)	Date	Number	Amount

	Improved	X	Vacant

Public Improvements

	Dirt Road
	Gravel Road
X	Paved Road
X	Storm Sewer
X	Sidewalk
X	Water
X	Sewer
X	Electric
X	Gas
X	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

X	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who When What

Land Value Estimates for Land Table M225.M225-DOWNTOWN-MISC

Description	Frontage	Depth	Frontage	Depth	Rate	%Adj.	Reason	Value
			Factors for					
Rate Table SF #10: 8.50			32670	SqFt	8.50	100		277,695
			0.75	Total Acres	Total Est. Land Value =			277,695

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2002	EXEMPT	EXEMPT	EXEMPT			EXEMPT
2001	EXEMPT	EXEMPT	EXEMPT			EXEMPT
2000						

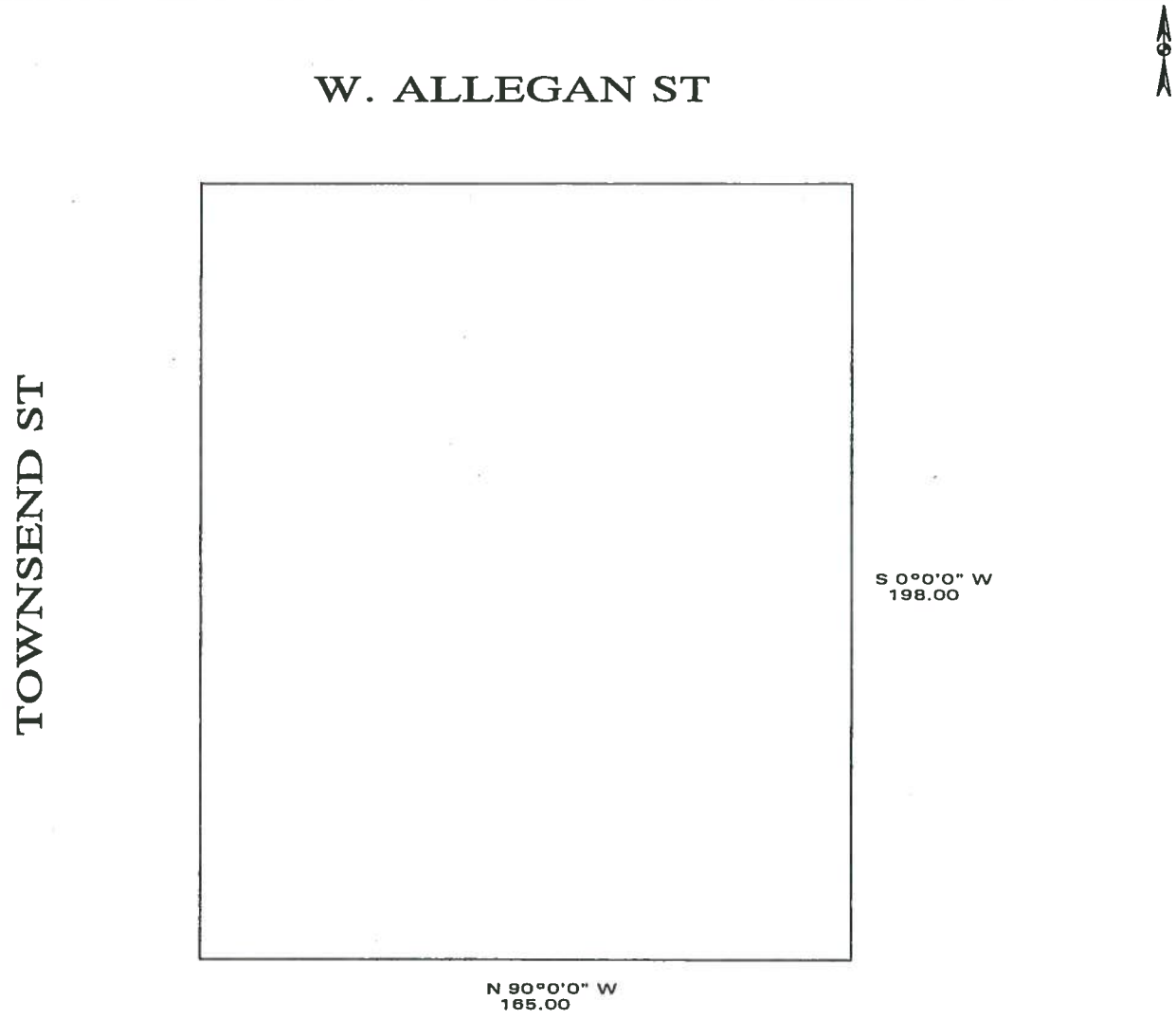
SKETCH/AREA TABLE ADDENDUM

Parcel No 33-01-01-16-327-001

SUBJECT

Owner STATE OF MICHIGAN		
Property Address W ALLEGAN ST		
City LANSING	State MI	
Zip 48933	Neigh/Proj	County INGHAM/EATON

IMPROVEMENTS SKETCH



SCALE: 1 inch = 46.00 feet

AREA CALCULATIONS SUMMARY

Area	Name of Area	Actual	Factor	Effective	Totals
SITE	SITE	32670.12	1.00	32670.12	32670.12

Parcel Number: 33-01-01-16-327-102 Jurisdiction: Unit '33' County: INGHAM/EATON Printed on 07/30/2001

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
205 W ALLEGAN ST

Owner's Name/Address
ELLIS PARKING COMPANY INC

824 TRUST BUILDING
GRAND RAPIDS, MI 49503

Legal Description
LOTS 1, 2 & 3 BLOCK 116 ORIG PLAT

Comments/Influences

Class: Commercial | Zoning: G-1 BU

School: 04 LANSING TIFA #4

Hmstd 0%

Map #: B 0116 -0001

2002 Est TCV 2,597,142

Building Permit(s)	Date	Number	Amount
	12/13/1973	9397	1,070,000

X Improved | Vacant

Public Improvements

	Dirt Road
	Gravel Road
X	Paved Road
X	Storm Sewer
X	Sidewalk
X	Water
X	Sewer
X	Electric
X	Gas
X	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

X	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who When What
KS 10/00/1974 Inspecte
TRS 04/22/1999 Data Ent

Land Value Estimates for Land Table W225.W225-DOWNTOWN-WAREHOUSES

Description	Frontage	Depth	*Factors for* Frontage	Depth	Rate	%Adj.	Reason	Value
Rate Table SF #11: 9.50			32670 SqFt		9.50	100		310,365
			0.75 Total Acres		Total Est. Land Value =			310,365

Work Description for Permit 9397, Issued 12/13/1973: PUBLIC PARKING RAMP

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2002	Tentative	Tentative	Tentative			Tentative
2001	155,200	993,100	1,148,300			744,933C
2000	147,000	878,900	1,025,900			721,835C
1999	147,000	681,900	828,900			708,376C

Desc. of Bldg/Section:
Calculator Occupancy: Garage, Parking, Aboveground

Class: B
Floor Area: 133,824
Stories Above Grd: 6
Average Sty Hght : 10
Bsmnt Wall Hght :

Depr. Table : 2.5%
Effective Age : 23
Physical %Good: 56
Func. %Good : 100
Economic %Good: 100

1973	Year Built Remodeled
	Overall Bldg Height

Comments:

Construction Cost

	High		Above Ave.	X	Ave.		Low

** ** Calculator Cost Data ** **
Quality: Low Cost Adj: %+0 $/SqFt:0.00
Heat#1: No Heating or Cooling 0%
Heat#2: No Heating or Cooling 0%
Ave. SqFt/Story: 22304
Ave. Perimeter:
Has Elevators:

*** Basement Info ***
Area:
Perimeter:
Type: Unfinished/Storage/Utility
Heat: No Heating or Cooling

* Mezzanine Info *
Area #1:
Type #1: Open
Area #2:
Type #2: Open

* Sprinkler Info *
Area:
Type: Low

<<<<< Calculator Cost Computations >>>>>
Class: B Quality: Low Cost Percent Adj: +0

Base Rate for Upper Floors = 22.20

Adjusted Square Foot Cost for Upper Floors = 22.20

6 Stories Number of Stories Multiplier: 1.015
Average Height per Story: 10 Height per Story Multiplier: 1.000
Ave. Floor Area: 22,304 Perimeter: 0 Perim. Multiplier: 1.000
Refined Square Foot Cost for Upper Floors: 22.53

County Multiplier: 1.11, Final Square Foot Cost for Upper Floors = 25.01

Total Floor Area: 133,824 Base Cost New of Upper Floors = 3,347,156

Reproduction/Replacement Cost = 3,347,156
Effective Age: 23 Physical/Functional/Economic/Overall %Good: 56 /100/100/ 56
Total Depreciated Cost = 1,874,408

E.C.F. = 1.220 Estimated True Cash Value of Building 1 = 2,286,777
Replacement Cost/Floor Area= 25.01 Est. TCV/Floor Area= 17.09

(1) Excavation/Site Prep:

(2) Foundation: | | Footings

X	Poured Conc.		Brick/Stone		Block

(3) Frame:

(4) Floor Structure:

(5) Floor Cover:

(6) Ceiling:

(7) Interior:

(8) Plumbing:

	Many Above Ave.		Average Typical		Few None

	Total Fixtures 3-Piece Baths 2-Piece Baths Shower Stalls Toilets		Urinals Wash Bowls Water Heaters Wash Fountains Water Softeners

(9) Sprinklers:

(10) Heating and Cooling:

X	Gas Oil		Coal Stoker		Hand Fired Boiler

(11) Electric and Lighting:

	Outlets:		Fixtures:
X	Few Average Many Typical Unfinished	X	Few Average Many Typical Unfinished
	Flex Conduit Rigid Conduit Armored Cable Non-Metalic Bus Duct		Incandescent Fluorescent Mercury Sodium Vapor Transformer

(13) Roof Structure: Slope=0

(14) Roof Cover:

(39) Miscellaneous:

(40) Exterior Wall:

	Thickness		Bsmnt Insul.

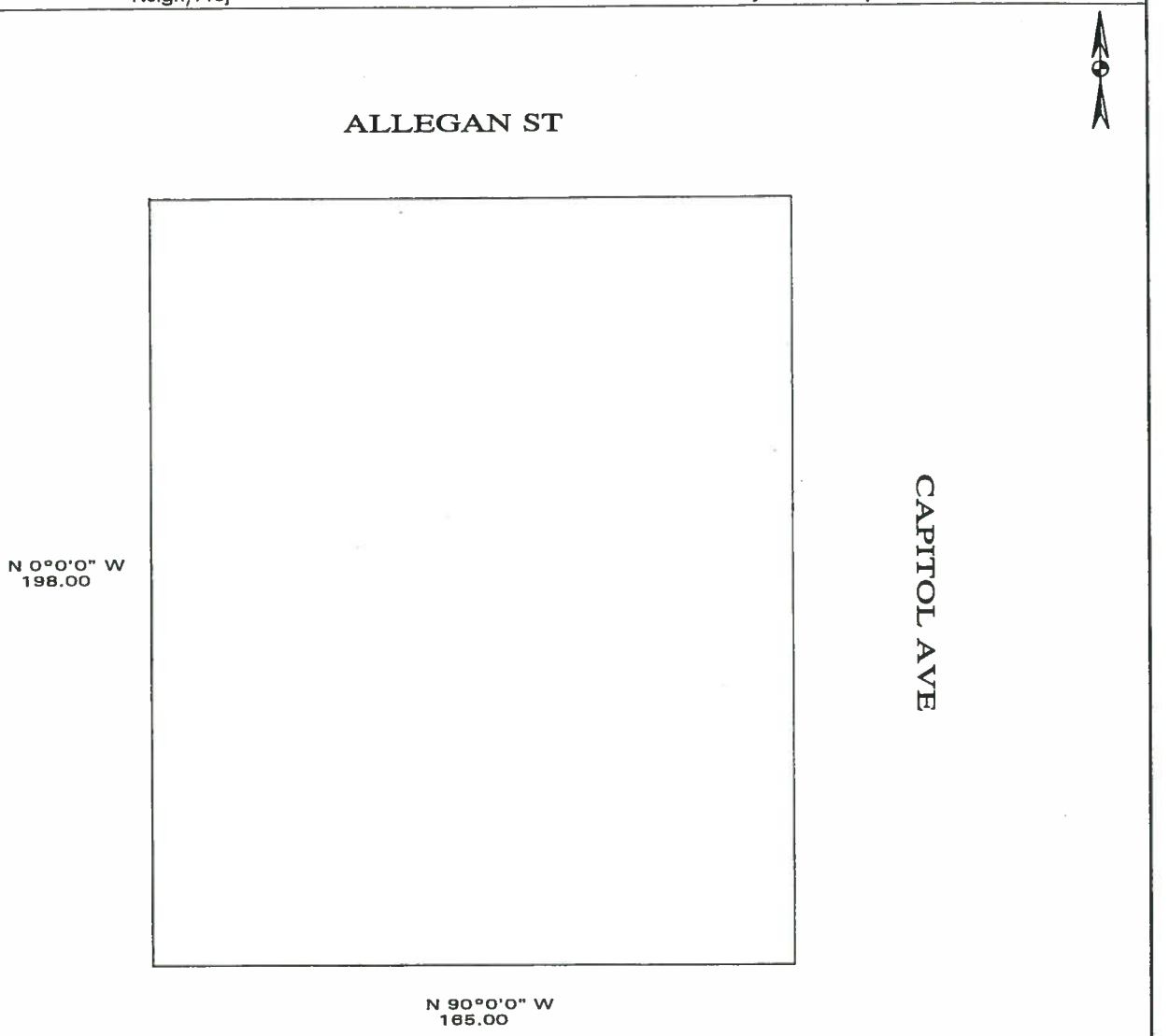
SKETCH/AREA TABLE ADDENDUM

Parcel No 33-01-01-16-327-102

SUBJECT

Owner ELLIS PARKING COMPANY INC		
Property Address 205 W ALLEGAN ST		
City LANSING	State MI	
Zip 48933	Neigh/Proj	County INGHAM/EATON

IMPROVEMENTS SKETCH



SCALE: 1 inch = 46.00 feet

AREA CALCULATIONS SUMMARY

Area	Name of Area	Actual	Factor	Effective	Totals
SITE	SITE	32670.12	1.00	32670.12	32670.12

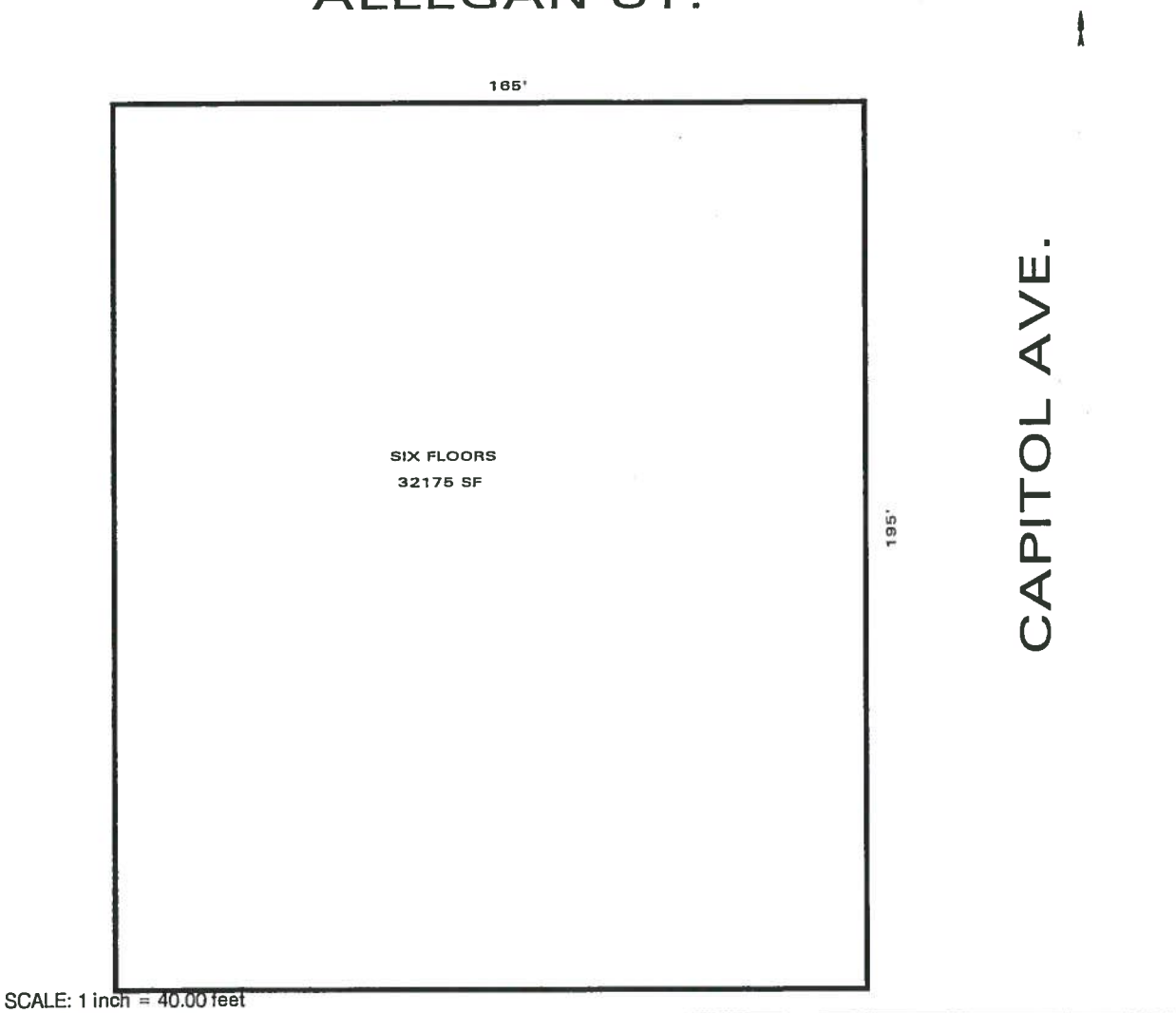
SKETCH/AREA TABLE ADDENDUM

Parcel No 33-01-01-16-327-102

SUBJECT

Owner ELLIS PARKING COMPANY INC		
Property Address 205 W ALLEGAN ST		
City LANSING	State MI	
Zip 48933	Neigh/Proj	County INGHAM/EATON

IMPROVEMENTS SKETCH



SCALE: 1 inch = 40.00 feet

AREA CALCULATIONS SUMMARY

Area	Name of Area	Actual	Factor	Effective	Totals
GBA1	SIX FLOORS	32175.00	1.00	32175.00	32175.00

Parcel Number: 33-01-01-16-327-012 Jurisdiction: Unit '33' County: INGHAM/EATON Printed on 07/30/2001

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans
VICTOR DEVELOPMENT	ACCIDENT FUND COMPANY	2,000,000	12/22/1999	WD	CASH/CONV-NOT USED	L2835/P207	J. VLAHAKIS	0.0
YWCA		1,000,000	08/01/1996	?	Other	2379/348		0.0

Property Address
217 TOWNSEND ST

Owner's Name/Address
ACCIDENT FUND COMPANY

232 S CAPITOL AVE
LANSING, MI 48933

Legal Description
LOT 9 & N 3 R OF W 5 R LOT 8 BLOCK 116 ORIG PLAT

Comments/Influences
06/05/01 - OLD YWCA BLDG. DEMO, GRAVEL PARKING LOT WITH PAINTED STRIPES. CHECK BACK THIS YEAR.

Class: Commercial | Zoning: G-1 BU
School: 04 LANSING TIFA #4
Hmstd 0%
Map #: B 0116 -0025
2002 Est TCV 232,097

	Improved		Vacant

Public Improvements	
	Dirt Road
	Gravel Road
X	Paved Road
X	Storm Sewer
X	Sidewalk
X	Water
X	Sewer
X	Electric
X	Gas
X	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site	
X	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who	When	What
MCP	03/04/1997	Inspecte
JLV	05/17/1999	Data Ent
DC	06/05/2001	Inspecte

Building Permit(s)	Date	Number	Amount
DEMOLITION	12/11/2000	D000064	150
	12/16/1992	B928382	20,000

Land Value Estimates for Land Table M225.M225-DOWNTOWN-MISC

Description	Frontage	Depth	*Factors for* Frontage	Depth	Rate	%Adj.	Reason	Value
Rate Table SF #15: 15.50		14974 SqFt		15.50	100			232,097
		0.34 Total Acres			Total Est. Land Value =			232,097

Work Description for Permit D000064, Issued 12/11/2000: DEMOLITION
Work Description for Permit B928382, Issued 12/16/1992: ALT 1ST FLR FOR DAY CARE

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2002	Tentative	Tentative	Tentative			Tentative
2001	116,000	924,300	1,040,300			678,436C
2000	112,300	545,100	657,400			657,400S
1999			401,300			381,000C

SKETCH/AREA TABLE ADDENDUM

Parcel No 33-01-01-16-327-012

SUBJECT

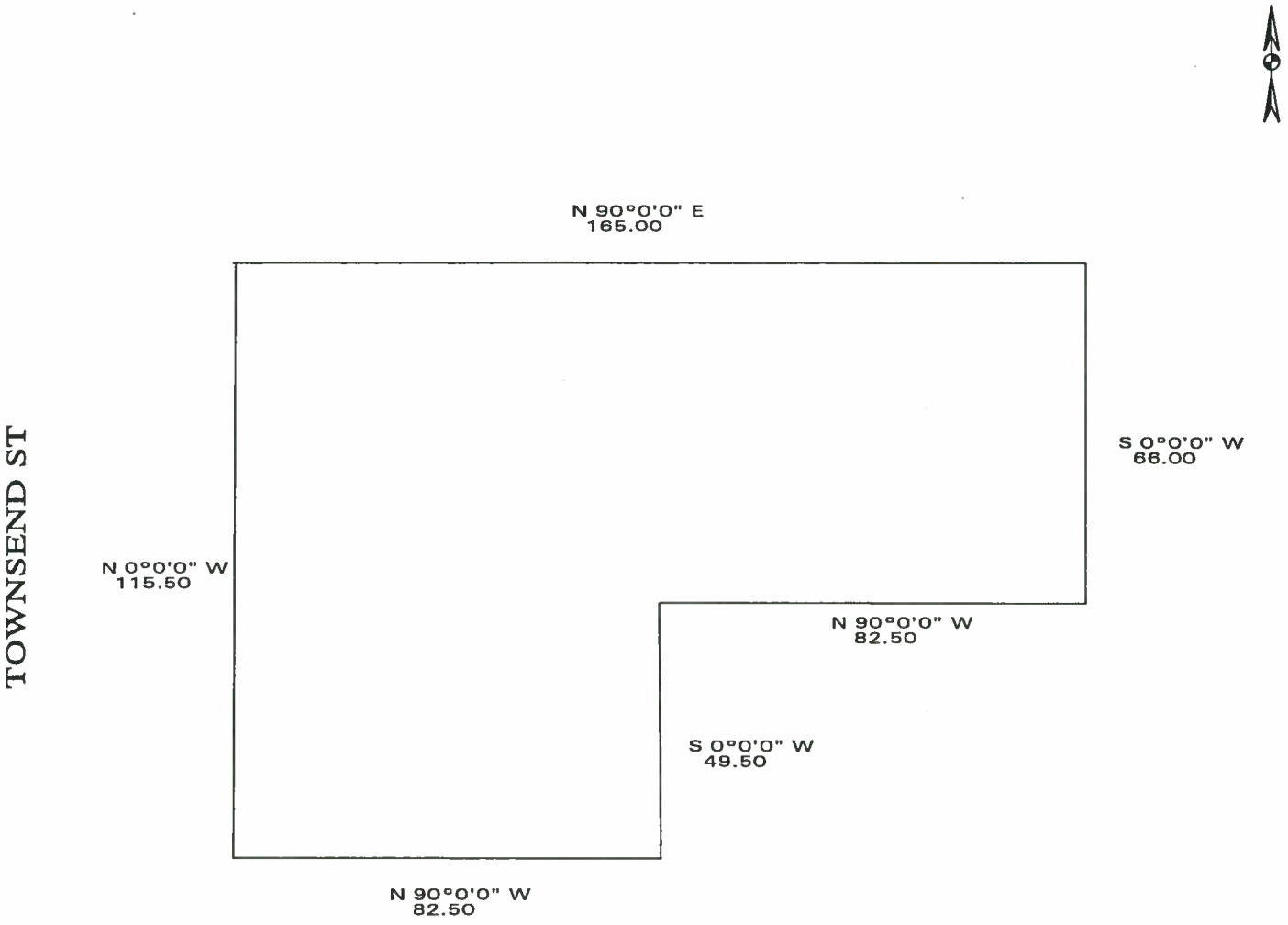
Owner ACCIDENT FUND COMPANY

Property Address 217 TOWNSEND ST

City LANSING State MI

Zip 48933 Neigh/Proj County INGHAM/EATON

IMPROVEMENTS SKETCH



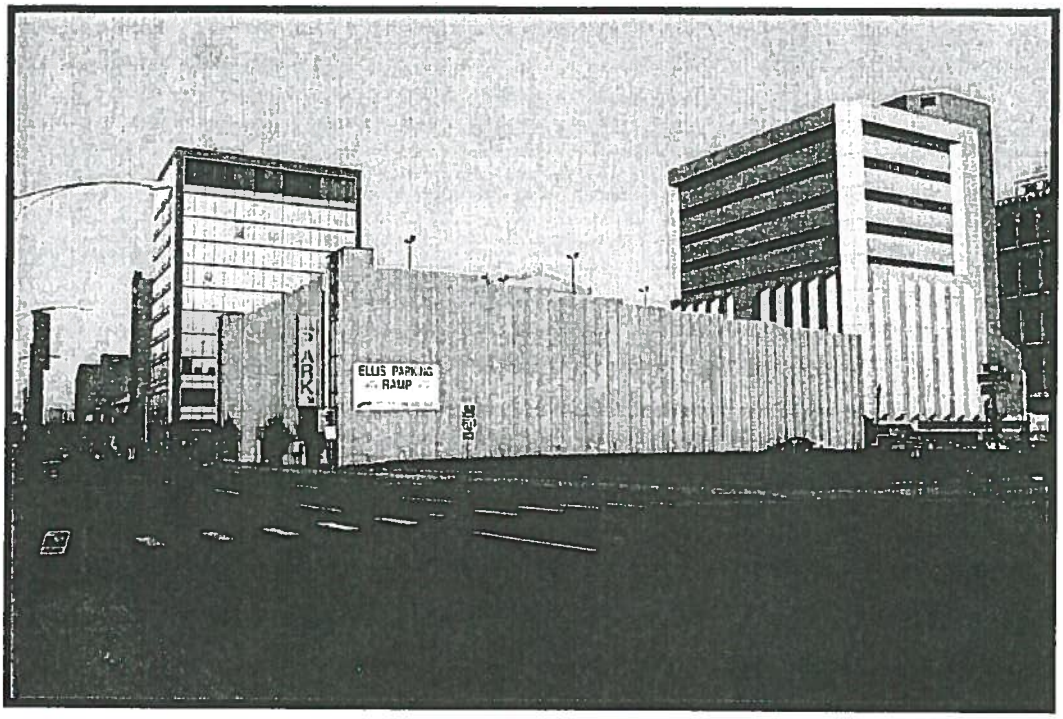
SCALE: 1 inch = 34.00 feet

AREA CALCULATIONS SUMMARY

Area	Name of Area	Actual	Factor	Effective	Totals
SITE	SITE	14973.79	1.00	14973.79	14973.79

PHASE I ENVIRONMENTAL SITE ASSESSMENT

APPENDIX B



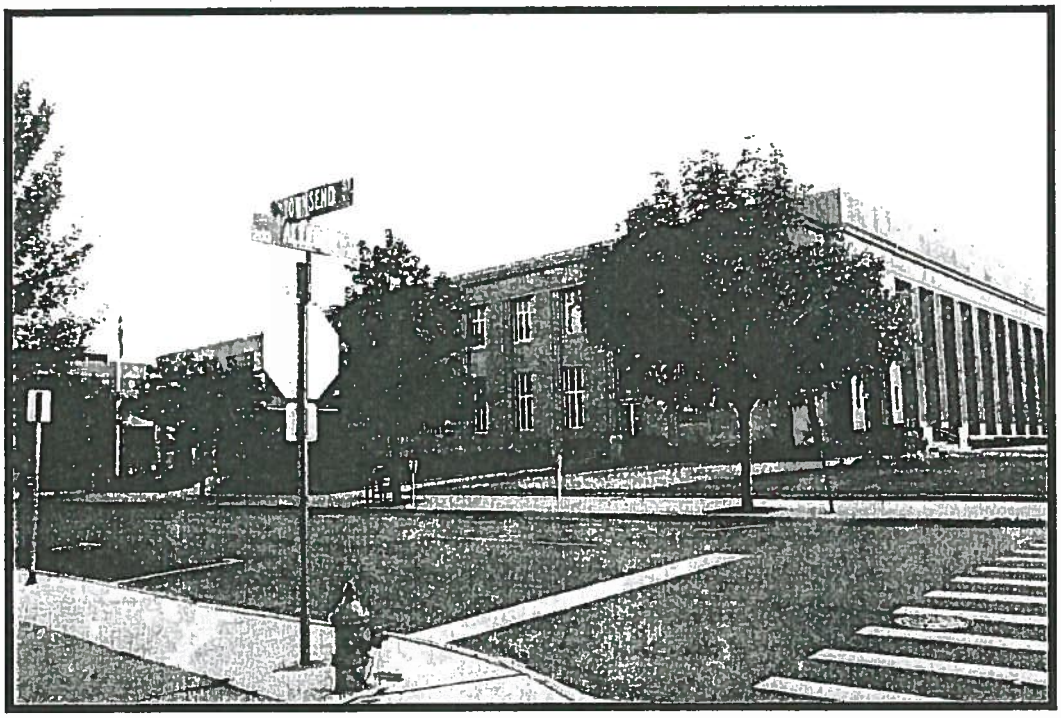
1.) VIEW OF SUBJECT PROPERTY

2.) VIEW OF SUBJECT PROPERTY

AKTPEERLESS
environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax (989)754-3804

PROPERTY PHOTOGRAPHS
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : PHOTO 1

TAKEN BY:	*BCC*
DATE:	*07-30-01*
DRAWN BY:	*OGO*
DATE:	*08-17-01*
APPROVED BY:	
DATE:	



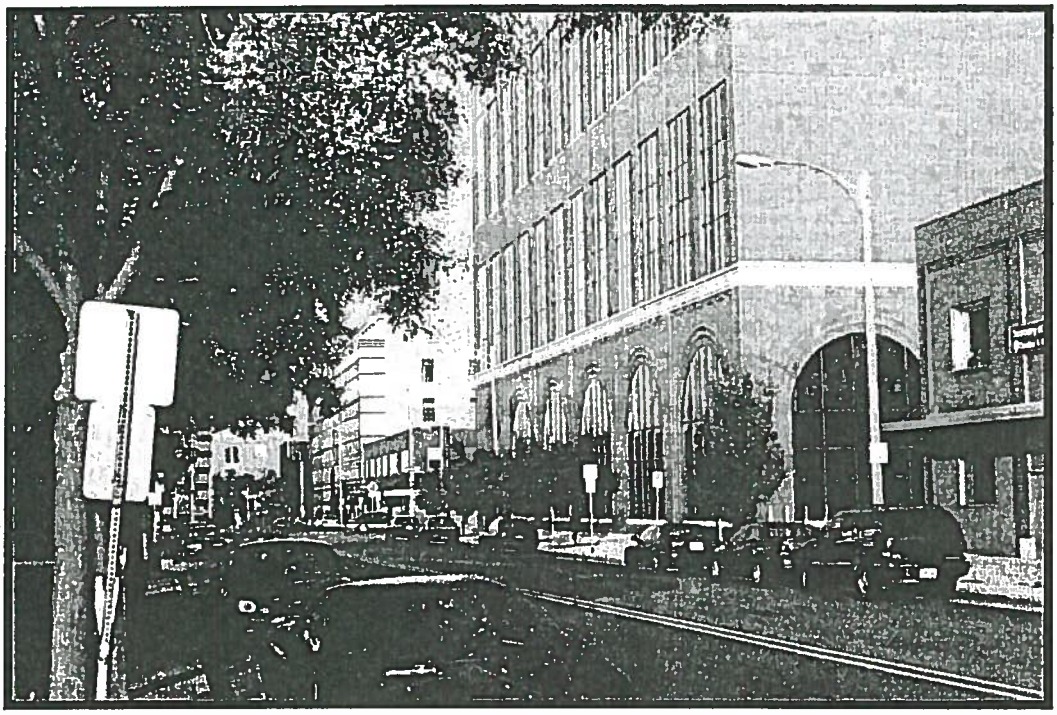
3.) VIEW OF ADJOINING PROPERTY TO THE WEST

4.) VIEW OF ADJOINING PROPERTY TO THE SOUTH

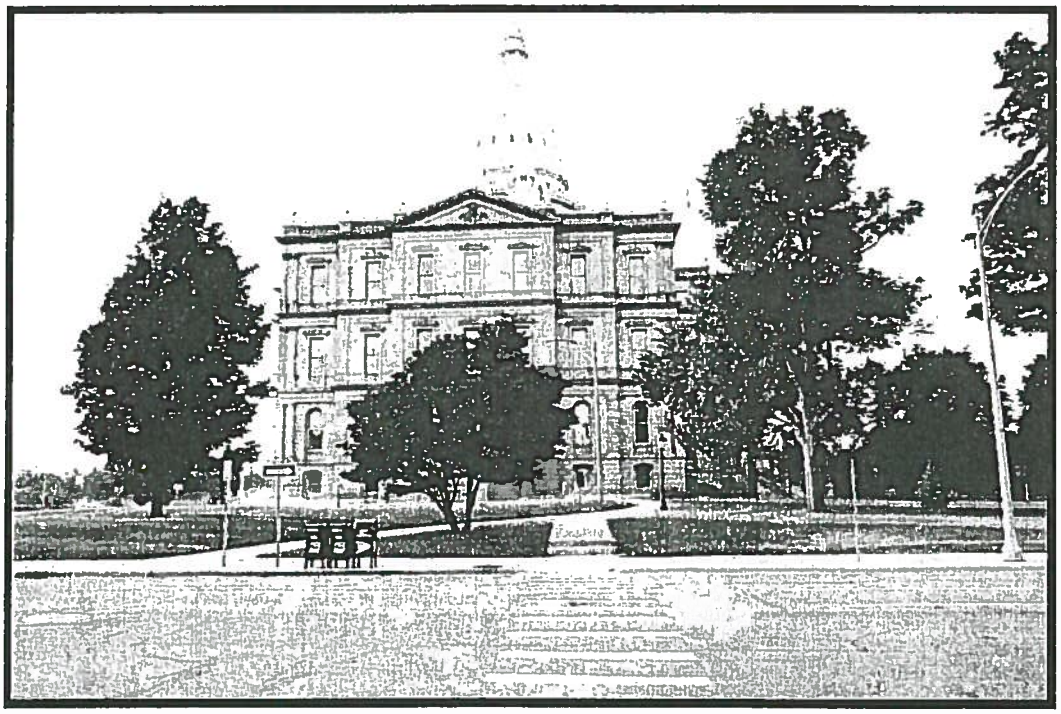
AKTPEERLESS
environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax (989)754-3804

PROPERTY PHOTOGRAPHS
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : PHOTO 2

TAKEN BY:	*BCC*
DATE:	*07-30-01*
DRAWN BY:	*OGO*
DATE:	*08-17-01*
APPROVED BY:	
DATE:	



5.) VIEW OF ADJOINING PROPERTY TO THE EAST



6.) VIEW OF ADJOINING PROPERTY TO THE NORTH

AKTPEERLESS
environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9898 Fax: (989)754-3804

PROPERTY PHOTOGRAPHS
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : PHOTO 3

TAKEN BY:	*BCC*
DATE:	*07-30-01*
DRAWN BY:	*OGO*
DATE:	*08-17-01*
APPROVED BY:	
DATE:	

PHASE I ENVIRONMENTAL SITE ASSESSMENT

APPENDIX C

PHASE II ENVIRONMENTAL SITE ASSESSMENT
205 WEST ALLEGAN/217 TOWNSEND
LANSING, MICHIGAN

for

THE LANSING BROWNFIELD REDEVELOPMENT AUTHORITY AND BOJI GROUP OF LANSING, LLC
LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 3252S-3-20
NOVEMBER 28, 2001

CONTENTS

CONTENTS
(Continued)

AKTPEERLESS
environmental services

PHASE II ENVIRONMENTAL SITE ASSESSMENT
205 WEST ALLEGAN/217 TOWNSEND
LANSING, MICHIGAN

FOR

THE LANSING BROWNFIELD REDEVELOPMENT AUTHORITY
LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 3252S-3-20

1.0 INTRODUCTION

AKT Peerless Environmental Services (AKT Peerless) conducted a Phase II Environmental Site Assessment (ESA) at the property located at 205 West Allegan/217 Townsend, Lansing, Ingham County, Michigan. Refer to Figure 1, Topographic Location Map.

AKT Peerless was retained by the City of Lansing Brownfield Redevelopment Authority (LBRA) on behalf of the Boji Group of Lansing, LLC, a potential purchaser.

The Phase II ESA was conducted based on guidelines outlined in the "*Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*," American Society for Testing and Materials (ASTM) Designation E 1903-97. The body and language of this report follows the suggested format and outline of the ASTM standard.

1.1 PURPOSE

The primary objective of the Phase II ESA was to evaluate the Recognized Environmental Conditions (RECs) identified in a Phase I ESA completed for the subject property on August 27, 2001. The scope of work for the Phase II ESA was to evaluate for the presence of environmental contamination at the subject property, and if present, determine if contaminant concentrations exceed Michigan Department of Environmental Quality (MDEQ) Generic Cleanup Criteria (GCC) and Screening Levels: Residential and Commercial I Criteria developed under the authority of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 P.A. 451, as amended.

1.2 SPECIAL TERMS AND CONDITIONS

This Phase II ESA was conducted under a United States Environmental Protection Agency (U.S. EPA) Brownfield Assessment Demonstration Pilot Project awarded to the LBRA in September 2000. Services were rendered under the terms and conditions outlined in the professional

services agreement between the LBRA and Peerless Environmental Services, Inc. (now AKT Peerless Environmental Services) effective October 2, 2000.

1.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The purpose of the Phase II ESA was not to fully delineate the extent of possible contamination, but to identify specific conditions based on the RECs identified in the Phase I ESA completed on August 27, 2001 by AKT Peerless.

1.4. LIMITING CONDITIONS AND METHODOLOGY USED

AKT Peerless encountered the following limitations or exceptions in completing the Phase II ESA:

- Due to insufficient overhead clearance, AKT Peerless completed borings B-1 through B-3 and B-8 using a hand auger. Therefore, these borings could not be completed to a depth sufficient to obtain groundwater samples.

Soil borings B-4 through B-7 and B-9 through B-14 were completed in general accordance with the "*Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations*", ASTM Designation D 6282-98. AKT Peerless adhered to quality assurance objectives and procedures outlined in the May 2001 Quality Assurance Project Plan (QAPP) approved by Region V of the U.S. EPA under the LBRA, Brownfield Assessment Demonstration Pilot Project. This includes the collection of Quality Assurance/Quality Control samples including field duplicate (FD), field equipment blanks, matrix spike (MS), and matrix spike duplicate (MSD).

2.0 PROPERTY BACKGROUND

2.1 SITE DESCRIPTION AND FEATURES

The subject property is comprised of three parcels and a portion of a fourth parcel. These parcels are identified as follows: Parcel A – Ellis Parking Ramp, 205 West Allegan (#33-01-01-16-327-102); Parcel B – State of Michigan Parking Lot, northwest corner of West Allegan and Townsend Street (#33-01-01-16-327-001); Parcel C – Former YWCA, 217 Townsend Street (#33-01-01-16-327-012); and Parcel D – Accident Fund Parking Lot, southwest corner of Townsend Street and West Washtenaw Street (a portion of # 33-01-01-16-327-052). The subject property encompasses approximately 2.25 acres and is situated in the northeast ¼ of the southwest ¼ of Section 16, Township 4 North, Range 2 West, in the downtown area of Lansing, Ingham County, Michigan.

Refer to Figure 1, Topographic Location Map, and Figure 2, Soil Boring Location Map.

In general, the subject property is level with adjacent properties and is located in the downtown commercial business area of the City of Lansing. According to local tax assessment records, Parcel A is owned by Ellis Parking Company, Inc., Parcel B is owned by the State of Michigan and Parcels C and D are owned by Accident Fund Company. All parcels on the subject property are zoned G-1 Business.

The subject property is bordered to the north by West Allegan Street, beyond which is the Michigan State Capitol building; to the east by South Capitol Avenue, beyond which is the Farnum Building (office building), Cooley Law Building, and the Accident Fund Building (office building); to the south by West Washtenaw Street, beyond which are the Michigan Restaurant Association, the Secretary of State Office, and Cooley Law Building; and to the west by Townsend Street, beyond which is a federal building and the U.S. Post Office.

2.2 PHYSICAL SETTING

Based on a review of the United States Geologic Survey Topographic Map titled *Lansing South Quadrangle*, the subject property rests at an elevation of approximately 855 feet above the National Geodetic Vertical Datum. Based on the topographic contours, the regional surface water discharge appears to be to the east. Typically, the water table aquifer flows toward a major drainage feature (the Grand River is located approximately 1,000 feet to the east of the subject property) or in the same direction as the drainage basin. Therefore, it is likely groundwater in the area of the subject property flows to the east. However, both surface water and groundwater flow may be influenced by local manmade obstructions and diversions (e.g., buildings, roads, sewer systems, and utility service lines). To determine the site-specific groundwater flow direction, subsurface information would be necessary.

2.3 SITE HISTORY AND LAND USE

A Phase I ESA was completed for the subject property on August 27, 2001. Based on information obtained during a review of city directories, aerial photographs, Sanborn Fire Insurance Maps, and tax assessment cards, the subject property (including all parcels), was developed from at least 1892 and was initially utilized for churches and private residences.

Parcel A was historically occupied by private residences, a church, the YWCA, a gas/service station, and an automobile parking garage. The gas/service station was located on Lot 3 of Parcel A. Parcel B was historically occupied by a church, private residence, and an automobile parking lot. Parcel C was historically occupied by a private residence, the YWCA, and an automobile parking lot. Parcel D was historically used as private residence, various commercial businesses (including automobile sales and service, automobile service garage, and a dry cleaning business), and an automobile parking lot.

The following RECs were identified during the completion of the Phase I:

1. The adjoining property to the east and south at 232 South Capitol Avenue was identified as a State Hazardous Waste Site. Subsurface investigations at the property indicate the presence of contamination at the site. Historical information indicates the property was occupied by a gasoline (filling) station and commercial building with gasoline tanks from approximately 1945 to at least 1972.

2. The southern portion of the subject property was occupied by a dry cleaner for at least 10 years in the 1950's.

3. The past use of the eastern and southern portions of the subject property included repair and service stations in the 1920's and 1930's.

4. The past use of adjoining properties to the south beyond Washtenaw and west beyond Townsend Street included a service station.

5. During the completion of the site visit an underground storage tank (UST) vent and fill pipe were observed on the adjoining property to the south and east.

6. The northwestern and northeastern portions of the subject property were occupied by churches. The churches were demolished in the late 1960's and 1970's, and fill material was likely brought to the subject property following demolitions to restore grade. It is unknown where the fill material was obtained.

3.0 PHASE II ACTIVITIES

3.1 SCOPE OF ASSESSMENT

The scope of work for the Phase II ESA was to evaluate for the presence of environmental contamination at the subject property, and if present, determine if contaminant concentrations exceed MDEQ GCC and Screening Levels: Residential and Commercial I Criteria developed under the authority of Part 201 of the NREPA, 1994 P.A. 451, as amended. The purpose of the Phase II ESA was not to fully delineate the extent of possible contamination, but to identify specific conditions based on the RECs identified during the completion of the Phase I ESA.

3.1.1 Proposed Sampling Plan

AKT Peerless completed a Phase II Sampling Plan on August 15, 2001 for the subject property, and it was approved by the U.S. EPA Region V Brownfield Pilot Manager on August 20, 2001. The proposed sampling plan for the subject property included the completion of three borings (B-1 through B-3) within the existing parking ramp to a maximum of 16-feet below surface grade (bsg). The borings were proposed along the southern portion of the building to evaluate for contaminants associated with the past use of the subject property as a gasoline filling and service station and the past use of the adjoining property to the south as a gasoline filling station. Two borings (B-4 and B-5) were proposed on the southern portion of the subject property to a

maximum of 16-feet bsg to evaluate for contaminants associated with the past use of the subject property as a dry cleaner and the past use of the adjoining property to the south as an automobile sales and service facility. Three borings (B-6 through B-8) on the northwestern and northeastern portion of the subject property were proposed to a maximum of 12-feet bsg to evaluate for contaminants associated with the potential use of fill at the subject property, and one soil boring (B-9) on the eastern portion of the subject property was proposed to a maximum depth of 16-feet bsg to evaluate for contaminants associated with the current use of a diesel UST at the adjoining property to the east.

3.1.2 Chemical Testing Plan

The Phase II Sampling Plan indicated soil and/or groundwater samples would be submitted under chain of custody to Fibertec Environmental Services, Inc. (Fibertec), Holt, Michigan for laboratory analysis. Samples collected from within the existing parking ramp (B-1 through B-3) would be analyzed for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), cadmium, chromium and lead. Samples collected along the southern portion of the subject property (B-4 and B-5) would be analyzed for VOCs and PAHs. Samples collected on the northwestern and northeastern portion of the subject property (B-6 through B-8) would be analyzed for VOCs and "Michigan 10" metals, while samples collected on the eastern portion of the subject property (B-9) would be analyzed for VOCs and PAHs.

3.1.3 Deviations from the Proposed Sampling and Chemical Testing Plan

Due to insufficient overhead clearance, AKT Peerless completed borings B-1 through B-3 and B-8 using a hand auger. Therefore, these borings could not be completed to a depth sufficient to obtain groundwater samples.

Following the submittal of the sampling plan, an additional REC was identified during the completion of the Phase I ESA. The past use of the adjoining property to the west beyond Townsend was a service station. Therefore, boring (B-10) was completed on the southwest portion of the subject property and analyzed for VOCs and PAHs to evaluate the REC.

Four additional borings, B-11 through B-14 were completed at a later date (September 24, 2001). B-11 and B-12, located outside the existing parking ramp, were sampled in an effort to obtain groundwater samples in this area, while B-13 and B-14, located on the northeastern portion of the subject property, were sampled to evaluate for contaminants associated with the potential placement of fill in the former basement of the churches at the subject property. Samples collected from B-11 and B-12 were analyzed for VOCs, PAHs, cadmium, chromium, lead and PCBs. Samples collected from B-13 and B-14 were analyzed for "Michigan 10" metals. There were no deviations from the Proposed Chemical Testing Plan specific to proposed analytical parameters.

3.2 FIELD EXPLORATION AND METHODS

3.2.1 Soil Borings

AKT Peerless personnel mobilized to the subject property on August 27, 2001 and September 24, 2001, to complete field activities. AKT Peerless completed fourteen soil borings (B-1 through B-14) to a maximum depth of twenty feet bsg. Soil borings B-4 through B-7 and B-9 through B-14 were completed in general accordance with the "*Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations,*" ASTM Designation D 6282-98. Soil borings B-1 through B-3 and B-8 were completed using a hand auger.

3.3 SAMPLING AND CHEMICAL ANALYSES METHODS

3.3.1 Soil

Soil samples were collected continuously from B-1 through B-14 for soil characterization and field screening of VOCs, utilizing an Organic Vapor Meter/Photoionization Detector (OVM/PID). One soil sample was collected from each boring for laboratory chemical analysis based on highest field screening results or the interval most likely to be impacted by contaminants based on visual and olfactory observations. Field screening results were non-detect for all soil borings except B-12 which had a maximum reading of 250 ppm.

Strict decontamination procedures were followed during the completion of investigation activities by AKT Peerless personnel to reduce the potential for cross-contamination. All down-hole sampling equipment was decontaminated prior to first use onsite, and thereafter between uses, using a vigorous wash in an Alconox solution, followed by a tap water rinse, and a distilled water rinse. Sample containers were inspected for cracks, chips, cleanliness, and the threads wiped clean before being sealed. The containers were labeled with the appropriate sample location, date, time, project number, and sampler's name. Samples were placed on ice and maintained at a temperature of approximately 4° Celsius prior to analysis.

All soil samples collected for chemical analysis were submitted under chain-of-custody to Fibertec for analytical testing. All soil samples submitted for VOC analysis were preserved using methanol preservation.

The following U.S. EPA approved test methods were utilized for chemical analysis:

VOCs	5035/8260
SVOCs	8270
"Michigan 10" metals (excluding mercury)	6020
Mercury	7471

Soil borings were abandoned by filling the boreholes with native soils and/or bentonite chips to surface grade and patched with asphalt.

3.3.2 Groundwater

Groundwater was encountered at one location at the subject property during the investigation, at location B-4 (TMW-1) (refer to Figure 2.) Groundwater was observed at approximately 10-feet bsg. A temporary monitoring well was screened from 7-feet to 12-feet. A groundwater sample was obtained from the temporary monitoring well set in place after the completion of the soil boring. Temporary monitoring wells were also placed at B-11 (TMW-2), screened from 15-feet to 20-feet, and at B-12 (TMW-3), screened from 14-feet to 19-feet. AKT Peerless attempted to collect groundwater samples from TMW-2 and TMW-3, however insufficient groundwater was present in these wells to obtain a sample. Temporary monitoring wells consisted of 5-foot well screen of 1-inch diameter polyvinyl chloride (PVC) with PVC risers. Temporary monitoring wells were pre-cleaned by the manufacturer. The temporary monitoring wells were allowed to collect water and reach equilibrium. Prior to obtaining the groundwater samples, three volumes of water were removed. The well was allowed to recharge before sampling. The groundwater sample was collected using low flow sampling methods described in the QAPP.

Samples submitted for VOCs analysis were preserved using hydrochloric acid. All water samples collected for chemical analysis were submitted under chain-of-custody to Fibertec for analytical testing.

4.0 EVALUATION AND PRESENTATION OF RESULTS

4.1 SUBSURFACE CONDITIONS

According to the United States Department of Agriculture, *Soil Survey of Ingham County, Michigan,* the dominant soil in the area is classified as Urban Land. These soils are described as *"nearly level and gently sloping areas covered by streets, parking lots, buildings, and other structures."* These soils have been covered or altered in about 85% of the areas.

According to the Michigan Geological Survey Division's publication, *Quaternary Geology of Southern Michigan*, soils in the area are medium-textured glacial till. These soils are described as gray, grayish brown or reddish brown, non-sorted glacial debris; matrix is dominantly loam and silt loam texture, with variable amounts of cobbles and boulders. These soils occur as ground moraine, till plain, or undifferentiated ground moraine-end moraine complexes, and includes areas of coarser or finer-textured tills as well as small areas of outwash. The thickness is highly variable locally and can range from as little as 10 meters to as much as 20-30 meters.

Subsurface soil types were documented during the completion of the Phase II ESA. Surface cover was primarily concrete and/or asphalt paving on Parcels A, B and D and gravel on Parcel C. Listed below are the primary soil type(s) generally encountered during the Phase II ESA.

Sand: Sand (fine-medium), fill, brown, damp (SW)

Clay: Clay (medium) Trace Gravel (fine), brown, damp (CL)

Depths and order in the profile in which soils were encountered varied. Refer to Soil Boring Logs provided in Appendix A for specific soil types and corresponding depths.

4.2 ANALYTICAL DATA

4.2.1 Soil Results

Analytical results reported concentrations of VOCs and SVOCs (including PAHs) were not detected above MDEQ target detection limits in soil samples collected from B-1 through B-11. Xylenes, ethylbenzene, n-propylbenzene, isopropylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene, 2-methylnapthalene and naphthalene were detected above MDEQ-target detection limits in samples collected from B-12 (12-feet) and B-12 (15-feet). Ethylbenzene was detected in the sample from B-11, toluene was detected in B-12 (15-feet) and 2-butanone was detected in B-12 (12-feet).

Analytical results for metals reported concentrations of chromium for soil samples analyzed from B-1, B-2, B-3, B-6, B-7, B-8, B-11, B-12 (12-feet), B-12 (15-feet), B-13 and B-14; arsenic, barium, copper, selenium, and zinc in samples B-6, B-7, B-8, B-13 and B-14; lead was detected in soil samples analyzed from B-1, B-2, B-3, B-6, B-7, B-8, B-11, B-12 (12-feet), B-12 (15-feet), B-13 and B-14; cadmium in soil samples analyzed from B-1, B-6, B-7, B-11, B-12 (12-feet), B-12 (15-feet), B-13 and B-14, and mercury was found in sample B-13 above MDEQ-target detection limits.

Remaining "Michigan 10" metals analyzed were reported within target detection limits. Analytical results are summarized on Table 1, and laboratory analytical results are provided in Appendix B[1].

4.2.2 Groundwater Results

Analytical results reported concentrations of VOCs and SVOCs (including PAHs) were not detected above MDEQ target detection limits in the water sample collected from B-4 (TMW-1).

5.0 DISCUSSION OF FINDINGS AND CONCLUSIONS

AKT Peerless has conducted a Phase II ESA based upon the scope and limitations of ASTM Designation E 1903-97 for the property located at 205 West Allegan/217 Townsend, Lansing, Ingham County, Michigan. Any exceptions to, or deletions from, this practice are described in Sections 1.0 and 3.0 of this report.

[1] Quality Assurance/Quality Control (QA/QC) samples, including field equipment blanks and matrix spike/matrix spike duplicates are not included in summary tables.

5.1 RECOGNIZED ENVIRONMENTAL CONDITIONS

AKT Peerless evaluated the REC identified during the completion of the Phase I ESA described in Section 2.3.

5.2 AFFECTED MEDIA

Analytical results indicated concentrations of various VOCs, various "Michigan 10" metals, naphthalene, and 2-methylnaphthalene were detected above MDEQ target detection limits for soil samples collected at the subject property.

5.3 EVALUATION OF MEDIA QUALITY

5.3.1 Soil

Laboratory analytical results were compared to GCC, Residential and Commercial I Criteria developed under the authority of Part 201, NREPA, specifically Statewide Default Background Level (SDBLs), Drinking Water Protection (DWP) Criteria, Groundwater Surface Water Interface Protection (GSIP) Criteria, and/or Direct Contact (DC) Criteria.

Analytical results reported concentrations of various VOCs, various "Michigan 10" metals, and naphthalene were detected above current GCC in soil samples collected from B-1, B-2, B-3, B-6, B-7, B-8, B-11, B-12 (12 feet), B-12 (15 feet), B-13, and B-14. Total xylenes, ethylbenzene, n-propylbenzene, 1,3,5-trimethylbenzne, 1,2,4-trimethylbenzene, and sec-butylbenzene were all detected at concentrations which exceed DWP in soil samples B-12 (12 feet) and B-12 (15 feet). Total xylenes and ethylbenzene were also detected at concentrations which exceed GSIP in soil samples B-12 (12 feet) and B-12 (15 feet), and 1,2,4-trimethylbenzene was detected at a concentration exceeding DC in sample B-12 (15 feet). Chromium was detected at concentrations exceeding GSIP in soil samples B-1, B-2, B-3, B-6, B-7, B-8, B-11, B-12 (12 feet), B-12 (15 feet), B-13, and B-14. Mercury was detected above GSIP in soil sample B-13, and selenium was detected above GSIP in soil samples B-6, B-13, and B-14. Naphthalene was detected above GSIP in soil samples B-12 (12 feet) and B-12 (15 feet).

It should be noted, chromium, mercury, selenium, and naphthalene were detected at levels which exceed GSIP, and it is AKT Peerless' understanding that development plans at the subject property do not include the installation of surface water bodies and the nearest surface water is approximately ¼ mile east (Grand River); therefore, GSIP for soil is not an applicable pathway.

Analytical results are summarized on Table 1, and laboratory analytical reports are provided in Appendix B.

5.3.2 Groundwater

Laboratory analytical results were compared to GCC, Residential and Commercial I Criteria developed under the authority of Part 201, NREPA, specifically Statewide Default Background

Level (SDBLs), Drinking Water Protection (DWP) Criteria, Groundwater Surface Water Interface Protection (GSIP) Criteria, and/or Direct Contact (DC) Criteria.

Analytical results reported contaminants were not detected above MDEQ TDLs in the groundwater sample submitted for laboratory analysis.

Analytical results are summarized on Table 2, and laboratory analytical reports are provided in Appendix B.

5.4 ADEQUACY OF ASSESSMENT

Investigations completed at the subject property were designed to evaluate the area most likely to contain contaminants based on historical, observed, and recorded site conditions. The purpose of the Phase II ESA was not to fully delineate the extent of possible contamination, but to identify specific conditions based on the RECs identified during the completion of the Phase I ESA.

All Phase II ESA sampling activities, sample analysis, and sample management were completed in accordance with the QAPP and the Phase II Sampling Plan. AKT Peerless has reviewed the analytical results for samples and quality control/quality assurance samples collected, and no data was identified which was unusable based upon the requirements of the QAPP. No data gaps were identified during the completion of the Phase II ESA, and sufficient data has been collected to establish the subject property is a "*facility*[2]", as the term is defined in Part 201 of the NREPA.

6.0 RECOMMENDATIONS

Laboratory analytical results were compared to GCC, Residential and Commercial I Criteria developed under the authority of Part 201, NREPA, specifically SDBL, DWP, GSIP, and/or DC criteria.

The detection of xylenes, ethylbenzene, n-propylbenzene, 1,3,5-trimethylbenzne, 1,2,4-trimethylbenzene, and sec-butylbenzene in soil at the subject property at concentrations exceeding applicable Part 201 GCC demonstrates the property is a facility, as the term is defined in Part 201 of the NREPA.

Section 26(1)(c) of Part 201 provides certain liability protections to a person who becomes an owner or operator of a facility on or after June 5, 1995 if they comply with both of the following, or unless other defenses apply: a Baseline Environmental Assessment (BEA) is conducted prior

[2]"Facility" means any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of Sections 20120a(1)(a) or (17) or the cleanup criteria for unrestricted residential use under Part 213 has been released, deposited, disposed of, or otherwise comes to be located. Facility does not include any area, place, or property at which response activities have been completed which satisfy the cleanup criteria for the residential category provided for in section 20120a(1)(a) and (17) or at which corrective action has been completed under Part 213 which satisfies the cleanup criteria for unrestricted residential use.

to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure, and the owner or operator discloses the results of the BEA to the MDEQ and subsequent purchaser or transferee. Therefore, AKT Peerless recommends a BEA be completed on behalf of any future owner/operators of the subject property.

In addition, under Section 7a of Part 201 a person who becomes an owner/operator of a property, which is a facility under Part 201, shall do all of the following at the subject property:

1. Undertake measures as are necessary to prevent exacerbation of the existing contamination.
2. Exercise due care by undertaking response activity necessary to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the facility in a manner that protects the public health and safety.
3. Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that foreseeably could result from those acts or omissions.

7.0 REFERENCES

Listed below are documents utilized to aid in the completion of this Phase II ESA. Data presentation, summaries and conclusions in this Phase II ESA are general in nature and should not be considered apart from respective documents.

- "*Environmental Remediation,*" Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
- "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,*" ASTM Designation E 1527.
- "*Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process,*" ASTM Designation: E 1903-97.
- "*Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations,*" ASTM Designation D 6282-98.
- "*Quality Assurance Project Plan-Lansing Board of Brownfield Redevelopment,*" AKT Peerless Environmental Services, May 8, 2001.
- "*Phase I Environmental Site Assessment –205 West Allegan/217 Townsend, City of Lansing, Michigan,*" AKT Peerless Environmental Services, August 27, 2001.

8.0 ATTACHMENTS

Attached to this submittal are the following:

Figure 1	Topographic Location Map
Figure 2	Soil Boring Location Map
Table 1	Summary of Soil Analytical Results
Table 2	Summary of Water Analytical Results
Appendix A	Soil Boring Logs
Appendix B	Laboratory Analytical Results

9.0 GENERAL COMMENTS

In performing its inspection, AKT Peerless has used reasonable care and has performed its work in keeping with industry standards and standard agency procedures as appropriate. AKT Peerless can offer no assurances and assumes no responsibility for subject property conditions or activities outside the limited scope of the inquiry requested by the client. AKT Peerless has analyzed the information obtained in its limited investigation in keeping with existing environmental standards and enforcement practices, but cannot accurately predict what actions any given agency may take presently or what standards and practices may apply to the subject property in the future.

Figures and maps prepared by AKT Peerless and presented in this report are included to aid the understanding of the reader and should not be considered as legal surveys or used outside the context of the document for which they were prepared.

This report has been prepared for the sole use of the LBRA and the Boji Group of Lansing, LLC. This report and the findings contained herein shall not be relied upon by any third party, in whole or in part, without the prior written consent of AKT Peerless. This report and the findings contained herein shall not be disclosed, disseminated or conveyed to any third party, in whole or in part, except as directed by the LBRA and the Boji Group of Lansing, LLC, or as required by law or regulation.

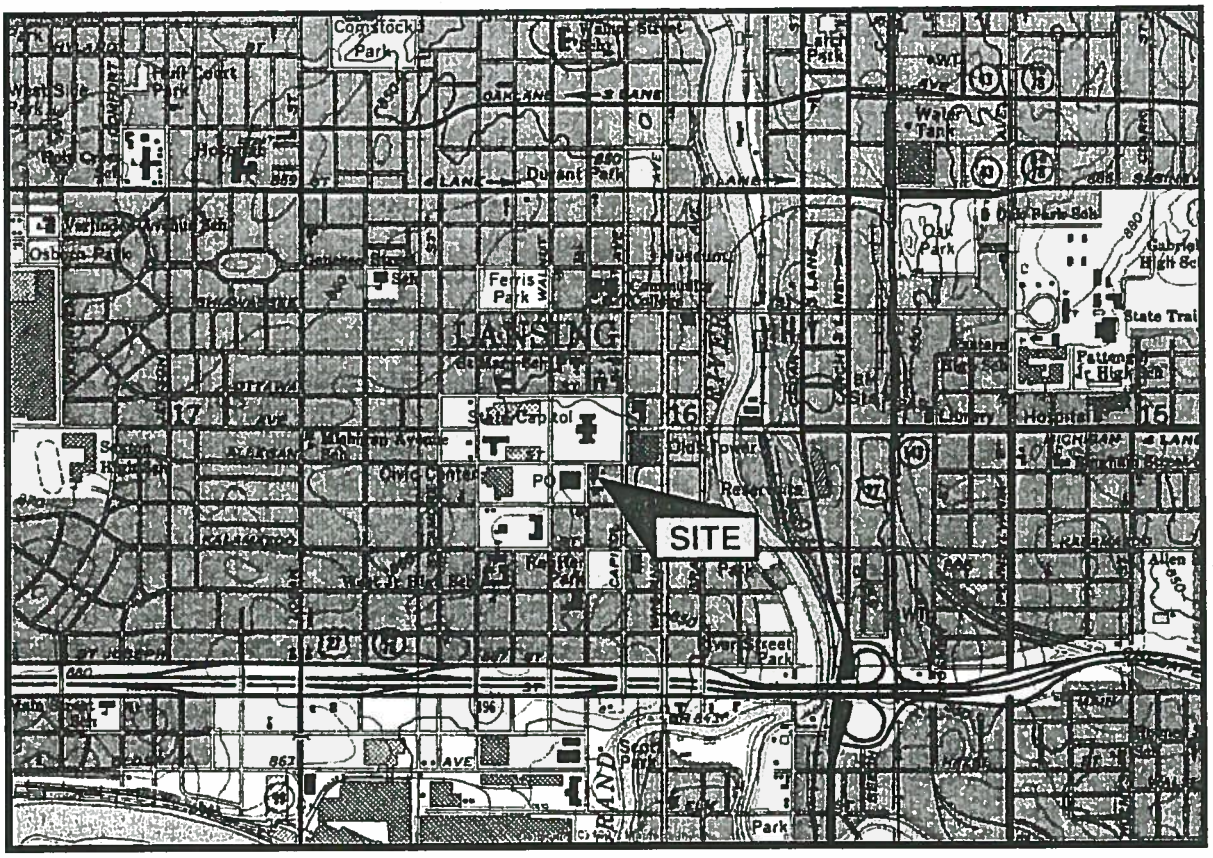
PHASE II ENVIRONMENTAL SITE ASSESSMENT

FIGURES

LANSING SOUTH QUADRANGLE

MICHIGAN – INGHAM COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.4 N. – R.2 W.

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

IMAGE TAKEN FROM 1965 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1973

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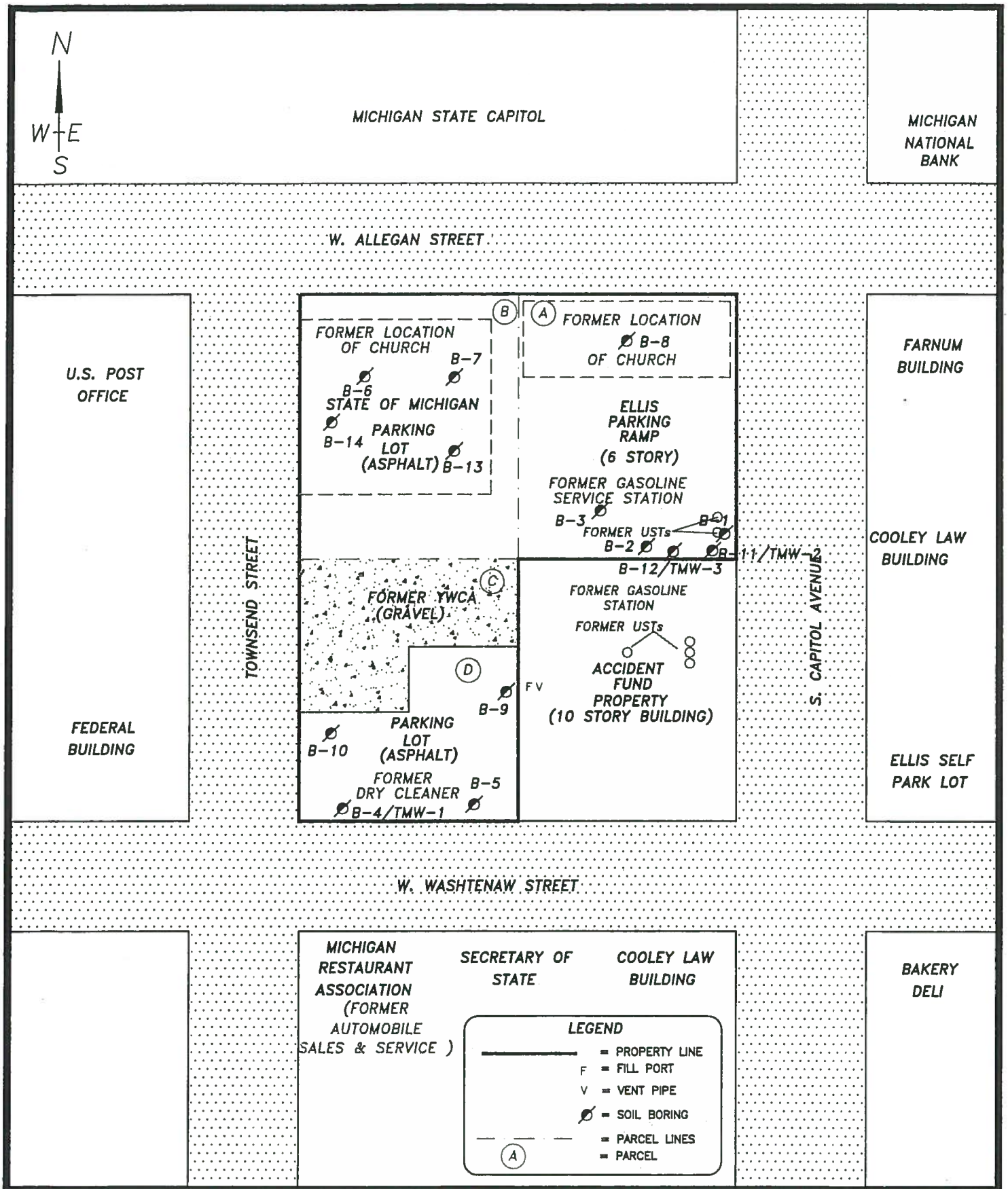
TOPOGRAPHIC LOCATION MAP
BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : TOPO 2

DRAWN BY: *OGO*
DATE: *08-01-01*

FIGURE 1



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SOIL BORING LOCATION MAP
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER : 3252s
DRAWING NUMBER : SB MAP.1

DRAWN BY: OGO
DATE: 08-28-01

0 50 100
SCALE: 1"= 100'±

FIGURE 2

PHASE II ENVIRONMENTAL SITE ASSESSMENT

TABLES

Sample Identification and Date		B-1 6.5' 8/27/01 d	MDEQ Residential and Commercial I Drinking Water Protection Criteria	MDEQ Groundwater Surface Water Interface Protection	MDEQ Residential and Commercial I Soil Direct Contact Criteria
Parameters (µg/kg)	**CAS#**				
VOCs					
Total Xylenes {I}	1330207	<150	**5,600**	**700**	150,000 {C}
Ethylbenzene {I}	100414	<50	**1,500**	**360**	140,000 {C}
Toluene {I}	108883	<50	16,000	2,800	250,000 {C}
2-Butanone {I}	78933	<250	260,000	44,000	27,000,000 {C, AD}
Isopropylbenzene	98828	<100	91,000	ID	390,000 {C}
N-Propylbenzene {I}	103651	<100	**1,600**	NA	2,500,000
1,3,5-Trimethylbenzene {I}	108678	<100	**1,800**	ID	94,000 {C}
1,2,4-Trimethylbenzene {I}	95636	<100	**2,100**	ID	**110,000 {C}**
sec-butylbenzene	135988	<50	**1,600**	NA	2,500,000
Remaining VOCs		ND	Various	Various	Various
Michigan Metals (µg/kg)	**CAS#**				
Arsenic (B)	7440382	NT	23,000	70,000 {X}	7,600
Barium	7440393	NT	1,300,000	{G,X}	37,000,000
Cadmium (B)	7440439	52	6,000	{G,X}	550,000
Chromium (VI)	18540229	**6,800**	30,000	**3,300**	2,500,000
Copper	7440508	NT	5,800,000	{G}	20,000,000
Lead	7439921	4,500	700,000	{G,M,X}	400,000
Mercury (inorganic)	7439976	NT	1,700	**100 {M}**	160,000
Selenium (B)	7782492	NT	4,000	**400**	2,600,000
Silver (B)	7440224	NT	4,500	500 {M}	2,500,000
Zinc (B)	7440666	NT	2,400,000	{G}	170,000,000
PNAs (µg/kg)	**CAS#**				
Napthalene	91203	<330	35,000	**870**	16,000,000
2-Methylnapthalene	91576	<330	57,000	ID	8,100,000
Remaining PAHs		ND	Various	Various	Various
PCBs (µg/kg)	**CAS#**				
{J}{T}	1336363	ND	NLL	NLL	4,000

Notes:

* - Raised c
{B}-Backgı
{C}-Value p
{D}-Calculat
{G}-GSI pH
{I}-Hazardo
{M}-Calcula
{X}-The GSI
AD - Hazard
ID - Inadequ
NA - Not app
ND - Not det
NT - Not test
NLL - Not lil

Table 2
Summary of Water Analytical Results
Boji Property
Lansing, Michigan
AKT Peerless Project 3252s

Sample Identification and Date		TMW-1 8/27/01	MDEQ Residential and Commercial I Drinking Water Criteria	MDEQ Groundwater Surface Water Interface Protection	MDEQ Residential and Commercial I Groundwater Contact Criteria
Parameters (µg/L)	**CAS#**				
VOCs		ND	Various	Various	Various
PAHs		ND	Various	Various	Various
Remaining SVOCs		ND	Various	Various	Various

Notes:
ND - Not detected

PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPENDIX A

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-1

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	8.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							CONCRETE	
						SW	SAND: Fine-Medium, Fill, Brown, Damp	
02			ND					
04			ND					
06			ND					
	01							
08			ND				8.0' BORING TERMINATED	
10								
12								

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-2

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	8.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	HAND AUGER	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							CONCRETE	
						SW	SAND: Fine-Medium, Fill, Brown, Damp	
02			ND					
04			ND					
06			ND					
	02							
08			ND				8.0' BORING TERMINATED	
10								
12								

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-3

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	8.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	HAND AUGER	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10, 25, 50, 75, 100, 250, 500, 750, 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							CONCRETE	
						SW	SAND: Fine-Medium, Trace Fine Gravel, Brown, Damp-Moist @7.0' bgl.	
02			ND					
04			ND					
06			ND					
	04							
08			ND				8.0' BORING TERMINATED	
10								
12								

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

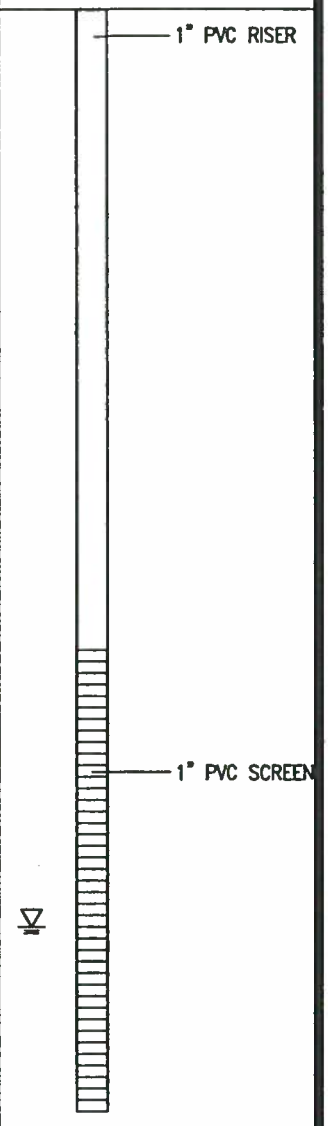
B-4/TMW-1

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	12.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	10.0 (FEET, BGS)
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	7.0-12.0 (FEET, BGS)
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PROFILE	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							ASPHALT
							CONCRETE
						CL	CLAY: Medium, Trace Fine Gravel, Brown, Damp
02			ND				
04			ND			SW	SAND: Fine-Medium, Brown, Damp
06			ND				
08			ND				
	05						
10			ND			SW	SAND: Medium, Brown, Wet @10.5' bgl.
12							12.0' BORING TERMINATED

TEMPORARY WELL DIAGRAM



▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-5

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	16.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							CONCRETE	
						CL	CLAY: Medium, Trace Sand (fine-medium), Brown, Damp	
02			ND					
04			ND			SW	SAND: Fine-Medium, Trace Fine Gravel, Brown, Damp	
06			ND					
	06 07					CL	CLAY: Medium, Brown, Damp	
08			ND					
10			ND					
12			ND					
14			ND					
16			ND				16.0' BORING TERMINATED	

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-6

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	12.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							ASPHALT	
						CL	CLAY: Trace Sand (fine-medium), Trace Brick Debris @3.0-3.5' bgl., Gravel/Stone @8.0-8.5' bgl., Brown, Damp	
02			ND					
04	08		ND					
06			ND					
08			ND					
10			ND					
12			ND				12.0' BORING TERMINATED	

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-7

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	12.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							ASPHALT	
						SW	SAND: Fine-Medium, Trace Gravel, Brown, Damp	
02			ND			CL	CLAY: Soft-Medium, Trace Sand (fine-medium), Trace Brick @3.0' bgl., Brown, Damp	
04	09		ND					
06			ND			CL	CLAY: Soft, Trace Fine Gravel, Brown, Damp	
08			ND			CL	CLAY: Medium, Trace Fine Gravel, Brown, Damp	
10			ND					
12			ND				12.0' BORING TERMINATED	

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-8

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	10.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	HAND AUGER	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							CONCRETE	
						SW	SAND: Fine-Medium, Brown, Damp	
02			ND					
04			ND					
06	10		ND					
08			ND			CL	CLAY: Soft-Medium, Trace Fine Gravel (Trace Brick), Brown, Damp	
10			ND				10.0' BORING TERMINATED	
12								

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-9

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	12.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							ASPHALT	
						SW	SAND: Fine-Medium, Trace Fine Gravel, Brown, Damp	
02			ND					
04	11		ND			CL	CLAY: Medium, Brown, Damp	
06			ND					
08			ND					
10			ND					
12			ND				12.0' BORING TERMINATED	

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-10

DRAWN BY: OGO
DATE: 08-28-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	12.0 (FEET, BGS)
DATE DRILLED:	08-27-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							ASPHALT	
						SW	SAND: Fine-Medium, Trace Fine Gravel, Brown, Damp	
02			ND					
						SW	SAND: Fine-Medium, Brown, Moist @8.0'	
04			ND					
06			ND					
	12							
08			ND					
						CL	CLAY: Medium, Trace Fine Gravel, Brown, Damp	
10			ND					
12			ND					
							12.0' BORING TERMINATED	

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-11/TMW-2

DRAWN BY: OGO
DATE: 09-26-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	20.0 (FEET, BGS)
DATE DRILLED:	09-24-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	15.0-20.0 (FEET, BGS)
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
02			ND			SW	SAND: Fine-Medium, Trace Gravel (fine), Brown, Damp
04			ND			CL	CLAY: Medium, Brown, Damp
06			ND				
08			ND				
10			ND			SW	SAND: Fine, No Odor, Gray, Damp
12			ND			CL	CLAY: Medium, Trace Gravel (fine), Brown, Damp
14			ND				
16			ND			SW	SAND: Medium, Brown, Moist
	17						
18			ND			CL	CLAY: Medium, Brown, Damp
20			ND				20.0' BORING TERMINATED
22							
24							

TEMPORARY WELL DIAGRAM

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

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BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-12/TMW-3

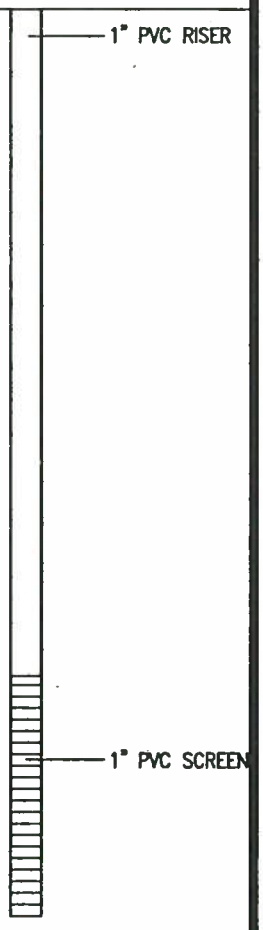
DRAWN BY: OGO
DATE: 09-26-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	22.0 (FEET, BGS)
DATE DRILLED:	09-24-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	14.0-19.0 (FEET, BGS)
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PROFILE	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						SW	SAND: Fine-Medium, Trace Gravel (fine), Brown, Damp
02			ND			CL	CLAY: Medium, Trace Gravel (fine), Brown, Damp
04			ND				
06			ND				
08			ND				
10			ND			CL	CLAY: Soft-Medium, Gray, Damp
12	18		250			SW	SAND: Medium, Strong Petroleum Odor, Grayish-Black, Moist
14			220				
	19					CL	SAND: Medium, Brown, Moist
16			32				
18			13				
						SM	SILT: Medium, Brown, Moist
20			6.8				
22			ND				22.0' BORING TERMINATED
24							

PROFILE scale: 50, 100, 150, 200, 250, 300, 350

TEMPORARY WELL DIAGRAM



▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

AKTPEERLESS
environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax: (989)754-3804

BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-13

DRAWN BY: OGO
DATE: 09-26-01

DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	8.0 (FEET, BGS)
DATE DRILLED:	09-24-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 20 50 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	TEMPORARY WELL DIAGRAM
							ASPHALT	
02			ND			SW	SAND-CLAY: Soft, Frequent Gravel (medium), Debris (bricks, concrete), Dark Brown, Damp	
04	20		ND			CL	SILTY-CLAY: Some Sand, Trace Gravel, Light Brown, Damp	
06			ND					
08			ND				8.0' BORING TERMINATED	
10								
12								

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

AKTPEERLESS
environmental services
230 S. Washington Ave., Suite 300, P.O. Box 1873, Saginaw, MI 48605
Phone: (989)754-9896 Fax: (989)754-3804

BORING LOG

BOJI
205 W. ALLEGAN & 217 TOWNSEND
LANSING, MICHIGAN
PROJECT NUMBER: 3252s

B-14

DRAWN BY: OGO
DATE: 09-26-01

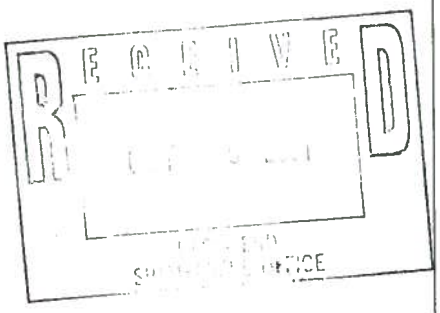
DRILLING COMPANY:	AKT PEERLESS	SURFACE ELEVATION:	N/A
TECHNICIAN:	TODD SHARAR/SEAN ROBINSON	BORING DEPTH:	8.0 (FEET, BGS)
DATE DRILLED:	09-24-01	DEPTH TO GW:	N/A
DRILLING METHOD:	ECO PROBE	SCREEN INTERVAL:	N/A
		SCREEN MATERIAL:	N/A

DEPTH FEET	SAMPLE NUMBER	BLOWS/FT.	PID (ppm) VALUES	PID (ppm) PROFILE (10 25 50 75 100 250 500 750 1000)	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							ASPHALT
02			ND			SW	SAND-CLAY: Soft, Frequent Gravel (medium), Debris, Dark Brown, Damp
	21						
04			ND			CL	SILTY-CLAY: Trace Gravel, Brown, Damp
06			ND				
08			ND				8.0' BORING TERMINATED
10							
12							

TEMPORARY WELL DIAGRAM

▽ = TOP OF GROUNDWATER N/A = NOT APPLICABLE BGS = BELOW GROUND SURFACE

231 S. Capitol Avenue



BASELINE ENVIRONMENTAL ASSESSMENT CONDUCTED PURSUANT TO SECTION 20126(1)(C) OF 1994 PA 451, PART 201, AS AMENDED, AND THE RULES PROMULGATED THEREUNDER

231 SOUTH CAPITOL AVENUE LANSING, MICHIGAN

PREPARED FOR:

ACCIDENT FUND OF MICHIGAN
232 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN 48933

PREPARED BY:

SOIL AND MATERIALS ENGINEERS, INC.
2663 EATON RAPIDS ROAD
LANSING, MICHIGAN 48911-6310

October 3, 2001
SME Project No. LE37803

DEQ MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK DIVISION

FACILITY NUMBER (see invoice)

USTD USE ONLY	
UPGRADE/CANCEL DATE	INCIDENT NUMBER
ENTRY DATE	

RELEASE REPORT: ☐ SUSPECTED ☒ CONFIRMED

THIS INFORMATION IS REQUIRED UNDER 1994 PA 451, AS AMENDED (Act 451). FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ACT MAY RESULT IN A MISDEMEANOR AND/OR CIVIL PENALTIES NOT TO EXCEED $5000 PER DAY, PER TANK.

INSTRUCTIONS: The owner, operator, or consultant must report suspected and confirmed release reports to the Underground Storage Tank Division (USTD) within 24 hours of discovery. Phone 1-800-MICHUST or FAX this form to 517-335-2245. All information on this form must be provided regardless of whether the release is reported by telephone or FAX. If you have any questions, please contact the USTD at 517-373-8168.

PERSON REPORTING RELEASE	COMPANY (IF NOT OWNER/OPERATOR)	AREA CODE & TELEPHONE NUMBER
Muench, Brian K	STD	(517) 625-4619

I. OWNERSHIP OF TANKS

☐ PLEASE CHECK IF NEW ADDRESS

NAME OF OWNER (CORPORATION/INDIVIDUAL, ETC.): Ellis Parking

STREET ADDRESS:

CITY: STATE: ZIP CODE:

AREA CODE & TELEPHONE NUMBER: ( )

II. LOCATION OF TANKS

☐ PLEASE CHECK IF SAME AS SECTION I

FACILITY NAME OR COMPANY SITE IDENTIFIER: Ellis Parking

STREET ADDRESS (P O Box Not Acceptable): 231 S. Capitol Ave

CITY: Lansing STATE: MI ZIP CODE: 48933

COUNTY: INGHAM TOWNSHIP:

CONTACT PERSON FOR LOCATION: AREA CODE & TELEPHONE NUMBER: ( )

DATE RELEASE DISCOVERED:

TIME RELEASE DISCOVERED:

SIZE OF TANK (Gallons)	SUBSTANCE RELEASED	CONSTRUCTION OF TANK	REASON FOR BELIEVING RELEASE OCCURRED (e.g. presence of product, failed tightness test, vapors, stains)
UNK	Gasoline	unk	Analytical performed as part of the BEA submittal verified impacts above Tier 1 Res unrestricted clean up criteria for petroleum constituents.
~~UNK~~			
~~UNK~~			

COMMENTS: Facility was also reportedly used as a dry cleaner.

BEAS B2001-00573-SH

District will send PRP notification when entity identified

USTD USE ONLY

DATE/TIME REPORTED _____ _____ ☐ AM ☐ PM

☐ PHONE ☐ FAX ☐ VOICE MAIL

DISTRIBUTION ORIGINAL: USTD, FACILITY FILE
COPY: OWNER

USTD SIGNATURE

EQP 3826 (10/95)

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL RESPONSE DIVISION

FOR DEQ USE ONLY
BEA Disclosure # B2001 00573 SH

DISCLOSURE OF A BASELINE ENVIRONMENTAL ASSESSMENT
(FORM EQP4446(REV.3/99)

(Under the authority of Part 201, 1994 Act 451, as amended and the Rules promulgated thereunder)

DO NOT use this form for requesting a Baseline Environmental Assessment ("BEA") adequacy determination, OR if the property is not a facility, OR if the BEA was complete before the effective date of the BEA rules. *Please answer the following questions as completely as possible.*

Name and address of submitter (individual or legal entity):
Accident Fund Company
232 South Capitol Avenue
Lansing, Michigan 48933

Status relative to the property:

	Former	Current	Prospective
Owner		X	
Operator			
Lender			

Address/location of property where BEA was conducted:
231 South Capitol Avenue
Lansing, Michigan 48933

County: Ingham

Provide the property tax identification number(s), or, if applicable, the ward and item number(s) for the property identified in the BEA. Required pursuant to Rule 907.

3301-16-328-031-1

Contact person Roy Swan Telephone: (517) 367-1401

If the address of the person seeking liability protection above is different from the address that should be used to correspond with the contact person, please provide the contact person's address:

Check the appropriate response to each of the following questions.

1. **Is it known that the source of contamination at the property is primarily from any of the following:**
   - **A leaking underground storage tank (UST) regulated under Part 213, 1994 PA 451, as amended.** **YES X NO ___**
   - **A licensed landfill or solid waste management facility.** **YES ___ NO X**
   - **A licensed hazardous waste treatment, storage, or disposal facility.** **YES ___ NO X**
   - **Oil and gas development related activities.** **YES ___ NO X**

   The source of the release that resulted in this property becoming a "facility" will determine which DEQ division will maintain a file regarding this BEA.

2. **Based on the Part 201 Rules, this BEA is a:**
   Category N X
   Category D ___
   Category S ___

3. **Is the property at which the BEA was conducted a "facility" as defined by Section 20101?** If the answer to this question is NO, do not submit the BEA to the DEQ. **YES X NO ___**

4. **Was the BEA conducted prior to or within 45 days after the date of purchase, occupancy, or foreclosure of the property, whichever is earliest, and completed not more than 15 days after the date required by Section 20126(1)(c) or Rule 299.5903(8)?** If the answer to either portion of this question is no, you are ineligible for an exemption from liability based on the BEA. YES X NO___

5. **Is the BEA being disclosed to the DEQ no later than 8 months after the earliest of date of purchase, occupancy, or foreclosure?** All disclosures pursuant to Rule 913(3) must be submitted to the DEQ no later than 8 months after the earliest of the date of purchase, occupancy, or foreclosure. YES X NO___

6. **Are any USTs or abandoned or discarded containers identified in the BEA?** If yes this information must be provided on Form EQP4476. YES __ NO X

7. **Does this BEA rely on an isolation zone or an engineering control that requires an affidavit pursuant to Rule 299.5909(3) or 299.5909(4)?** If yes, a completed affidavit, Form EQP4479, must be attached or the BEA will not be considered complete. YES __ NO X

With my signature below, I certify that the enclosed BEA and all related materials are complete and accurate to the best of my knowledge and belief. I understand that intentionally submitting false information to the DEQ is a felony and may result in fines of up to $25,000 for each violation.

Signature of Submitter: Roy A. Swan Date October 3, 2001
(Person legally authorized to bind the person seeking liability protection)

Name (Typed or Printed) Roy A. Swan
Title Administrative Services Manager

BASELINE ENVIRONMENTAL ASSESSMENT
CONDUCTED PURSUANT TO SECTION 20126(1)(C)
OF 1994 PA 451, PART 201, AS AMENDED,
AND THE RULES PROMULGATED THEREUNDER

231 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN

PREPARED FOR:

ACCIDENT FUND OF MICHIGAN
232 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN 48933

PREPARED BY:

SOIL AND MATERIALS ENGINEERS, INC.
2663 EATON RAPIDS ROAD
LANSING, MICHIGAN 48911-6310

October 3, 2001
SME Project No. LE37803

SME

Consultants in the geosciences, materials and the environment

- *Caissons/Piles*
- *Corrosion*
- *Dewatering*
- *Drilling*
- *Earth Retention Systems*
- *Foundation Engineering*
- *Geodynamics/Vibrations*
- *Geophysical Survey*
- *Geosynthetics*
- *Ground Modification*
- *Instrumentation*
- *Settlement Analysis*
- *Site Condition Assessment*
- *Slope Stability*
- *Building Restoration*
- *Coatings*
- *Concrete*
- *Condition Survey*
- *Construction Materials Services*
- *Facility Asset Management*
- *Forensic Engineering*
- *Masonry/Stone*
- *Metals*
- *Nondestructive Testing*
- *Pavement Evaluation/Design*
- *Roof System Management*
- *Sealants/Waterproofing*
- *Structural Steel/Welding*
- *Air Quality*
- *Asbestos/Lead Based Paint*
- *Baseline Environmental Assessment*
- *Due Care Analysis*
- *Environmental Site Assessment*
- *Hydrogeologic Evaluation*
- *Industrial Hygiene*
- *Landfill Services*
- *Pollution Prevention*
- *Regulatory Compliance*
- *Remediation*
- *Risk Assessment*
- *Storm Water Discharge*
- *Underground Storage Tanks*

soil and materials engineers, inc.

2663 Eaton Rapids Road Lansing, MI 48911-6310 (517) 887-9181 FAX (517) 887-2666

October 3, 2001

Mr. Roy Swan
Accident Fund of Michigan
232 South Capitol Avenue
Lansing, Michigan 48933

RE: Baseline Environmental Assessment
231 South Capitol Avenue
Lansing, Michigan
SME Project No. LE37803

Dear Mr. Swan:

Please find enclosed the completed Category "N" Baseline Environmental Assessment (BEA) for the referenced facility, prepared by SME on behalf of Accident Fund of Michigan.

The enclosed BEA is being submitted to the Michigan Department of Environmental Quality for disclosure in accordance with Section 20126(1)(c) of Part 201 of the Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended.

If you have any questions or comments regarding the enclosed BEA, please contact us.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Julie A. Hartner for

Bridget E. Hanley
Senior Environmental Specialist

Brian F. Burke, CPG
Senior Project Consultant

Attachments: Disclosure Form (EQP 4446)
BEA Report (1 Original)

Enclosures: 1 Original

Distribution: MDEQ, Shiawassee District Office (1 Original)

t:\proj\le37803\231bea_011003cc.doc

TABLE OF CONTENTS

ATTACHMENTS

1.0 IDENTIFICATION OF AUTHOR, DATE BEA WAS CONDUCTED AND DATE BEA WAS COMPLETED

This Baseline Environmental Assessment (BEA) has been prepared pursuant to Section 20126 of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), Public Act 451 of 1994, as amended. This report is intended to meet the requirements of a Category "N" BEA, in general accordance with the Michigan Department of Environmental Quality's (MDEQ's) "New Administrative Rules for Baseline Environmental Assessments (BEAs) and Compliance with Section 20107a ("Due Care") and Related Materials," dated March 3, 1999. The BEA was prepared by Ms. Bridget E. Hanley, Senior Environmental Specialist and Ms. Caryn E. Carscadden, Environmental Engineer, and reviewed by Mr. Brian F. Burke, CPG, Senior Project Consultant. This BEA was conducted on August 20, 2001 and completed on October 3, 2001.

2.0 INTRODUCTION

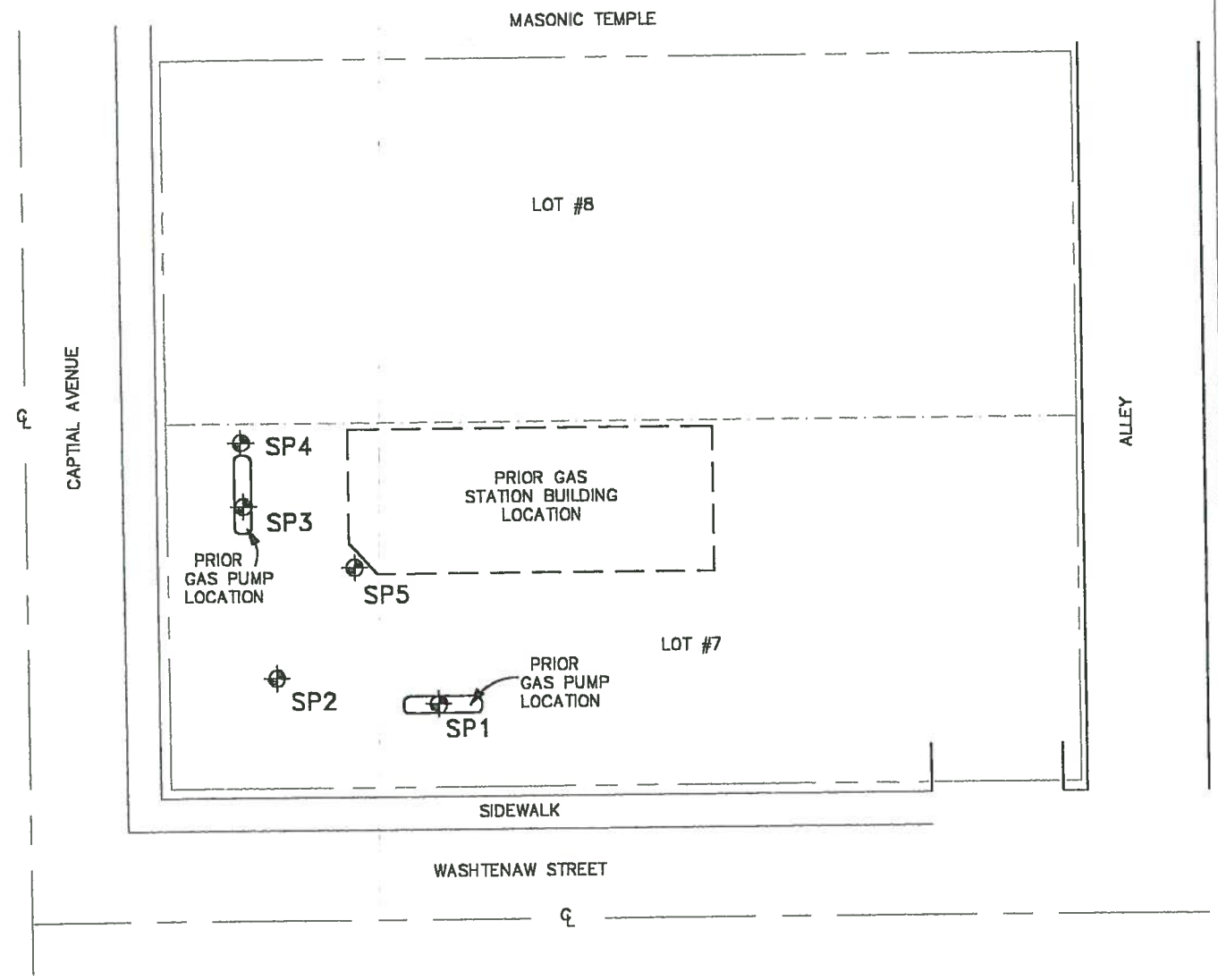
This report presents the results of a BEA prepared by Soil and Materials Engineers, Inc. (SME), for the "facility" which is referred to as 231 South Capitol Avenue in Lansing, Ingham County, Michigan, hereinafter referred to as the Property. At the time of completion of this BEA, the site was an asphalt paved parking lot.

SME prepared this BEA on behalf of Accident Fund of Michigan (Accident Fund), 232 South Capitol Avenue, Lansing, Michigan 48933, the owner of the Property. Hereinafter, the term "owner" shall refer to Accident Fund.

2.1 Historical Uses

The historical uses of the Property were evaluated as part of SME's Phase I Environmental Site Assessment (ESA) of the property dated December 28, 2000, which is included in Attachment B. Historical records indicated the Property was occupied by a dry cleaners in 1913, a gasoline service station from 1936 to 1951, a bank from 1952 to 1960, a parking ramp from 1960 to 1985, and a parking garage from 1986 to 1995. At the time of SME's walkover, the Property was used as a parking lot.

SME's Phase I ESA identified the historical occupancy of the Property by a dry cleaners and a gasoline service station as recognized environmental conditions (RECs)



LEGEND

APPROXIMATE SOIL PROBE LOCATION

NORTH

NOTE: INFORMATION TAKEN FROM A LAND SURVEY, DATED 7-27-51
PREPARED BY CLYDE STEPHENS CIVIL ENGINEER SURVEYOR

43980 PLYMOUTH OAKS BOULEVARD
PLYMOUTH, MICHIGAN 48170
(734) 454-9800

BAY CITY
GRAND RAPIDS
KALAMAZOO
LANSING
PLYMOUTH
TOLEDO

DATE	8-24-01
DRAWN BY	JAB
SCALE	1" = 30'
JOB	LE37803

SOIL PROBE LOCATION DIAGRAM

ACCIDENT FUND PARKING LOT ACQUISITION
231 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN

FILE NAME G:\DRAFTING\37000\37803-C.DWG

Figure No. 2

2.2 Environmental Evaluation Activities

In order to assess the RECs identified in SME's December 28, 2000, Phase I ESA, SME completed a total of five soil probes, SP1 through SP5, at the locations shown on Figure 2 of Attachment A. Soil probe locations were selected to evaluate subsurface conditions in the vicinity of on-site RECs identified in SME's Phase I ESA included as Attachment B. The soil probes were completed by Fibertec and observed by Ms. Caryn E. Carscadden and Mr. Brad Masserant of SME. Field activities were conducted using environmental protocol that included equipment decontamination, sample preservation and chain-of-custody completion. In addition, soil samples obtained for potential volatile organic compounds (VOCs) analysis were collected using EPA Method 5035 for methanol preservation. Soil samples were also screened on-site with a photoionization detector (PID).

The soil and groundwater samples collected near identified RECs were analyzed for VOCs and polynuclear aromatic hydrocarbons (PAHs). The laboratory VOC testing results for soil samples collected at the two probe locations indicated the Property would be a "facility" as define by Section 20101 of NREPA Act 451, Part 201 as amended. Additional information regarding the laboratory testing results is provided in Section 4.0 of this report.

2.2 Basis for BEA

Accident Fund Company purchased the Property on August 1, 2001 and plans to continue to use it as a parking lot. The use of the Property by the owner will not cause impacted soil or groundwater to be disturbed. In addition, impacted groundwater at the facility will not be used for domestic or commercial purposes. The proposed usage of the Property by Accident Fund Company will not involve the use or generation of hazardous substances on the facility. Significant quantities of hazardous substances will not be used, stored, or handled on the Property by the owner.

Based on the above information, this Category "N" BEA was completed in general accordance with the MDEQ document, "New Administrative Rules for Baseline Environmental Assessments (BEAs) and Compliance with Section 20107a ("Due Care") and Related Materials," dated March 3, 1999.

3.0 PROPERTY DESCRIPTION AND INTENDED HAZARDOUS SUBSTANCE USE

3.1 Property Description

The Property consists of approximately 0.5 acres and is located in the Northeast 1/4 of the Southwest 1/4 of Section 16, Township 4 North, Range 2 West. More specifically,

the Property was located at the northeast corner of Capitol Avenue and Washtenaw Street in Lansing, Ingham County, Michigan. The Sidwell Number, from the City of Lansing Assessor's Office, listed for the Property was 3301-16-328-031-1. The legal description of the Property is included in Attachment C. Figure 1 of Attachment A depicts the location of the Property relative to nearby roads and major landmarks. Figure 2 in Attachment A depicts the features and the boundaries of the Property. Photographs of the Property are included in Appendix D of the Phase I ESA, which is included as Attachment B to this report.

At the time of completion of the Phase I and Phase II ESAs, the Property contained an asphalt parking area and a parking attendant booth; both operated by Ellis Parking.

3.2 Intended Hazardous Substance Use

Accident Fund Company's intended use of the Property will be as a parking lot and will not result in "significant hazardous substance use." This stipulated condition is the basis for being able to distinguish existing contamination from a new release. Therefore, this Category "N" BEA was prepared.

4.0 KNOWN CONTAMINATION

A total of five soil samples (SP1 14', SP2 16'-18', SP2 27', SP4 12', and SP5 13') and three groundwater samples (SP1 24'-29', SP4 13'-15', and SP-5 18') were analyzed for VOCs and PAHs. Laboratory testing identified ethylbenzene, n-propylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes in the soil at the Property above MDEQ Part 201 residential cleanup criteria.

Table 1 in Attachment D summarizes the detected constituents in soil, and Table 2 in Attachment D summarizes detected constituents in groundwater. The analytical parameters, EPA Method numbers, and Method Detection Limits (MDLs) for the samples submitted for analyses are indicated on the analytical reports in Attachment E. Figure 2 in Attachment A depicts the sample locations.

4.1 Soil and Groundwater Conditions

Approximately 3 inches of bituminous pavement was encountered at each of the soil probe locations. Below the pavement, granular fill material consisting of fine to coarse sand, silty sand and/or clayey sand was encountered to depths ranging from 2 to 15 feet below

grade at SP1, SP2, SP3 and SP4. Refusal was encountered within the identified fill stratum at a depth of about 9 feet at SP3. Below the fill material or pavement, interbedded layers of clay, silt and sand were encountered to the explored depth of the soil probes that ranged from 16 to 32 feet below grade.

Foreign "gasoline-type" odors and evidence of soil staining were observed in soil samples collected at depths ranging from 16 to 20 feet below grade at SP2 and 12 to 15 feet below grade at SP4. A detectable PID reading of 548 parts per million (ppm) was observed during field screening of soil collected from the stained interval at SP2 during drilling. Foreign odors and evidence of soil staining were not observed in the remaining soil samples collected at SP2 and SP4. In addition, SME observed no PID responses in the soil samples collected at SP1, SP3, SP4 and SP5.

Groundwater was encountered during drilling at depths of 13 feet, 17 feet and 24 feet respectively at SP4, SP5, and SP1. Groundwater was not encountered to the explored depths at the remaining probe locations. An obstruction was encountered at the location of SP3. The soil boring logs are included in Attachment F.

4.2 Contamination Identification and Distribution

The analytical results from the soil and groundwater samples collected at the Property during SME's subsurface assessment are presented on the laboratory data sheets in Attachment E. Analytical results for soil and groundwater sampling are summarized on Tables 1 and 2 respectively in Attachment D. The tables also represent the chemical abstract service (CAS) numbers for each detected constituent and cleanup criteria for comparison. Figure 2 depicts the sample locations at the Property.

The analytical results were compared to the Part 201 residential cleanup criteria developed by MDEQ, and judged to be applicable for relevant exposure pathways. Specifically, SME compared soil analytical results to residential drinking water protection criteria, groundwater surface water interface protection criteria, soil volatilization to indoor air criteria, and direct contact criteria. For a listing of the above referenced criteria, refer to Table 1 in Attachment D and the MDEQ Part 201 Generic Cleanup Criteria and Screening Levels, dated June 7, 2000. The following sections discuss the detected concentrations in soil and groundwater at the Property.

4.2.1 Soil

PAHs were not detected at or above laboratory detection limits for the soil samples from the soil probes submitted for laboratory analysis using U. S. EPA method 8270. VOCs

were detected at or above laboratory detection limits in a soil sample collected from SP2 at 27 feet on the southwest portion of the Property and a soil sample collected from SP5 at 13 feet approximately 20 feet northeast of SP2. Isopropylbenzene, 2-methylnapthalene, and toluene concentrations did not exceed Part 201 Residential Cleanup Criteria in soil samples SP2 at 27 feet and SP5 at 13 feet. However, ethylbenzene, n-propylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes exceeded the Part 201 Residential Drinking Water and/or Groundwater, Surface Water Interface (GSI) Criteria in soil samples SP2 at 27 feet and SP5 at 13 feet.

4.2.2 Groundwater

VOCs and PAHs were not detected at or above laboratory detection limits in the groundwater samples submitted for laboratory analyses from soil probes SP1 and SP5. Detectable concentrations of ethylbenzene, isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in a groundwater sample collected from soil probe SP4 located on the northwestern portion of lot 7. However, the concentrations of these constituents did not exceed Part 201 Residential Cleanup Criteria.

5.0 LIKELIHOOD OF OTHER CONTAMINATION

Based on SME's December 28, 2000 Phase I ESA, areas of concern other than those addressed by SME's sampling activities were not noted. SME cannot guarantee all potential contaminants have been identified, or that unknown contamination or containers may exist at the Property resulting from historical activities or off-property sources. Furthermore, SME does not guarantee the extent of identified constituents at elevated levels has been fully delineated.

6.0 CONCLUSIONS

SME has performed this Category "N" BEA of the Property located at 231 South Capitol Avenue in Lansing, Ingham County, Michigan. SME's sampling activities evaluated RECs identified in December 28, 2000 Phase I ESA. The results of SME's soil sampling

indicated the Property meets the definition of a "facility" with respect to ethylbenzene, n-propylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes concentrations in soil.

The Accident Fund's intended use of the Property will be as a parking lot. Furthermore, there will be no significant hazardous substance use at the Property. This stipulated condition is the basis for being able to distinguish existing contamination from a new release.

The sampling activities were conducted by SME based on the findings of the Phase I ESA report for the Property. In the process of obtaining information in preparation of this BEA, procedures were followed that represent current reasonable and accepted engineering and hydrogeological practices and principles, in a manner consistent with the level of care and skill ordinarily exercised by members of these professions.

SME has performed the BEA based upon observed conditions, information reported in a previous report, future use of the Property, and conditions encountered during the subsurface activities. Based on subsurface, analytical, and historical data that has been collected, and the future use of the Property, it is SME's opinion this BEA is sufficient to provide a basis to distinguish potential future hazardous substance releases from the existing facility conditions.

7.0 REFERENCES

1. SME's **Phase I Environmental Site Assessment, 231 South Capitol Avenue, Lansing, Michigan**, December 28, 2000.

2. The Michigan Department of Environmental Quality, **Revised Interim Instructions for Preparing and Disclosing Baseline Environmental Assessments,** March 11, 1999.

3. The Michigan Department of Environmental Quality, **Commonly Asked Questions and Answers about Part 201**, November 5, 1995.

4. The Michigan Department of Environmental Quality, **New Administrative Rules for Baseline Environmental Assessments (BEAs) and Compliance with Section 20107a("Due Care") and Related Materials**, March 3, 1999.

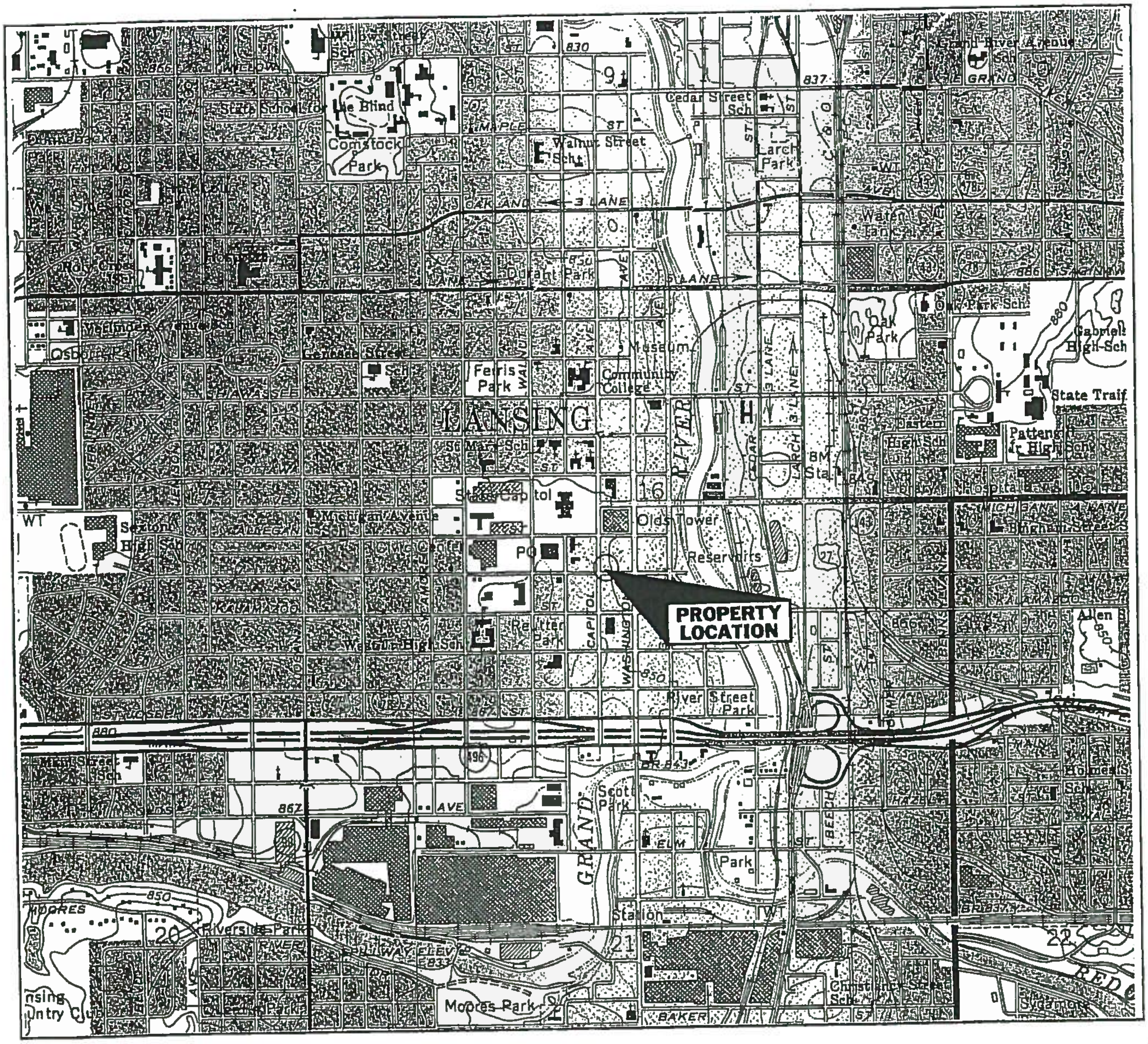
5. The Michigan Department of Environmental Quality, **Part 201 Cleanup Criteria Training Material**, January 1998.

6. The Michigan Department of Environmental Quality, **Part 201 Generic Cleanup Criteria and Screening Levels,** June 7, 2000.

7. The Michigan Department of Environmental Quality, **Commonly Asked Questions about Baseline Environmental assessments and Section 7a ("Due Care") Compliance under Part 201,** June 24, 1999.

ATTACHMENT A

FIGURES



LANSING SOUTH QUADRANGLE
MICHIGAN – INGHAM COUNTY
7.5 MINUTE SERIES (TOPOGRAPHIC)
1967/PHOTOREVISED 1973

SCALE 1:24 000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NORTH

43980 PLYMOUTH OAKS BOULEVARD PLYMOUTH, MICHIGAN 48170 (313) 454-9900	BAY CITY KALAMAZOO LANSING PLYMOUTH TOLEDO	DATE 12/18/00 DRAWN BY AJW SCALE AS SHOWN JOB LE 37803	PROPERTY LOCATION MAP 231 SOUTH CAPITOL AVENUE LANSING, MICHIGAN

DWG. NO. 37803-02

ATTACHMENT B

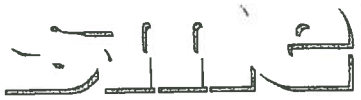
PHASE I ENVIRONMENTAL SITE ASSESSMENT

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

231 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN

SME Project No. LE37803

December 28, 2000



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December 28, 2000

Mr. Roy Swan
Accident Fund of Michigan
232 South Capitol Avenue
Lansing, Michigan 48933

RE: Phase I Environmental Site Assessment
231 South Capitol Avenue
Lansing, Michigan
SME Project No. LE37803

Dear Mr. Swan:

SME has completed the Phase I Environmental Site Assessment (ESA) of the above referenced property. The following report presents SME's interpretation of the observed conditions based on field observations, a review of readily available historical and regulatory records, and interviews.

The Phase I ESA was requested to identify recorded and readily observable recognized environmental conditions associated with the property. SME understands Accident Fund will rely upon the professional opinions and representations contained in the report. This reliance is not to be construed as a warranty or guarantee on the part of SME.

Thank you for the opportunity to provide these services. If you have any questions concerning this report, or if additional services are required, please call me.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Julie A. Hartner

Julie A. Hartner
Project Manager

Enclosures: 2 PC

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EXECUTIVE SUMMARY

The findings of our Phase I Environmental Site Assessment of the 0.5-acre property located at 231 South Capitol Avenue in Lansing, Michigan are summarized as follows:

Findings and Conclusions

At the time of the Property walkover, the 0.5-acre Property was used as a parking lot. One structure used as an attendant's booth was located in the western part of the Property. Approximately 1 to 5 feet of snow cover was present around the outside of the parking lot and a thin layer of ice and snow covered the asphalt surface which prevented observation of the entire ground surface of the Property.

The use and/or storage of chemicals, evidence of underground or above ground storage tank systems, potential PCB containing equipment, or the generation, treatment, or storage of waste was not observed during the Property walkover.

Based on information reviewed during SME's historical records search, the Property was a dry cleaner in 1913 and a gasoline station from 1936 through 1951. The historic use of the Property as a gasoline station and dry cleaner is a REC in connection to Property. Subsequent to the gasoline station the Property was a drive-in bank and parking ramp.

Twenty-eight listed sites of potential environmental concern were identified within the specified search radii of the regulatory lists reviewed. Based on information reviewed in the MDEQ files, and the distance from the Property, these sites do not appear to represent a REC in connection with the Property.

RECs in connection to the Property were not identified during interviews and record reviews with the Lansing Fire Department the Ingham County Bureau of Environmental Health, and the Michigan Health Department.

Recommendations

Based on the results of the Phase I ESA, SME recommends conducting a subsurface environmental assessment to evaluate the identified RECs. Additional information about our recommendations is included in the Recommendations section of the report.

The summary presented above is general in nature and should not be considered apart from the entire text of the report with all the qualifications and considerations mentioned herein. Details of our findings and conclusions are included in this report.

REPORT PREPARED BY:

Adam R. Biteman
Staff Geologist

REPORT REVIEWED BY:

Julie A. Hartner
Project Manager

1.0 INTRODUCTION

SME has performed a Phase I Environmental Site Assessment (ESA) for the 0.5-acre property located at 231 South Capitol Avenue in Lansing, Michigan, hereinafter referred to as the Property. The general location of the Property is shown on the Property Location Map in Appendix A. The legal description of the Property provided by the Accident Fund is contained in Appendix B.

This Phase I ESA was authorized by Mr. Roy Swan of the Accident Fund prior to purchase. The Phase I ESA was based on SME's proposal dated December 8, 2000 and is intended to be used solely and exclusively by the Accident Fund of Michigan. No other party may rely upon SME's opinions, conclusions or reports unless SME has agreed to such reliance in writing.

1.1 Purpose

The purpose of this Phase I ESA was to identify **recognized environmental conditions (RECs)** on the Property and assess the relative significance of the identified REC(s). A REC is defined by ASTM as;

...the presence or likely presence of any hazardous substance 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 substance 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. Recognized environmental conditions are 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.*

*For the purposes of this Phase I ESA, a hazardous substance is a substance as defined in the ASTM Standard E 1527-00.

1.2 Scope of Services

The Phase I ESA was conducted in general accordance with the ASTM Standard on Environmental Site Assessments for Commercial Real Estate designation E 1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." This Phase I ESA was performed in an attempt to satisfy one of the requirements for the innocent landowner defense to Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability. This Phase I ESA does not address the non-scope considerations as defined by Section 12 of ASTM E 1527-00. The specific scope of services is included in Appendix C.

2.0 PROPERTY DESCRIPTION

The following is a description of the Property and observed uses and conditions. Additionally, RECs identified during the Property walkover and interviews are also described.

2.1 Property Location

The 0.5-acre Property is located at 231 South Capitol Avenue, Lansing, Michigan in the northeast 1/4 of the southwest 1/4 of Section 16, Township 4 North, Range 2 West.

2.2 Physical Setting

SME reviewed a United States Geological Survey (USGS) topographic map to evaluate the physical setting of the Property. According to the 1965 (photorevised in 1973) Lansing South Quadrangle 7.5 Minute Series topographic map, the Property is at an elevation of between 850 and 860 feet above mean sea level (MSL). The nearest body of water, the Grand River, is located approximately 0.3 miles east of the Property.

2.3 Property Walkover

On December 18, 2000, Adam Biteman of SME conducted an observational walkover of the Property and recorded Property conditions, features, and RECs observed. Photographs taken during the walkover which illustrate observed Property conditions and surrounding areas, are contained in Appendix D.

At the time of the walkover, the Property was used as a parking lot. The Property was occupied by an attendant's booth (4 feet x 5 feet). The lot was paved with asphalt. Approximately 1 to 5 feet of snow cover was present around the outside of the parking lot and a thin layer of ice and snow covered the asphalt surface which prevented observation of the entire ground surface of the Property.

2.4 Operations, Activities, and Processes

The current operations at the Property were determined during the walkover and through discussions with Mr. Kenneth Ellis, owner. A copy of the Property Owner/Operator Questionnaire completed by Mr. Ellis is included in Appendix E. No RECs were identified through review of the completed questionnaire.

2.5 Utilities and Drainage

The Lansing Board of Water and Light provides electricity and water. The Property is served by municipal storm and sanitary sewers. Gas service is provided by Consumers Energy.

2.6 Adjoining Properties

Adjoining properties were observed from the Property boundaries for evidence of RECs. The property walkover did not include accessing the adjoining properties. SME was unable to view portions of adjoining property due to structural obstacles or snow cover.

At the time of the walkover, the adjoining properties were occupied by office and commercial buildings. Based on visual observation made from the Property, the adjoining properties did not appear to represent a REC in connection with the Property

2.7 Recognized Environmental Conditions Observed

During the Property walkover, SME observed for RECs. Identified RECs are described in the following sections.

2.7.1 Chemical Use and Storage

The use and/or storage of chemicals was not observed during SME's Property walkover.

2.7.2 USTs/ASTs

Evidence of underground storage tank (UST) systems, such as fill ports, vent pipes, dispensers, concrete pads, or areas of replaced pavement, or aboveground storage tank (AST) systems, was not observed during SME's Property walkover.

2.7.3 PCB Containing Equipment

Pole or pad-mounted electrical transformers, or other PCB containing equipment was not observed on the Property during the walkover.

2.7.4 Waste Generation, Treatment, Storage, and Disposal

No visual evidence of the generation, treatment, storage, or disposal of liquid or solid wastes was observed on the property.

2.7.5 Other Property Features

Other Property features which represented a REC in conjunction with the property were not noted during SME's property walkover.

3.0 HISTORICAL REVIEW

SME conducted a review of the history of use of the Property at intervals defined by ASTM from the present back to the obvious first developed use of the Property or back to 1940, whichever was earlier. This information was reviewed from reasonably available standard sources such as: information that was publicly available, information that was obtainable from its source within reasonable time and cost constraints, and information that was practically reviewable. Data failures encountered, as defined by ASTM, are described under each appropriate standard historical source. ASTM requires review of only as many of the standard historical sources as are necessary and both reasonably ascertainable and likely to be useful. Listed below is a description of ASTM standard historical sources. A summary of the obtained information, an indication of whether the sources were reviewed, and the dates of available/reviewed records is included at the end of this section, as well as identified RECs.

3.1 Aerial Photographs

Aerial photographs are taken from an aerial platform at altitudes which allow identification of development and activities. Review of aerial photography is often useful in identifying property features including building location and size, land usage, and potential RECs such as exposed soils, mounding, debris deposition, etc. It should be noted, the quality and scale of the aerial photographs limited SME's ability to make detailed observations and conclusions concerning historical uses of the Property and adjoining properties.

SME reviewed aerial photographs of the Property and surrounding areas, dated 1981, 1976, 1970, 1963, 1955, 1950, and 1938 at the Michigan State University Center for Remote Sensing Aerial Archive Institute.

3.2 Fire Insurance Maps

Fire insurance maps are produced by private companies and indicate uses of properties at specified dates. Fire insurance maps were created to document fire prevention hazards for urban areas. Sanborn Fire Insurance Maps typically indicate type of building materials and property usage. Often, the maps also include UST, AST, and flammable material storage locations.

Sanborn Fire Insurance Maps dated 1972, 1966, 1952, 1951, 1913, 1906, 1898, 1892, and 1885 were provided by Environmental Data Resources, Inc.

3.3 Local Street Directories

Local street directories are published by public and private sources and show occupancy and/or use of properties by reference to street address.

SME reviewed Bressor's, Polk's and Chilson and McKinley local street directories at the Michigan Library and Historical Center for the years 2000-99, 1999-98, 1998-97, 1997-96, 1995-94, 1993-92, 1990-89, 1987-86, 1985-84, 1984-83, 1983-82, 1980-79, 1976-75, 1974-73, 1969, 1964, 1959, 1955, 1950-49, 1945, 1941, 1936, 1931, 1926, 1916, and 1911.

3.4 Building Department Records

Building Department records are maintained by the local government. These records indicate permission of the local government to construct, alter, or demolish improvements on a specified property. Frequently, information regarding installation and/or removal of USTs, municipal sewer and water connection dates and natural gas or electrical service installation is contained in these records.

Building Department records were indicated on the tax assessor record card for the Property.

3.5 Property Tax Files

Property tax files are maintained for property tax purposes by the local jurisdiction where the Property is located and may include records of past ownership, appraisals, maps, sketches, photographs, or other information pertaining to the Property. SME reviewed files at the City of Lansing Assessing Department and found the Property Sidwell Number was 3301-16-328-031-1. A copy of the field sheet is included in Appendix F.

3.6 Zoning/Land Use Records

Zoning ordinances, enacted by the local government, indicate the uses permitted by the local government in particular zones within the limits of its jurisdiction. Zoning/land use records are maintained by various local government offices such as the Planning Department or Commission. According to the Zoning Office of the City of Lansing, the Property was zoned G-1: Business.

3.7 Land Title Records

Land Title Records include records of fee ownership, leases, land contracts, easements, liens, and other encumbrances on or of the Property recorded in the place where land title records are, by law or custom, recorded for the local jurisdiction in which the

Property is located. Typically, these records are maintained by the municipal or county recorder or clerk. Information about the title to the Property that is recorded in any place other than where land title records are, by law or custom, recorded for the local jurisdiction in which the Property is located, are not considered part of the recorded land title record.

SME did not review Land Title Records for the Property because information regarding the history of the Property was obtained from other historical sources, and because typically Land Title Records provide information regarding ownership but not use.

3.8 Other Historical Sources

The term "other historical sources" refers to any source or sources other than standard historical sources that are credible to a reasonable person and that identify past uses of the property. This category includes miscellaneous maps, newspaper archives, and records or personal knowledge of the Property owner or occupants.

SME did not review other historical sources for the Property because information regarding the history of the Property was obtained from other historical sources.

3.9 Historical Usage Summary

The following table presents a summary of historical usage of the Property based on the information collected from the sources outlined above.

HISTORICAL USAGE SUMMARY

Year	Use/Comment	Source
1885	The Property was depicted as vacant.	Sanborn Fire Insurance Map
1892	The Property was occupied by one commercial building.	Sanborn Fire Insurance Map
1898	The Property was occupied by two commercial buildings.	Sanborn Fire Insurance Map
1906	The Property was occupied by one commercial building.	Sanborn Fire Insurance Map
1911	The Property was listed as vacant.	Chilson and McKinleys City Directories
1913	The Property was occupied by a dry cleaners. USTs/ASTs were not indicated.	Sanborn Fire Insurance Map
1916	The Property was listed as Rice and Company.	Chilson and McKinleys City Directories
1926	The address 231 S Capitol was not listed.	Chilson and McKinleys City Directories

HISTORICAL USAGE SUMMARY (CONTINUED)

Year	Use/Comment	Source
1931	The address 231 S Capitol was not listed.	Polk's City Directories
1936	The Property was listed as Lansing Crown Service, Inc.	Polk's City Directories
1938	The Property appeared to be occupied by one rectangular building located in the center of the Property.	Aerial Photograph
1941	The Property was listed as Lansing Crown Service, Inc.	Polk's City Directories
1945	The Property was listed as Lansing Crown Service, Inc.	Polk's City Directories
1949-50	The Property was listed as Lansing Crown Service, Inc.	Polk's City Directories
1950	The Property appeared to be occupied by one rectangular building located in the center of the Property.	Aerial Photograph
1951	The Property was occupied by a filling station, three gasoline USTs were depicted on the west side of the Property.	Sanborn Fire Insurance Map
1952	The Property was occupied by a drive-in bank, built in 1951.	Sanborn Fire Insurance Map
1955	The Property was listed as Michigan National Bank. The Property appeared to be occupied by one rectangular building located in the center of the Property.	Polk's City Directories Aerial Photograph
1959	The Property was listed as Michigan National Bank.	Polk's City Directories
1960	The Property was listed as a drive-in bank and then a parking ramp.	Tax Assessor Records
1961	A parking ramp was built on the Property.	Building Department Records
1963	The Property appeared to be occupied by a multi-level parking ramp-like structure.	Aerial Photograph
1964	The Property was listed as Michigan National parking ramp.	Polk's City Directories
1966	The Property was occupied by a parking ramp.	Sanborn Fire Insurance Map
1969	The Property was listed as Michigan National parking ramp.	Polk's City Directories
1970	The Property appeared to be occupied by a multi-level parking ramp-like structure.	Aerial Photograph
1972	The Property was occupied by a parking ramp.	Sanborn Fire Insurance Map

HISTORICAL USAGE SUMMARY (CONTINUED)

Year	Use/Comment	Source
1973-74	The Property was listed as Michigan National parking ramp.	Bressor's City Directories
1975-76	The Property was listed as Michigan National parking ramp.	Bressor's City Directories
1976	The Property appeared to be occupied by a multi-level parking ramp-like structure.	Aerial Photograph
1979-80	The Property was listed as Michigan National parking ramp.	Bressor's City Directories
1981	The Property appeared to be occupied by a multi-level parking ramp-like structure.	Aerial Photograph
1982-83, 1983-84, and 1984-85	The Property was not listed.	Bressor's City Directories
1985	A wrecking permit was issued to demolish the parking ramp.	Building Department Records
1986-87	The Property was listed as Ellis Parking Garage.	Bressor's City Directories
1989-90, 1992-93, and 1994-95	The Property was listed as Ellis Parking Garage.	Bressor's City Directories
1996-97, 1997-98, 1998-99, and 1999-2000	The Property was not listed.	Bressor's City Directories

Intervals of greater than five years in reasonably ascertainable Standard Historical Sources were identified during our historical records review for the following periods: 1885 through 1892, 1892 through 1898, 1898 through 1906, and 1916 through 1926.

SME considers the historical use of the Property as a gasoline station and dry cleaner as RECs in connection with the Property. Additional assessment is necessary to determine impact to the Property from these historical uses.

4.0 REGULATORY REVIEW

4.1 Standard Environmental Record Sources

The following state and federal regulatory agency lists were reviewed to identify regulated and/or environmentally impacted sites within the specified search radii of the Property. Sites found on these lists are identified at the end of this section.

1. **Michigan Sites of Environmental Contamination, currently regulated under Part 201 of Act 451, September 14, 1999; 1-mile radius.**

   This list identifies sites of environmental contamination in the state of Michigan and provides information pertaining to the risk assessment, evaluation, and cleanup of these sites.

2. **Michigan Department of Environmental Quality (MDEQ) Leaking Underground Storage Tank (LUST) Sites, January 2000; 1/2-mile radius.**

   LUST sites are regulated under Part 213 of Michigan Public Act 451 of 1994, as amended (Part 213). This list is comprised of sites where the source of release is a regulated UST.

3. **MDEQ Storage Tank Division (STD) Registered USTs, January 2000; Property and adjoining properties.**

   The MDEQ UST database provides information about current or previously registered UST systems in the state of Michigan. This list identifies sites which have or have had registered, regulated UST systems as defined by Part 211 of Michigan Public Act 451 of 1994, as amended (Part 211).

4. **MDEQ Waste Management Division Lists of Active and Inactive Solid Waste Facilities, December 3, 1999 and April 1998, respectively; 1/2-mile radius.**

   These lists identify known active and inactive landfills and transfer stations in the state of Michigan.

5. **United States Environmental Protection Agency (USEPA) CERCLIS Sites, September 1999; 1/2-mile radius.**

   The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation by the USEPA of sites under investigation for potential contamination under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), also known as Superfund.

6. **USEPA National Priorities List (NPL), March 3, 2000; 1-mile radius.**

   The NPL is a list of Superfund sites that qualify for federal funds for remedial action and also appear on the federal CERCLIS list.

7. **Federal Resource Conservation and Recovery Act (RCRA) Treatment Storage and Disposal (TSD) Facilities List, December 23, 1999; 1/2-mile radius.**

The RCRA TSD facilities list for Michigan includes sites which treat, store, or dispose of hazardous waste in the state of Michigan as regulated by the Resource Conservation Recovery Act of 1976 (RCRA).

8. **USEPA RCRA Generators List for Michigan, December 23, 1999; Property and adjoining properties.**

The RCRA Generators list includes sites and facilities in Michigan which generate hazardous waste as defined by RCRA. Since these sites are known and regulated they are generally not considered an environmental concern unless known to have a history of RCRA violations.

9. **USEPA Emergency Response Notification System (ERNS) List, January 1999; Property only.**

The USEPA maintains a list of reported CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity, as maintained at the National Response Center. The database contains information from spill reports made within the referenced time frame to the USEPA, US Coast Guard, and the Michigan Department of Transportation.

10. **Federal Resource Conservation and Recovery Information System (RCRIS) Corrective Action (CORRACTS) Facilities List, December 2, 1999; 1-mile radius.**

The CORRACTS list for Michigan includes sites which generate, treat, store, or dispose of hazardous waste and which are currently conducting corrective actions in the State of Michigan as regulated by RCRA.

TABLE OF LISTED SITES

Site Name and Address	Distance and Direction	Name of List
Accident Fund Building 232 South Capitol	Adjoining	Michigan Site of Environmental Contamination
Former Commerce Building 300 South Capitol	0.2 Mile South	Open LUST
LBWL Ottawa St. Station 209 Ottawa St.	0.25 Mile Northeast	Michigan Site of Environmental Contamination
Lansing State Journal 120 Lenawee	0.25 Mile South	Open LUST

TABLE OF LISTED SITES (CONTINUED)

Site Name and Address	Distance and Direction	Name of List
Consolidated Courts 303 West Kalamazoo	0.25 Mile Southwest	Open LUST
Demolition Site 211 East Kalamazoo	0.25 Mile Southeast	Closed LUST
Old Lansing Barber College 315 South Grand	0.25 Mile South	Closed LUST
LBWL Eckert Station 601 Island Ave.	0.4 Mile Southwest	Michigan Site of Environmental Contamination
Municipal Well #25 115 South Cedar	0.4 Mile East (across the Grand River)	Michigan Site of Environmental Contamination
BWL – Dye Water Conditioner 149 South Cedar	0.4 Mile East (across the Grand River)	Michigan Site of Environmental Contamination
Yellow Cab Company 229 South Cedar	0.4 Mile East (across the Grand River)	Closed LUST
Pavlik Enterprises 211 South Cedar Street	0.4 Mile East (across the Grand River)	Closed LUST
General Motors Plant #1 920 Townsend	0.5 Mile South	Michigan Site of Environmental Contamination
334 South Butler Blvd.	0.5 Mile West	Michigan Site of Environmental Contamination
Municipal Well #45 500 South Cedar	0.5 Mile Southeast (across the Grand River)	Michigan Site of Environmental Contamination
Downtown Mobile 600 East Michigan Ave.	0.5 Mile East (across the Grand River)	Open LUST
Action Auto Store # 26 636 East Michigan Ave.	0.5 Mile East (across the Grand River)	Open LUST
Cedar Water Production Co. 148 South Cedar	0.5 Mile East (across the Grand River)	Open LUST
Blaire House Reality 410 South Cedar	0.5 Mile Southeast (across the Grand River)	Open LUST
Former Spartan Inn 501 East Kalamazoo	0.5 Mile East/southeast	Closed LUST
Paul Automotive 205 North Larch	0.5 Mile Southeast (across the Grand River)	Closed LUST
Municipal Well #25 500 North Cedar	0.75 Mile Northeast (across the Grand River)	Michigan Site of Environmental Contamination
Southeast Corner of Michigan Ave. and Pennsylvania	0.8 Mile East (across the Grand River)	Michigan Site of Environmental Contamination

TABLE OF LISTED SITES (CONITNUED)

Site Name and Address	Distance and Direction	Name of List
Municipal Well #30 Ottawa St.	0.9 Mile Southeast	Michigan Site of Environmental Contamination
Baker Street Contamination Area Baker St. and Washington St.	1.0 Mile South (across the Grand River)	Michigan Site of Environmental Contamination
Lansing Center 333 East Michigan Ave.	1.0 Mile Northeast (across the Grand River)	Michigan Site of Environmental Contamination
Former Lansing Connecting Railroad	1.0 Mile Southeast (across the Grand River)	Michigan Site of Environmental Contamination

The sites located across the Grand River from the Property are not considered RECs in connection with the Property.

Based on the Closed status of the following LUST sites, and the distances away from the Property, the Demolition Site, Old Lansing Barber College and the Former Spartan Inn site do not represent RECs to the Property.

The General Motors Plant #1 is located across I-496 to the south of the Property. I-496 is a depressed roadway, meaning it is below the grade of the surrounding ground surface. Based on the distance and the location of the site from the Property, the General Motors Plant #1 does not represent a REC in connection to the Property.

4.2 Record Reviews and Interviews

4.2.1 MDEQ-Listed Sites

SME reviewed files for the Commerce Building and the Lansing State Journal at the Shiawassee District MDEQ-Storage Tank Division (STD) on December 21, 2000. Below is a summary of the information regarding these sites on file with the MDEQ.

SME also reviewed file information concerning the following sites: Accident Fund Building; LBWL-Ottawa Street Station; Consolidated Courthouse; and 334 South Butler Boulevard, from recent reports by SME of sites in the vicinity of the Property.

Former Commerce Building

According to information reviewed in the MDEQ file, a UST was discovered during utility work on Capitol Avenue in front of the former Commerce Building. Due to several utilities in the vicinity the UST was closed in place. Verification soil samples indicated the

presence of hydrocarbon compounds in concentrations above laboratory method detection limits (MDLs) but not above MDEQ cleanup criteria. Groundwater was not encountered during the excavation. Based on the information reviewed in the MDEQ-STD file, the Former Commerce Building site does not represent a REC in connection to the Property.

Lansing State Journal

According to information reviewed in the MDEQ file, a UST system was removed from the site in 1997. Soil sampling during the removal indicated the presence of hydrocarbon compounds in concentrations above laboratory method detection limits (MDLs), but not above MDEQ cleanup criteria in the soil beneath the pump island. The release was labeled a de-minimis spill resulting from spills during fueling. Groundwater was not encountered. Based on the information reviewed in the MDEQ file, the Lansing State Journal site does not represent a REC in connection to the Property.

Accident Fund Building

SME reviewed a Phase II Environmental Investigation dated March 4, 1994 by SME. The report indicated contamination from gasoline above MDEQ cleanup criteria in the northeast corner of the site. The report sited two possible scenarios for the source of the contaminants on the site. One is that the release occurred on the site near the northeast corner of the current building. The other is that the potential source of the contamination was migrating from the northern adjoining property. Groundwater flow from the Accident Fund site was found to be toward the northeast. Since the Property is located east of the Accident Fund site, contaminated groundwater is not expected to impact the Property. Based on the information reviewed in SME files, the Accident Fund Building does not represent a REC in connection to the Property.

LBWL-Ottawa Street Station

According to SME files, the site used and stored coal at the facility since the early 1890s. The concerns relate to the site's location on the Grand River. Testing at this site was conducted to determine what is contained in the coal and therefore may be discharged into the river. Based on information reviewed in SME files and distance away from the Property, the LBWL-Ottawa Street Station does not represent a REC in connection to the Property.

Consolidated Courthouse

According to a Remedial Action Plan written by SME dated June 23, 2000, the extent of the hydrocarbon impact was defined and groundwater was not considered a feasible pathway for contaminant migration. Based on the information reviewed in the report, and the distance away from the Property, the Consolidated Courthouse site does not represent a REC to the Property.

334 South Butler Boulevard

SME reviewed a Baseline Environmental Site Assessment by SME for the Butler site dated October 24, 1997. According to information contained in the file, groundwater and soil was impacted by former dry cleaning and filling station activities on the site. Groundwater flow at the site was found to be to the north, away from the Property. Based on the information reviewed in the report, and the distance away from the Property, the 334 South Butler Boulevard site does not represent a REC to the Property.

4.2.2 Lansing Fire Department

SME requested Lansing Fire Department records through the Freedom of Information Act. The records did not indicate the presence of USTs or other environmental concerns associated with the Property.

4.2.3 Ingham County Health Department Bureau of Environmental Health

Mr. Bill Haun of the Ingham County Bureau of Environmental Health was contacted and indicated that he has no knowledge of environmental concerns associated with the Property.

4.2.4 Michigan Health Department

SME contacted Mr. Eldon Dickenson of the Michigan Health Department regarding the historical dry cleaning operation on the Property. Mr. Dickenson had no information regarding the Property.

5.0 FINDINGS AND CONCLUSIONS

SME has performed the Phase I Environmental Site Assessment for the 0.5-acre Property located at 231 South Capitol Avenue in Lansing, Ingham County, Michigan in general conformance with the scope and limitations of SME's Scope of Services and the ASTM Practice E 1527-00.

The following RECs were identified in connection with the Property:

- Historical use of the Property as dry cleaning and gasoline station activities.

6.0 RECOMMENDATIONS

A Phase II Environmental Site Assessment is recommended to assess whether the subject Property is contaminated above MDEQ, Generic Residential Cleanup Criteria (GRCC). If the Property is impacted above GRCC then the Property would qualify as a "facility" as defined in Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended. A BEA must be conducted on the subject property to obtain exemption from cleanup liability.

Part 201, Section 20126(1)(c) contains a provision which allows persons to purchase or begin operating at a "facility" after June 5, 1995, without taking on liability for cleanup of existing contamination, provided the purchaser complies with both of the following:

1. Completion of a baseline environmental assessment (BEA) prior to or within 45 days after the earlier of the date of purchase, occupancy or foreclosure.

2. Disclosure of the results of the BEA to the Michigan Department of Environmental Quality (MDEQ) and subsequent purchaser or transferee.

Part 201, Section 20129(a) also allows a purchaser to petition the MDEQ for a determination that a BEA meets the requirements for an exemption from liability. The BEA must be submitted for an adequacy determination or disclosed to the MDEQ within six months of completion of the BEA.

It should be noted that a person who owns or operates a facility has certain "due care" obligations [Part 201, Section 20107(a), Compliance Analysis] to prevent exacerbation of the existing contamination; to mitigate unacceptable exposure to hazardous substances; to allow for the intended use of the facility in a manner that protects the public health and safety; and to take reasonable precautions against reasonable foreseeable third party acts or omissions and the consequences that foreseeably could result from those acts and omissions.

7.0 GENERAL COMMENTS

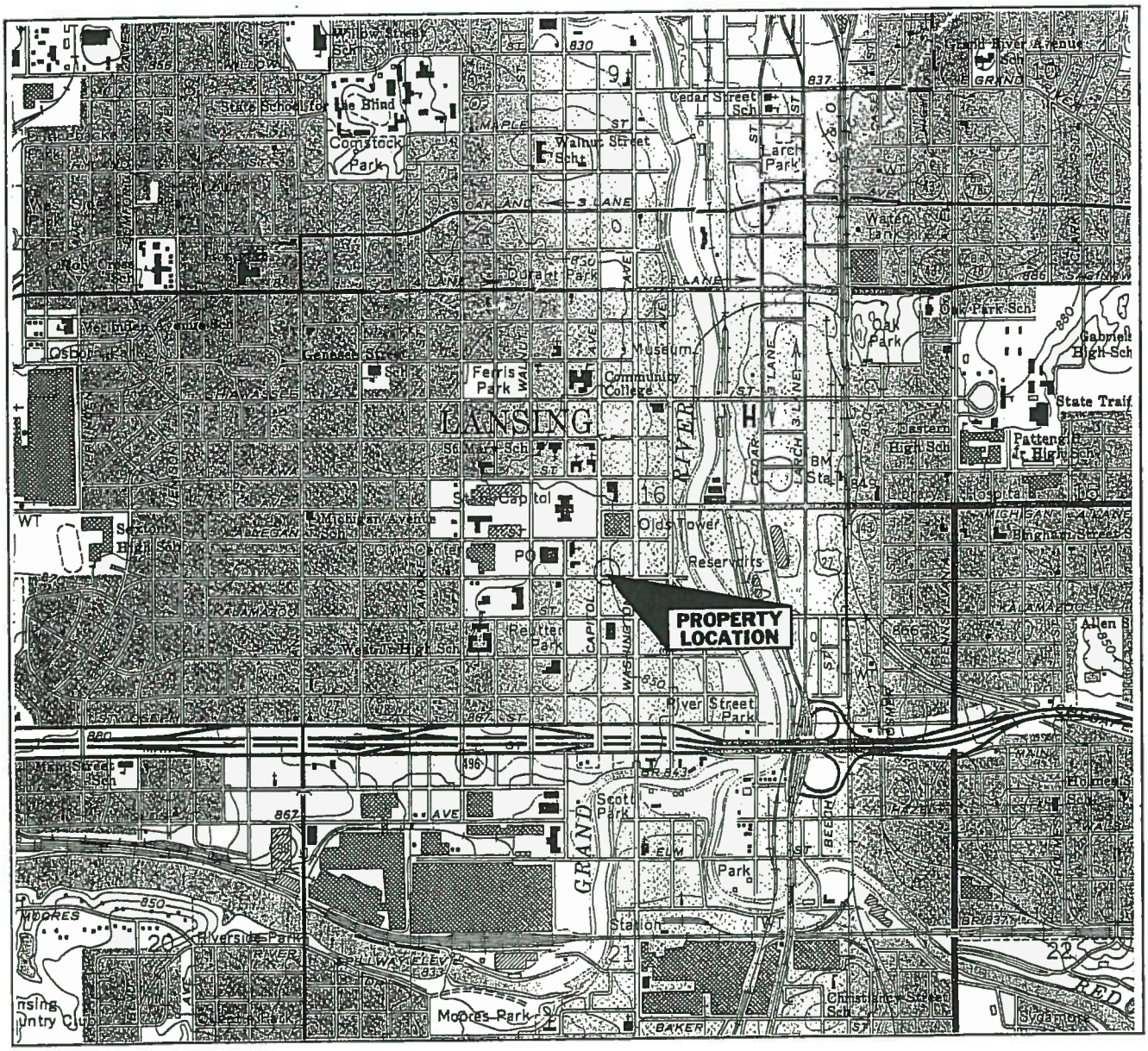
This Phase I ESA was conducted to identify recorded and readily observable recognized environmental conditions (RECs) in connection with the Property and to assess the relative significance of the identified RECs. The findings, opinions, conclusions and recommendations presented in this report are based upon observations noted during our site visit, and information obtained during the performance of the scope of services on the dates indicated. In the process of obtaining the field and historical information in preparation of this report, procedures were followed that represent reasonable and accepted environmental practices and principles, in a manner consistent with that level of care and skill ordinarily exercised by members of these professions currently practicing under similar conditions. Appropriate inquiry was made into the previous ownership and uses of the property consistent with good commercial or customary practice. As is typical with Phase I ESAs, no testing or subsurface investigation was conducted by SME for this assessment.

Due to unknown or latent conditions on the subject property, or on adjacent or nearby properties, which may become evident in the future, SME does not guarantee the subject property is free of contamination or hazardous waste material. It should also be noted Property conditions may change over time. Should additional surface, subsurface, chemical, or other data become available after the date of issue of this report, the findings, conclusions and recommendations contained in this report may have to be modified. Review by SME of such additional information would be conducted upon receipt of a written request from our client.

All reports, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by SME as instruments of service are the property of SME. No parties other than those specifically identified in this report may rely upon SME's opinions, conclusions or reports unless SME has agreed to such reliance in writing.

APPENDIX A

PROPERTY LOCATION MAP



LANSING SOUTH QUADRANGLE
MICHIGAN – INGHAM COUNTY
7.5 MINUTE SERIES (TOPOGRAPHIC)
1967/PHOTOREVISED 1973

SCALE 1:24 000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NORTH

MICHIGAN

QUADRANGLE LOCATION

43980 PLYMOUTH OAKS BOULEVARD
PLYMOUTH, MICHIGAN 48170
(313) 454-9900

BAY CITY
KALAMAZOO
LANSING
PLYMOUTH
TOLEDO

DATE	12/18/00
DRAWN BY	AJW
SCALE	AS SHOWN
JOB	LE 37803

PROPERTY LOCATION MAP
231 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN

DWG. NO. 37803-02

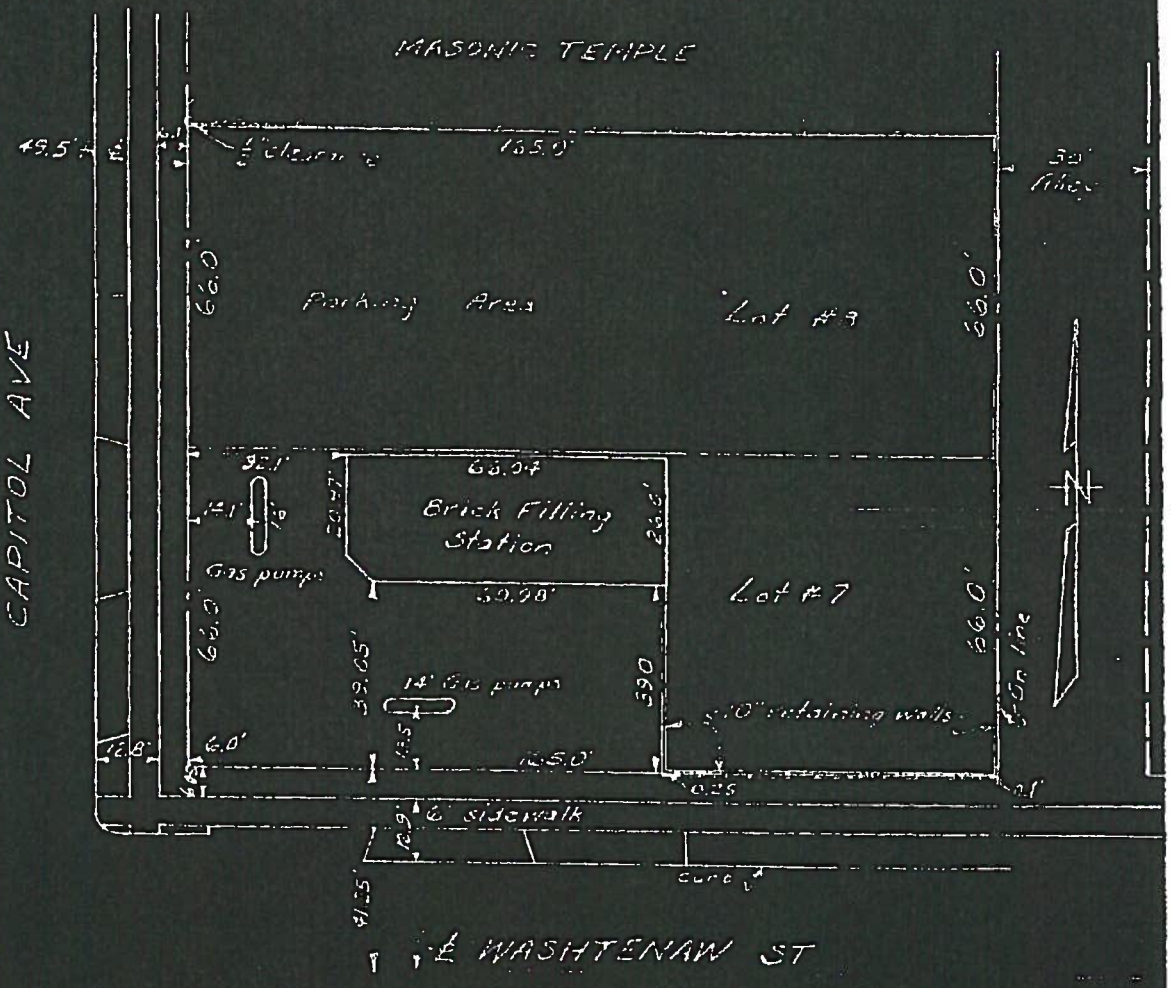
APPENDIX B

LEGAL DESCRIPTION

CERTIFICATE OF SURVEY

FOR Ballard Jennings Bishop and Fraser & The Michigan National Bank
Olds Tower Building
Lansing, Michigan

SURVEY OF PROPERTY LEGALLY DESCRIBED AS: Lots 7 and 8, Block 115 of the Original Plat of City of Lansing, Michigan.



THE UNDERSIGNED CIVIL ENGINEER HEREBY CERTIFIES THAT HE HAS SURVEYED THE PROPERTY SHOWN ON ANNEXED PLAT, AND THAT THE ABOVE SKETCH INDICATES THE DIMENSIONS AND ENCROACHMENTS OF SAID PROPERTY.

Clyde K. Stephens
CLYDE K. STEPHENS
CIVIL ENGINEER SURVEYOR

DATE July 27, 57 SURVEY NO 4-2615

APPENDIX C

SCOPE OF SERVICES

SCOPE OF SERVICES
PHASE I ESA

231 SOUTH CAPITAL, 414 AND 616 SOUTH WASHINGTON
LANSING, MICHIGAN

DECEMBER 8, 2000

The following scope of services is proposed for completion of the Phase I ESA for each Property:

- Obtain preliminary information (if available) regarding the Property from:
  - Legal property description
  - USGS map
  - Property plan or boundary survey, if available

- Conduct a Property visit to identify evidence of recognized environmental conditions, including:
  - Aboveground and underground storage tanks, and abandoned drums
  - Waste storage, treatment, and/or disposal areas
  - Chemical use and storage
  - Stained soil, odors, distressed vegetation, debris, or fill materials
  - Surface water, pits, ponds, lagoons or drywells
  - Immediately adjoining properties from subject property for recognized environmental conditions which may impact the subject property
  - Current and/or former operations, activities, or processes conducted on the Property
  - Ownership and general condition of electrical equipment that may contain PCBs, if present

- Obtain photographs and prepare a site diagram, if determined to be appropriate, to illustrate Property conditions.

- Conduct a review of the history of Property use at intervals defined by the ASTM from the present back to the Property's first developed use or back to 1940, whichever is earlier. This information shall be reviewed from reasonably available standard sources such as: 1) information that is publicly available; 2) information that is obtainable from its source within reasonable time and cost constraints; and 3) information that is practically reviewable.

  Please note the historical review does not include adjoining properties, unless information on the adjoining properties representing a REC in connection with the Property is revealed in the course of reviewing records of the Property.

- Historical ownership and use information sources may include:
  a. Aerial Photographs
  b. Fire Insurance Maps
  c. Local Street Directories
  d. Building Department Records
  e. Property Tax Files
  f. Zoning/Land Use Records
  g. Land Title Records (if provided by the client)

■ Conduct interviews with owners and other individuals (up to 3, provided by owner) with knowledge of current and past conditions of the Property. The interviews may be conducted in person, in writing, or by telephone.

■ Review the following lists of regulated and/or environmentally impacted sites:

➢ Federal NPL site list	1.0 Mile Radius
➢ Federal CERCLIS list	0.5 Mile Radius
➢ Federal RCRA CORRACTS TSD facilities list	1.0 Mile Radius
➢ Federal RCRA non-CORRACTS TSD facilities list	0.5 Mile Radius
➢ Federal RCRA generators list	Property & adjoining properties
➢ Federal ERNS list	Property only
➢ State list of hazardous waste sites	1.0 Mile Radius
➢ State landfill and/or solid waste disposal sites	0.5 Mile Radius
➢ State leaking UST	0.5 Mile Radius
➢ State registered UST lists	0.25 Mile Radius

■ Review of governmental agency records (up to 2 hours) and discussion with agency staff, if practical, regarding recognized environmental conditions at or within specified search distances. Sources may include the following:
- ➢ Michigan Department of Environmental Quality (MDEQ)
- ➢ United States Environmental Protection Agency
- ➢ County Health Department
- ➢ Local Governmental Agencies

■ Conduct a review (up to 2 hours) of relevant documents concerning the subject Property, which are provided by the client, including:
- ➢ Environmental Site Assessment Reports
- ➢ Environmental Audit Reports
- ➢ Environmental Permits
- ➢ Registration for underground storage tanks
- ➢ Hydrogeologic Reports
- ➢ Geotechnical Reports
- ➢ Notices to or from governmental agencies regarding environmental conditions and/or violations.
- ➢ Record of any pending, threatened, or past litigation regarding environmental conditions.

SCOPE OF SERVICES
PHASE I ESA

231 SOUTH CAPITAL, 414 AND 616 SOUTH WASHINGTON
LANSING, MICHIGAN

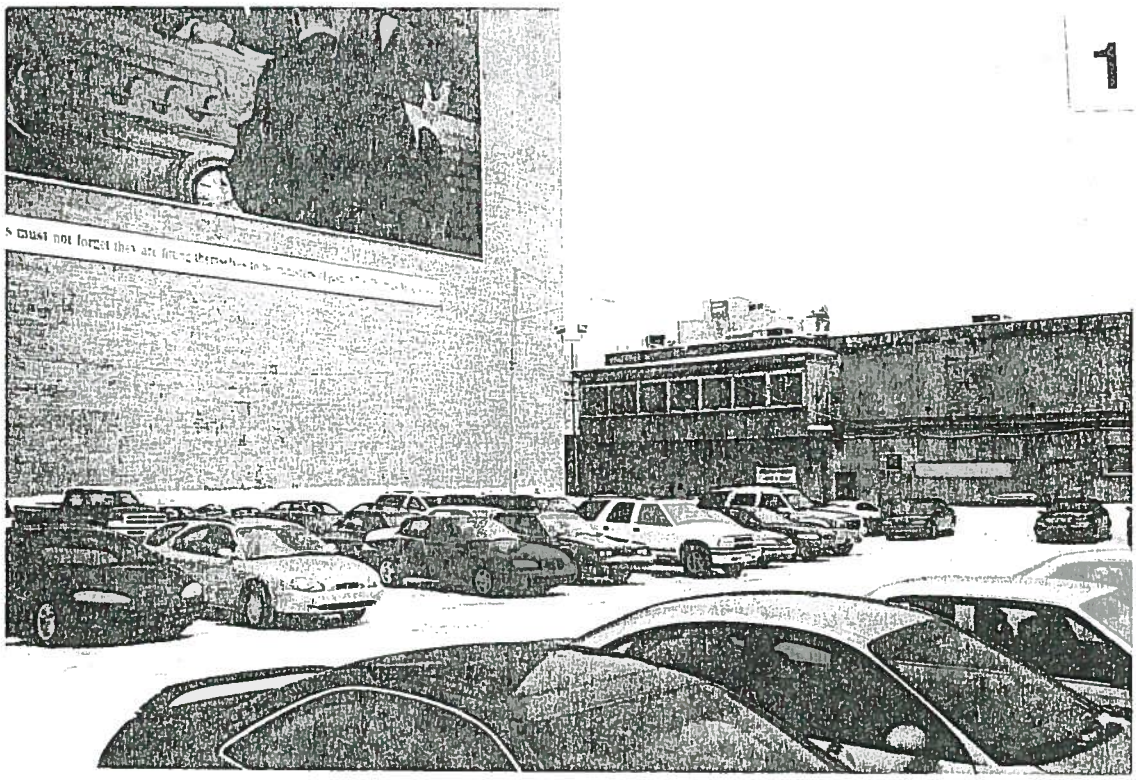
DECEMBER 8, 2000

- Prepare a Phase I ESA Report including the following:
  - Summary of the scope of services
  - Summary of the observed Property conditions
  - Summary of record search results
  - Summary of the interviews with public agencies
  - Conclusions and Recommendations regarding recognized environmental conditions at the Property, based on the results of the assessment

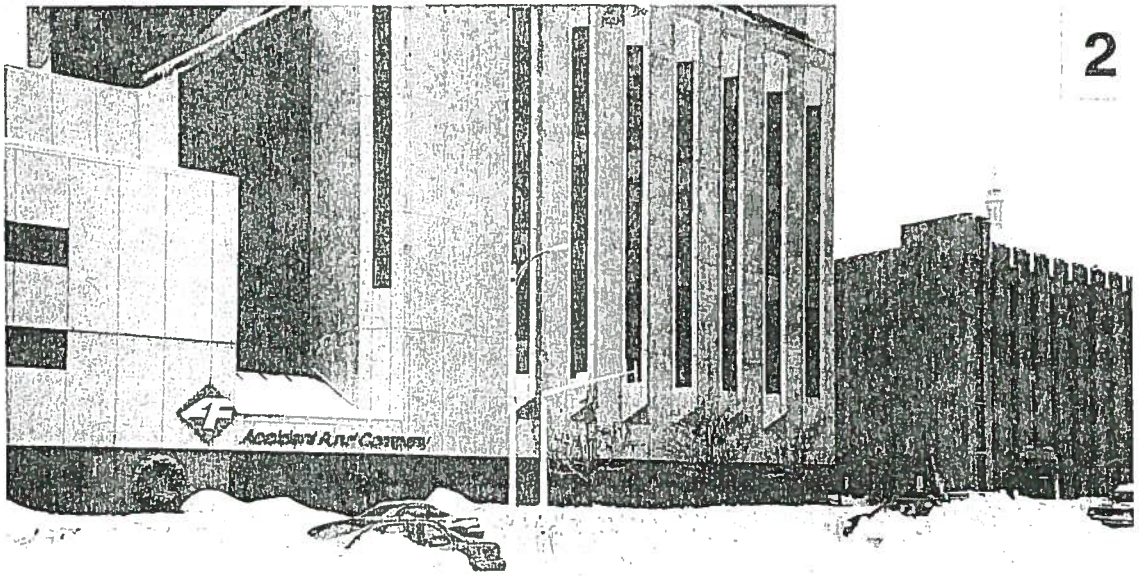
The Phase I ESA scope of services does not include: air, soil or water sampling, building material sampling, chemical testing, wetland assessment, mineral rights investigation, and review of oil and gas wells. If unanticipated conditions are encountered requiring a change in scope, you will be contacted.

APPENDIX D

PHOTOGRAPHS



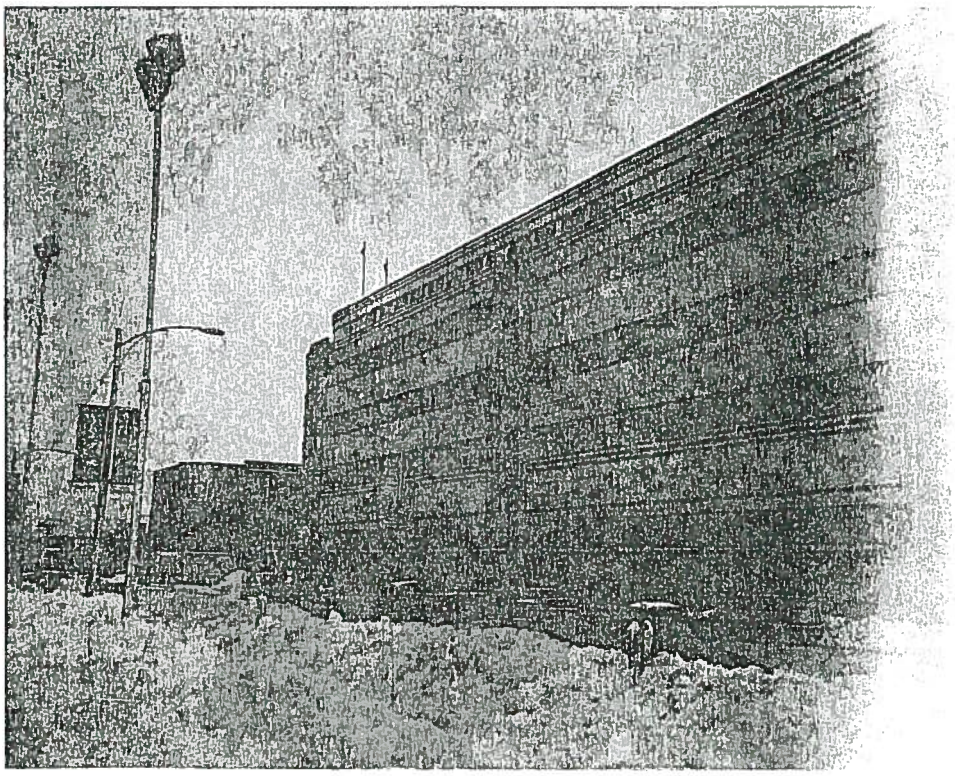
1



2

PHOTO 1: GENERAL VIEW OF THE PROPERTY, SOUTHWEST TO NORTHEAST
PHOTO 2: WESTERN ADJOINING PROPERTY

ACCIDENT FUND PARKING LOT ACQUISITION
231 SOUTH CAPITOL AVENUE, LANSING, MICHIGAN
SME PROJECT NO. LE37803 - PHOTOGRAPHS TAKEN 12/18/00



3

PHOTO 3: SOUTHERN ADJOINING PROPERTY

ACCIDENT FUND PARKING LOT ACQUISITION
231 SOUTH CAPITOL AVENUE, LANSING, MICHIGAN
SME PROJECT NO. LE37803 - PHOTOGRAPHS TAKEN 12/18/00

APPENDIX E

PROPERTY OWNER/OPERATOR QUESTIONNAIRE

ENVIRONMENTAL ASSESSMENT
PROPERTY OWNER/OPERATOR QUESTIONNAIRE

Property Name: 231 South Capitol

Property Location: 231 South Capitol Ave, Lansing

State: Michigan County: Ingham

Questionnaire Completed By: KENNETH ELLIS

Company/Title/Phone: Chm. CEO. Ellis Parking Co.

Time Period of Site Knowledge: ?

Property Description: ___ Industrial ✓ Commercial ___ Residential ___ Other

If other, please specify: _____

1a. Is the property used for an industrial use?

___ Yes ✓ No ___ Unknown

1b. Is any adjoining property used for an industrial use?

___ Yes ✓ No ___ Unknown

2a. Did you observe evidence or do you have any prior knowledge that the property has been used for an industrial use in the past?

___ Yes ✓ No ___ Unknown

2b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used for an industrial use in the past?

____ Yes ✓ No ____ Unknown

3a. Is the property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

____ Yes ✓ No ____ Unknown

3b. Is any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

____ Yes ✓ No ____ Unknown

4a. Did you observe evidence or do you have any prior knowledge that the property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

____ Yes ✓ No ____ Unknown

4b. Did you observe evidence or do you have any prior knowledge that any adjoining property has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable, identify which)?

____ Yes ✓ No ____ Unknown

5a Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?

_____ Yes ___✓___ No _____ Unknown

5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, pesticides, paints or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?

_____ Yes ___✓___ No _____ Unknown

6a. Are there currently any industrial drums (typically 55 gal (208 L) or sacks of chemicals located on the property or at the facility?

_____ Yes ___✓___ No _____ Unknown

6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial drums (typically 55 gal (208 L) or sacks of chemicals located on the property or at the facility?

_____ Yes ___✓___ No _____ Unknown

7a. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that originated from a contaminated site?

_____ Yes ___✓___ No _____ Unknown

7b. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought onto the property that is of an unknown origin?

_____ Yes ___✓___ No _____ Unknown

8a. Are there currently any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?

____ Yes ✓ No ____ Unknown

8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any pits, ponds or lagoons located on the property in connection with waste treatment or waste disposal?

____ Yes ✓ No ____ Unknown

9a. Is there currently any stained soil on the property?

____ Yes ✓ No ✓ Unknown

9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the property?

____ Yes ✓ No ____ Unknown

10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the property?

____ Yes ✓ No ✓ Unknown

10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the property?

____ Yes ✓ No ✓ Unknown

11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?

____ Yes __✓__ No ____ Unknown

11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?

____ Yes __✓__ No ____ Unknown

12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the property?

____ Yes __✓__ No __✓__ Unknown

12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings or exposed grounds on the property?

____ Yes __✓__ No ____ Unknown

13a. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?

____ Yes __✓__ No ____ Unknown

13b. If the property is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environmental/health agency?

____ Yes __✓_ No ____ Unknown

14. Does the owner or occupant of the property have any knowledge or environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?

____ Yes __✓_ No __✓_ Unknown

15a. Has the owner or occupant of the property been informed of the past existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?

____ Yes ____ No __✓_ Unknown

15b. Has the owner or occupant of the property been informed of the current existence of hazardous substances or petroleum products with respect to the property or any facility located on the property?

____ Yes ____ No __✓_ Unknown

15c. Has the owner or occupant of the property been informed of the past existence of environmental violations with respect to the property or any facility located on the property?

____ Yes ____ No __✓_ Unknown

15d. Has the owner or occupant of the property been informed of the current existence of environmental violations with respect to the property or any facility located on the property?

_____ Yes ___✓___ No _____ Unknown

16. Does the owner or occupant of the property have any knowledge of any environmental site assessment of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?

_____ Yes ___✓___ No _____ Unknown

17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum projects involving the property by any owner or occupant of the property?

_____ Yes ___✓___ No _____ Unknown

18a. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a storm water system?

_____ Yes ___✓___ No _____ Unknown

18b. Does the property discharge waste water (not including sanitary waste or storm water) onto or adjacent to the property and/or into a sanitary sewer system?

_____ Yes ___✓___ No _____ Unknown

19. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the property?

____ Yes ✓ No ____ Unknown

20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?

____ Yes ✓ No ____ Unknown

This questionnaire was completed by:

Name Kenneth Ellis

Title Chm - CEO ELLIS Parking Co.

Kenneth Ellis 12/12/00

Signature Date

Firm

Address

Phone number

s:\forms\misc\tranques.doc (rev10/17/00)

APPENDIX F

HISTORICAL RECORDS

1985 LOSS - 133 720 Upper floors un [illegible]

CITY OF LANSING – ASSESSOR'S OFFICE

3301-16-328-031 1
ELLIS PARKING COMPANY INC

824 TRUST BUILDING
GRAND RAPIDS MI 49503

231 S CAPITOL AVE C-340 300
LOTS 7 & 8
BLOCK 115 ORIG PLAT

83 ASSMT, see rear notes Tony S.

62 PARKING SPACES

20

1,056,159 ÷ 415 = 2,545 per stall - Rep

664,615 ÷ 415 = 1 1 per sta. Rep

STREET ADDRESS OF PROPERTY: 231 S Capitol Ave (CAP. AVE)

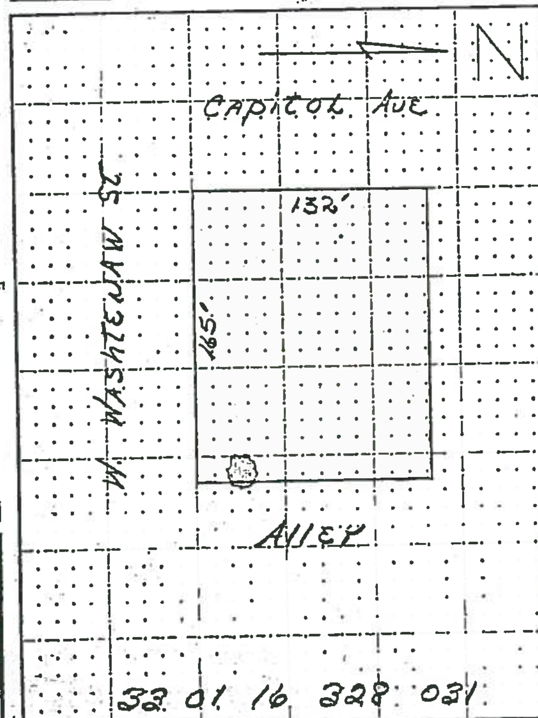
DEEDS

GRANTOR			
GRANTEE			
ADDRESS			
LIB	PG.	DATE	R-S
GRANTOR			
GRANTEE			
ADDRESS			
LIB	PG.	DATE	R-S
MISC.			

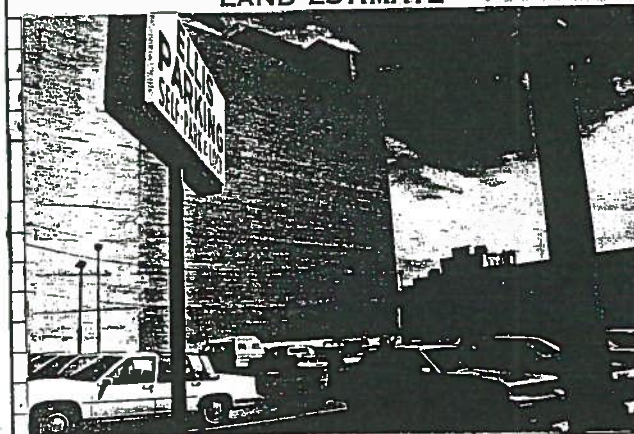
YEAR	LAND	BUILDING	TOTAL	ASSESSED
				300
				2,100
1989	196,020	51,745	247,765	123,900
1990	241,105	20,909	262,014	131,000
1993	267894	23000	290894	145400
1994				145400
1995				145400
1996				145400
1997			MTT	145400
1998	267894	25300	293194	146000
1999	267894	27,830	295,724	147,900

PROPERTY CLASSIFICATION BPI

ZONING G - BUSINESS



LAND ESTIMATE



APPRAISED LAND VALUE

3-30-82 2566C Add'n of Storage Rm 4,200

DATE	PERMIT NUMBER	KIND OF BUILDING	VALUE
5-13-60	36598	Drive In Bank & Parking Ramp	500,000
3-16-82	1210C	Conv. 1 sty [illegible] to off	50,000
6-24-82	1690C	Repairs 1st level ramp	30,000
8-30-82	1973C	Repair 2nd fl structure	27,000
8-85	Bldg Dept	Demo-Comm. Bldg	

INTERVIEWED	BY	DATE	ESTIM. BY	DATE
Mr Bradford	DLH	Aug 70	DLH	[illegible]
Error on depre.	K.S.	Various	K.S.	[illegible]
David Lohrmann	Tony S	1/83	Tony S	2-08-83
TE	TD	7/93		

LAND ESTIMATE

STREET IMPROVEMENTS				TOPO
/ SEWER	/ ELEC.	DIRT	/ SIDEWALK	/ LEVEL
/ WATER	/ BLVD. LIGHT	/ PAVED		LOW
/ GAS	/ CURB	GRAVEL		HIGH

FRONTAGE AND DEPTH	DEPTH FACTOR	ADJ. FRONTAGE	CORNER OR MISC. FACTOR	UNIT VALUE	VALUE
132' x 165'					
21,780 sf x 10.00 12.00					= 277,800

ACRES	
BASE VALUE	
DETRACTING INFLUENCE	[illegible]
ENHANCING INFLUENCE	
APPRAISED LAND VALUE	267894

SUMMARY OF BUILDING VALUES

YR. BLT.	DESCRIPTION	APPRAISED VAL
1960		
1960	Asphalt	20,909
	EM 1.10	23000
	1.10	25300
	97 EM 1.10	27,830
	TOTAL	

Parcel Numbe 33-01-01-16-328-031 Jurisdiction: Unit '33' County: INGHAM/EATON Printed on 19/2000

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber &Page	Verified by	Prcnt Trans

Property Address
231 S CAPITOL AVE

Owner's Name/Address
ELLIS PARKING COMPANY INC

824 TRUST BUILDING
GRAND RAPIDS, MI 49503

Legal Description
LOTS 7 & 8 BLOCK 115 ORIG PLAT

Comments/Influences
ASPHALT SURFACE PARKING LOT ONLY WITH 4X5 ATTENDENT'S BOOTH.
AVERAGE QUALITY.

62 PARKING SPACES

Class: Commercial | Zoning: G-1 BU

School: 02 LANSING TIFA #2

Hmstd 0%

Map #: B 0115 -0001

2001 Est TCV 302,940

	Improved	X	Vacant

Public Improvements

	Dirt Road
	Gravel Road
X	Paved Road
X	Storm Sewer
X	Sidewalk
X	Water
X	Sewer
X	Electric
X	Gas
X	Curb
	Street Lights
	Standard Utilities
	Underground Utils.

Topography of Site

X	Level
	Rolling
	Low
	High
	Landscaped
	Swamp
	Wooded
	Pond
	Waterfront
	Ravine
	Wetland
	Flood Plain

Who	When	What
TD	07/00/1993	Inspecte
SC	05/07/1999	Data Ent

Building Permit(s)	Date	Number	Amount
	09/08/1995	B951165	1,581,000
	08/00/1985	080085	
	06/24/1982	1690C	30,000
	03/30/1982	2566C	4,200

Land Value Estimates for Neighborhood #M225.M225-DOWNTOWN-MISC

Description	Frontage	Depth	*Factors for* Frontage	Depth	Rate	%Adj.	Reason	Value
Rate Table SF #14: 12.50		21780 SqFt		12.50	100			272,250
		0.50 Total Acres			Total Est. Land Value =			272,250

Land Improvement Cost Estimates

Description	Rate	CountyMult.	Size	%Good	Cash Value
Commercial/Industrial Local Cost Land Improvements					
Description	Rate	CountyMult.	Size	%Good	%Arch.Mult	Cash Value
3"asphalt / 2" base	1.83	1.00	21780.0	77	100	30,690

Total Estimated Land Improvements True Cash Value = 30,690

Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value
2001	Tentative	Tentative	Tentative			Tentative
2000	130,700	15,500	146,200			146,200S
1999			147,900			147,900S
1998			146,600			146,600S

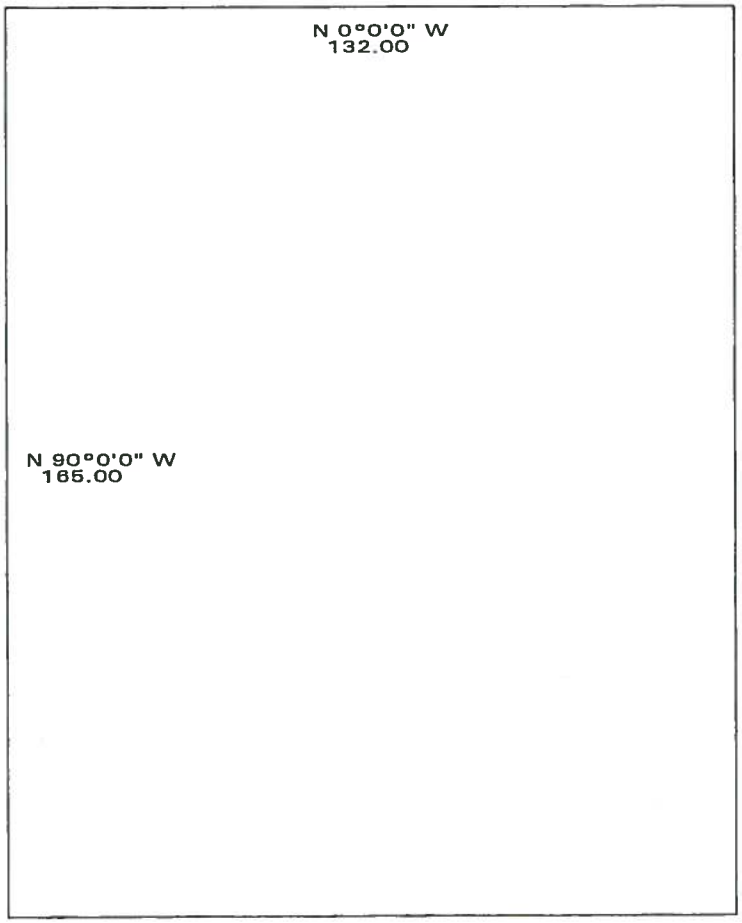
SKETCH/AREA TABLE ADDENDUM

Parcel No 33-01-01-16-328-031

Owner ELLIS PARKING COMPANY INC		
Property Address 231 S CAPITOL AVE		
City LANSING	State MI	
Zip 48933	Neigh/Proj 000	County INGHAM/EATON

IMPROVEMENTS SKE

CAPITOL AVE



W. WASHTENAW ST

ALLEY

SCALE: 1 inch = 35.00 feet

AREA CALCULATIONS SUMMARY

Area	Name of Area	Actual	Factor	Effective	Totals
SITE	SITE	21779.92	1.00	21779.92	21779.92

APPENDIX G

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

RESUME

ADAM R. BITEMAN

Staff Geologist

Field supervision of underground storage tank (UST) removals, closures, and abatement activities. Performs regular operation and maintenance of remediation systems. Performs environmental sampling of soil, water and vapor and prepares field activity reports.

❖ Professional Qualifications:

- Experienced in preparation and finalization of formal activities documentation, Phase I and Phase II Environmental Site Assessment (ESA) reports, field activity summaries and regulatory agency compliance documentation.
- Experienced in monitoring UST removals and remedial systems operation and maintenance.
- Experienced in many areas of sample collection in compliance with MDEQ and EPA guidelines, including collection of water and soil.
- Skilled at conducting ESAs for real estate transactions including records research, site walkover, and report preparation.

❖ Project Experience:

- Field Supervisor and Operator for Geoprobe borings/sampling at LUST site in Lapeer County.
- Conducted Phase I ESAs for vacant and residential properties in Michigan.
- Field Supervisor for soil borings located inside an automotive assembly facility in Ingham County.
- Field Assistant during well abandonment procedures for an automotive plant.
- Collected groundwater samples for remedial investigation/feasibility study at a site in Lansing, Michigan.

❖ **Career History:** SME since 2000

❖ **Education:** B.S., Geological Sciences, Michigan State University

❖ **Certifications:** Troxler Nuclear Gauge Certified

RESUME

JULIE A. HARTNER

Project Manager

Responsible for business development and project management of Phase I and II site assessments and environmental assessments (EA), baseline environmental assessments (BEA), asbestos and lead-based paint surveys, underground storage tank (UST) services, and regulatory compliance issues.

❖ Professional Qualifications:

- Conducted ESAs for over 900 sites since 1998.
- Knowledgeable of the ASTM E1527-97, E1528-96, and lending institution requirements including Comerica, Bank One, Old Kent Bank, MSHDA, Midland Mortgage Investments, Freddie Mac, Fannie Mae, and others.
- Knowledgeable of National Environmental Policy Act, wetlands, Part 201 amendments, UST regulations, asbestos and lead-based paint regulations including sampling, abatement, disposal and worker protection.

❖ Project Experience:

- Managing environmental compliance for a national air cargo company and a major auto parts manufacturer including acquisitions, UST and AST compliance, air quality, OSHA, asbestos, lead-based paint, hazardous materials handling, and SPCC Plans.
- Conducted BEAs for client purchasing and selling Wurtsmith Air Force Base sites.
- Managed EAs for several federal agencies including USPS, USDA, FAA, FTA, FHA, and MDOT.
- Managed Phase I ESA for multi-site projects including 72 sites in the City of Lansing; 71 sites for the Broadway Relocation Corridor Study in Bay City; 40 sites for the City of Grand Ledge; and one-mile distance of road for the City of Westland, and several miles of I-96 surrounding the Kent County Airport.
- Managed several Category "S" BEA projects.

❖ Career History: SME since 1992 - Others from 1988

❖ Education: B.A., Business Management, Michigan State University
University of Central Florida (Acquired 60 credits in science)
Certified Environmental Compliance Specialist, Michigan Chamber of Commerce

❖ Additional Experience: Instructor, Baker College, Environmental Regulations and Environmental Ethics, Winter 1997, Spring 1998

❖ Affiliations: Lansing Regional Chamber of Commerce, Ambassador
Michigan Chamber of Commerce

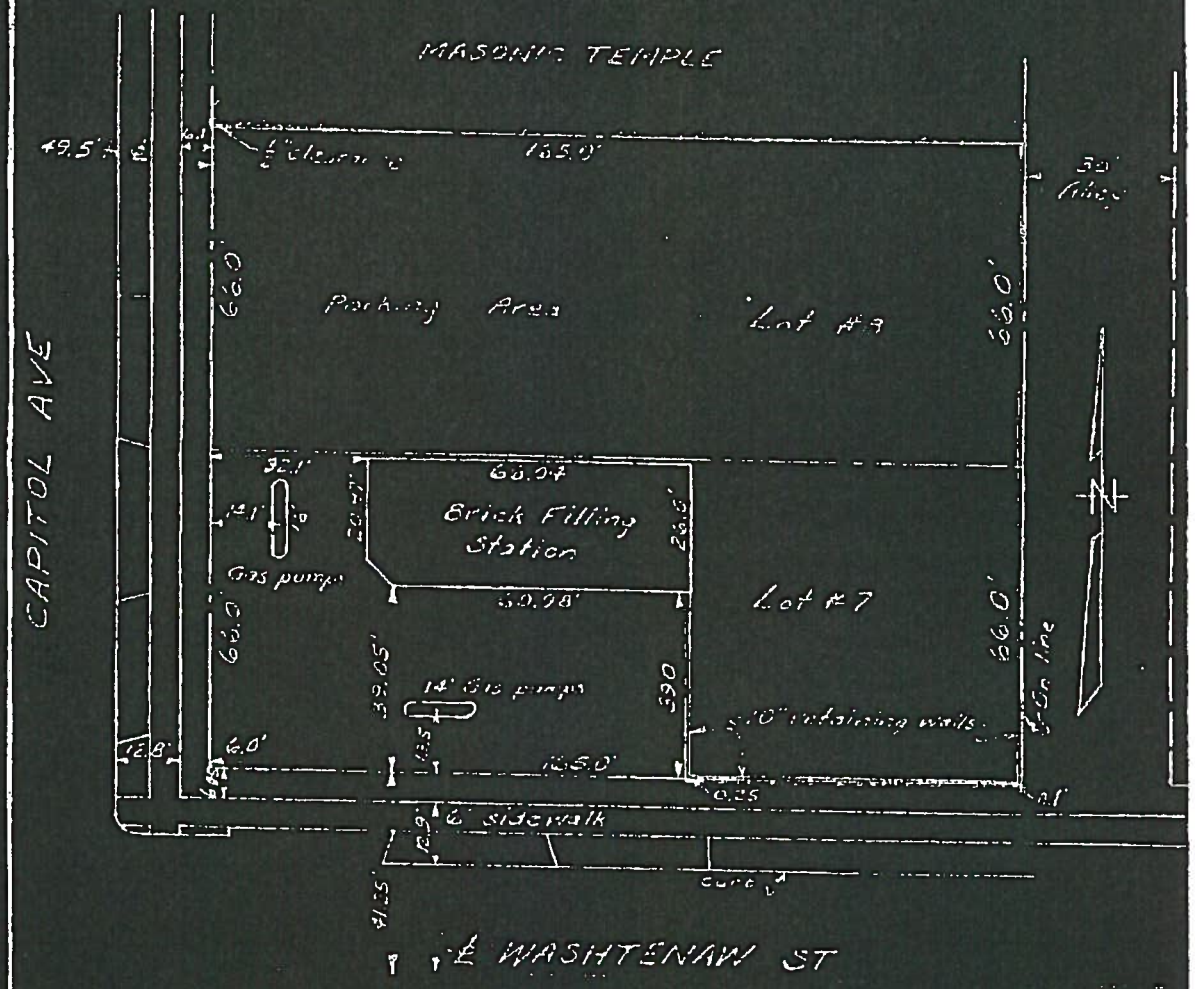
ATTACHMENT C

LEGAL DESCRIPTION OF PROPERTY

CERTIFICATE OF SURVEY

FOR Ballard Jennings Bishop and Fraser & The Michigan National Bank
Olds Tower Building
Lansing, Michigan

SURVEY OF PROPERTY LEGALLY DESCRIBED AS: Lots 7 and 8, Block 115 of the Original Plat of City of Lansing, Michigan.



THE UNDERSIGNED CIVIL ENGINEER HEREBY CERTIFIES THAT HE HAS SURVEYED THE PROPERTY SHOWN ON ANNEXED PLAT, AND THAT THE ABOVE SKETCH INDICATES THE DIMENSIONS AND ENCROACHMENTS OF SAID PROPERTY.

Clyde K. Stephens
CLYDE K. STEPHENS
CIVIL ENGINEER SURVEYOR

DATE Oct. 27, 61 SURVEY NO 4-2565

ATTACHMENT D

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS FOR DETECTED CONSTITUENTS COMPARED TO RESIDENTIAL CRITERIA
VOCs & PAHs
ACCIDENT FUND PARKING LOT ACQUISITION
231 SOUTH CAPITOL - LANSING, MI
SME Project No. LE37803

	Part 201, June 7, 2000 Generic Residential Cleanup Criteria					Sample Identification, Depth, and Date Collected				
Constituent	Chemical Abstract Service Number	Groundwater Surface Water Interface Criteria	Drinking Water Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Direct Contact Criteria	SP-1 @ 14' 14' 8-13-01	SP2 SP@ 16-18 16'-18' 8-13-01	SP-2 @ 27' 27' 8-13-01	SP-4 @ 12' 12' 8-13-01	SP-5 @ 13' 13' 8-13-01
VOCs										
Ethylbenzene	100414	360	1,500	140,000	140,000	ND	ND	21,000	ND	35,000
Isopropylbenzene	98828	ID	91,000	390,000	390,000	ND	ND	3,600	ND	15,000
2-Methylnaphthalene	91576	ID	57,000	ID	8,100,000	ND	ND	11,000	ND	1,700
n-Propylbenzene	103651	NA	1,600	ID	2,500,000	ND	ND	13,000	ND	5,700
Naphthalene	91203	870	35,000	250,000	16,000,000	ND	ND	11,000	ND	2,300
Toluene	108883	2,800	16,000	250,000	250,000	ND	ND	720	ND	ND
1,2,4-Trimethylbenzene	95636	ID	2,100	110,000	110,000	ND	ND	45,000	ND	14,000
1,3,5-Trimethylbenzene	108678	ID	1,800	94,000	94,000	ND	ND	15,000	ND	5,700
Xylenes	1330207	700	5,600	150,000	150,000	ND	ND	65,000	ND	11,000
Benzene						ND	ND			
MTBE						ND	ND			

NOTES:

1. Concentrations reported in parts per billion (ppb) or micrograms per kilogram (µg/Kg).
2. Shading indicates which cleanup criteria are exceeded and the corresponding analytical result.
3. VOCs = Volatile organic compounds.
4. PAHs = Polynuclear aromatic hydrocarbons.
5. PCBs = Polychlorinated biphenyls.
6. ND = Analytical result was less than the laboratory method detection limit.
7. NA = Criterion not available.
8. ID = Inadequate data to develop criterion.
9. NLL = Hazardous substance is not likely to leach under most soil conditions.
10. NLV = Hazardous substance is not likely to volatilize under most conditions.
11. NE = Not evaluated by laboratory.

* = Groundwater surface water interface criteria calculated assuming the hardness of the receiving water to be 100 mg $CaCO_3$/L

TABLE 7
GROUNDWATER ANALYTICAL RESULTS - DETECTED CONSTITUENTS
PAHs & VOCs
ACCIDENT FUND PARKING LOT ACQUISITION
231 SOUTH CAPITOL AVENUE - LANSING, MI
SME Project No. LE37803

Constituent	Chemical Abstract Service Number	Residential & Commercial I Drinking Water Criteria	Groundwater Surface Water Interface Criteria	Residential & Commercial I Groundwater Volatilization To Indoor Air Inhalation Criteria	Groundwater Contact Criteria	Sample Location Screened Depth Date Collected		
						SP-1 24-29' 8/13/01	SP-4 13-15' 8/13/01	SP-5 18' 8/13/01
VOCs								
Ethylbenzene	100414	74	18	170,000	170000	ND	13	ND
Isopropylbenzene	98828	800	ID	56,000	56000	ND	4	ND
2-Methylnaphthalene	91576	260	ID	ID	25000	ND	ND	ND
n-Propylbenzene	103651	80	ID	ID	15000	ND	6	ND
Naphthalene	91203	520	13	31,000	31000	ND	ND	ND
Toluene	108883	790	140	530,000	530000	ND	ND	ND
1,2,4-Trimethylbenzene	95636	63	ID	56,000	56000	ND	21	ND
1,3,5-Trimethylbenzene	108678	72	ID	61,000	61000	ND	7	ND
Xylenes	1330207	280	35	190,000	190000	ND	14	ND

NOTES:

1. Analytical results compared to applicable Part 201 June 7, 2000 Generic Residential Cleanup Criteria.
2. Concentrations reported in parts per billion (ppb) or micrograms per liter (ug/L).
3. Shading indicates which cleanup criteria are exceeded and the corresponding analytical result.
4. PAHs = Polynuclear aromatic hydrocarbons.
5. VOCs = Volatile organic compounds.
6. ND = Analytical result was less than the laboratory method detection limit.
7. ID = Inadequate data to develop criterion.
8. NA = Criterion or value not available.
9. NLV = Hazardous substance is not likely to volatilize under most conditions.
10. NE = Not evaluated by the laboratory.

232 S. Capitol Avenue

soil and materials
engineers, inc.

PHASE II ENVIRONMENTAL STUDIES
ACCIDENT FUND OF MICHIGAN
LANSING, MICHIGAN
SME PROJECT LE19966

PHASE II ENVIRONMENTAL STUDIES
ACCIDENT FUND OF MICHIGAN
LANSING, MICHIGAN
SME PROJECT LE19966

SME

Consultants in the geosciences, materials and the environment

- *Caissons*
- *Corrosion*
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- *Foundation Engineering*
- *Geodynamics/Vibrations*
- *Geophysical Surveys*
- *Geotextiles*
- *Ground Modification*
- *Piles*
- *Slope Stability*
- *Building Restoration*
- *Coatings*
- *Concrete*
- *Construction Quality Control*
- *Masonry/Stone*
- *Metals*
- *Pavements*
- *Roofs*
- *Sealants*
- *Structural Steel*
- *Waterproofing*
- *Air Quality*
- *Asbestos*
- *Compliance Audits*
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- *Hydrogeologic Studies*
- *RCRA Compliance*
- *Remediation*
- *Storm Water Discharge*
- *Underground Storage Tanks*
- *Waste Minimization*
- *Wetlands*

soil and materials engineers, inc.

2663 Eaton Rapids Road Lansing, MI 48911-6310 (517) 887-9181 FAX (517) 887-2666

W. Kramer, PE
). Anderson, PE
Evans, PE
Henderson, PG
. Lindow, PE
Rabeler, PE

ivens, PE
adele, PE
ohn, PhD, PE
Madej, PE
Templin, PE
Widrig, PE
. Bedenis, PE
Coberly, CET
fulman, PE, PG
ares-Dietrich, CGWP
rsen, PE
Mitchell, PE
R. Rollinson
arzecki, CWI

July 9, 1993

Mr. Joseph D. Chin, Jr.
Manager
Administrative/Communication Services
Accident Fund of Michigan
232 S. Capitol Avenue
P.O. Box 40790
Lansing, MI 48901-7990

RE: Phase II Environmental Studies
Accident Fund of Michigan
232 S. Capitol Avenue
Lansing, Michigan
SME Project LE19966

Dear Mr. Chin:

Soil and Materials Engineers, Inc. (SME) has completed the Phase II Environmental Studies for the referenced property. This report presents the results of our soil sampling and testing at four (4) locations on the Accident Fund property and our interpretation of the findings.

We appreciate the opportunity to serve you on this project. Should you have questions concerning this report, or should you require additional services, please do not hesitate to contact us.

Yours very truly,

Soil and Materials Engineers, Inc.

Thomas M. Peet

Thomas M. Peet
Senior Project Consultant

2 pc enclosed

1 pc: Mr. Rick Schroder-The Christman Company

TABLE OF CONTENTS

1.0 INTRODUCTION

Soil and Materials Engineers, Inc. (SME) has completed the authorized work for the Phase II Environmental Studies for the Accident Fund property located at 232 South Capitol Avenue in Lansing, Michigan. The Phase I Environmental Site Assessment (ESA) conducted by SME revealed that several underground storage tanks (USTs) for petroleum products were located on or adjacent to the property and a dry cleaners was previously located on the property.

The purpose of the Phase II investigation was to gain preliminary information as to whether the soil underlying the facility may be impacted by past operations on the site and adjoining property. The scope of work to be completed was presented in The Christman Company's request for proposal dated June 11, 1993 and Addendum dated June 21, 1993. This Phase II work consisted of four borings; three borings outside the building to sample soil to 20 feet below ground surface, and one boring in the interior of the building to sample soil 6 to 10 feet below the basement floor slab. The borings were conducted at sites marked by The Christman Company personnel.

2.0 FIELD OBSERVATIONS

Four soil borings were conducted at the locations shown on the location map included in Appendix A. Boring 1 (B1) was conducted in the driveway, north of the Accident Building, B2 and B3 were installed in the asphalt parking area on the west side of the building (in parking spaces 17 and 49, respectively), and Auger Probe 4 (AP4) was installed through the concrete slab in the northeast corner of the basement. Borings B1 through B3 were completed using a truck-mounted drill and 3 1/4-inch inside diameter hollow-stem augers. Soil samples for discrete intervals were collected by driving a split-barrel sampler. Auger Probe AP4 was completed with a stainless-steel, hand bucket auger after penetrating the concrete floor slab with an electric coring machine.

Sampling equipment was cleaned with high pressure hot water or detergent and rinsed with distilled water before collecting samples. All borings were backfilled with bentonite chips and native material, as shown on the boring logs. The logs for these borings are contained in Appendix B.

Soil samples from each boring were screened using an HNU photoionization detector (PID) by measuring the headspace in a jar containing a split of the sample retained for possible laboratory analysis. The HNU readings are included on the boring logs.

At location B1, sand fill was encountered from below the asphalt and aggregate base material to a depth of 12 feet. The interval from 12 to 18 feet consisted of fine to medium brown sand with traces of silt and gravel and occasional silty clay seams and layers. From 18 feet to the end of the boring at 20 feet, gray silty sand with traces of gravel and clay and occasional clay seams and layers was found. No groundwater was encountered. The on-site HNU screening of the four soil samples collected did not show readings above background air levels. No physical evidence of soil contamination (odors or discoloration) was observed.

moist soil (vadose zone possibly?)

At B2 , brown silty clay with traces of sand and gravel was found from below the asphalt and aggregate base material to 14 feet. The interval from 14 feet to the end of the boring at 20 feet, consisted of brown silty sand with traces of gravel and clay. This silty sand zone was moist to wet. A temporary well was set with the bottom of the screen placed at 18.5 feet. Groundwater flow was not sufficient to obtain a water sample, so the temporary screen and casing were removed and the borehole was plugged by backfilling with bentonite chips and native materials, as indicated on the boring log. The on-site HNU screening of the four soil samples collected did not show readings above background air levels. No physical evidence of soil contamination was observed.

How long left temp well for sample?

Below the asphalt and aggregate base material at the B3 site, brown silty clay with traces of gravel and occasional sand silt seams and layers was encountered to a depth of 15 feet. Below 15 feet to the end of the boring at 20 feet, the materials consisted of gray clayey sand with some silt and traces of gravel and frequent sandy clay seams and layers. No groundwater was encountered. The on-site HNU screening of the four soil samples collected did not result in readings above background air levels. No physical evidence of soil contamination was observed.

At the AP4 location sandy clay with some silt and traces of gravel was encountered below the 14 inches of concrete and sand fill to a depth of 8.5 feet. This sandy clay was brown turning to gray below 1.5 feet. From 8.5 feet to the end of the boring at 12 feet, the materials were gray sand with trace of silt and gravel. No groundwater was encountered. The HNU screening resulted in measurements above background for the 2 to 2.5, 4.5 to 5, 7 to 7.5, and 8.5 to 9-foot sample intervals. The highest reading was 10 ppm above background air levels for the 7 to 7.5-foot interval. AP4 was completed 2 feet deeper than the target depth because of the elevated HNU readings. The 9.5 to 10 and 11.5 to 12-foot samples had HNU readings at background levels. No physical evidence (odors or discoloration) characteristic of hydrocarbon contamination was observed in the samples collected.

3.0 LABORATORY ANALYSES

Four soil samples, one from each boring, were submitted to Fire and Environmental Consulting Laboratories, Inc. (FECL) in East Lansing, Michigan for analysis. The samples selected from B1, B2, and B3, where no physical evidence of contamination or HNU readings above background were found, were the deepest samples collected (18.5 to 20 feet). The sample selected from AP4 was from the 7 to 7.5-foot interval where the highest HNU reading was obtained.

Each sample was analyzed for EPA Priority Pollutant Metals, EPA Method 8010 Purgeable Halocarbons, EPA Method 8310 Polynuclear Aromatic Hydrocarbons

(PNAs) and EPA Method 8020 Aromatic Volatile Organics (benzene, toluene, ethylbenzene, and xylenes-BTEX). The analytical laboratory reports are included in Appendix C.

4.0 RESULTS

The EPA Priority Pollutant Metals analyses resulted in detectable concentrations of arsenic, chromium, copper, lead, nickel, and zinc in all four samples analyzed. Benzene was found at 170 ug/kg in the sample from B1 and at 440 ug/kg in the B4 (AP4) sample. Dichloromethane at a concentration of 30 ug/kg was reported in all four samples submitted to the laboratory. No PNAs were detected in any of the samples.

A summary of the detected parameters is included in the table presented in Appendix D. In addition, the Michigan Environmental Response Act, Act 307 of 1982, as amended (Act 307) Type A and Type B cleanup criteria concentrations are included in the table for comparison. None of the metals detected are above the Type A acceptable default values for soil currently under consideration by the MDNR. The Type A default values are proposed for use when background soil quality has not been determined according to Act 307 methods. Background soil quality for metals has not been determined for this site.

The concentration of dichloromethane (also known as methylene chloride) detected in all four samples (30 ug/kg) is above the Type A cleanup levels of 10 ug/kg, but below the Type B cleanup concentration of 100 ug/kg. The presence of dichloromethane is suspect because it is used in several organic laboratory procedures for extractions. Analysts from FECL rechecked the laboratory quality control records and confirmed that the 30 ug/kg concentration is above the concentrations found in the laboratory blanks.

The concentration of benzene detected in the samples from B1 and AP4 (170 ug/kg and 440 ug/kg, respectively) is above the Type A cleanup criteria of 10 ug/kg and

also, the Type B concentration of 20 ug/kg. This constituent is of concern since it is an indicator parameter for presence of gasoline and other petroleum products.

5.0 CONCLUSIONS AND RECOMMENDATIONS

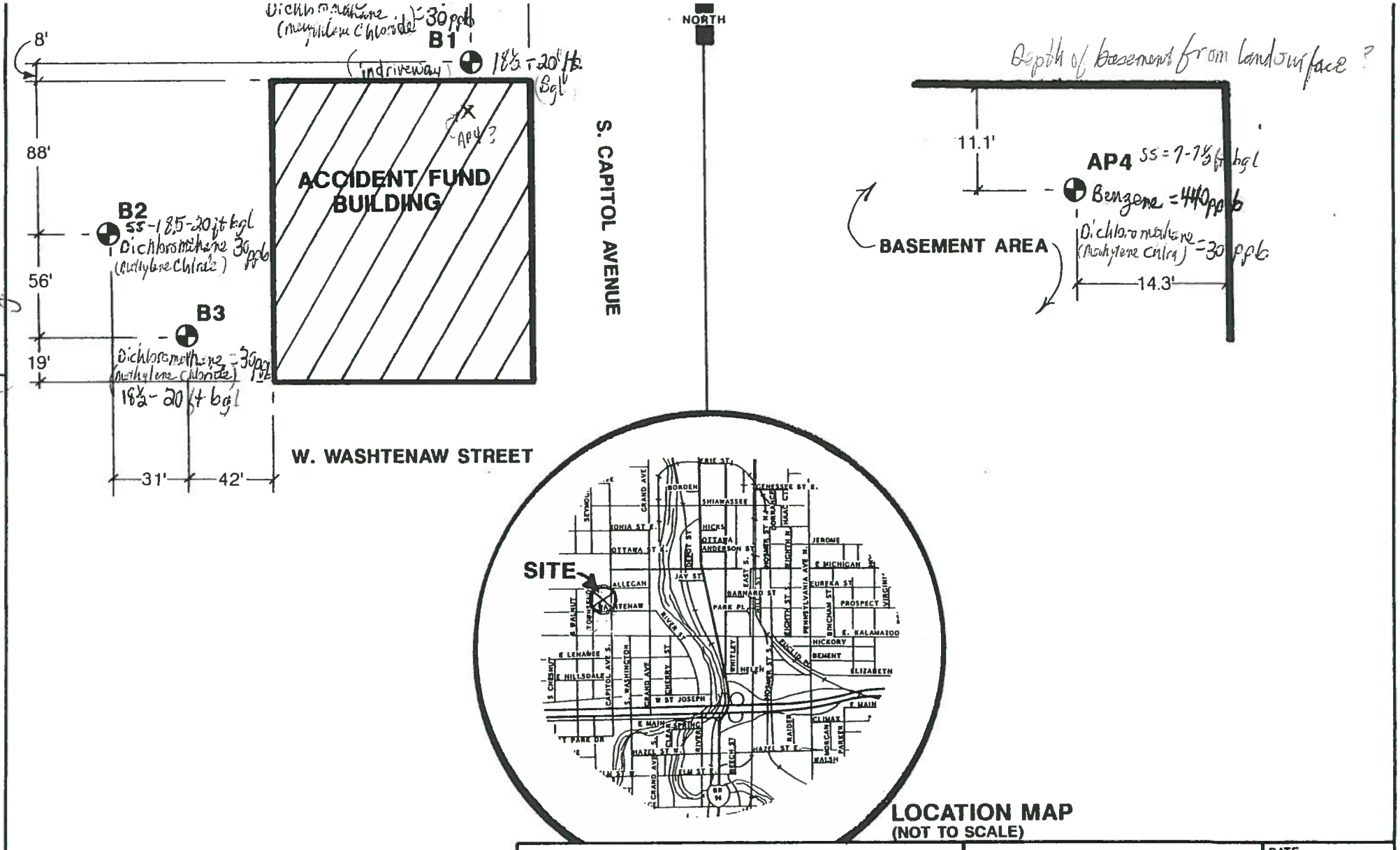
The results of Phase II Environmental Studies conducted for the Accident Fund facility indicate benzene-impacted soils may be present above Act 307 Type B cleanup concentrations in the vicinity of Borings B1 located north of the building in the entrance drive and AP4 in the northwest corner of the building basement. However, the presence of benzene in the absence of other petroleum product indicator parameters is unusual, unless benzene was the only product released.

Dichloromethane (methylene chloride) may be present above Act 307 Type A cleanup concentrations at all four boring locations. There is the possibility that the presence of dichloromethane is a result of laboratory contamination since this compound is commonly used in the laboratory and also, since the reported concentration (30 ug/kg) was identical in all four analytical results.

SME recommends that two or three additional borings be conducted near both the B1 and AP4 sites. Samples should be collected and analyzed for BTEX and dichloromethane to verify the initial boring analytical results and to obtain additional data to assist in the determination of the source and vertical and horizontal extent of the impacted soils.

APPENDIX A:

SOIL BORING LOCATION DIAGRAM



SOIL BORING LOCATION DIAGRAM
ACCIDENT FUND - PHASE II
LANSING, MICHIGAN

soil and materials engineers, inc.

Bay City
Kalamazoo
Lansing
Plymouth

DATE	7-2-93
DRAWN BY	TJP
SCALE	NTS
JOB NO.	LE19966

APPENDIX B:

SOIL BORING LOGS

BORING LOG NO. 1

CIDENT FUND OF MICHIGAN

ON

NSING, MICHIGAN

ARCHITECT/ENGINEER

PROJECT NAME

ACCIDENT FUND - PHASE II

SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX	
			Driller Reported 8" Asphalt Over 4" Aggregate Base Material								
SS		5	Fine to Medium Sand Fill-Trace Silt & Gravel-Brown-Moist-Medium Dense (SP/Fill)		26		ND				
SS		10			22		ND				
SS		15	Fine to Medium Sand-Trace Silt & Gravel-With Occasional Silty Clay Seams & Layers-Brown-Moist-Medium Dense (SP)		23		ND				
SS		20	Silty Fine to Medium Sand-Trace Gravel & Clay-With Occasional Clay Seams & Layers-Gray-Moist-Medium Dense (SM)		15		ND				
			END OF BORING								
			NOTE: Bentonite chips placed from 13' to 15'.								

Benzene = 170ppb soil
Dichloromethane = 30ppb

Sample to lab

The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

: _____ WHILE SAMPLING OR WHILE DRILLING
OCT _____ IMMEDIATLEY AFTER COMPLETION
_____ AFTER COMPLETION

MINERAL WELL PERMIT NO.

BORING STARTED 6-29-93

BORING COMPLETED 6-29-93

RIG GLD DRAWN BY TJP

FOREMAN KA APPROVED LSS/PL

JOB NO. LE19966 SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

BORING LOG NO. 2

CIDENT FUND OF MICHIGAN
ON
NSING, MICHIGAN

ARCHITECT/ENGINEER

PROJECT NAME
ACCIDENT FUND - PHASE II

SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX	
			Driller Reported 1' Asphalt over 1½' Aggregate Base Material								
SS		5	Silty Clay-Trace Sand & Gravel-Brown-Very Stiff to Hard (CL)		18		ND				
SS		10			33		ND				
SS		15	Silty Fine to Medium Sand-Trace Gravel & Clay-Brown-Moist to Wet-Medium Dense (SM)		27		ND				
SS		20			24		ND	Dichloromethane = 30ppb			
			END OF BORING NOTE: Bentonite chips placed from approximately 6' to 12'. Bottom of temporary well was set at 18½'. Groundwater flow not sufficient to obtain water sample.								

The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

_____ WHILE SAMPLING OR WHILE DRILLING
OCI _____ IMMEDIATLEY AFTER COMPLETION
_____ AFTER COMPLETION

MINERAL WELL PERMIT NO.
BORING STARTED 6-29-93
BORING COMPLETED 6-29-93
RIG GLD DRAWN BY TJP
FOREMAN KA APPROVED LSS/PL
JOB NO. LE19966 SHEET 1/1
NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

BORING LOG NO. 3

CIDENT FUND OF MICHIGAN

ON
NSING, MICHIGAN

ARCHITECT/ENGINEER

PROJECT NAME
ACCIDENT FUND - PHASE II

SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX	
			Driller Reported 8" Asphalt Over 10" Aggregate Base Material								
SS		5	Silty Clay-Trace Sand & Gravel-With Occasional Sandy Silt Seams & Layers-Brown-Very Stiff to Stiff (CL)		11		ND				
SS		10			33		ND				
SS		15			30		ND				
			Clayey Sand-Some Silt-Trace Gravel-With Frequent Sandy Clay Seams & Layers-Gray-Moist-Medium Dense (SC)								
SS		20			28		ND				
			END OF BORING								
			NOTE: Bentonite chips placed from approximately 10' to 13'.								

: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NE WHILE SAMPLING OR WHILE DRILLING
NE IMMEDIATLEY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.
BORING STARTED 6-29-93
BORING COMPLETED 6-29-93
RIG GLD DRAWN BY TJP
FOREMAN KA APPROVED LSS/PL
JOB NO. LE19966 SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

AUGER PROBE NO. 4

CCIDENT FUND OF MICHIGAN

ION

ANSING, MICHIGAN

ARCHITECT/ENGINEER

PROJECT NAME

ACCIDENT FUND - PHASE II

SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX
			Concrete Fine to Medium Sand Fill-Trace Silt & Gravel-Brown-Moist (SP/Fill)							
AS							4			
AS		5	Sandy Clay-Some Silt-Trace Gravel-With Occasional Silty Sand Seams & Layers-Brown Turning Gray Below 1½' (CL)				8			
AS							10			
AS							1			
AS		10	Fine to Medium Sand-Trace Silt & Gravel-Gray-Moist (SP)				ND			
AS							ND			
		15	END OF AUGER PROBE NOTE: Bentonite chips placed from approximately 6' to 8'.							

E: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING

NONE IMMEDIATLEY AFTER COMPLETION

AFTER COMPLETION

MINERAL WELL PERMIT NO.

BORING STARTED 6-29-93

BORING COMPLETED 6-29-93

RIG HAND AUGER DRAWN BY TJP

FOREMAN DH APPROVED DH/PL

JOB NO. LE19966 SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

APPENDIX C:

ANALYTICAL LABORATORY REPORTS

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

July 7, 1993

Soil Materials Engineers
2663 Eaton Rapids Road
Lansing, MI 48911

Attention: Mr. Tom Peet

Analytical Laboratory Report

Project: LE 19966 Accident Fund Phase II

Samples collected by: SME PERSONNEL
Date/Time Submitted: 06/30/93 10:38
PO #: Verbal

FECL #: AA05078
Tag: B1 - S4 Soil
Date/Time Collected: 06/29/93 17:35
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05079
Tag: B2 - S4 Soil
Date/Time Collected: 06/29/93 11:05
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05080
Tag: B3 - S4 Soil
Date/Time Collected: 06/29/93 14:30
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05081
Tag: B4 - S3 Soil
Date/Time Collected: 06/29/93
Matrix: Soil
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
Soil Materials Engineers
July 7, 1993

FECL #: AA05078
TAG: B1 - S4 Soil

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	91	%	1	160.3
METALS				
Antimony	Not detected	mg/kg	0.2	6020
Arsenic	1.0	mg/kg	0.5	6020
Beryllium	Not detected	mg/kg	0.20	6020
Cadmium	Not detected	mg/kg	0.05	6020
Chromium	3.0	mg/kg	2.0	6020
Copper	4.5	mg/kg	1.0	6020
Lead	2.5	mg/kg	1.0	6020
Mercury	Not detected	mg/kg	0.10	7471
Nickel	8.1	mg/kg	0.5	6020
Selenium	Not detected	mg/kg	0.5	6020
Silver	Not detected	mg/kg	0.20	6020
Thallium	Not detected	mg/kg	0.10	6020
Zinc	8.0	mg/kg	1.0	6020
Polynuclear Aromatics				
Acenapthene	Not detected	mg/kg	0.33	8310
Acenapthylene	Not detected	mg/kg	0.33	8310
Anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)pyrene	Not detected	mg/kg	0.33	8310
Benzo(b)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(j)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(k)flouranthene	Not detected	mg/kg	0.33	8310
Benzo(ghi)perylene	Not detected	mg/kg	0.33	8310
Chrysene	Not detected	mg/kg	0.33	8310
Dibenz(a,h)acridine	Not detected	mg/kg	0.33	8310
Dibenz(a,j)acridine	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)anthracene	Not detected	mg/kg	0.33	8310
7H-Dibenzo(c,g)carbazole	Not detected	mg/kg	0.33	8310
Dibenzo(a,e)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,i)pyrene	Not detected	mg/kg	0.33	8310
Flouranthene	Not detected	mg/kg	0.33	8310
Flourene	Not detected	mg/kg	0.33	8310
Ideno(1,2,3-cd)pyrene	Not detected	mg/kg	0.33	8310
3-Methylchloranthrene	Not detected	mg/kg	0.33	8310
Napthalene	Not detected	mg/kg	0.33	8310
Phenanthrene	Not detected	mg/kg	0.33	8310
Pyrene	Not detected	mg/kg	0.33	8310

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Soil Materials Engineers
July 7, 1993

TECL #: AA05078
TAG: B1 - S4 Soil

Analysis	Results	Units	MDL	Method
BTEX				
Benzene	0.17	mg/kg	0.01	8020
Toluene	Not detected	mg/kg	0.01	8020
Ethylbenzene	Not detected	mg/kg	0.01	8020
p,m-Xylene	Not detected	mg/kg	0.01	8020
o-Xylene	Not detected	mg/kg	0.01	8020

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Soil Materials Engineers
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FECL #: AA05078
TAG: B1 - S4 Soil

Analysis	Results	Units	MDL	Method
Halogenated Volatile Organics				
Benzyl chloride	Not detected	mg/kg	0.01	8010
Bis(2-chloroethoxy)methane	Not detected	mg/kg	0.01	8010
Bis(2-chloroisopropyl)ether	Not detected	mg/kg	0.01	8010
Bromobenze	Not detected	mg/kg	0.01	8010
Bromodichloromethane	Not detected	mg/kg	0.01	8010
Bromoform	Not detected	mg/kg	0.01	8010
Bromomethane	Not detected	mg/kg	0.01	8010
Carbon tetrachloride	Not detected	mg/kg	0.01	8010
Chloracetaldehyde	Not detected	mg/kg	0.01	8010
Chlorobenzene	Not detected	mg/kg	0.01	8010
Chloroethane	Not detected	mg/kg	0.01	8010
Chloroform	Not detected	mg/kg	0.01	8010
1-Chlorohexane	Not detected	mg/kg	0.01	8010
2-Chloroethyl vinyl ether	Not detected	mg/kg	0.01	8010
Chloromethane	Not detected	mg/kg	0.01	8010
Chloromethylmethyl ether	Not detected	mg/kg	0.01	8010
Chlorotoluene	Not detected	mg/kg	0.01	8010
Dibromochloromethane	Not detected	mg/kg	0.01	8010
Dibromomethane	Not detected	mg/kg	0.01	8010
1,2-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,3-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,4-Dichlorobenzene	Not detected	mg/kg	0.01	8010
Dichlorodifluoromethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethane	Not detected	mg/kg	0.01	8010
1,2-Dichloroethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethene	Not detected	mg/kg	0.01	8010
trans-1,2-Dichlorothene	Not detected	mg/kg	0.01	8010
Dichloromethane	0.03	mg/kg	0.01	8010
1,2-Dichloropropane	Not detected	mg/kg	0.01	8010
trans-1,3-Dichloropropene	Not detected	mg/kg	0.01	8010
1,1,2,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
1,1,1,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
Tetrachloroethene	Not detected	mg/kg	0.01	8010
1,1,1-Trichloroethane	Not detected	mg/kg	0.01	8010
1,1,2-Trichloroethane	Not detected	mg/kg	0.01	8010
Trichloroethene	Not detected	mg/kg	0.01	8010
Trichlorofluoromethane	Not detected	mg/kg	0.01	8010
Trichloropropane	Not detected	mg/kg	0.01	8010
Vinyl chloride	Not detected	mg/kg	0.01	8010

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Soil Materials Engineers
July 7, 1993

FECL #: AA05079
TAG: B2 - S4 Soil

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	91	%	1	160.3
METALS				
Antimony	Not detected	mg/kg	0.2	6020
Arsenic	1.1	mg/kg	0.5	6020
Beryllium	Not detected	mg/kg	0.20	6020
Cadmium	Not detected	mg/kg	0.05	6020
Chromium	2.8	mg/kg	2.0	6020
Copper	2.9	mg/kg	1.0	6020
Lead	2.0	mg/kg	1.0	6020
Mercury	Not detected	mg/kg	0.10	7471
Nickel	6.5	mg/kg	0.5	6020
Selenium	Not detected	mg/kg	0.5	6020
Silver	Not detected	mg/kg	0.20	6020
Thallium	Not detected	mg/kg	0.10	6020
Zinc	5.0	mg/kg	1.0	6020
Polynuclear Aromatics				
Acenapthene	Not detected	mg/kg	0.33	8310
Acenapthylene	Not detected	mg/kg	0.33	8310
Anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)pyrene	Not detected	mg/kg	0.33	8310
Benzo(b)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(j)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(k)flouranthene	Not detected	mg/kg	0.33	8310
Benzo(ghi)perylene	Not detected	mg/kg	0.33	8310
Chrysene	Not detected	mg/kg	0.33	8310
Dibenz(a,h)acridine	Not detected	mg/kg	0.33	8310
Dibenz(a,j)acridine	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)anthracene	Not detected	mg/kg	0.33	8310
7H-Dibenzo(c,g)carbazole	Not detected	mg/kg	0.33	8310
Dibenzo(a,e)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,i)pyrene	Not detected	mg/kg	0.33	8310
Flouranthene	Not detected	mg/kg	0.33	8310
Flourene	Not detected	mg/kg	0.33	8310
Ideno(1,2,3-cd)pyrene	Not detected	mg/kg	0.33	8310
3-Methylchloranthrene	Not detected	mg/kg	0.33	8310
Napthalene	Not detected	mg/kg	0.33	8310
Phenanthrene	Not detected	mg/kg	0.33	8310
Pyrene	Not detected	mg/kg	0.33	8310

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Soil Materials Engineers
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FECL #: AA05079
TAG: B2 - S4 Soil

Analysis	Results	Units	MDL	Method
BTEX				
Benzene	Not detected	mg/kg	0.01	8020
Toluene	Not detected	mg/kg	0.01	8020
Ethylbenzene	Not detected	mg/kg	0.01	8020
p,m-Xylene	Not detected	mg/kg	0.01	8020
o-Xylene	Not detected	mg/kg	0.01	8020

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July 7, 1993

TECL #: AA05079
TAG: B2 - S4 Soil

Analysis	Results	Units	MDL	Method
Halogenated Volatile Organics				
Benzyl chloride	Not detected	mg/kg	0.01	8010
Bis(2-chloroethoxy)methane	Not detected	mg/kg	0.01	8010
Bis(2-chloroisopropyl)ether	Not detected	mg/kg	0.01	8010
Bromobenze	Not detected	mg/kg	0.01	8010
Bromodichloromethane	Not detected	mg/kg	0.01	8010
Bromoform	Not detected	mg/kg	0.01	8010
Bromomethane	Not detected	mg/kg	0.01	8010
Carbon tetrachloride	Not detected	mg/kg	0.01	8010
Chloracetaldehyde	Not detected	mg/kg	0.01	8010
Chlorobenzene	Not detected	mg/kg	0.01	8010
Chloroethane	Not detected	mg/kg	0.01	8010
Chloroform	Not detected	mg/kg	0.01	8010
1-Chlorohexane	Not detected	mg/kg	0.01	8010
2-Chloroethyl vinyl ether	Not detected	mg/kg	0.01	8010
Chloromethane	Not detected	mg/kg	0.01	8010
Chloromethylmethyl ether	Not detected	mg/kg	0.01	8010
Chlorotoluene	Not detected	mg/kg	0.01	8010
Dibromochloromethane	Not detected	mg/kg	0.01	8010
Dibromomethane	Not detected	mg/kg	0.01	8010
1,2-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,3-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,4-Dichlorobenzene	Not detected	mg/kg	0.01	8010
Dichlorodifluoromethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethane	Not detected	mg/kg	0.01	8010
1,2-Dichloroethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethene	Not detected	mg/kg	0.01	8010
trans-1,2-Dichlorothene	Not detected	mg/kg	0.01	8010
Dichloromethane	0.03	mg/kg	0.01	8010
1,2-Dichloropropane	Not detected	mg/kg	0.01	8010
trans-1,3-Dichloropropene	Not detected	mg/kg	0.01	8010
1,1,2,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
1,1,1,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
Tetrachloroethene	Not detected	mg/kg	0.01	8010
1,1,1-Trichloroethane	Not detected	mg/kg	0.01	8010
1,1,2-Trichloroethane	Not detected	mg/kg	0.01	8010
Trichloroethene	Not detected	mg/kg	0.01	8010
Trichlorofluoromethane	Not detected	mg/kg	0.01	8010
Trichloropropane	Not detected	mg/kg	0.01	8010
Vinyl chloride	Not detected	mg/kg	0.01	8010

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FECL #: AA05080
TAG: B3 - S4 Soil

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	92	%	1	160.3
METALS				
Antimony	Not detected	mg/kg	0.2	6020
Arsenic	1.2	mg/kg	0.5	6020
Beryllium	Not detected	mg/kg	0.20	6020
Cadmium	Not detected	mg/kg	0.05	6020
Chromium	3.5	mg/kg	2.0	6020
Copper	4.9	mg/kg	1.0	6020
Lead	2.8	mg/kg	1.0	6020
Mercury	Not detected	mg/kg	0.10	7471
Nickel	8.9	mg/kg	0.5	6020
Selenium	Not detected	mg/kg	0.5	6020
Silver	Not detected	mg/kg	0.20	6020
Thallium	Not detected	mg/kg	0.10	6020
Zinc	7.1	mg/kg	1.0	6020
Polynuclear Aromatics				
Acenapthene	Not detected	mg/kg	0.33	8310
Acenapthylene	Not detected	mg/kg	0.33	8310
Anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)pyrene	Not detected	mg/kg	0.33	8310
Benzo(b)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(j)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(k)flouranthene	Not detected	mg/kg	0.33	8310
Benzo(ghi)perylene	Not detected	mg/kg	0.33	8310
Chrysene	Not detected	mg/kg	0.33	8310
Dibenz(a,h)acridine	Not detected	mg/kg	0.33	8310
Dibenz(a,j)acridine	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)anthracene	Not detected	mg/kg	0.33	8310
7H-Dibenzo(c,g)carbazole	Not detected	mg/kg	0.33	8310
Dibenzo(a,e)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,i)pyrene	Not detected	mg/kg	0.33	8310
Flouranthene	Not detected	mg/kg	0.33	8310
Flourene	Not detected	mg/kg	0.33	8310
Ideno(1,2,3-cd)pyrene	Not detected	mg/kg	0.33	8310
3-Methylchloranthrene	Not detected	mg/kg	0.33	8310
Napthalene	Not detected	mg/kg	0.33	8310
Phenanthrene	Not detected	mg/kg	0.33	8310
Pyrene	Not detected	mg/kg	0.33	8310

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Soil Materials Engineers
July 7, 1993

FECL #: AA05080
TAG: B3 - S4 Soil

Analysis	Results	Units	MDL	Method
BTEX				
Benzene	Not detected	mg/kg	0.01	8020
Toluene	Not detected	mg/kg	0.01	8020
Ethylbenzene	Not detected	mg/kg	0.01	8020
p,m-Xylene	Not detected	mg/kg	0.01	8020
o-Xylene	Not detected	mg/kg	0.01	8020

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Soil Materials Engineers
July 7, 1993

FECL #: AA05080
TAG: B3 - S4 Soil

Analysis	Results	Units	MDL	Method
Halogenated Volatile Organics				
Benzyl chloride	Not detected	mg/kg	0.01	8010
Bis(2-chloroethoxy)methane	Not detected	mg/kg	0.01	8010
Bis(2-chloroisopropyl)ether	Not detected	mg/kg	0.01	8010
Bromobenze	Not detected	mg/kg	0.01	8010
Bromodichloromethane	Not detected	mg/kg	0.01	8010
Bromoform	Not detected	mg/kg	0.01	8010
Bromomethane	Not detected	mg/kg	0.01	8010
Carbon tetrachloride	Not detected	mg/kg	0.01	8010
Chloracetaldehyde	Not detected	mg/kg	0.01	8010
Chlorobenzene	Not detected	mg/kg	0.01	8010
Chloroethane	Not detected	mg/kg	0.01	8010
Chloroform	Not detected	mg/kg	0.01	8010
1-Chlorohexane	Not detected	mg/kg	0.01	8010
2-Chloroethyl vinyl ether	Not detected	mg/kg	0.01	8010
Chloromethane	Not detected	mg/kg	0.01	8010
Chloromethylmethyl ether	Not detected	mg/kg	0.01	8010
Chlorotoluene	Not detected	mg/kg	0.01	8010
Dibromochloromethane	Not detected	mg/kg	0.01	8010
Dibromomethane	Not detected	mg/kg	0.01	8010
1,2-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,3-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,4-Dichlorobenzene	Not detected	mg/kg	0.01	8010
Dichlorodifluoromethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethane	Not detected	mg/kg	0.01	8010
1,2-Dichloroethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethene	Not detected	mg/kg	0.01	8010
trans-1,2-Dichlorothene	Not detected	mg/kg	0.01	8010
Dichloromethane	0.03	mg/kg	0.01	8010
1,2-Dichloropropane	Not detected	mg/kg	0.01	8010
trans-1,3-Dichloropropene	Not detected	mg/kg	0.01	8010
1,1,2,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
1,1,1,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
Tetrachloroethene	Not detected	mg/kg	0.01	8010
1,1,1-Trichloroethane	Not detected	mg/kg	0.01	8010
1,1,2-Trichloroethane	Not detected	mg/kg	0.01	8010
Trichloroethene	Not detected	mg/kg	0.01	8010
Trichlorofluoromethane	Not detected	mg/kg	0.01	8010
Trichloropropane	Not detected	mg/kg	0.01	8010
Vinyl chloride	Not detected	mg/kg	0.01	8010

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FECL #: AA05081
TAG: B4 - S3 Soil

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	91	%	1	160.3
METALS				
Antimony	Not detected	mg/kg	0.2	6020
Arsenic	1.4	mg/kg	0.5	6020
Beryllium	Not detected	mg/kg	0.20	6020
Cadmium	Not detected	mg/kg	0.05	6020
Chromium	3.0	mg/kg	2.0	6020
Copper	4.4	mg/kg	1.0	6020
Lead	2.7	mg/kg	1.0	6020
Mercury	Not detected	mg/kg	0.10	7471
Nickel	8.8	mg/kg	0.5	6020
Selenium	Not detected	mg/kg	0.5	6020
Silver	Not detected	mg/kg	0.20	6020
Thallium	Not detected	mg/kg	0.10	6020
Zinc	6.8	mg/kg	1.0	6020
Polynuclear Aromatics				
Acenapthene	Not detected	mg/kg	0.33	8310
Acenapthylene	Not detected	mg/kg	0.33	8310
Anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)anthracene	Not detected	mg/kg	0.33	8310
Benzo(a)pyrene	Not detected	mg/kg	0.33	8310
Benzo(b)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(j)fluoranthene	Not detected	mg/kg	0.33	8310
Benzo(k)flouranthene	Not detected	mg/kg	0.33	8310
Benzo(ghi)perylene	Not detected	mg/kg	0.33	8310
Chrysene	Not detected	mg/kg	0.33	8310
Dibenz(a,h)acridine	Not detected	mg/kg	0.33	8310
Dibenz(a,j)acridine	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)anthracene	Not detected	mg/kg	0.33	8310
7H-Dibenzo(c,g)carbazole	Not detected	mg/kg	0.33	8310
Dibenzo(a,e)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,h)pyrene	Not detected	mg/kg	0.33	8310
Dibenzo(a,i)pyrene	Not detected	mg/kg	0.33	8310
Flouranthene	Not detected	mg/kg	0.33	8310
Flourene	Not detected	mg/kg	0.33	8310
Ideno(1,2,3-cd)pyrene	Not detected	mg/kg	0.33	8310
3-Methylchloranthrene	Not detected	mg/kg	0.33	8310
Napthalene	Not detected	mg/kg	0.33	8310
Phenanthrene	Not detected	mg/kg	0.33	8310
Pyrene	Not detected	mg/kg	0.33	8310

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FECL #: AA05081
TAG: B4 - S3 Soil

Analysis	Results	Units	MDL	Method
BTEX				
Benzene	0.44	mg/kg	0.01	8020
Toluene	Not detected	mg/kg	0.01	8020
Ethylbenzene	Not detected	mg/kg	0.01	8020
p,m-Xylene	Not detected	mg/kg	0.01	8020
o-Xylene	Not detected	mg/kg	0.01	8020

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ECL #: AA05081
TAG: B4 - S3 Soil

Analysis	Results	Units	MDL	Method
Halogenated Volatile Organics				
Benzyl chloride	Not detected	mg/kg	0.01	8010
Bis(2-chloroethoxy)methane	Not detected	mg/kg	0.01	8010
Bis(2-chloroisopropyl)ether	Not detected	mg/kg	0.01	8010
Bromobenze	Not detected	mg/kg	0.01	8010
Bromodichloromethane	Not detected	mg/kg	0.01	8010
Bromoform	Not detected	mg/kg	0.01	8010
Bromomethane	Not detected	mg/kg	0.01	8010
Carbon tetrachloride	Not detected	mg/kg	0.01	8010
Chloracetaldehyde	Not detected	mg/kg	0.01	8010
Chlorobenzene	Not detected	mg/kg	0.01	8010
Chloroethane	Not detected	mg/kg	0.01	8010
Chloroform	Not detected	mg/kg	0.01	8010
1-Chlorohexane	Not detected	mg/kg	0.01	8010
2-Chloroethyl vinyl ether	Not detected	mg/kg	0.01	8010
Chloromethane	Not detected	mg/kg	0.01	8010
Chloromethylmethyl ether	Not detected	mg/kg	0.01	8010
Chlorotoluene	Not detected	mg/kg	0.01	8010
Dibromochloromethane	Not detected	mg/kg	0.01	8010
Dibromomethane	Not detected	mg/kg	0.01	8010
1,2-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,3-Dichlorobenzene	Not detected	mg/kg	0.01	8010
1,4-Dichlorobenzene	Not detected	mg/kg	0.01	8010
Dichlorodifluoromethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethane	Not detected	mg/kg	0.01	8010
1,2-Dichloroethane	Not detected	mg/kg	0.01	8010
1,1-Dichloroethene	Not detected	mg/kg	0.01	8010
trans-1,2-Dichlorothene	Not detected	mg/kg	0.01	8010
Dichloromethane	0.03	mg/kg	0.01	8010
1,2-Dichloropropane	Not detected	mg/kg	0.01	8010
trans-1,3-Dichloropropene	Not detected	mg/kg	0.01	8010
1,1,2,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
1,1,1,2-Tetrachloroethane	Not detected	mg/kg	0.01	8010
Tetrachloroethene	Not detected	mg/kg	0.01	8010
1,1,1-Trichloroethane	Not detected	mg/kg	0.01	8010
1,1,2-Trichloroethane	Not detected	mg/kg	0.01	8010
Trichloroethene	Not detected	mg/kg	0.01	8010
Trichlorofluoromethane	Not detected	mg/kg	0.01	8010
Trichloropropane	Not detected	mg/kg	0.01	8010
Vinyl chloride	Not detected	mg/kg	0.01	8010

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FECL #'s: AA05078 - AA05081

Note: Methods may be modified for improved performance.

V. F. Murshak/kk

Violetta F. Murshak
Laboratory Manager

Client/P.O.#: ________ Contact Person: Tom Peet Address: SME - Lansing - 887-9181

Project No.	Client			SAMPLE TYPE
LE 19966	ACCIDENT FUND PHASE II			GW WW SW **(SOIL)** OTHER ____
Sampler(s) (Signature)		Affiliation		CODE: **(A = None)** B = HNO_3 C = H_2SO_4 D = NaOH E = ____
Terrence S. Shamatakar		SME		

PRESERVED CODE → A
REFRIGERATE (Y/N) → Y
BOTTLE TYPE → 4 oz CLEAR

FEC Lab No.	Yr. 93 Date	Time	SAMPLE TAG	Total Number Of Containers	4 oz CLEAR	Analyses
5078	06/29	5:35 - 6:30	B1 - S4 Soil	1	X	PNA Meth. 8310 D.L. 330 ppb; BTEX " 8020 " 10 ppb; Purge Halocarbons " 8010 " 10 ppb; Priority Pollutant Metals use "standard" if questions call
5079	06/29	11:05 - 12:30	B2 - S4 Soil	1	X	" " " " "
5080	06/29	2:30 - 4:45	B3 - S4 Soil	1	X	" " " " "
5081	06/29	—	B4 - S3 Soil	1	X	" " " " "
						* 5 (FIVE) DAY TURNAROUND
						PLEASE INCLUDE QAQC

Relinquished by (Sig.)	Date	Time	Relinquished to lab by (Sig.)	Date	Time
Terrence S. Shamatakar	06/30/93	8:45 am	Andrew J. Conboy	6-30-93	9:03 am
Received by (Sig.)	**Date**	**Time**	**Received for lab by (Sig.)**	**Date**	**Time**
Andrew J. Conboy	6/30/93	8:45 am	[illegible signature]	6-30-93	10:38 pm
Relinquished by (Sig.)	**Date**	**Time**	Seal #____ Seal Intact Yes No	Initials____	
			Seal #____ Seal Intact Yes No	Initials____	
Received by (Sig.)	**Date**	**Time**	Notes: (Temp. on arrival) ____		

APPENDIX D:

SUMMARY OF ANALYTICAL RESULTS FOR DETECTED PARAMETERS

SUMMARY OF ANALYTICAL RESULTS FOR DETECTED PARAMETERS

Accident Fund of Michigan
Phase II Environmental Studies
SME Job No. LE19966
July 9, 1993

PARAMETER	UNITS	LABORATORY RESULTS				TYPE A CRITERIA	TYPE A DEFAULT CRITERIA *	TYPE B CRITERIA
		B1	B2	B3	AP4 (B4)			
Arsenic	mg/kg	1.0	1.1	1.2	1.4	B	5.8	0.0004(1)
Chromium	mg/kg	3.0	2.8	3.5	3.0	B	18	140(1)
Copper	mg/kg	4.5	2.9	4.9	4.4	B	32	20(1)
Lead	mg/kg	2.5	2.0	2.8	2.7	-----(2)	21(3)	-----(2)
Nickel	mg/kg	8.1	6.5	8.9	8.8	B	20	2(1)
Zinc	mg/kg	8.0	5.0	7.1	6.8	B	47	20(1)
Benzene	ug/kg	170	ND	ND	440	10	-----	20
Dichloromethane	ug/kg	30	30	30	30	10	-----	100

* Acceptable default value for Type A soil cleanup criteria when site background concentrations are not available.

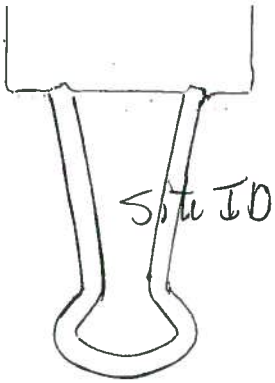
B Background Concentration

(1) Or local background concentration if less restrictive than criteria.

(2) Under review.

(3) Lead value still under review as of 4-28-93.

ND Not detected



ADDITIONAL PHASE II
ENVIRONMENTAL INVESTIGATION
ACCIDENT FUND OF MICHIGAN
232 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN

SME Project LE20953

March 4, 1994

SME

Consultants in the geosciences, materials and the environment

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- *Wetlands*

soil and materials engineers, inc.
2663 Eaton Rapids Road Lansing, MI 48911-6310 (517) 887-9181 FAX (517) 887-2666

Site ID 330476

March 4, 1994

Mr. Joseph D. Chin, Jr.
Manager
Administrative/Communication Services
Accident Fund of Michigan
232 S. Capitol Avenue
P.O. Box 40790
Lansing, MI 48901-7990

RE: Additional Phase II Environmental Investigation
Accident Fund of Michigan
232 S. Capitol Avenue
Lansing, Michigan
SME Project LE20953

Dear Mr. Chin:

Soil and Materials Engineers, Inc. (SME) has completed the additional Phase II Environmental Investigation for the referenced property. This report presents the results of our current soil and water sampling and testing at 7 additional locations as well as the sampling and testing completed during June 1993, in 4 locations. Also presented is SME's interpretation of the findings from the 2 investigative events.

We appreciate the opportunity to serve you on this project. Should you have questions or comments concerning this report, please contact Kurt Cunningham or Tom Peet at 517/887-9181.

Sincerely,

SOIL AND MATERIALS ENGINEERS, INC.

Thomas M. Peet

Thomas M. Peet
Senior Project Consultant

2 pc enclosed

le20953/kdc-br

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Figures

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Appendices

1.0 INTRODUCTION

Soil and Materials Engineers, Inc. (SME) has completed the additional work authorized for the Phase II Environmental Investigation at the Accident Fund of Michigan property located at 232 S. Capitol Avenue in Lansing, Michigan. The site location is indicated on Figure 1. A Phase I Environmental Site Assessment (ESA) conducted by SME revealed that several petroleum product containing underground storage tanks (USTs) had been located on and adjacent to the northeast corner of the property and a dry cleaning business had been previously located on or near the west side of the property. Initial investigation by SME in the vicinity of the suspected USTs (Phase II Environmental Studies, July 12, 1993) revealed that benzene contamination is present in the soil near the northeast corner of the property. The study also indicated that dichloromethane (methylene chloride) may be present, but doubt was raised when soil samples from all 4 soil borings contained the same concentration, and the laboratory had detected methylene chloride in their method blanks.

The purpose of this additional Phase II Environmental Investigation was to determine the vertical and horizontal extent of benzene in the soil and/or subsurface water at the site. Also, if methylene chloride is confirmed to be present, delineate its vertical and horizontal extent in the soil and/or subsurface water at the site. An effort was also made to determine the potential migration and exposure pathways and receptors for the onsite contaminants.

2.0 FIELD OBSERVATIONS

Four (4) soil borings were drilled and sampled on June 29, 1993, in the areas presented as B1, B2, B3 and AP4 on Figure 2. B1 was drilled approximately 7 feet north of the northern edge of the building near the northeast corner of the building, B2 and B3 were drilled in the parking lot to the west of the building and AP4 was drilled in the basement of the building near the northeast corner of the building. The field procedures for drilling and sampling these soil borings are presented in the Phase II Environmental Studies report submitted by SME to Accident Fund of Michigan in July of 1993.

Seven (7) additional soil borings were drilled on the site February 22 through 24, 1994, at the locations shown on the soil boring location diagram (Figure 2). Possible soil boring locations were restricted by underground structures and buildings. Five (5) soil borings were completed outside the building using a truck mounted Central Mine Equipment 55 drill with 3.75-inch inside diameter hollow stem augers. One (1) soil boring (B202) was drilled west of the building near the northwest corner, 1 (B203) north of the building near the northwest corner, 1 (B204) north of the service drive near the northeast corner, 1 (B205) east of the building near the northeast corner of the building and 1 (B206) east of the building near the center of the building. The other 2 soil borings were drilled inside the building using a hand auger with a stainless steel bucket after penetrating the concrete floor with an electric coring machine. The first inside boring (B201) was located near the center of the 10-story portion of the building and the second (B207) was placed near the southeast corner of the 10 story portion of the building.

Soil samples were collected at 2.5-foot intervals starting at 2.5 feet and continuing through 10 feet then at 5 foot intervals thereafter. Soil samples were collected by driving a split-barrel sampler at each interval in the outside soil borings. Samples were collected directly from the bucket of the hand auger in the inside borings. Each soil sample was physically described using the unified soils classification system (USCS) and the descriptions recorded on a soil boring log. The soil boring logs are presented in Appendix A.

A portion of each sample was transferred directly into laboratory supplied jars for possible analysis, labeled with the project number, sample identification, date, time and the samplers initials, then immediately placed in a cooler with ice. Another portion of each sample was placed in a quart sized, glass jar, sealed with aluminum foil and a metal ring and allowed to rest in a warm place for a minimum of ten minutes. After the samples had rested they were screened with a photoionization detector (PID) equipped with a 10.2 eV lamp by piercing the aluminum foil with the PID probe and recording the highest response of the PID. The

recorded PID values are presented on the soil boring logs in Appendix A. These PID values were used to help select the soil samples to be analyzed at the laboratory.

All drilling and sampling equipment was decontaminated with a high pressure, hot water washer before mobilizing to the site. Clean augers were used to drill each soil boring outside. Sampling equipment was washed in a solution of tap water and laboratory grade soap and rinsed with distilled water between samples, and the hand auger was washed in the same way between borings.

Each boring, except B204, was sealed at the bottom with 1 or more bags of bentonite chips, backfilled with native soil, sealed at the top with another bag of bentonite chips and the surface patched with asphalt patch or concrete. Boring B204 was backfilled from the bottom of the boring to within 6 feet of the surface with bentonite chips due to the amount of contamination found at that location.

3.0 GEOLOGY

The geology of the Accident Fund of Michigan site is very complex and has been altered several times by building and demolition activities. In general, the area outside the building is covered with asphalt pavement over an aggregate base to a depth of approximately 8 inches. In the street, Capitol Avenue, approximately 10 inches of concrete was encountered below the asphalt. A fill consisting of fine to medium, brown sand with traces of gravel and silt was generally found below the aggregate base and varies in depth from 1.5 feet to 12 feet below ground surface (bgs). Below the fill a silty, sandy clay was encountered and extends to a depth of between 15 feet to greater than 20 feet bgs. The clay generally is fractured near the surface but the fractures disappear with depth as the clay moisture content increases. Boring B203 is the exception to this generality. This boring encountered predominantly sand. The only clay found was in seams between 9.5 feet and 18 feet bgs. A dry, fine or fine to medium sand that ranges in color from white to yellow brown was encountered below the

clay to the total depth of all soil borings. The geology of the soil borings inside the building were similar to the outside, but because of approximately 14 feet elevation difference the shallow soils are missing in these borings. A concrete slab floor, 4 inches thick at B201 and 8 inches thick a B207, was laid on top of a brown, compacted, fine to medium sand fill. The fill extended to a depth of approximately 2.5 to 4 feet below the top of the floor (btf) or 16.5 to 18 feet bgs. Under the fill a silty, sandy, gray clay with a trace of gravel was encountered. The gravel in the clay made hand augering very difficult. The clay extended to a depth of 10 to 13 feet btf (24 to 27 feet bgs), where a gray, fine to medium sand was encountered. An odor was detected in the sand and elevated PID readings were recorded from the odorous sand. At approximately 15 feet btf (29 feet bgs) at B201, and 13.5 feet btf (27.5 feet bgs) at B207, the sand became fine to coarse and wet. This wet sand at approximately 28 to 29 feet below ground surface appears to be the capillary fringe above perched water. The inside borings were discontinued after 15 feet below the top of the floor (29 feet bgs).

4.0 SUBSURFACE WATER

Wet sand seams were encountered at approximately 14 feet bgs in B202 during drilling. A temporary well, constructed with a 5-foot long, 0.010-inch slot, stainless steel screen and galvanized steel riser pipe, was set to intercept the wet sand seams in B202. After approximately 4 hours the temporary well at B202 did not contain water, therefore, it was assumed that the sand was wet but not saturated. The temporary well was removed from B202 and the boring finished. Subsurface water was encountered in B204 at a depth of approximately 28.5 feet bgs. This is thought to be a perched water based on SME's familiarity with the hydrogeology of the Lansing area. Nearby monitoring wells set in the top of the bedrock, Saginaw Formation, have indicated the depth of groundwater to be approximately 60 feet below ground surface. A temporary well (TMW204), constructed similar to the well at the B202 location, was installed to a depth of 30.5 feet bgs to intercept the perched water surface. A minimum of 5 times the volume of water in the well was

purged from TMW204 with a high density polyethylene disposable bailer prior to sampling. The perched water was then sampled using a new high density polyethylene disposable bailer and the water transferred directly into laboratory supplied bottles. A new disposable bailer was used to collect the perched water sample because the sediments in the well caused the purging bailer to leak.

5.0 LABORATORY ANALYSIS

Two (2) soil samples from B201, B202, B203, B206, and B207, 3 from B204 and B205, and the 1 perched water sample from TMW204 were analyzed for volatile organic compounds (VOCs) using gas chromatography/mass spectrometry (GC/MS) methodology; using United States Environmental Protection Agency (USEPA) Method 8260 by National Environmental Testing, Inc. (NET) located in Auburn Hills, Michigan. The laboratory analytical reports are presented in Appendix B. Laboratory analytical reports from the Phase II Environmental Studies report submitted by SME in July 1993, are presented in Appendix C.

6.0 RESULTS

Soil sample analytical results indicate that the only volatile organic compounds in the USEPA Method 8260 scan found to be present on the Accident Fund of Michigan site are benzene, ethylbenzene and xylenes which are indicator parameters for gasoline. A summary of the laboratory analytical results is presented in Table 1. Methylene chloride was detected at low levels in several soil samples as well as the field and trip blanks and the laboratory method blank. The laboratory, NET, suggests that the methylene chloride used at the laboratory as a solvent contaminated these samples. The same is believed to be the case for the samples analyzed during SME's Phase II Environmental Studies in July 1993. Trichloroethene (TCE) and chloroform were detected at low levels in both of the field (rinsate) blanks. TCE and chloroform were not detected in any of the perched water or soil samples or the trip blank, therefore the distilled water used for the final sampling equipment

rinse was believed to be contaminated. A sample of distilled water obtained from the same source was found to contain 2.0 ug/l (parts per billion) of TCE (see Appendix B).

All soil samples analyzed from borings B2, B3, B201, B202, B203 ane B206 did not have VOCs detected during analysis. These borings represent the areas west of the building, east of the southeast corner of the building, northwest of the building and the central part of the building. Benzene was detected in B207 below the Michigan Environmental Response Act (Act 307) Type B Cleanup Criteria level. B207 is located inside the building near the southeast corner of the 10-story portion of the building. B204, located approximately 25 feet west and 23 feet north of the northeast corner of the building, indicated the highest concentrations of contaminants. B205, located approximately 25 feet east and 4 feet north of the northeast corner of the building, indicated approximately 14 percent of the concentration of benzene at 20 feet that B204 indicated at 20 feet, but nearly the same ethylbenzene and xylenes concentrations at 10 feet as B204. The 10-foot deep sample from B204 was discolored black with a very strong odor and the analytical results indicated an estimated value of 1,200 parts per billion (ppb) for ethylbenzene and 5,000 ppb for xylenes. The 20-foot sample from B204 had much less odor and no discoloration, but contained benzene at 9,900 ppb and xylenes estimated at approximately 1,000 ppb. The analytical results for 10 and 20-foot samples from B204 and the 10-foot sample from B205 had elevated detection limits due to "matrix interference." The laboratory indicated that the matrix was probably hydrocarbons such as other gasoline constituents or oil, but no chlorinated solvents were detected in the samples. The former borings B1, located approximately 32 feet west and 7 feet north of the northeast corner of the building, and AP4, located inside approximately 15 feet west and 12 feet south of the northeast corner of the building indicated benzene concentrations at 170 ppb and 440 ppb, respectively. Two cross-sections, south to north and west to east, are presented as Figures 4 and 5 that present the field screening and laboratory analytical data across the site. The cross-section location map is presented as Figure 3.

Samples from soil borings B204 and B205 indicate that the contaminant's vertical extent is less than 25 feet below ground surface. Perched water was encountered at approximately 28.5 feet below ground surface at B204 and was sampled through a temporary well, TMW204. The analytical results from the perched water indicated benzene present slightly above the Act 307 Type B Cleanup Criteria level. This discrepancy between the "clean" soil at 25 feet bgs and impacted perched water at 28.5 feet bgs indicates the source of the contaminants is not immediately adjacent to B204.

Possible migration and exposure pathways for the onsite contaminants are the underground utility trenches, including sewers, television, telephone and electric cables, steam tunnels and water supply lines. The most likely migration pathway is into the backfill that was placed around and under the Accident Fund of Michigan Building. Another possible migration pathway is the groundwater where water wells could be the primary receptor. The nearest Board of Water and Light water supply well is approximately 3 blocks to the southeast of the site. The Grand River is approximately 1,200 feet east of the site.

7.0 CONCLUSIONS

Based on the analytical results of the soil and perched water samples the contamination appears to be from gasoline and is limited to the northeast corner of the site. The depth of the soil contamination is less than 25 feet below ground surface. Perched water encountered at a depth of approximately 28.5 feet bgs is impacted by benzene at a concentration slightly above the Act 307 Type B Cleanup level.

The discrepancy between the "clean" soil at 25 feet and impacted perched water at 28.5 feet indicates that the source of the contaminants is not immediately adjacent to boring B204.

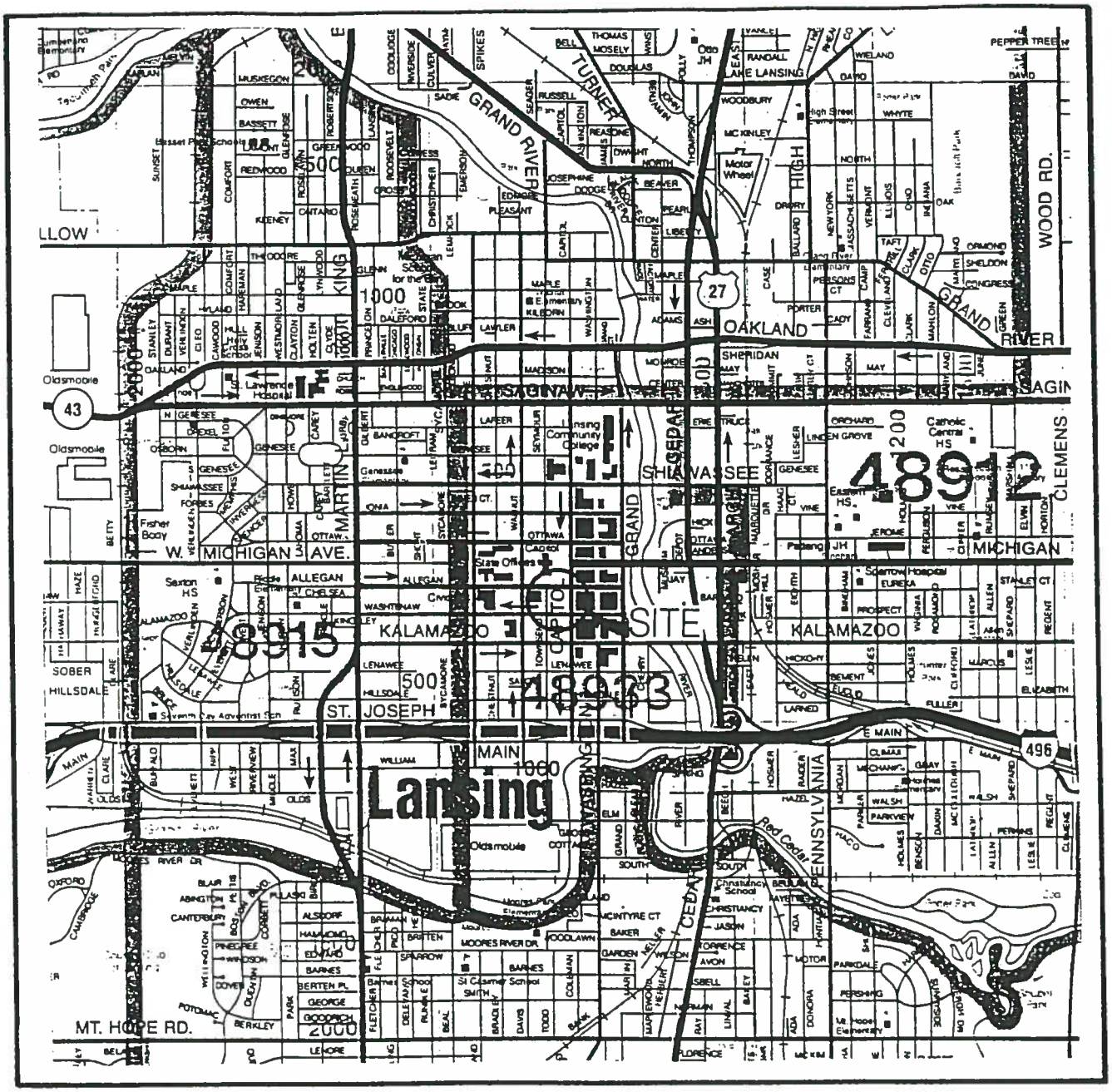
The vertical and horizontal extent of contaminants in the perched water has not been delineated. Because native soil has been removed down to approximately 2 feet in the

vicinity of B204, 12 feet in the vicinity of B1, 15 feet near AP4 and 18 feet near B201, it is not possible to determine if the source of the contaminants is from offsite at this time.

Historical records indicate that petroleum product containing USTs were located at the northeast corner of the Accident Fund site and also on the property immediately north.

Based on the available geologic and laboratory analytical data, there are 2 possible scenarios for the source of the contaminants at this site. One is that the release occurred on the site near the northeast corner of the current building, but that much of the source was removed during excavation for the construction of the building. The other scenario is that the contamination is migrating onto the site from the north where the contaminants may extend to the groundwater.

FIGURES



GREATER LANSING MAP
BY UNIVERSAL MAP , INC.

NORTH

MILES

0 1/2 1 2

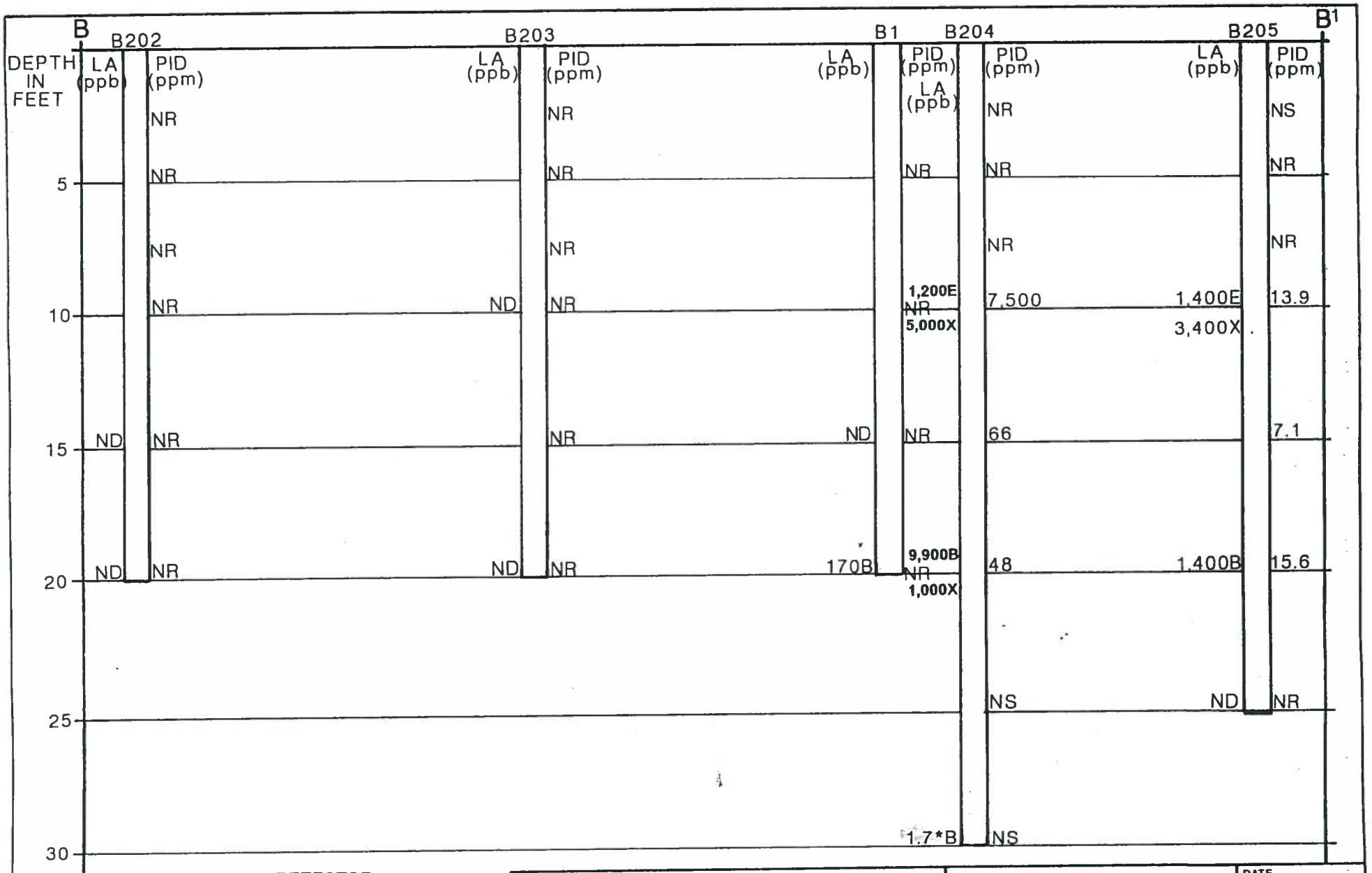
SITE LOCATION MAP
ACCIDENT FUND OF MICHIGAN
LANSING, MICHIGAN

soil and materials engineers, inc.

Bay City
Kalamazoo
Lansing
Plymouth

DATE	3-4-94
DRAWN BY	TJP
SCALE	AS SHOWN
JOB NO	LE20953

FIGURE 1



PID = PHOTOIONIZATION DETECTOR
NR = NO RESPONSE ON THE PID
NS = NOT SCREENED WITH THE PID
LA = LABORATORY ANALYTICAL RESULTS
B = BENZENE
E = ETHYLBENZENE
X = XYLENES
* = GROUNDWATER RESULTS

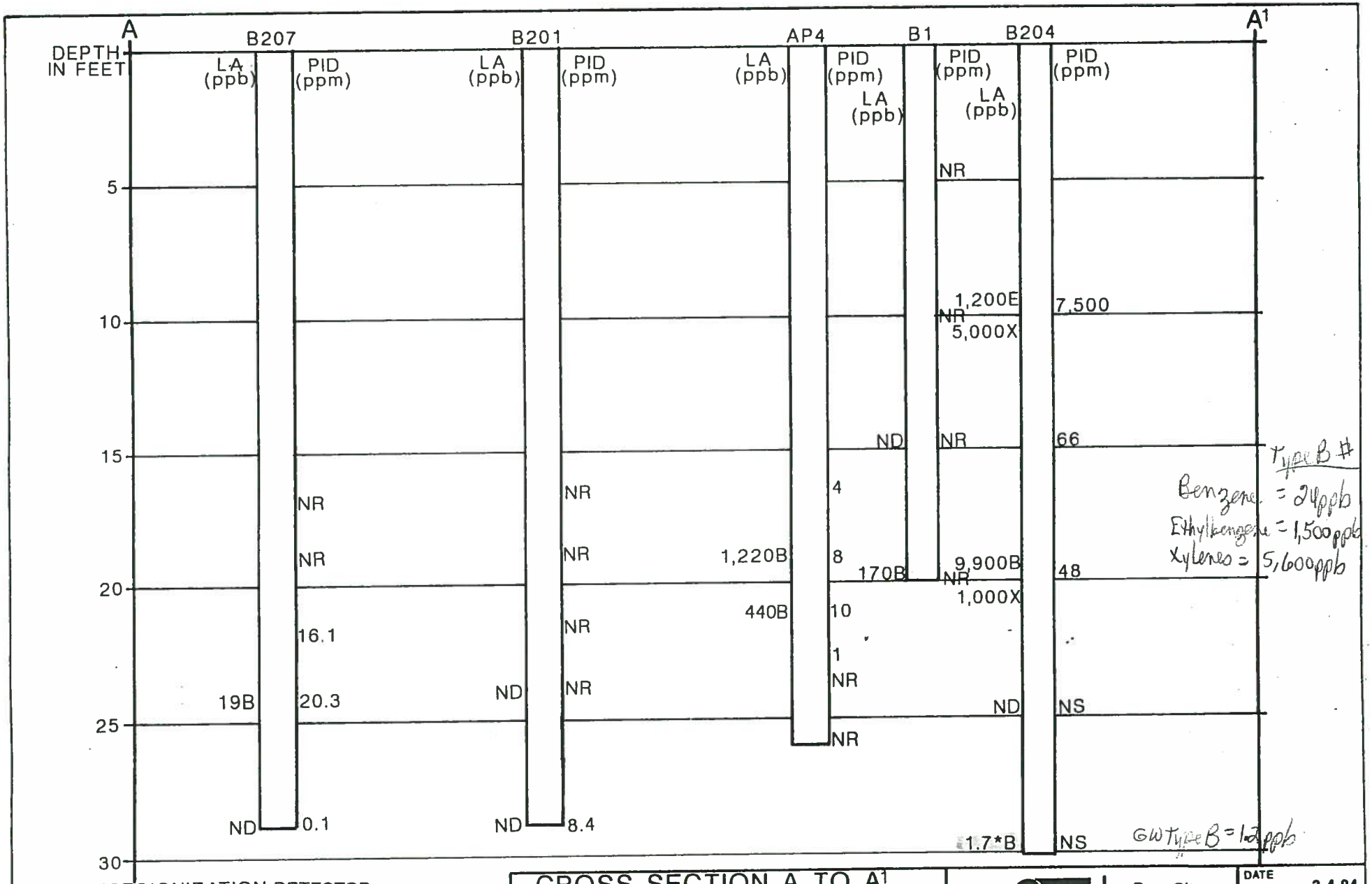
CROSS SECTION B TO B1 (WEST TO EAST) ACCIDENT FUND OF MICHIGAN LANSING, MICHIGAN

soil and materials engineers, inc.

Bay City
Kalamazoo
Lansing
Plymouth

DATE 3-4-94
DRAWN BY TJP
SCALE vertical 1"=5' horizontal 1"=20'
JOB NO LE20953

FIGURE 5.



PID = PHOTOIONIZATION DETECTOR
NR = NO RESPONSE ON THE PID
NS = NOT SCREENED WITH THE PID
LA = LABORATORY ANALYTICAL RESULTS
B = BENZENE
E = ETHYLBENZENE
X = XYLENES
* = GROUNDWATER RESULTS

CROSS SECTION A TO A1 (SOUTH TO NORTH) ACCIDENT FUND OF MICHIGAN LANSING, MICHIGAN

soil and materials engineers, inc.

Bay City
Kalamazoo
Lansing
Plymouth

DATE	3-4-94
DRAWN BY	TJP
SCALE	vertical 1"=5' horizontal 1"=20'
JOB NO	LE20953

FIGURE 4

TABLE 1

SUMMARY OF LABORATORY ANALYTICAL RESULTS
FOR DETECTED PARAMETERS

TABLE 1

SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR DETECTED PARAMETERS

ACCIDENT FUND OF MICHIGAN
232 SOUTH CAPITOL AVENUE
LANSING, MICHIGAN

SME PROJECT LE20953

BORING IDENTIFICATION	SAMPLE DEPTH BELOW GROUND SURFACE	PARAMETERS			
		Benzene	Toluene	Ethylbenzene	Xylenes
SOIL ANALYTICAL DATA					
B1	15 Feet	ND	ND	ND	ND
B1	20 Feet	170	ND	ND	ND
B2	20 Feet	ND	ND	ND	ND
B3	20 Feet	ND	ND	ND	ND
AP4[1]	19 Feet	1220	ND	ND	ND
AP4[1]	21.5 Feet	440	ND	ND	ND
B201[1]	24 Feet	ND	ND	ND	ND
B201[1]	29 Feet	ND	ND	ND	ND
B202	15 Feet	ND	ND	ND	ND
B202	20 Feet	ND	ND	ND	ND
B203	10 Feet	ND	ND	ND	ND
B203	20 Feet	ND	ND	ND	ND
B204	10 Feet	ND	ND	1,200J*	5,000J*
B204	20 Feet	9,900	ND	ND	1,000J*
B204	25 Feet	ND	ND	ND	ND
B205	10 Feet	ND	ND	1,400	3,400
B205	20 Feet	1,400J	ND	ND	ND
B205	25 Feet	ND	ND	ND	ND
B206	15 Feet	ND	ND	ND	ND
B206	20 Feet	ND	ND	ND	ND
B207[1]	24 Feet	19	ND	ND	ND
B207[1]	29 Feet	ND	ND	ND	ND
Type B	not applicable	24	16,000	1,500	5,600

GROUNDWATER ANALYTICAL DATA				
WELL/BLANK IDENTIFICATION	Benzene	Toluene	Ethylbenzene	Xylenes
TMW204	1.7 ug/l	ND	ND	ND
FB1 (Rinsate Blank)	ND	ND	ND	ND
FB2 (Rinsate Blank)	ND	ND	ND	ND
TRIP BLANK	ND	ND	ND	ND
Type B	1.2 ug/l	790 ug/l	74 ug/l	280 ug/l

NOTES:

All results are in ug/kg unless otherwise stated.
ND = Parameter was not detected.
Type B = Michigan Act 307 Type B Cleanup Criteria Level
J* = Parameter detected below method detection limit, estimated value recorded.
J = Estimated Minimum Value
[1] = Boring conducted inside building through basement floor slab, top of basement floor slab is approximately 14 feet below ground surface

APPENDIX A:

SOIL BORING LOGS

BORING LOG NO. 1

OWNER: ACCIDENT FUND OF MICHIGAN	ARCHITECT/ENGINEER:
LOCATION: LANSING, MICHIGAN	PROJECT NAME: ACCIDENT FUND - PHASE II

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX
				Driller Reported 8" Asphalt Over 4" Aggregate Base Material							
1	SS		5	Fine to Medium Sand Fill-Trace Silt & Gravel-Brown-Moist-Medium Dense (SP/Fill)		26		ND			
2	SS		10			22		ND			
3	SS		15	Fine to Medium Sand-Trace Silt & Gravel-With Occasional Silty Clay Seams & Layers-Brown-Moist-Medium Dense (SP)		23		ND			
4	SS		20	Silty Fine to Medium Sand-Trace Gravel & Clay-With Occasional Clay Seams & Layers-Gray-Moist-Medium Dense (SM)		15		ND			
				END OF BORING NOTE: Bentonite chips placed from 13' to 15'.							

170 ppb Benzene (Soil)

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE — WHILE SAMPLING OR WHILE DRILLING
15'DCT — IMMEDIATLEY AFTER COMPLETION
_____ — AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	6-29-93
BORING COMPLETED	6-29-93
RIG GLD	DRAWN BY TJP
FOREMAN KA	APPROVED LSS/PL
JOB NO. LE19966	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

BORING LOG NO. 2

OWNER	ARCHITECT/ENGINEER
ACCIDENT FUND OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND - PHASE II

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX
				Driller Reported 1' Asphalt over 1½' Aggregate Base Material							
1	SS		5	Silty Clay-Trace Sand & Gravel-Brown-Very Stiff to Hard (CL)		18		ND			
2	SS		10			33		ND			
3	SS		15	Silty Fine to Medium Sand-Trace Gravel & Clay-Brown-Moist to Wet-Medium Dense (SM)		27		ND			
4	SS		20			24		ND			
				END OF BORING NOTE: Bentonite chips placed from approximately 6' to 12'. Bottom of temporary well was set at 18½'. Groundwater flow not sufficient to obtain water sample.							

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

15' WHILE SAMPLING OR WHILE DRILLING
12'DCI IMMEDIATLEY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	6-29-93
BORING COMPLETED	6-29-93
RIG GLD	DRAWN BY TJP
FOREMAN KA	APPROVED LSS/PL
JOB NO. LE19966	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

BORING LOG NO. 3

OWNER	ARCHITECT/ENGINEER
ACCIDENT FUND OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND - PHASE II

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL ND = NON-DETECT SURFACE ELEVATION	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX
				Driller Reported 8" Asphalt Over 10" Aggregate Base Material							
1	SS		5	Silty Clay-Trace Sand & Gravel-With Occasional Sandy Silt Seams & Layers-Brown-Very Stiff to Stiff (CL)		11		ND			
2	SS		10			33		ND			
3	SS		15			30		ND			
4	SS		20	Clayey Sand-Some Silt-Trace Gravel-With Frequent Sandy Clay Seams & Layers-Gray-Moist-Medium Dense (SC)		28		ND			
				END OF BORING							

NOTE: Bentonite chips placed from approximately 10' to 13'.

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE — WHILE SAMPLING OR WHILE DRILLING
NONE — IMMEDIATLEY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	6-29-93
BORING COMPLETED	6-29-93
RIG GLD	DRAWN BY TJP
FOREMAN KA	APPROVED LSS/PL
JOB NO. LE19966	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

AUGER PROBE NO. 4

OWNER: ACCIDENT FUND OF MICHIGAN

ARCHITECT/ENGINEER:

LOCATION: LANSING, MICHIGAN

PROJECT NAME: ACCIDENT FUND - PHASE II

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL (ND = NON-DETECT)	GROUNDWATER ELEV. WELL SCREEN INTERVAL	BLOWCOUNTS	OVA READINGS (ppm)	HNU READINGS (ppm)	GAS CHROMATOGRAPH (ppm) TOTAL BTEX	TPH (ppm)	GROUNDWATER TOTAL BTEX
				SURFACE ELEVATION							
				Concrete							
				Fine to Medium Sand Fill-Trace Silt & Gravel-Brown-Moist (SP/Fill)							
1	AS							4			
				Sandy Clay-Some Silt-Trace Gravel-With Occasional Silty Sand Seams & Layers-							
2	AS		5	Brown Turning Gray Below 1½' (CL)				8			
3	AS							10			
4	AS							1			
5	AS		10	Fine to Medium Sand-Trace Silt & Gravel-Gray-Moist (SP)				ND			
6	AS							ND			
			15	END OF AUGER PROBE							
				NOTE: Bentonite chips placed from approximately 6' to 8'.							

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING

NONE IMMEDIATLEY AFTER COMPLETION

AFTER COMPLETION

MINERAL WELL PERMIT NO.

BORING STARTED 6-29-93

BORING COMPLETED 6-29-93

RIG HAND AUGER DRAWN BY TJP

FOREMAN DH APPROVED DH/PL

JOB NO. LE19966 SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc

BORING LOG NO. 201

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)
				NR = NO RESPONSE		
				BORING OFFSET		
				SURFACE ELEVATION		
				Concrete		
1	grab			Silty Sand Fill–Trace Clay–Brown–Compact		
				Fine to Medium Sand–Brown	NR	
2	grab				NR	
			5			
3	grab			Silty Sandy Clay–Trace Gravel–Gray	NR	
				NOTE: Clay is wet at 6.5'.		
4	grab				NR	
			10			
5	grab			Fine to Medium Sand–Gray–Dry	8.4	
			15	END OF BORING AT 15'		
				NOTE: Odor is evident at 13.5', but dissipates with depth.		
				Bentonite seal placed from 0.5' to 1' & 11.5' to 15'.		

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING
NONE IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2–22–94
BORING COMPLETED	2–23–94
RIG HAND AUGER	DRAWN BY TJP
FOREMAN KLC/RSS	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

SME
soil and materials engineers, inc.

BORING LOG NO. 202

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)
				NR = NO RESPONSE		
				BORING OFFSET		
				SURFACE ELEVATION		
				Asphalt		
				Sand & Gravel Base–Brown		
1	SS				NR	6
2	SS				NR	6
			5	Fine to Medium Sand–Trace Silt & Gravel–Brown		
3	SS				NR	6
4	SS				NR	21
			10			
5	SS				NR	21
			15	Silty Sandy Clay–Trace Gravel–With Occasional Sand & Gravel Seams–Moist		
6	SS				NR	17
			20	Fine to Medium Sand–Light Brown–Dry		
				END OF BORING AT 20.5'		
				NOTE: No odor was encountered.		
				Bentonite seal placed from 1' to 2.5' & 12' to 17'.		

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING
NONE IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2–23–94
BORING COMPLETED	2–23–94
RIG 44	DRAWN BY TJP
FOREMAN LM	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc.

BORING LOG NO. 203

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)
				NR = NO RESPONSE BORING OFFSET SURFACE ELEVATION		
				Asphalt & Base		
1	SS			Fine to Medium Sand – Light Brown	NR	18
2	SS		5		NR	4
3	SS			Fine to Medium Sand – Trace Gravel – Brown	NR	18
4	SS		10		NR	15
5	SS		15	Fine to Medium Sand – Trace Gravel – With Occasional Sandy Clay Seams (Light Brown) Up to 4" Thick	NR	27
6	SS		20	Fine Sand – White	NR	23
				END OF BORING AT 20.5' NOTE: No odor was encountered. Bentonite seal placed from 1' to 2.5' & 17.5' to 20'.		

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE — WHILE SAMPLING OR WHILE DRILLING
NONE — IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2-23-94
BORING COMPLETED	2-23-94
RIG 44	DRAWN BY TJP
FOREMAN LM	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc.

BORING LOG NO. 204

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)	
				NS = NOT SCREENED NR = NO RESPONSE BORING OFFSET SURFACE ELEVATION			
				Asphalt & Base			
1	SS			Fine to Medium Sand Fill–Brown			
					NR	17	
2	SS			Sandy Clay–Brown–Fractured	NR	17	
			5				
3	SS			Silt–Trace Fine Sand–Light Olive Brown	NR	23	
				Silty Sandy Clay–Gray			
4	SS			Fine to Medium Sand–Discolored Black–Strong Odor	7,500	31	Ethylbenzene = 1,200 ppb (est) = matrix interfer Xylenes = 5,000 ppb (est)
			10				
				Sandy Clay–Brown–Little Odor			
5	SS				66	23	
			15				
				Clayey Sand–Brown–Slight Odor			
6	SS				48	19	(20 ft bgl) = Benzene = 9,900 ppb xylenes = 1,000 (est)
			20				
7	SS			Fine to Medium Sand–Yellowish Brown–No Odor	NS	33	ND for BTEX
			25				
				NOTE: Bentonite seal placed from 6' to 28.5'. Water was sampled with a temporary well.			
8	SS				NS	24	
			30	END OF BORING AT 30.5'			Benzene at 1.7 ppb (GW)

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

28.5 WHILE SAMPLING OR WHILE DRILLING
29 IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2–23–94
BORING COMPLETED	2–24–94
RIG 44	DRAWN BY TJP
FOREMAN LM	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc.

BORING LOG NO. 205

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)
				NS = NOT SCREENED NR = NO RESPONSE BORING OFFSET SURFACE ELEVATION		
				Asphalt Concrete Fine to Coarse Sand Fill–Brown		
1	SS			Sandy Clay–Olive Brown to Brown–Fractured	NS	3
2	SS		5		NR	10
3	SS			Silt–Yellowish Brown Fine to Medium Sand–Yellowish Brown	NR	20
4	SS			Silt–Yellowish Brown	13.9	22
			10	Silty Sandy Clay–Brown (Colored Pink & Olive at 10')–Slight Odor		
5	SS				7.1	18
			15	Fine to Coarse Sand–Dark Gray–Slight Odor		
6	SS			Sandy Clay–Gray–With Occasional Fine Sand Seams 1/2" Thick (Wet but not Saturated)	15.6	8
			20	Fine to Medium Sand–Trace Silt–Dry		
7	SS				NR	30
			25	END OF BORING AT 25.5' NOTE: Bentonite seal placed from 1' to 2.5' & 20' to 25'		

(10± bgl) Ethyl benzene = 1,900 ppb
Xylenes = 3,400 ppb

(20± bgl) Benzene = 1,400 ppb (est.)

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING
NONE IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2–24–94
BORING COMPLETED	2–24–94
RIG 44	DRAWN BY TJP
FOREMAN LM	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc.

BORING LOG NO. 206

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)
				NS = NOT SCREENED NR = NO RESPONSE BORING OFFSET SURFACE ELEVATION		
				Asphalt Concrete		
1	SS			Sandy Clay–Olive Brown–Fractured–Slight Odor	2.8	5
2	SS			Fine to Medium Sand–Brown–Very Slight Odor	2.4	10
			5			
3	SS				1.6	19
4	SS				1.3	22
			10	Sandy Clay–Little Silt–Brown–Fractured		
5	SS				1.6	20
			15			
6	SS			Silty Sand–Trace Clay–Dry	1.3	19
			20	END OF BORING AT 20.5' NOTE: Bentonite seal placed from 1' to 2.5' & 18' to 20'.		

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING
NONE IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2–24–94
BORING COMPLETED	2–24–94
RIG 44	DRAWN BY TJP
FOREMAN LM	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc.

BORING LOG NO. 207

OWNER	ARCHITECT/ENGINEER
STATE OF MICHIGAN	
LOCATION	**PROJECT NAME**
LANSING, MICHIGAN	ACCIDENT FUND OF MICHIGAN

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DEPTH	DEPTH IN FEET	DESCRIPTION OF MATERIAL	PID READING (ppm)	BLOWCOUNTS (N-VALUE)
				NS = NOT SCREENED NR = NO RESPONSE BORING OFFSET SURFACE ELEVATION		
				Concrete		
1	grab			Fine to Medium Sand Fill–Brown		
				Sandy Clay–Little Silt & Gravel–Brown	NR	
2	grab				NR	
			5			
3	grab			Fine to Medium Sand –Little Gravel–Slight Odor–Brown	16.1	
				Sandy Clay–Little Gravel–Gray		(24 ft. bgl) Benzene at 19 ppb
4	grab				20.3	
			10	Fine to Medium Sand–Light Gray–Odor		
5	grab			Fine to Coarse Sand–Gray Becoming Brown & Wet at 13.5'	0.1	(29.4 bgl) BTEX = ND
			15	END OF BORING AT 15'		
				NOTE: Bentonite seal placed from 1' to 2.5' & 10' to 13.5'.		

NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

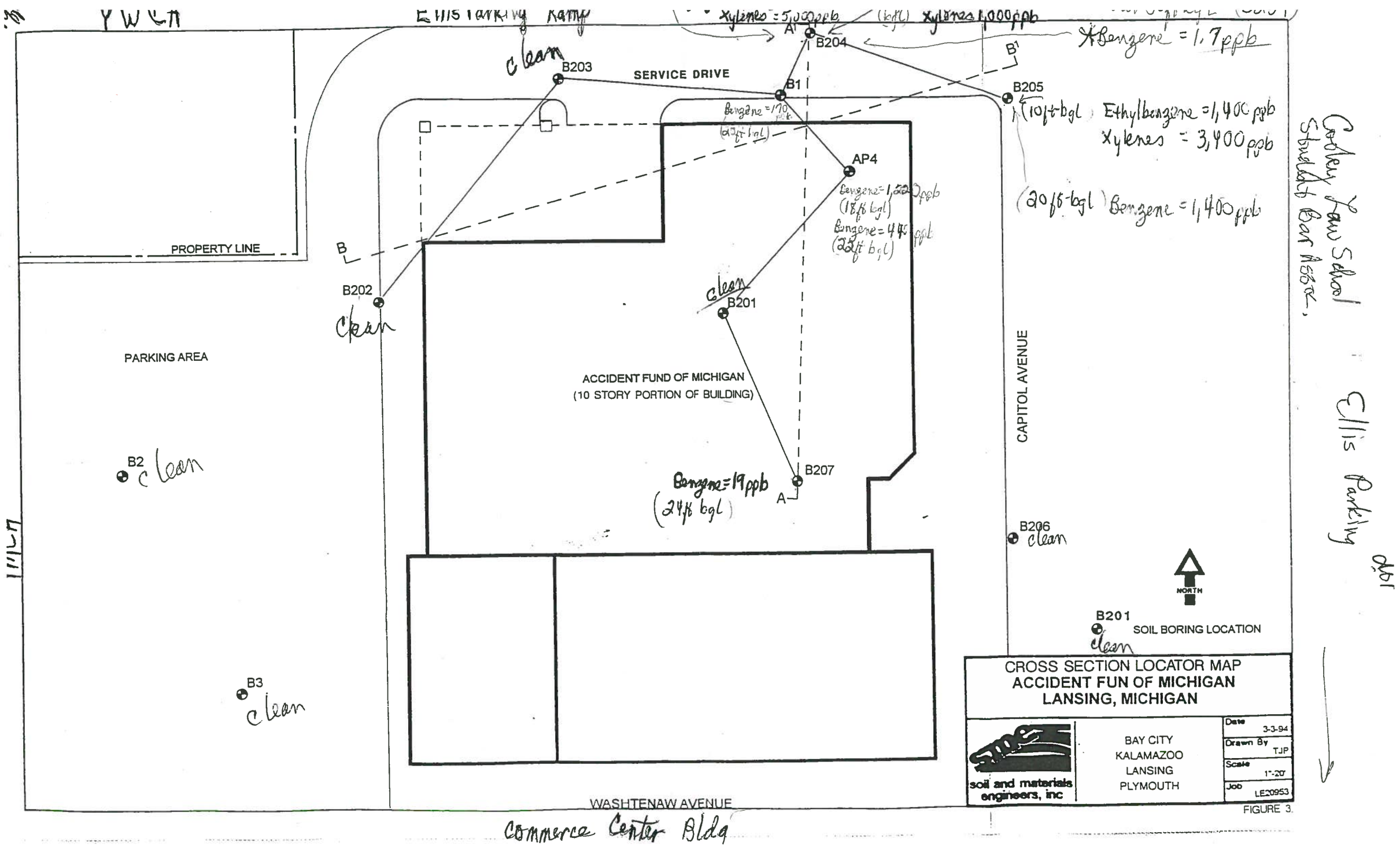
WATER LEVEL OBSERVATION

NONE WHILE SAMPLING OR WHILE DRILLING
NONE IMMEDIATELY AFTER COMPLETION
AFTER COMPLETION

MINERAL WELL PERMIT NO.	
BORING STARTED	2–24–94
BORING COMPLETED	2–24–94
RIG HAND AUGER	DRAWN BY TJP
FOREMAN KLC/RSS	APPROVED KLC
JOB NO. LE20953	SHEET 1/1

NOTE: Boring backfilled with natural soils unless otherwise noted.

soil and materials engineers, inc.



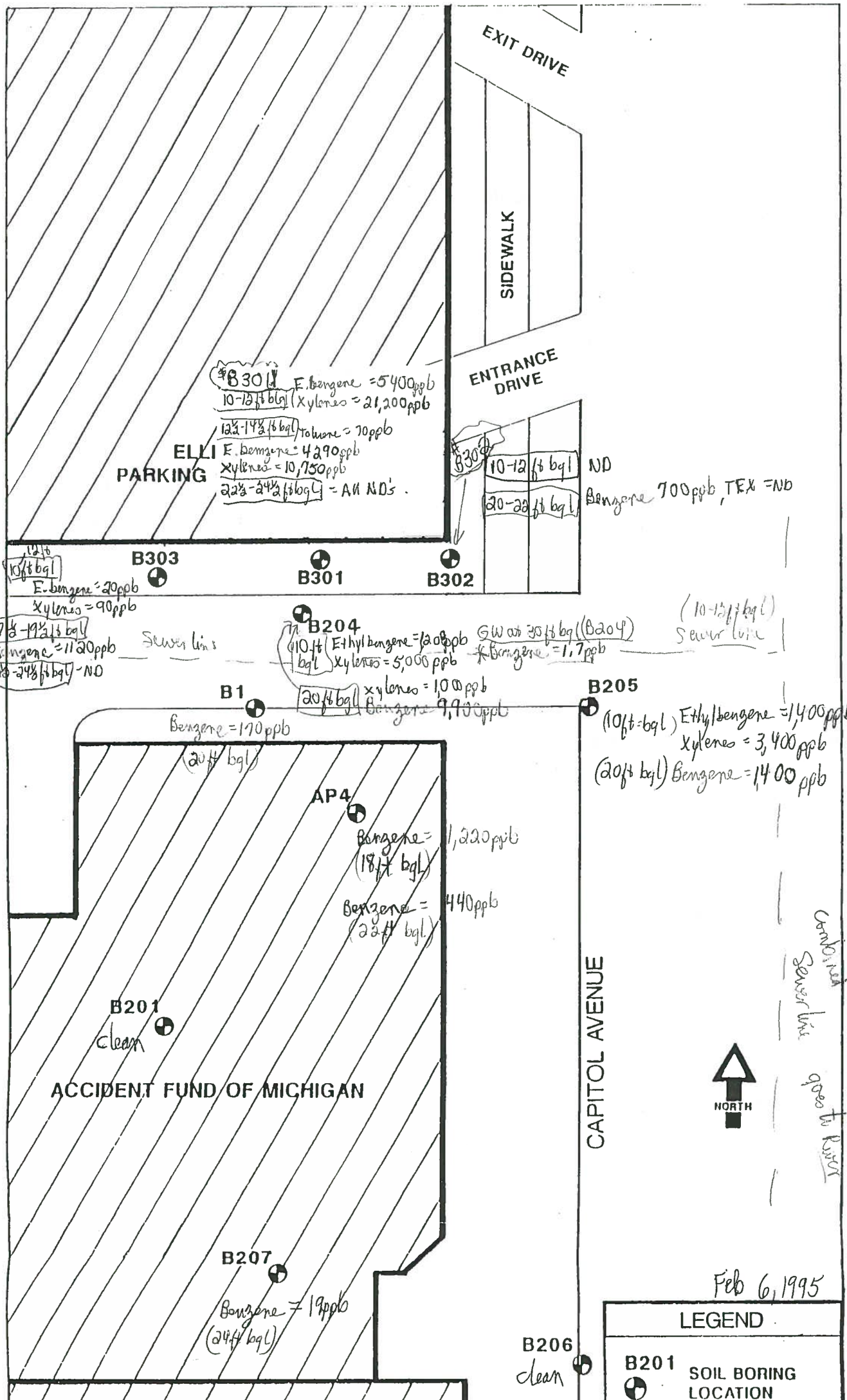
CROSS SECTION LOCATOR MAP
ACCIDENT FUN OF MICHIGAN
LANSING, MICHIGAN

soil and materials engineers, inc

BAY CITY
KALAMAZOO
LANSING
PLYMOUTH

Date	3-3-94
Drawn By	TJP
Scale	1"=20'
Job	LE20953

FIGURE 3



SOIL BORING LOCATION DIAGRAM
ACCIDENT FUND OF MICHIGAN
LANSING, MICHIGAN

soil and materials engineers, inc.

Bay City
Kalamazoo
Lansing
Plymouth

DATE	1-4-95
DRAWN BY	TJP
SCALE	1"=20'
JOB NO	LE20953

FIGURE 1