BASELINE ENVIRONMENTAL ASSESSMENT CONDUCTED PURSUANT TO PART 201 SECTION 20126(1)(C) OF P.A. 451 OF 1994, AS AMENDED

FOR

1240 SOUTH HARRISON ROAD
(PARCEL IDENTIFICATION NUMBERS:
33-20-01-24-123-009
AND
33-20-01-24-300-002)
EAST LANSING, MICHIGAN 48823

prepared for

THE CITY OF EAST LANSING
410 ABBOTT ROAD
EAST LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 6643S-3-26
DECEMBER 13, 2010

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT – REMEDIATION DIVISION
PO BOX 30426, LANSING, MICHIGAN 48909-7926, Phone 517-373-9837, Fax 517-373-2637

FOR DNRE USE ONLY
BEA Submittal # _____

Baseline Environmental Assessment Submittal Form

This form is for submittal of a Baseline Environmental Assessment (BEA), as defined by the Environmental Remediation, Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Part 201 Rules promulgated thereunder, for the purpose of establishing an exemption to liability pursuant to Section 20126(1)(c) for a new owner or operator of property that is a facility as defined by Section 20101(1)(r). The BEA report must be conducted either prior to or within 45 days after becoming the owner or operator, whichever is earliest. This form and the BEA report must be submitted within 6 months of becoming the owner or operator whichever is earliest. A separate BEA is required for each legal entity that is or will be a new owner or operator of the property. To maintain the exemption to liability, the owner and operator must also disclose the BEA to any subsequent purchaser or transferee before conveying interest in the property pursuant to Section 20126(1)(c) and Rule 919. An owner or operator of a facility also has due care obligations under Section 20107a with respect to any existing contamination to prevent unacceptable exposure; prevent exacerbation; take reasonable precautions; provide reasonable cooperation, assistance, and access to authorized persons taking response activities at the property; comply with land use restrictions associated with response activities; and not impede the effectiveness of response activities implemented at the property. Documentation of due care evaluations and response activities need to be available, but not submitted, to the DNRE within 8 months of becoming the owner or operator of a facility.

Submitter Information

Name of legal entity that will own or operate the property: City of East Lansing Address: 410 Abbott Road City: East Lansing State: Michigan Zip: 48823 Contact person (Name & Title): Tim Dempsey, Director of Planning and Community Development Telephone: 517.319.6930 E-Mail: tdempse@cityofeastlansing.com	Contact for BEA questions if different from submitter Name & Title: Company: Address: City: State: Zip: Telephone: E-Mail:

Property Information

Street Address of Property: 1240 South Harrison Road/Unaddressed Property City: East Lansing State: Michigan Zip: 48824 Property Tax ID (include all applicable IDs): *33-20-01-24-123-009/33-20-01-24-300-002* Address according to tax records, if different than above (include all applicable addresses): MSU Property/MSU Property City: East Lansing State: Michigan Zip: 48824 Status of submitter relative to the property (check all that apply): Former Current Prospective Owner ☐ ☐ ☒ Operator ☐ ☐ ☒	County: Ingham County City/Village/Township: East Lansing Town: 4 North Range: 2 West Section: 24 Quarter: southwest Quarter-Quarter: northeast Decimal Degrees Latitude: 42.718700 Decimal Degrees Longitude: 84.495900 Reference point for latitude and longitude: Center of site ☒ Main/front door ☐ Front gate/main entrance ☐ Other ☐ Collection method: Survey ☐ GPS ☐ Interpolation ☒

Applicable Dates (provide date for all that are relevant): MM/DD/YYYY

Date All Appropriate Inquiry (AAI) Report or Phase I Environmental Assessment Report completed: 08/07/2010

Date Baseline Environmental Assessment Report conducted: 12/02/2010

Date submitter first became the owner: NA

Date submitter first became the operator (if prior to ownership): NA

Anticipated date of becoming the owner for prospective owners: 02/28/2011

Anticipated date of becoming the operator for prospective operators: 02/28/2011

If former owner or operator of this property, prior dates of being the owner or operator: NA

Source of contamination at the property (check all that are known to apply):

Facility regulated under Part 201, other source, or source unknown Part 201 Site ID, if known:	☒
Leaking Underground Storage Tank regulated pursuant to Part 213 Part 211/213. Facility ID, if known:	☐
Oil or gas production and development regulated pursuant to Part 615 or 625	☐
Licensed landfill regulated pursuant to Part 115	☐
Licensed hazardous waste treatment, storage, or disposal facility regulated pursuant to Part 111	☐

Check the appropriate response to each of the following questions:	**YES**	**NO**
1. Is the property at which the BEA was conducted a "facility" as defined by Section 20101?	☒	☐
2. Is the All Appropriate Inquiry (AAI) compliant with 40 CFR 312, or is the Phase I Environmental Assessment compliant with ASTM E1527-05?	☒	☐
3. Was the BEA, including the AAI and sampling, conducted either prior to or within 45 days of the date of becoming the owner, operator, or of foreclosure, whichever is earliest, or within the alternate time-frames provided in Part 201 Rule 905(3) for submitters involved in oil and gas development under Part 615 or 625 property, or Rule 905(9) for property acquired through condemnation procedures?	☒	☐
4. Is this BEA being submitted to the department within 6 months of the submitter first becoming the owner or operator, or foreclosing?	☒	☐
5. If the BEA relies on studies or data prepared by others or conducted for other purposes, does the BEA provide sufficient rationale to demonstrate that the data are reliable and relevant to define conditions at the property at the time of purchase, occupancy, or foreclosure?	☒	☐
6. Does this BEA contain the legal description of the property addressed by the BEA?	☒	☐
7. Does this BEA contain the environmental analytical results, a scaled map showing the sample locations, and the basis for the determination that the property is a facility as defined by Section 20101(1)(f)?	☒	☐

Environmental Professional Signature:

I certify that to the best of my knowledge and belief, this BEA and all related materials are true, accurate, and complete and that I performed, or was responsible for the performance of, an All Appropriate Inquiry in conformance with the scope and limitations of the All Appropriate Inquiry Rule, 40 CFR 312 or a Phase I Environmental Site Assessment in conformance with the scope and limitations of the ASTM E1527-05 and have provided the sampling and analysis that confirm the property is a facility as defined by Section 20101(1)(r). Any exceptions to, or deletions from, the All Appropriate Inquiry Rule or ASTM E1527-05 are described in Section 1 of the BEA report. I understand that intentionally submitting false information in a BEA is a felony and may result in fines of up to $25,000 for each violation.

Signature: Date: 2.2.11

Printed Name: Janet Michaluk

Company: AKT Peerless Environmental & Energy Services

Mailing Address: 22725 Orchard Lake Road City: Farmington State: Michigan Zip: 48336

Telephone:248.615.1333 E-Mail: michalukj@aktpeerless.com

Submitter Signature:

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

Signature: Date:

Printed Name: Tim Dempsey

Title and Relationship of signatory to submitter: Director of Planning and Community Development

Address:410 Abbott Road City: Michigan : Michigan Zip: 48823

Telephone: 517.319.6930 E-Mail: tdempse@cityofeastlansing.com

AKTPEERLESS
environmental & energy services

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environmental & energy services

BASELINE ENVIRONMENTAL ASSESSMENT CONDUCTED PURSUANT TO PART 201 SECTION 20126(1)(C) OF P.A. 451 OF 1994, AS AMENDED AND THE RULES PROMULGATED THEREUNDER AT 1240 SOUTH HARRISON ROAD PARCEL IDENTIFICATION NUMBERS: 33-20-01-24-123-009 AND 33-20-01-24-300-002) EAST LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 6643S-3-26

1.0 IDENTIFICATION OF AUTHOR AND DATE BEA COMPLETION

AKT Peerless Environmental & Energy Services (AKT Peerless) prepared this Baseline Environmental Assessment (BEA) on behalf of the City of East Lansing (the Submitter) for the properties located at 1240 South Harrison Road [Parcel Identification Numbers (PID): 33-20-01-24-123-009 and 33-20-01-24-300-002], East Lansing, Ingham County Michigan (subject property). AKT Peerless' scope of work was based on (1) Section 20126(1)(c) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act (PA) 451, as amended, and (2) Michigan Department of Natural Resources and Environment (MDNRE) Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analysis, dated March 11, 1999. This BEA was conducted on December 2, 2010 and completed on December 13, 2010, by David A. Van Haaren and Janet Michaluk of AKT Peerless.

On behalf of the Submitter, AKT Peerless is disclosing this BEA to the MDNRE.

2.0 INTRODUCTION

AKT Peerless prepared this BEA pursuant to Section 20126(1)(c) of 1994 PA 451, Part 201, as amended, and the Rules promulgated thereunder. AKT Peerless conducted and completed this BEA to (1) provide an independent, professional evaluation and opinion regarding existing environmental conditions associated with the subject property, and (2) to establish for the Submitter a liability exemption for cleanup of existing contamination at the subject property. 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 Submitter intends on taking title of this property. AKT Peerless understands that the Submitter intends to market the subject property for resale. The Submitter does not intend to use, store, or manage hazardous substances in significant quantities at the subject property. Therefore, AKT Peerless has prepared a Category "N" BEA. A Category N BEA is used for sites where (1) contamination has been detected above a residential standard, and (2) no future hazardous substances use is planned at the subject property.

3.0 PROPERTY DESCRIPTION AND INTENDED HAZARDOUS SUBSTANCE USE

The subject property's legal description, a summary of the intended land use, and the significant quantities of hazardous substances that will be used or otherwise be present as a result of intended operations is presented in the following subsections.

3.1 SUBJECT PROPERTY DESCRIPTION

The subject property is located in the southwest ¼ of Section 24 in East Lansing (T.4N./R.2W.), Ingham County, Michigan. The subject property is situated west of South Harrison Road. It consists of a nearly rectangular shaped parcel and an irregular shaped parcel that total approximately 15.70 acres.

Mr. Andrew Smith, MSU is the current manager of the subject property. The subject property is occupied by university storage and the Amtrak Station.

The following table presents additional information regarding the subject property. For ease of reference in this report, AKT Peerless has designated each of the subject property parcels with a letter. These designations have no relevance to legally recorded data about the subject property.

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	1240 South Harrison Road	33-20-01-24-123-009	Board of Trustees, Michigan State University	1.61
B	Unaddressed Property	33-20-01-24-300-002	State Board of Agriculture	14.09

The subject property is currently developed as commercial and is currently used for a train/bus station and university storage.

Refer to Figure 1 for a Topographic Location Map and Figure 2 for a Sample Location Map [depicting sample locations from AKT Peerless' September 2010 and November 2010 Phase II Environmental Site Assessments (ESAs)]. The legal description is presented in Appendix A.

3.2 SITE HISTORY

Based on a review of available sources, the subject property consisted of undeveloped land from at least 1938 until approximately 1950 when a railroad platform and Building 2 were constructed. In 1963 Building 3 was constructed. In 1965 Building 1 was constructed. In 1967 Building 4 was constructed, and Building 5 was constructed in 1987. Operations at the subject property have included printing (1950 – c.2010), university storage (c.1963 – present), and a transit platform (c.1950 – present).

3.3 SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

3.3.1 AKT Peerless' August 2010 Phase I ESA

AKT Peerless completed a Phase I ESA for the property located at 1240 South Harrison Road (Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002) in East Lansing, Michigan on August 7, 2010. AKT Peerless' Phase I ESA included, but was not limited to, a site walkover, review of government records, assembly and review of data from area maps and directories, assessment of aerial photographs, and interviews with the site owner, others familiar with the subject property, and government officials.

Based on the results of the findings of the Phase I ESA, the following recognized environmental conditions (RECs) were identified for the subject property:

1. An approximately 550-gallon heating oil underground storage tank (UST) with associated fill port and vent pipe is located to the west of Building 3. The UST is not currently in use. In addition, the installation date is unknown.

2. AKT Peerless observed stained soil/pavement beneath abandoned unknown machinery located to the west of Building 5.

3. AKT Peerless observed storage of large quantities of roofing repair materials within the garage area of Building 1. It is AKT Peerless' opinion that bulk storage of hazardous substances may have adversely impacted the subject property.

4. Building 2 was used for printing operations from 1950 until early 2010. It is AKT Peerless' opinion that the historical use of the subject property in association with the use and storage of hazardous substances and/or wastes may have adversely impacted the subject property.

5. The adjoining properties to the north, south, and west have contained railroad tracks since at least 1938. Potential concerns typically associated with railroad spurs include the use of fill materials as ballast to support ties and rails of the railroad tracks, and leaks or spills of hazardous materials or petroleum products. In addition, two train derailments with associated releases of coal and diesel fuel occurred during the last 30 years to the north of the subject property.

Refer to Appendix B for AKT Peerless' August 2010 Phase I ESA.

3.3.2 AKT Peerless' September 2010 Phase II ESA

On August 10, 2010, AKT Peerless conducted a subsurface investigation at the subject property to further evaluate environmental concerns identified during previous environmental investigations. AKT Peerless: (1) drilled nine soil borings, (2) installed one temporary monitoring well, and (3) collected soil and groundwater samples from soil borings and the UST cavity for laboratory analyses. AKT Peerless submitted soil and groundwater samples for laboratory analyses of select parameters, including: volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), base neutral acids (BNAs), Michigan 10 Metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium silver, and zinc), hexavalent chromium, fine and coarse fraction lead, and/or MDNRE Light Distillate Oil Parameters [benzene, toluene, ethylbenzene, and xylenes (BTEX), trimethylbenzene isomers (TMBs), and PNAs]

AKT Peerless compared the laboratory analytical data to the applicable MDNRE Part 201 Residential/Commercial I Generic Cleanup Criteria (GCC) as published by the MDNRE Remediation and Redevelopment Division (RRD) including: Drinking Water and Drinking Water Protection (DW/DWP); Groundwater to Surface Water Interface and Groundwater to Surface Water Interface Protection (GSI/GSIP), Groundwater Contact Protection (GCP); Soil and Groundwater Volatilization to Indoor Air Inhalation (SVIAI/GVIAI); Volatile Soil Inhalation Criteria (VSIC); Particulate Soil Inhalation (PSI); and Direct Contact (DC). The results of the investigation indicated the following:

- Naphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, fluorene, phenanthrene, and tetrachloroethylene were detected in subsurface soils in the vicinity of the roofing material storage in Building 1 (B-4) at concentrations exceeding the MDNRE Part 201 Residential/Commercial I Generic Cleanup Criteria. Various concentrations in soil were detected above the groundwater surface water interface protection criteria, drinking water protection criteria, groundwater contact protection, direct contact criteria, and volatile soil inhalation criteria. Further, total chromium, benzo(a)pyrene, fluoranthene, and phenanthrene were detected in subsurface soils in the vicinity of the southern property boundary (B-10 and/or B-11) at concentrations exceeding MDNRE Part 201 Residential/Commercial I Generic Cleanup Criteria. Various concentrations were detected above the groundwater surface water interface protection criteria, and direct contact criteria.

Target parameters were not detected above MDNRE Part 201 Generic Residential/Commercial I GCC in any of the groundwater samples collected.

Based on laboratory analytical results, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan PA) 451, 1994, as amended.

Refer to Appendix C for AKT Peerless' September 2010 Phase II ESA.

3.3.3 Strata's September 2010 Laboratory Analytical Results for UST Assessment

Following removal of the suspected heating oil UST on August 11, 2010, six soil samples (GP-2 through GP-7) were collected from the former UST cavity by Strata Environmental Services Inc. (Strata). The soil samples were submitted for laboratory analyses for MDNRE Light Distillate Oil Parameters (not including DRO). According to laboratory analytical results, ethylbenzene, naphthalene, 1,2,3-TMB, 1,2,4-TMB, 1,3,5, TMB, and xylenes were detected at concentrations exceeding MDNRE Residential/Commercial I GCC. Various concentrations were detected above the groundwater surface water interface protection criteria, and drinking water protection criteria.

Refer to Appendix D for Strata's September 2010 Laboratory Analytical Report.

3.3.4 AKT Peerless' November 2010 Supplemental Phase II Letter Report

On October 14, 2010, AKT Peerless conducted a subsurface investigation at the subject property to further evaluate existing impact in the vicinity of soil boring B-4. AKT Peerless: (1) drilled five soil borings, and (3) collected soil samples for laboratory analyses. AKT Peerless submitted soil and groundwater samples for laboratory analyses of VOCs and PNAs.

AKT Peerless compared the laboratory analytical data to the applicable MDNRE Part 201 Residential/Commercial I GCC as published by the MDNRE Remediation and Redevelopment Division (RRD) including: Drinking Water and Drinking Water Protection (DW/DWP); Groundwater to Surface Water Interface and Groundwater to Surface Water Interface Protection (GSI/GSIP), Groundwater Contact Protection (GCP); Soil and Groundwater Volatilization to Indoor Air Inhalation (SVIAI/GVIAI); Volatile Soil Inhalation Criteria (VSIC); Particulate Soil Inhalation (PSI); and Direct Contact (DC). The results of the investigation indicated the following:

- Tetrachloroethylene was detected in subsurface soil to the south of Building 1 (B-12) at concentrations exceeding the MDNRE Part 201 Residential/Commercial I GCC. The concentration in soil was detected above the drinking water protection criteria.

Based on laboratory analytical results from subsurface investigations conducted in August 2010 and October 2010, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan PA) 451, 1994, as amended.

Refer to Appendix E for AKT Peerless' November 2010 Supplemental Phase II Letter Report.

3.4 INTENDED LAND USE

The Submitter intends to utilize the subject property for a transportation hub (i.e. train, bus, etc.).

3.5 INTENDED HAZARDOUS SUBSTANCE USE

As defined in Rule 901(o), "significant hazardous substance use means the use, storage,

handling, or management, at any given time, of hazardous substances in quantities that exceed those commonly used for typical residential or office purposes." The Submitter does not intend to use, store, or manage hazardous substances in significant quantities at the subject property.

3.6 PREVIOUS BEAs

To AKT Peerless' knowledge, no previous BEAs have been submitted to the MDNRE for the subject property.

4.0 KNOWN CONTAMINATION

The following sections present (a) known hazardous substances at the facility, (b) criteria for defining the subject property as a facility, and (c) identification of the general locations of contamination.

4.1 HAZARDOUS SUBSTANCES AT THE SUBJECT PROPERTY

Based on the analytical results obtained during the September 2010 Phase II ESA, Strata's September 2010 UST Assessment, and the November 2010 Supplemental Phase II ESA, the following hazardous substances were detected above the respective analytical method detection limits (MDLs) in soil and groundwater samples collected at the subject property:

Hazardous Substance	CAS #	Hazardous Substance	CAS #
Acenaphthene	83-32-9	Fluorene	86-73-7
Anthracene	120-12-7	Indeno(1,2,3-cd)pyrene	193-39-5
Arsenic	7440-38-2	Lead	7439-92-1
Barium	7440-39-3	Fine Fraction Lead	-
Benzo(a)anthracene	56-55-3	Coarse Fraction Lead	-
Benzo(a)pyrene	50-32-8	Mercury	7439-97
Benzo(b)fluoranthene	205-99-2	1-Methylnaphthalene	90-12-0
Benzo(g,h,i)perylene	191-24-2	2-Methylnaphthalene	91-57-6
Benzo(k)fluoranthene	205-99-2	Naphthalene	91-20-3
bis(2-Ethylhexyl)phthalate	117-81-7	Phenanthrene	85-01-8
Cadmium	7440-43-9	Pyrene	129-00-0
Chromium III	16065-83-1	Silver	7440-22-4
Chromium Total	7440-47-3	Tetrachloroethylene	127-18-4
Chrysene	218-01-9	1,2,3-Trimethylbenzene	526-73-8
Copper	7440-50-8	1,2,4-Trimethylblenzene	95-63-6
Dibenzo(a,h)anthracene	53-70-3	1,3,5-Trimethylbenzene	108-67-8
Ethylbenzene	100-41-4	Xylenes	1330-20-7
Fluoranthene	206-44-0	Zinc	7440-66-6

Additional information regarding the identified hazardous substance concentrations can be found in the attached tables and in AKT Peerless' September 2010 Phase II ESA (Appendix C), and AKT Peerless' November 2010 Supplemental Phase II Letter Report (Appendix E). In addition Refer to Appendix D for Strata's September 2010 Laboratory Analytical Report.

4.2 CRITERIA FOR DEFINING THE SUBJECT PROPERTY AS A FACILITY

Based on the analytical results obtained during the September 2010 Phase II ESA, Strata's September 2010 UST Assessment, and the November 2010 Supplemental Phase II ESA, the following substances were detected above MDNRE Residential/Commercial I GCC:

Hazardous Substance	CAS #
Acenaphthene	83-32-9
Anthracene	120-12-7
Benzo(a)anthracene	56-55-3
Benzo(a)pyrene	50-32-8
Benzo(b)fluoranthene	205-99-2
Chromium Total	7440-47-3
Ethylbenzene	100-41-4
Fluoranthene	206-44-0
Fluorene	86-73-7
Naphthalene	91-20-3
Phenanthrene	85-01-8
Tetrachloroethylene	127-18-4
1,2,3-Trimethylbenzene	526-73-8
1,2,4-Trimethylblenzene	95-63-6
1,3,5-Trimethylbenzene	108-67-8
Xylenes	1330-20-7

Therefore, the subject property meets the definition of a "facility" as defined by Part 201 of NREPA, Michigan PA 451 of 1994, as amended. Additional information regarding the contaminant concentrations can be found in Tables 1 and 2 of this BEA, and in AKT Peerless' September 2010 Phase II ESA (Appendix C), and November 2010 Supplemental Phase II Letter Report, (Appendix E). In addition, refer to Appendix D for Strata's September 2010 Laboratory Analytical Report.

4.3 DISCARDED OR ABANDONED CONTAINERS

AKT Peerless did not identify any of the following during the recent inquiry into the subject property:

- abandoned aboveground storage tanks containing hazardous substances,

- underground storage tanks (USTs) containing hazardous substances, or
- abandoned or discarded barrels, containers, or other receptacles containing hazardous substances.

It is AKT Peerless' understanding that hazardous substances/wastes identified during the August 2010 Phase I ESA will be removed prior to the City of East Lansing taking occupancy of the subject property. Further the heating oil UST was removed by Michigan State University (MSU) on August 11, 2010.

4.4 GENERAL LOCATIONS OF KNOWN CONTAMINATION

Based on the analytical results obtained during previous subsurface investigations of the subject property, AKT Peerless identified naphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, fluorene, phenanthrene, and tetrachloroethylene were detected in subsurface soils in the vicinity of the roofing material storage in Building 1 (B-4) at concentrations exceeding the MDNRE Part 201 Residential/Commercial I GCC. Tetrachloroethylene in subsurface soil to the south of Building 1 (B-12) at concentrations exceeding MDNRE Part 201 Residential/Commercial I GCC. Ethylbenzene, naphthalene, TMBs, and xylenes in the vicinity of the former UST cavity at concentrations exceeding MDNRE Part 201 Residential/Commercial I GCC. Further, total chromium, benzo(a)pyrene, fluoranthene, and phenanthrene were detected in subsurface soils in the vicinity of the southern property boundary (B-10 and/or B-11) at concentrations exceeding MDNRE Part 201 Residential/Commercial I GCC. See Figure 3 for a Site Map with Soil Analytical Results Exceeding MDNRE GCC (from AKT Peerless' September and November 2010 Phase II ESAs). See Tables 1 and 2 for names and chemical abstract service numbers of all hazardous substances known to be present at the subject property. In addition refer to Appendix D for Strata's September 2010 Laboratory Analytical Report.

5.0 LIKELIHOOD OF OTHER CONTAMINATION

Based on AKT Peerless' August 2010 Phase I ESA, AKT Peerless' September 2010 Phase II ESA, Strata's September 2010 UST Assessment, and AKT Peerless' November 2010 Supplemental Phase II ESA, AKT Peerless made an assessment as to the likelihood that other hazardous substances are also present at the subject property. That assessment was based on a thorough evaluation of all known previous uses of the subject property, with special emphasis on hazardous substance use in commercial applications.

Based on a review of previous environmental assessments and subsurface investigations of the subject property, it is AKT Peerless' assessment that it is unlikely for contaminants other than the ones identified in Section 4.2 to be present at the subject property at concentrations above the MDNRE Residential/Commercial I GCC.

6.0 ALTERNATIVE APPROACH

No alternative approaches have been proposed for this BEA.

7.0 CONCLUSIONS

The Submitter retained AKT Peerless to prepare this Category "N" BEA for the subject property located at 1240 South Harrison Road (Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002) in East Lansing, Ingham County, Michigan. This BEA was prepared (1) to provide an independent, professional evaluation and opinion regarding existing environmental conditions associated with the subject property at the time of foreclosure and (2) to maintain a liability exemption for cleanup of existing contamination at the subject property.

The Submitter does not intend to use, store, or manage hazardous substances in significant quantities at the subject property. This is the basis for being able to distinguish existing contamination from a new release.

8.0 REFERENCES

The following is a list of reference material not included in this document:

- Part 201 of the Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as amended.
- MDNRE Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, March 11, 1999.

9.0 LIMITATIONS

In performing its assessment, 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 Submitter. 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 the Submitter. 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 Submitter or as required by law or regulation.

10.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The following individuals contributed to the completion of this BEA. Copies of their resumes are provided as Appendix F.

Janet Michaluk
Environmental Consultant
AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES
Farmington, Michigan Office

David A. Van Haaren
Director of Lansing Operations
AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES
Saginaw, Michigan Office

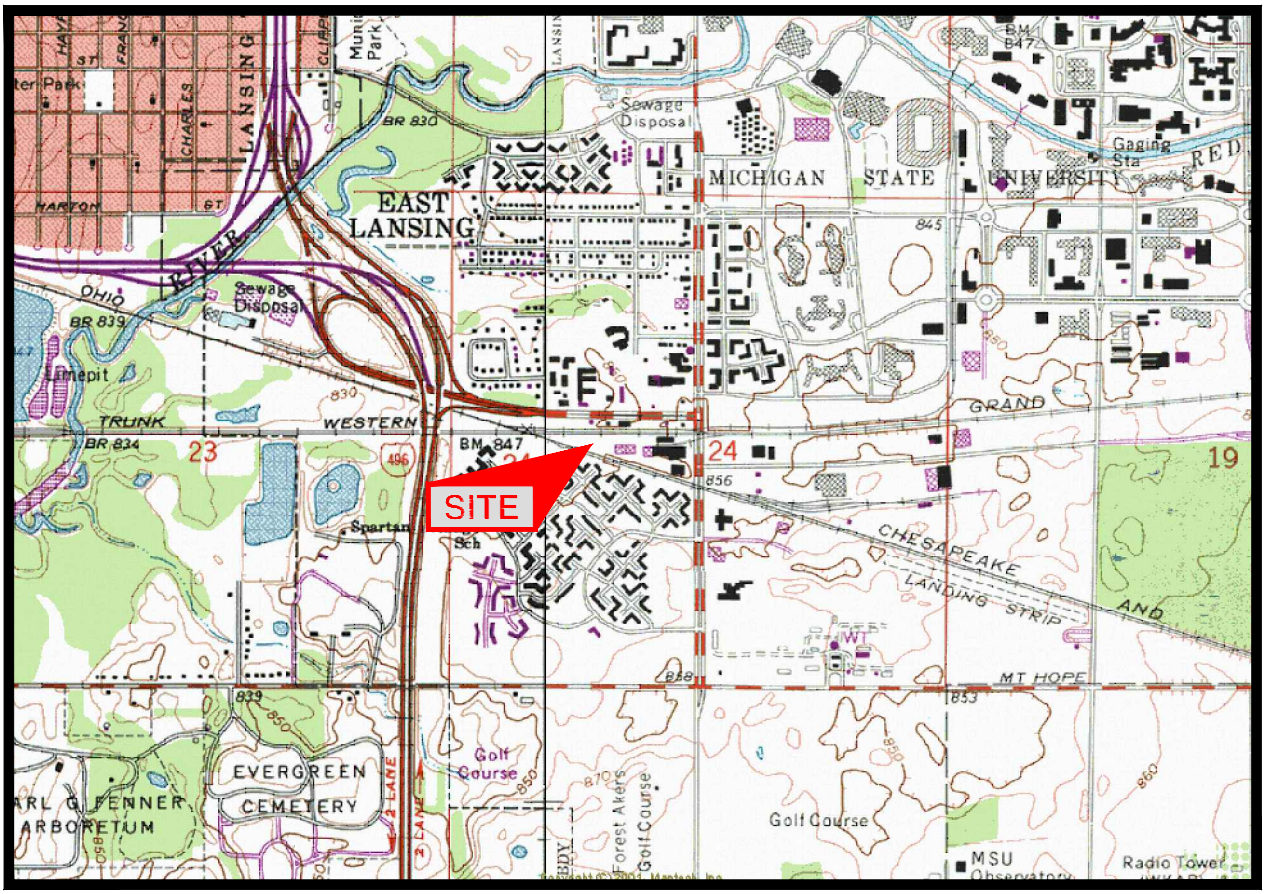
AKTPEERLESS
environmental & energy services

FIGURES

EAST LANSING 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 5 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

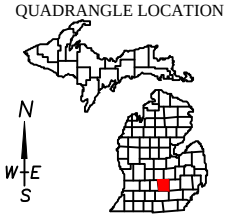


IMAGE TAKEN FROM 1970 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1976

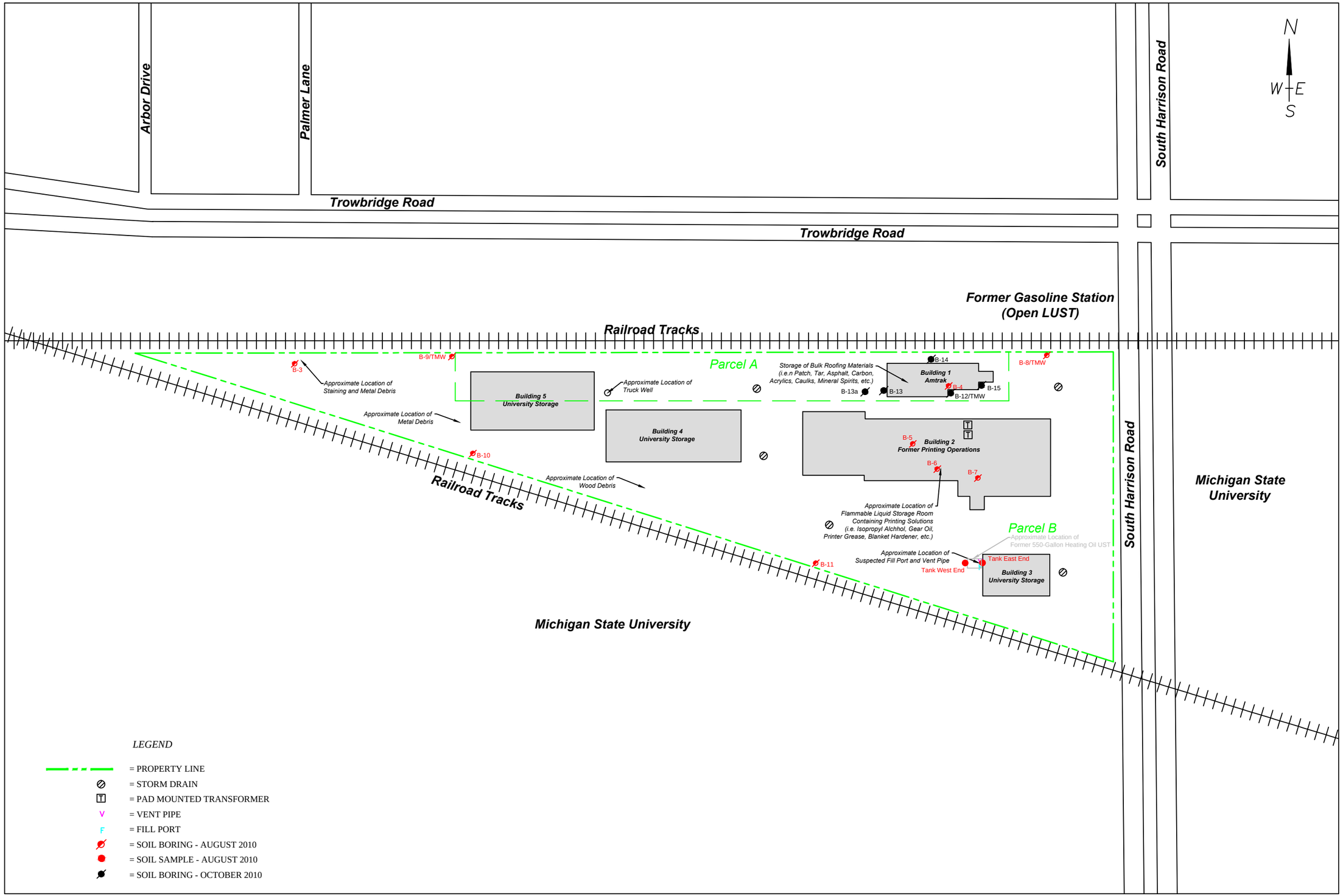
AKTPEERLESS
environmental & energy services
CHICAGO DETROIT FARMINGTON LANSING SAGINAW
www.aktpeerless.com

TOPOGRAPHIC LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-3-26

DRAWN BY: OGO
DATE: 12-02-10

FIGURE 1



LEGEND

- = PROPERTY LINE
- = STORM DRAIN
- = PAD MOUNTED TRANSFORMER
- V = VENT PIPE
- F = FILL PORT
- = SOIL BORING - AUGUST 2010
- = SOIL SAMPLE - AUGUST 2010
- = SOIL BORING - OCTOBER 2010

DRAWN BY: OGO
DATE: 12-02-10

0 75 150
SCALE: 1" = 150'±0

FIGURE 2

SAMPLE LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 66435-3-26

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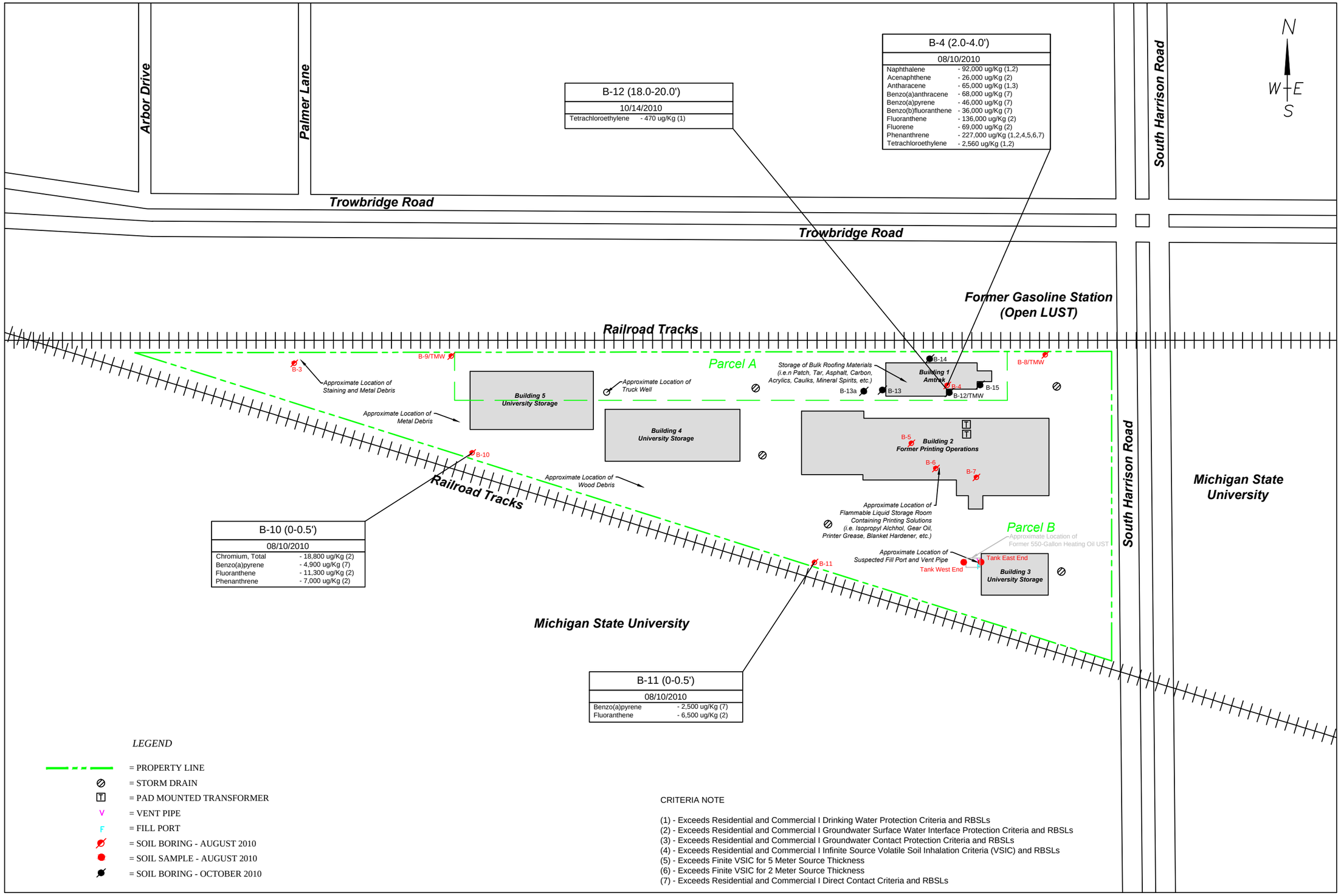

LEGEND

- = PROPERTY LINE
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- = PAD MOUNTED TRANSFORMER
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CRITERIA NOTE

(1) - Exceeds Residential and Commercial I Drinking Water Protection Criteria and RBSLs
(2) - Exceeds Residential and Commercial I Groundwater Surface Water Interface Protection Criteria and RBSLs
(3) - Exceeds Residential and Commercial I Groundwater Contact Protection Criteria and RBSLs
(4) - Exceeds Residential and Commercial I Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs
(5) - Exceeds Finite VSIC for 5 Meter Source Thickness
(6) - Exceeds Finite VSIC for 2 Meter Source Thickness
(7) - Exceeds Residential and Commercial I Direct Contact Criteria and RBSLs

DRAWN BY: OGO
DATE: 12-02-10
SCALE: 1" = 150'±
0 75 150

FIGURE 3

SITE MAP WITH SOIL ANALYTICAL RESULTS EXCEEDING MDNRE GCC

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 66435-3-26

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TABLES

Table 1, Summary of Soil Analytical Results
Amtrak Property
Phase II ESA - August 2010
1240 South Harrison Road
East Lansing, Michigan
AKT Peerless Project No. 6643S

Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential and Commercial I Drinking Water Protection Criteria and RBSLs	Groundwater Surface Water Interface Protection Criteria and RBSLs	Groundwater Contact Protection Criteria and RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria and RBSLs	Direct Contact Criteria and RBSLs	Soil Saturation Concentration Screening Levels														
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20														
													Sample Location	Tank East End	Tank West End	B-3 (0.5-1)	B-4 (2-4)	B-5 (0.5-1)	B-6 (0.5-1)	B-7 (0.5-1)	B-8 (6-8)	B-8 (18-20)	B-9 (9-11)	B-10 (0-0.5)	B-11 (0-0.5)	FDS B-7 (0.5-1)
													Collection Date	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010
(Refer to detailed laboratory report for method reference data)													Depth	4 feet	4 feet	0.5-1 feet	2-4 feet	0.5-1 feet	0.5-1 feet	0.5-1 feet	6-8 feet	18-20 feet	9-11 feet	0-0.5 feet	0-0.5 feet	0.5-1 feet
Metals ug/Kg																										
Arsenic	7440-38-2	5,800	4,600	70,000 (X)	2.0E+6	NLV	NLV	NLV	NLV	7.2E+5	7,600	NA		NS	NS	**1,250**	**2,610**	**710**	**740**	**1,010**	**580**	**360**	**240**	**5,290**	**1,600**	**810**
Barium (B)	7440-39-3	75,000	1.3E+6	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	3.3E+8	3.7E+7	NA		NS	NS	**22,500**	**30,800**	**8,700**	**7,700**	**7,000**	**12,600**	**1,900**	**44,200**	**41,900**	**24,500**	**6,500**
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	2.3E+8	NLV	NLV	NLV	NLV	1.7E+6	5.5E+5			NS	NS	<200	**290**	<200	<200	<200	**330**	<200	<200	**2,070**	**330**	<200
Chromium, Total	7440-47-3	18,000 (total)	30,000	**3,300**	1.4E+8	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA		NS	NS	**2,420**	**3,830**	**1,500**	**1,490**	**1,090**	**800**	**730**	**3,950**	**18,800**	**4,030**	**930**
Chromium III (B,H)	16065-83-1	18,000 (total)	1.0E+9 (D)	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	3.3E+8	7.9E+8	NA		NS	NS	NS	**3,830**	NS	NS	NS	NS	NS	**3,950**	**18,800**	**4,030**	NS
Chromium VI	18540-29-9	NA	30,000	3,300	1.4E+8	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA		NS	NS	NS	BDL	NS	NS	NS	NS	NS	BDL	BDL	BDL	NS
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.3E+8	2.0E+7	NA		NS	NS	**4,900**	**14,300**	**2,500**	**2,300**	**3,000**	**2,300**	**2,500**	**5,400**	**39,500**	**7,800**	**2,000**
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA		NS	NS	**7,250**	**35,400**	**3,640**	**2,300**	**2,580**	**1,790**	**1,750**	**6,480**	**92,300**	**16,100**	**1,810**
Fine Fraction Lead	-	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**16,200**	NS	NS
Coarse Fraction Lead	-	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**83,800**	NS	NS
Mercury, Total	7439-97-6	130	1,700	50 (M); 1.2	47,000	48,000	52,000	52,000	52,000	2.0E+7	1.6E+5	NA		NS	NS	<50	<50	<50	<50	<50	<50	<50	<50	<50	**69**	<50
Selenium (B)	7782-49-2	410	4,000	400	7.8E+7	NLV	NLV	NLV	NLV	1.3E+8	2.6E+6	NA		NS	NS	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	2.0E+8	NLV	NLV	NLV	NLV	6.7E+6	2.5E+6	NA		NS	NS	<200	<200	<200	<200	**3,310**	<200	<200	<200	**240**	<200	**590**
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.7E+8	NA		NS	NS	**12,300**	**35,700**	**4,500**	**3,700**	**6,200**	**3,400**	**7,200**	**10,400**	**264,000**	**38,400**	**5,200**
Semivolatiles, BNAs, ug/Kg																										
bis(2-Ethylhexyl)phthalate	117-81-7	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	7.0E+8	2.8E+6	1.0E+7		NS	NS	NS	NS	NS	NS	NS	<300	<300	<300	**400**	**600**	NS
Naphthalene	91-20-3	NA	**35,000**	**870**	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA		<300	<300	<300	**92,000**	NS	NS	NS	<300	<300	<300	<300	<300	NS
Remaining BNAs	Varies	-	-	-	-	-	-	-	-	-	-	-		NS	NS	NS	NS	NS	NS	NS	BDL	BDL	BDL	BDL	BDL	NS
Semivolatiles, PNAs ug/Kg																										
Acenaphthene	83-32-9	NA	3.0E+5	**4,400**	9.7E+5	1.9E+8	8.1E+7	8.1E+7	8.1E+7	1.4E+10	4.1E+7	NA		<300	<300	<300	**26,000**	NS	NS	NS	<300	<300	<300	**700**	**500**	NS
Acenaphthylene	208-96-8	NA	5,900	ID	4.4E+5	1.6E+6	2.2E+6	2.2E+6	2.2E+6	2.3E+9	1.6E+6	NA		<300	<300	<300	<2,000	NS	NS	NS	<300	<300	<300	<300	<300	NS
Anthracene	120-12-7	NA	**41,000**	ID	**41,000**	1.0E+9 (D)	1.4E+9	1.4E+9	1.4E+9	6.7E+10	2.3E+8	NA		<300	<300	<300	**65,000**	NS	NS	NS	<300	<300	<300	**1,700**	**1,200**	NS
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	**20,000**	NA		**300**	<300	<300	**68,000**	NS	NS	NS	<300	<300	<300	**5,000**	**2,600**	NS
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	**2,000**	NA		**500**	<300	<300	**46,000**	NS	NS	NS	<300	<300	<300	**4,900**	**2,500**	NS
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	**20,000**	NA		**500**	<300	<300	**36,000**	NS	NS	NS	<300	<300	<300	**4,400**	**2,100**	NS
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	8.0E+8	2.5E+6	NA		**300**	<300	<300	**11,000**	NS	NS	NS	<300	<300	<300	**2,500**	**1,500**	NS
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2.0E+5	NA		**400**	<300	<300	**46,000**	NS	NS	NS	<300	<300	<300	**3,900**	**1,900**	NS
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA		**400**	<300	<300	**56,000**	NS	NS	NS	<300	<300	<300	**5,100**	**2,500**	NS
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2,000	NA		<300	<300	<300	**2,000**	NS	NS	NS	<300	<300	<300	**<300**	**<300**	NS
Fluoranthene	206-44-0	NA	7.3E+5	**5,500**	7.3E+5	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA		**300**	<300	<300	**136,000**	NS	NS	NS	<300	<300	<300	**11,300**	**6,500**	NS
Fluorene	86-73-7	NA	3.9E+5	**5,300**	8.9E+5	5.8E+8	1.3E+8	1.3E+8	1.3E+8	9.3E+9	2.7E+7	NA		<300	<300	<300	**69,000**	NS	NS	NS	<300	<300	<300	**700**	**500**	NS
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA		<300	<300	<300	**13,000**	NS	NS	NS	<300	<300	<300	**2,400**	**1,400**	NS
1-Methylnaphthalene*	90-12-0	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		<300	<300	<300	**27,000**	NS	NS	NS	<300	<300	<300	<300	<300	NS
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		<300	<300	<300	**49,000**	NS	NS	NS	<300	<300	<300	<300	<300	NS
Phenanthrene	85-01-8	NA	**56,000**	**5,300**	1.1E+6	2.8E+6	**1.6E+5**	**1.6E+5**	**1.6E+5**	6.7E+6	1.6E+6	NA		<300	<300	<300	**227,000**	NS	NS	NS	<300	<300	<300	**7,000**	**4,700**	NS
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA		**400**	<300	<300	**105,000**	NS	NS	NS	<300	<300	<300	**8,900**	**5,100**	NS
Volatiles ug/Kg																										
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		NS	NS	<400	**2,600**	<400	<400	<300	<400	<400	<400	<400	<300	<300
Naphthalene	91-20-3	NA	35,000	**870**	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA		NS	NS	<400	**5,700**	<400	<400	<300	<400	<400	<400	<400	<300	<300
Tetrachloroethylene	127-18-4	NA	**100**	**900 (X)**	88,000 (C)	11,000	1.8E+5	4.8E+5	1.1E+6	5.4E+9	88,000 (C)	88,000		NS	NS	<50	**2,560**	<60	<50	<50	<50	<70	<70	<60	<50	<50
Xylenes (I)	1330-20-7	NA	5,600	700	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	6.1E+7	1.3E+8	2.9E+11	1.5E+5 (C)	1.5E+5		<160	<150	<150	**100**	<160	<150	<150	<150	<170	<170	<160	<150	<150
Remaining VOCs	Varies	-	-	-	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Petroleum Hydrocarbons ug/Kg																										
Diesel Range Organics (DRO)	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000		**6,000**	**8,000**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 1, Summary of Soil Analytical Results
Phase II ESA - October 2010
Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
AKT Peerless Project No. 6643S

Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20												
Parameters*	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential and Commercial I Drinking Water Protection Criteria and RBSLs**	**Groundwater Surface Water Interface Protection Criteria and RBSLs**	**Groundwater Contact Protection Criteria and RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria and RBSLs**	**Direct Contact Criteria and RBSLs**	**Soil Saturation Concentration Screening Levels**	Sample Location	B-12 (2-4)	B-12 (4-6)	B-12 (18-20)	B-13 (2-4)	B-13a (2-4)	B-13a (4-6)	B-14 (2-4)	B-14 (5-7)	B-15 (2-4)	B-15 (4-6)	FDS [B-14 (5-7)]
**(Refer to detailed laboratory report for method reference data)*													Collection Date	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010
													Depth	2-4 feet	4-6 feet	18-20 feet	2-4 feet	2-4 feet	4-6 feet	2-4 feet	5-7 feet	2-4 feet	4-6 feet	5-7 feet
Semivolatiles, BNAs ug/Kg																								
Naphthalene	91-20-3	NA	35,000	870	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA		<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Semivolatiles, PNAs ug/Kg																								
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA		<300	<300	<300	<300	**700**	<300	<300	<300	<300	<300	<300
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	2,000	NA		<300	<300	<300	<300	**800**	<300	<300	<300	<300	<300	<300
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA		<300	<300	<300	**500**	**900**	<300	<300	<300	<300	<300	<300
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2.0E+5	NA		<300	<300	<300	**500**	**800**	<300	<300	<300	<300	<300	<300
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA		<300	<300	<300	<300	**800**	<300	<300	<300	<300	<300	<300
Fluoranthene	206-44-0	NA	7.3E+5	5,500	7.3E+5	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA		<300	<300	<300	<300	**1,100**	<300	<300	<300	<300	<300	<300
Phenanthrene	85-01-8	NA	56,000	5,300	1.1E+6	2.8E+6	1.6E+5	1.6E+5	1.6E+5	6.7E+6	1.6E+6	NA		<300	<300	<300	<300	**500**	<300	300	<300	<300	<300	<300
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA		<300	<300	<300	**300**	**1,200**	<300	<300	<300	<300	<300	<300
Remaining PNAs	Varies	-	-	-	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Volatiles, VOCs ug/Kg																								
Ethylbenzene (I)	100-41-4	NA	1,500	360	1.4E+5 (C)	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	1.4E+5 (C)	1.4E+5		<60	<60	<50	<60	<60	<90	**70**	<100	<60	<60	<60
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		<400	<400	<300	<400	<400	<600	**400**	<700	<400	<400	<400
Tetrachloroethylene	127-18-4	NA	**100**	900 (X)	88,000 (C)	11,000	1.8E+5	4.8E+5	1.1E+6	5.4E+9	88,000 (C)	88,000		<60	<60	**470**	<60	<60	<90	<60	<100	<60	<60	<60
Toluene (I)	108-88-3	NA	16,000	2,800	2.5E+5 (C)	2.5E+5 (C)	2.8E+6	5.1E+6	1.2E+7	2.7E+10	2.5E+5 (C)	2.5E+5		<100	<100	<100	<100	<100	<200	**200**	<200	<100	<100	<100
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.1E+7	5.0E+8	5.0E+8	8.2E+10	1.1E+5 (C)	1.1E+5		<100	<100	<100	<100	<100	<200	**100**	<200	<100	<100	<100
Xylenes (I)	1330-20-7	NA	5,600	700	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	6.1E+7	1.3E+8	2.9E+11	1.5E+5 (C)	1.5E+5		<160	<160	<150	**220**	**70**	<290	**540**	<300	<160	<160	<160
Remaining VOCs	Varies	-	-	-	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Table 2, Summary of Groundwater Analytical Results
Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
AKT Peerless No. 6643S

Guidesheet Number →		#1	#3	#4	#6	#7	#8	#9				
Parameters*	**Chemical Abstract Service Number**	**Residential and Commercial I Drinking Water Criteria and RBSLs**	**Groundwater Surface Water Interface Protection Criteria and RBSLs**	**Residential and Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs**	**Groundwater Contact Criteria and RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**	Sample Location	Tank Basin	B-9/ TMW	FDW Tank Basin
									Collection Date	08/10/2010	08/10/2010	08/10/2010
**(Refer to detailed laboratory report for method reference data)*									Depth	4 feet	11 feet	4 feet
Metals												
Arsenic	7440-38-2	10 (A)	150 (X)	NLV	4,300	NA	ID	ID		NS	**6**	NS
Barium (B)	7440-39-3	2,000 (A)	(G,X)	NLV	1.4E+7	NA	ID	ID		NS	**157**	NS
Zinc (B)	7440-66-6	2,400	(G)	NLV	1.1E+8	NA	ID	ID		NS	**6**	NS
Remaining Metals	Varies	-	-	-	-	-	-	-		NS	BDL	NS
Semivolatiles, BNAs												
bis(2-Ethylhexyl)phthalate	117-81-7	6.0 (A)	32	NLV	320 (AA)	340	NA	340 (S)		NS	**10**	NS
Remaininag BNAs	Varies	-	-	-	-	-	-	-		NS	BDL	NS
Semivolatiles, PNAs												
PNAs	Varies	-	-	-	-	-	-	-		BDL	BDL	BDL
Volatiles, VOCs												
VOCs	Varies	-	-	-	-	-	-	-		BDL	BDL	BDL

FOOTNOTES

FOR THE PART 201 CRITERIA/PART 213 RISK-BASED SCREENING LEVELS
RRD OPERATIONAL MEMORANDUM No. 1

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 pa 399, mcl 325.1005.

(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

(C) Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}. Concentrations greater than C_{sat} are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.

(D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria.

(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules.

(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

(K) Hazardous substance may be flammable or explosive, or both.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

(O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West allegan Street, lansing, michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the superintendent of documents, government printing office, washington, dc 20401 (stock number 869-044-00155-1), or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, subpart d and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart d and subpart g of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the superintendent of documents, Government Printing Office, Washington, dc 20401, or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the tsca standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, dc 20401 (stock number 869-044-00155-1), or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. see formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

(Y) Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre.

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(AA) Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

(BB) The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH3 in the surface water. This percent NH3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

(DD) Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.

(EE) The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

(FF) The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m3.

ID Insufficient data to develop criterion.

NA A criterion or value is not available or, in the case of background and CAS numbers, not applicable.

NLL Hazardous substance is not likely to leach under most soil conditions.

NLV Hazardous substance is not likely to volatilize under most conditions.

ug/Kg Micrograms per kilogram

ug/L Micorgrams per liter

NS Not sampled

* Criterion not developed. Contaminant levels measured against compound with nearest chemical structure

BDL Below Laboratory Method Detection Limits

APPENDIX A

LEGAL DESCRIPTION

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 33-20-01-24-123-009

Property Address [collapse]

MSU PROPERTY
EAST LANSING, MI 48824

Owner Information [collapse]

BOARD OF TRUSTEES
MICH STATE UNIVERSITY
E LANSING, MI 48824

Unit: 33-20

Taxpayer Information [collapse]

BOARD OF TRUSTEES
MICH STATE UNIVERSITY
E LANSING, MI 48824

General Information for Tax Year 2010 [collapse]

Property Class:	099	**Assessed Value:**	$0
School District:	33010 - EAST LANSING	**Taxable Value:**	$0
State Equalized Value:	$0	**Map #**	
	0	**Date of Last Name Chg:**	09/04/2009

Date Filed:	
Principal Residence Exemption (2009 May 1):	0.0000 %
Principal Residence Exemption (2009 Final):	0.0000 %
Principal Residence Exemption (2010 May 1):	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$0	$0	$0
2008	$0	$0	$0

Land Information [collapse]

Acreage:	0.00	**Frontage:**	0.00 Ft.
Zoning Code:		**Depth:**	0.00 Ft.
Land Value:	$0	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	
Renaissance Zone:	NO		
ECF Neighborhood Code:			

Legal Information for 33-20-01-24-123-009 [collapse]

COM AT PT AT INT OF W'LY LN OF HARRISON RD WITH N'LY RR PROPERTY LN S'LY 71.5 FT TO A PT THAT IS S'LY AT R/A 36.5 FT FROM C/L OF RR WESTWARD MAIN TRACK W'LY 170 FT TO POB CONT W'LY PLL WITH SD MAIN TRACK 1070.86 FT S'LY AT R/A 78.05 FT E'LY 1070.86 FT N'LY AT R/A 78.05 FT TO POB SEC 24 T4NR2W

Sales Information

0 sale record(s) found.						
Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 33-20-01-24-300-002

Property Address [collapse]

MSU PROPERTY
EAST LANSING, MI 48824

Owner Information [collapse]

STATE BOARD OF AGRICULTURE
E LANSING, MI 48824

Unit: 33-20

Taxpayer Information [collapse]

STATE BOARD OF AGRICULTURE
E LANSING, MI 48824

General Information for Tax Year 2010 [collapse]

Property Class:	099	**Assessed Value:**	$0
School District:	33010 - EAST LANSING	**Taxable Value:**	$0
State Equalized Value:	$0	**Map #**	
	0	**Date of Last Name Chg:**	09/04/2009

Date Filed:	
Principal Residence Exemption (2009 May 1):	0.0000 %
Principal Residence Exemption (2009 Final):	0.0000 %
Principal Residence Exemption (2010 May 1):	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$0	$0	$0
2008	$0	$0	$0

Land Information [collapse]

Acreage:	0.00	**Frontage:**	0.00 Ft.
Zoning Code:		**Depth:**	0.00 Ft.
Land Value:	$0	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	
Renaissance Zone:	NO		
ECF Neighborhood Code:			

Legal Information for 33-20-01-24-300-002 [collapse]

THAT PART OF SW 1/4 LYING S OF GTW RR R/W & N OF C&O RR R/W EXC N 50 FT & EXC BEG AT PT ON GTW RR S'LY BDRY LN THAT IS W'LY 170 FT FROM INT OF S'LY BDRY WITH W'LY R/W LN OF HARR- ISON RD W'LY ON S'LY BDRY LN 900 FT N'LY AT R/A 91 FT TO PT THAT IS S'LY AT R/A 11 FT FROM C/L OF GTW RR E MAIN TRACK E'LY PLL WITH TRACK 900 FT S'LY AT R/A 91 FT TO POB SEC 24 T4NR2W

Sales Information

0 sale record(s) found.						
Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page

AKTPEERLESS
environmental & energy services

APPENDIX B

AKT PEERLESS' AUGUST 2010 PHASE I ESA

PHASE I ENVIRONMENTAL SITE ASSESSMENT
1240 SOUTH HARRISON ROAD
(PARCEL IDENTIFICATION NUMBERS:
33-20-01-24-123-009
AND
33-20-01-24-300-002)
EAST LANSING, MICHIGAN 48823

prepared for

MICHIGAN STATE UNIVERSITY
EAST LANSING, MICHIGAN

AND

THE CITY OF EAST LANSING
410 ABBOTT ROAD
EAST LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 6643S-1-17
AUGUST 7, 2010

AKTPEERLESS
environmental & energy services

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN 48823

AKT PEERLESS PROJECT NO. 6643S-1-17

1.0 INTRODUCTION

Michigan State University (MSU) (the User) retained AKT Peerless Environmental Services (AKT Peerless) through the City of East Lansing (the Client and User) to conduct a Phase I Environmental Site Assessment (ESA) of 1240 South Harrison Road [Parcel Identification Numbers (PID): 33-20-01-24-123-009 and 33-20-01-24-300-002], Michigan (subject property). The City of East Lansing was awarded United States Environmental Protection Agency (USEPA) Brownfield Assessment Grants to conduct environmental assessments of petroleum and hazardous substance sites. This Phase I ESA was conducted as part of the Hazardous Substance Assessment Grant on behalf of the MSU and the City of East Lansing. This Phase I ESA was conducted in accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries [(AAI), 40 CFR Part 312] and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-05* (ASTM Standard Practice E 1527-05).

1.1 PURPOSE

The purpose of this Phase I ESA was to evaluate the current and historical conditions of the subject property in an effort to identify *recognized environmental conditions* (RECs)[1] and *historical recognized environmental conditions* (HRECs)[2] in connection with the subject property. Moreover, certain users of this Phase I ESA may be able to satisfy one of the environmental due diligence requirements to qualify for the bona fide prospective purchaser, contiguous landowner, or innocent landowner liability protections available under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, the Superfund Amendments and Reauthorization Act (SARA) of 1986, and the Small Business Liability and Brownfield Revitalization Act (Brownfield Amendments) of 2002. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs and

[1] ASTM's Standard Practice E 1527-05 defines the term recognized environmental condition (REC) as the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate (1) an existing release, (2) a past release, or (3) a material threat of a release of a hazardous substance or petroleum product into structures on the subject property or into the ground, groundwater, or surface water of the subject property.

[2] ASTM defines the term historical recognized environmental condition (HREC) as an environmental condition which in the past would have been considered an REC, but which may or may not be considered an REC currently. Neither HRECs nor RECs are intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

HRECs in connection with the subject property.

1.2 SCOPE OF SERVICES

AKT Peerless' scope-of-services is based on its proposal PS-11041, dated July 7, 2010, and the terms and conditions of that agreement. This Phase I ESA included the following:

- an inquiry of environmental conditions by an environmental professional.
- a review of specialized knowledge reported by the Client.
- a review of public and historical records, including those maintained by federal, state, tribal, and local government agencies.
- interviews with regulatory officials and personnel associated or knowledgeable with the subject property, including as appropriate past and present owners, or neighbors if the property is abandoned.
- a reconnaissance of the subject property and adjoining properties.

1.3 PROJECT RESOURCES

AKT Peerless referred to the following resources between July 7, 2010 and August 7, 2010 to complete its ESA:

- United States Environmental Protection Agency (USEPA), Region 5
- United States Geological Survey (USGS)
- United States Department of Agriculture (USDA) Soil Conservation Service
- Michigan Department of Natural Resources and Environment (MDNRE)
- Ingham County Environmental Health Department
- East Lansing Government Sources (e.g., assessing, building, fire, engineering departments, etc.)
- Environmental Data Resources, Inc. (EDR)
- Library of Michigan
- Interviews and Questionnaire Responses

1.4 SIGNIFICANT ASSUMPTIONS

During this Phase I ESA, AKT Peerless made the following significant assumptions:

- AKT Peerless assumed that the information provided by EDR in the regulatory database report is an accurate and complete representative summary of the information contained in the referenced regulatory agency records, except when such information is obviously contradicted by other data.
- AKT Peerless assumed that the information used to prepare this assessment that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives, or other secondary sources was an accurate and complete representative summary of the information

possessed by those individuals, representatives, or sources.

1.5 LIMITATIONS AND EXCEPTIONS

A list of general limitations and exceptions typically encountered when completing Phase I ESAs is provided in Appendix A. Along with the inherent limitations set forth in various sections of ASTM Standard Practice E 1527-05 and the USEPA All Appropriate Inquiry Standard, the accuracy and completeness of this report may also be limited by the following project specific facts or conditions:

- Visual observations of the interior of certain portions of the subject buildings were limited due to the absence of electric lighting and/or dim lighting.
- Visual observations of the ticket office in Building 1 were limited due to lack of access.
- Visual observations of the storage containers to the west of Building 5 were limited due to the lack of access.
- Visual observations of exterior portions of subject property boundary were limited due to the presence of dense vegetation.

Subject to the general limitations and exceptions listed in Appendix A and the referenced terms and conditions, AKT Peerless accepts responsibility for the competent performance of its duties in executing this assignment and preparing this report in accordance with the normal standards of the profession, but disclaims any responsibility for consequential damages.

Should additional information become available to the Client that differs significantly from our understanding of conditions presented in this report, AKT Peerless requests that such information be forwarded immediately to our attention so that we may reassess the conclusions provided herein and amend this project's scope of services as necessary and appropriate.

1.6 SPECIAL TERMS AND CONDITIONS

To the best of AKT Peerless' knowledge, no special terms or conditions apply to the preparation of this Phase I ESA.

1.7 USER RELIANCE

AKT Peerless performed this Phase I ESA for the benefit of the Client and MSU. AKT Peerless acknowledges that these parties may rely on the contents and conclusions presented in this report. Unless stated otherwise in writing, AKT Peerless makes no other warranty, representation, or extension of reliance upon the findings of this report to any other entity or third party.

2.0 USER AND/OR CLIENT PROVIDED INFORMATION

The following subsections summarize the information Mr. Tim Dempsey, the City of East Lansing provided to AKT Peerless.

2.1 TITLE RECORDS

The Client did not provide recorded land title records to AKT Peerless.

2.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

The Client did not report any: (1) environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law; or (2) activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls, that are in place at the subject property and/or have been filed or recorded in a registry under federal, tribal, state, or local law.

2.3 KNOWLEDGE OF THE USER

The Client did not report specialized knowledge or experience, actual knowledge, or commonly known or reasonable ascertainable information that is material to identifying recognized environmental conditions in connection with the subject property.

2.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The Client did not report knowledge of, or reason to anticipate, a reduction in the value of the subject property for environmental issues.

2.5 REASON FOR PERFORMING THIS PHASE I ESA

According to the Client, this Phase I ESA was conducted as part of environmental due diligence related to redevelopment of the subject property.

3.0 SUBJECT PROPERTY DESCRIPTION

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property is located in the southwest ¼ of Section 24 in East Lansing (T.4N./R.2W.), Ingham County, Michigan. The subject property is situated west of South Harrison Road. It consists of a nearly rectangular shaped parcel and an irregular shaped parcel that total approximately 15.70 acres.

Mr. Andrew Smith, MSU is the current manager of the subject property. The subject property is occupied by university storage and the Amtrak Station.

The following table presents additional information regarding the subject property. For ease of reference in this report, AKT Peerless has designated each of the subject property parcels with a letter. These designations have no relevance to legally recorded data about the subject property.

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	1240 South Harrison Road	33-20-01-24-123-009	Board of Trustees, Michigan State University	1.61
B	Unaddressed Property	33-20-01-24-300-002	State Board of Agriculture	14.09

Refer to Figure 1, Subject Property Location Map; Figure 2, Topographic Location Map; Figure 3, Parcel Map; and Figure 4, Subject Property Map. The legal description of the subject property is presented in Appendix B. Photographs taken during AKT Peerless' subject property reconnaissance are provided in Appendix C.

3.2 SUBJECT PROPERTY AND VICINITY CHARACTERISTICS

The subject property is currently developed as commercial and is located in an area of East Lansing that is characterized by commercial, and/or residential properties, a railroad, surface roadways, etc.

3.3 DESCRIPTION OF STRUCTURES AND OTHER IMPROVEMENTS

General information regarding the on-site building (the subject building) is presented in the following table:

Building 1: Amtrak Station			
General Construction	**Interior Finish:**	**Square Ft.**	**Construction and Other Improvement Dates**
1-story; built-up composite roof; steel roof joists; concrete block bearing walls, with wood and steel supports; slab-on-grade concrete foundation; concrete block exterior with aluminum or steel sandwich panels; no basement	concrete, resilient floor tiles (RFTs), drywall, acoustic ceiling tiles (ACTs), glass, metal, paint, wood, etc.	8,010 SF (footprint)	constructed in 1965

Interior portions of Building 1 consist of a waiting area, restrooms, locker rooms, ticket office, garage storage area, etc.

Building 2: Former Printing Building			
General Construction	**Interior Finish:**	**Square Ft.**	**Construction and Other Improvement Dates**
1-story; built-up flat roof, steel roof joists; concrete block bearing walls, with wood and steel supports; slab-on-grade concrete foundation; concrete block exterior; no basement	concrete, carpet, drywall, acoustic ceiling tiles (ACTs), wood, paint, metal, glass, etc.	43,894 SF (footprint)	constructed in 1950

Interior portions of Building 2 consist of an office area, utility rooms, printing services area, flammable storage, area, shipping and receiving area, restrooms, etc.

Building 3: University Storage			
General Construction	**Interior Finish:**	**Square Ft.**	**Construction and Other Improvement Dates**
1-story; built-up flat roof, steel roof joists; concrete block bearing walls, with wood and steel supports; slab-on-grade concrete foundation; concrete block exterior; no basement	concrete, drywall, paint, wood, metal, glass, etc.	7,036 SF (footprint)	constructed in 1963

Interior portions of Building 3 consist of storage areas, office areas, etc.

Building 4: University Storage			
General Construction	**Interior Finish:**	**Square Ft.**	**Construction and Other Improvement Dates**
1-story; mezzanine, built-up flat roof, steel roof joists; concrete block bearing walls, with wood and steel supports; slab-on-grade concrete foundation; concrete block exterior with aluminum or steel sandwich panels; no basement	concrete, drywall, paint, wood, metal, glass, etc.	16,293 SF (footprint)	constructed 1967

Interior portions of Building 4 consist of storage areas, office areas, etc.

Building 5: University Storage			
General Construction	**Interior Finish:**	**Square Ft.**	**Construction and Other Improvement Dates**
1-story; mezzanine, built-up gabled roof, steel roof joists; concrete block bearing walls, with wood and steel supports; slab-on-grade concrete foundation; concrete block exterior with aluminum or steel sandwich panels; no basement	concrete, drywall, paint, wood, metal, glass, etc.	25,792 SF (footprint	constructed in 1987

Interior portions of Building 5 consist of storage areas, office areas, etc.

The exterior of the subject property is improved with paved and landscaped areas. A truck well located is located on the east side of Building 5. Several Bay doors are located on all subject buildings. In addition, a 550-gallon heating oil underground storage tank is located to the west of Building 3.

3.4 CURRENT USE OF THE SUBJECT PROPERTY

The subject property is zoned manufacturing district (M-1). The subject property currently is used for a train/bus station and university storage.

3.5 UTILITIES AND MUNICIPAL SERVICES

AKT Peerless identified the type and supplier of utilities provided to the subject property. These services are described in the following table:

Utility / Service	Type	Utility Company or Municipality	Comments/Historical Services
heat	natural gas	Consumers Energy	Natural gas has been provided since at least 1969. A heating oil UST is located to the west of Building 3. Other historical services were not identified.
municipal waste	general refuse	MSU	General refuse is collected on a weekly basis.
potable water	municipal	MSU and City of East Lansing	Municipal drinking water has been provided since development in 1950.
electricity	electric lines	MSU and Lansing Board of Water and Light (LBW&L)	Electricity has been provided since development in 1950.
sewage disposal	municipal	City of East Lansing	Municipal sewerage utilities have been provided since development in 1950.
storm water	county	Ingham County	An enclosed county storm drain system was used since development in 1950.

Additional information regarding the referenced heat, water, and sewage utilities is presented in Section 4.4.

3.6 CURRENT USES OF THE ADJOINING PROPERTIES

The following table describes the current uses of the adjoining properties, identified occupants, and noteworthy observations of environmental concern, if any, that were noted during AKT Peerless' recent reconnaissance of the adjoining properties.

Direction	Address	Current Use / Occupant	Potential Concerns
north	Unaddressed properties	transit / railroad tracks	railroad tracks
south			
west			
east	Unaddressed property	university / MSU	none observed

Based on AKT Peerless' visual observations, the current uses of the adjoining properties do not appear to pose a direct environmental threat to the subject property, except for the railroad tracks located to the north, south and west. Refer to Section 4.5 for additional information.

4.0 RECORDS REVIEW

The objective of the records review is to evaluate reasonably ascertainable databases, historical records, and physical setting records to help identify recognized environmental conditions at the subject property and, to the extent identifiable, at surrounding properties.

4.1 PHYSICAL SETTING SOURCES

AKT Peerless reviewed geological survey maps for geologic, hydrologic, and topographic conditions that may affect potential contaminant migration to the subject property.

4.1.1 Topography and Area Hydrogeology

According to the USGS' *Topographic Map of the East Lansing, Michigan Quadrangle*, which was published in 1970 and was photorevised in 1976, the subject property is situated approximately 849 feet above the National Geodetic Vertical Datum (NGVD). The subject property's topography appears to decline gently to the north-northwest.

Typically, the water table aquifer flows toward a major drainage feature or in the same direction as the drainage basin. The Red Cedar River, which flows to the west, is located approximately 3,966 feet north of the subject property. Therefore, AKT Peerless infers that groundwater beneath the subject property flows to the north-northwest, with potential influence from the Red Cedar River.

AKT Peerless' research did not identify any known groundwater recharge area on or near the

subject property, or any groundwater supply or monitor wells on the subject property. Groundwater from the area of the subject property does not serve as the primary drinking water source for the subject property, which obtains its municipal water from the City of East Lansing and MSU. Public sources of information do not identify main aquifers below the subject property.

According to subsurface investigations conducted on a nearby property to the north between 1991 and 2010, groundwater depth in the area is between 17.0 and 22.0 feet below ground surface (bgs). In addition, groundwater flow in the are was determined to be to the northwest.

4.1.2 Area Geology and Soils

According to the MDNR Geological Survey Division's *Bedrock Geology of Southern Michigan* (1987), bedrock beneath the subject property is classified as Grand River Formation, which is included in the Conemaugh series within the Pennsylvanian system of the Paleozoic Era. The depth to bedrock beneath the subject property was not readily available prior to the completion of this Phase I ESA.

According to the Michigan Geological Survey Division's publication, *Quaternary Geology of Southern Michigan* (1982), soil in the subject property area is defined as end of moraines of medium-textured till. . These soils are described as gray, grayish brown or reddish brown, nonsorted glacial debris; matrix is dominantly loam and silt loam texture, variable amounts of cobbles and boulders. Occurs in narrow linear belts of hummocky relief marking former standstills of ice-sheet margin. Includes areas small areas of ground moraine as well as outwash. Soil thickness tends to be somewhat greater than adjacent ground moraine areas. Typically, end moraines of medium-textured till are associated with moderate hydraulic permeability.

According to the USDA's *web soil survey*, soil at the subject property is classified as belonging to the Urban land – Bowyer – Sprinks complex (UeB), with 0 to 10 percent slopes, and the Urban land – Marlette complex (UtB), with 2 to 12 percent slopes.

According to subsurface investigations conducted on a nearby property to the north between 1991 and 2010, soil conditions in the area of the subject property consist of sand from just below the ground surface to approximately 34.0 feet bgs, the maximum depth advanced. In addition, an approximately 3.0 clay seam was observed between 12.0 and 15.0 feet bgs.

4.2 STANDARD ENVIRONMENTAL RECORD SOURCES

AKT Peerless retained EDR to provide current environmental database information compiled by a variety of federal and state regulatory agencies. The purpose of obtaining this data was to evaluate potential environmental risks associated with the subject property, adjoining sites, and other sites that are (1) identified on target lists, and (2) within varying distances of up to one mile from the subject property. AKT Peerless reviewed the following federal and state databases for such listings within the indicated search radii.

Type	Regulatory Agency Database	Approximate Minimum Search Distance
Federal	National Priority List (NPL)	1 mile
Federal	De-listed National Priority List (DNPL)	½ mile
Federal	Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	½ mile
Federal	CERCLIS No Further Remediation Action Planned (NFRAP) Site List	½ mile
Federal	Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Facilities List	1 mile
Federal	RCRA non-CORRACTS Treatment, Storage or Disposal (TSD) Facilities List	½ mile
Federal	RCRA Generators List	subject property and adjoining properties
Federal	Institutional Control / Engineering Control Registries*	subject property
Federal	Environmental Response and Notification System (ERNS)	subject property
State & Tribal	Hazardous Waste Sites (HWS) (equivalents to NPL and CERCLIS)	1 mile
State & Tribal	Solid Waste Facilities/Landfill Sites (SWLF)	½ mile
State & Tribal	Historical Landfill Site (HIST LF)	½ mile
State & Tribal	Leaking Underground Storage Tank (LUST) List	½ mile
State & Tribal	Registered Underground Storage Tank (UST) List	subject property and adjoining properties
State & Tribal	Institutional Control / Engineering Control Registries*	subject property
State & Tribal	Brownfield Sites	½ mile
State	Baseline Environmental Assessment (BEA) Sites	½ mile
Either	Unmappable Database Listings (a.k.a. Orphan Sites)	database-dependent

* Neither the US EPA nor Michigan Tribal Governments nor the State of Michigan maintains registries of sites with Institutional Controls / Engineering Controls in the subject property area.

4.2.1 Subject Property and Occupant Listings

The EDR Report (Appendix D) does not identify the subject property or its known occupants on the referenced databases.

4.2.2 Adjoining and Nearby Sites

AKT Peerless' review of the referenced databases (including those on the orphan list) also 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:

- the type of database on which the site is identified.
- the topographic position of the identified site relative to the subject property.
- the direction and distance of the identified site from the subject property.
- local soil conditions in the subject property area.
- the known or inferred groundwater flow direction in the subject property area.
- the status of the respective regulatory agency-required investigation(s) of the identified site, if any.
- surface and subsurface obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines, rivers, lakes, and ditches) located between the identified site and the subject property.

Only those sites that are judged to present a potential environmental risk to the subject property are further evaluated by reviewing MDNRE file information. Using the referenced criteria, and based upon a review of readily available information contained within the EDR Report, AKT Peerless did not identify adjoining (i.e., bordering) or nearby sites (e.g., properties within a ¼-mile radius) listed in the EDR Report that were judged to present a potential environmental risk to the subject property, except for the following:

Database			
Database(s):	**LUST**	**Distance:**	641 feet*
Name:	Majik	**Direction:**	east-northeast*
Address:	901 Trowbridge Road, East Lansing	**Elevation:**	850 feet
Section References:	Refer to Sections **4.3** for further information.	**Known Groundwater Flow Direction:**	northwest
Majik is identified on the state LUST database. A release (C-0329-85) was confirmed on January 1, 1990. The substance released was not reported, and the LUST investigation is still open.			

*Based on AKT Peerless' site reconnaissance Majik is located just beyond the adjoining property to the north.

Database			
Database(s):	**LUST, UST, RCRA-CESQG, FINDS**	**Distance:**	683 feet*
Name:	Marathon Petroleum/Mobil Oil Corp	**Direction:**	northeast*
Address:	1198 South Harrison Road	**Elevation:**	850 feet
Section References:	Refer to Sections **4.3** for further information.	**Known Groundwater Flow Direction:**	northwest
Marathon Petroleum is identified on the state UST database as the owner of one 6,000-gallon gasoline UST, installed on April 22, 1982 and currently in use, one 10,000-gallon gasoline UST, installed on January 1, 1991 and currently in use, one 10,000-gallon gasoline UST installed on April 22, 1983 and currently in use, one 12,000-gallon gasoline UST, installed on January 1, 1983 and currently in use, one 1,000-gallon used oil UST, installed on January 1, 1990 and removed on January 29, 2002, and one phantom UST, unknown quantity, substance, installation, and removal dates. A release (C-0508-91) was confirmed on December 4, 1990. The substance released was not identified. The LUST investigation was closed on May 16, 2002. A second release (C-1666-91) was confirmed on August 12, 1991. The substance released was not identified. The LUST investigation is still open. A third release (C-4111-85) was confirmed on October 27, 1991. The substance released was gasoline. The LUST investigation is still open. A fourth release (C-0078-02) was confirmed on February 15, 2002. The substance released was used oil. The LUST investigation was closed on May 16, 2002. Mobil Oil Corp is classified as a conditionally exempt small quantity generator (CESQG), has not reported TSD Activities, and has no reported RCRA violations..			

*Based on AKT Peerless' site reconnaissance Marathon Petroleum/Mobil Oil Corp is located approximately 400 feet north of the subject property, just beyond Trowbridge Road.

4.3 ENVIRONMENTAL RECORD SOURCES

4.3.1 MDNRE Waste and Hazardous Material Division (WHMD) Records

AKT Peerless referenced the WHMD Waste Data System (WDS) for information regarding the subject property. The WDS tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs. The subject property was not identified on the WDS. Additionally, AKT Peerless referenced the MDNRE Storage Tank Information Database (SID) for information regarding the subject property. The subject property was not identified on the SID.

AKT Peerless contacted the MDNRE WHMD to review available records regarding waste management activities, permits, inspections, violations, and registered USTs associated with the subject property. According to Ms. Jo Anne Rennaker with MDNRE Lansing District Office WHMD and Mr. Jim Lucas with Storage Tank Section, no records for the subject property were found. AKT Peerless reviewed file information for the following nearby property:

1198 South Harrison Road – Marathon

In addition to information provided in Section 4.2.2, file information contained facility inspection reports, UST registrations, etc., between 1997 and 2009. According to facility inspection reports, this nearby property has been issued several violations (i.e. general housekeeping, record keeping, lack of splash guards on dispensers, etc.).

4.3.2 MDNRE Remediation and Redevelopment Division (RRD) Records

AKT Peerless reviewed the RRD's Perfected Lien List dated March 30, 2010 to determine if environmental cleanup liens had been filed against the subject property. According to the Perfected Lien List, the MDNRE does not have record of environmental cleanup liens filed against the subject property. AKT Peerless contacted the MDNRE RRD to review available records regarding environmental information and/or registered USTs on the subject property. Ms. Cheryl Hoyt, reported that no records were found for the subject property and provided records for the following nearby properties:

1198 South Harrison Road – Marathon
According to file information, in an effort to investigate the releases (C-1666-91 and C-4111-85) confirmed on August 12, 1991 and October 27, 1991, subsurface investigations (i.e. soil borings, monitoring well installation, biosparge well installation, soil and groundwater sample collection and analysis, groundwater monitoring, free product recovery, etc.) have been conducted on this nearby property to the northeast from 1991 to the present. File information indicated that free product was first encountered in October 2002 and last encountered at the site in February 2006. Further, based on the most recent groundwater monitoring event in June 2010 analytical results indicated that all contaminants of concern were below laboratory method detection limits (MDLs) in monitoring wells sampled with the exception of a concentration of benzene in MW-2 located on the northwest portion of this nearby property, and concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX), trimethylbenzene isomers (TMBs), naphthalene, and 2-methylnaphthalene in MW-3 located on the south central portion of this nearby property.

It is AKT Peerless' opinion that this nearby property to the northeast does not represent a REC to the subject property based on (1) groundwater monitoring events continue to occur, (2) groundwater flow direction in the area has been determined to be to the northwest, away from the subject property, and (3) this nearby property is located approximately 400 feet north of the subject property, just beyond Trowbridge Road.

901 Trowbridge Road – Majik Market
According to file information, BTEX concentrations were released into soil and groundwater on this nearby property to the east-northeast during historical operations (i.e. gasoline station and automotive repair) conducted by Amoco Oil Co. Three USTs were reportedly removed in 1986 and release was confirmed on October 19, 1989 during assessment activities on behalf of Mumford (Majik Market). Further, file information indicated that previous investigations revealed impacted soil at concentrations exceeding Michigan Department of Environmental Quality (MDEQ, currently MDNRE) Tier I Risk Based Screening Levels (RBSLs) remain on the nearby property to the east-northeast.

It is AKT Peerless' opinion that this nearby property to the north does not represent a REC to the subject property based on (1) the property is located beyond the adjoining property to the north, (2) the property is separated from the subject property by railroad tracks and utility corridors, and (3) groundwater flow direction in the area has been determined to be to the northwest, away from the subject property.

4.4 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

4.4.1 Local Health Department

The Ingham County Health Department indicated that they do not have records pertaining to the subject property.

4.4.2 Local Fire Department

AKT Peerless contacted the East Lansing Fire Department regarding information pertaining to the subject property. According to Mr. Bob Pratt with the East Lansing fire department, two train derailments have occurred on the tracks to the north of the subject property within the last 30 years. According to Mr. Pratt one derailment caused a release of coal and one derailment caused a release of diesel fuel. Mr. Pratt was not aware of the exact locations of the releases. However, Mr. Pratt believed the releases occurred to the north of the subject property.

4.4.3 Water & Sewage Utility Provider

According to Mr. Andrew Smith, Michigan State University Occupation Safety Compliance Officer, municipal water has been provided to the subject property from MSU and the City of East Lansing since development in 1950. In addition, Mr. Smith, indicated that municipal sewerage utilities have been provided by the City of East Lansing since development of the subject property in 1950.

4.4.4 Natural Gas Provider

Consumer Energy has provided natural gas to the subject property since at least 1969. A 550-gallon heating oil UST is currently located to the west of Building 3. The heating oil UST is not currently in use. Other historical services were not identified. Since the subject property was developed in approximately 1950, it is possible the subject property utilized an additional heating source (i.e. coal, fuel oil, wood, etc.) for the other subject buildings prior to the connection of natural gas.

4.4.5 Previous Environmental Reports

AKT Peerless was not provided with copies of reports that document previous investigations or assessments of the subject property, nor did AKT Peerless identify the existence of such documents during this assessment.

4.5 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 that are likely to have led to potential environmental concerns 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.

Historical Summary – Subject Property

The following table summarizes the general development and use of the subject property, as identified by AKT Peerless.

Time Period	Improvements	Use	Owner / Occupant	Data Source(s)
1938 – 1950	none apparent	not determined	not determined	aerial photographs interviews
1950 – 1963	railroad platform, Building 2, associated driveways, parking areas, and landscaped areas	railroad platform Building 2 – printing operations	Michigan State University	aerial photographs interviews
1963 – 1965	Buildings 2 and 3, associated driveways, parking areas, and landscaped areas	Building 2 – printing operations Building 3 – university storage	Michigan State University	aerial photographs interviews
1965 – 1967	Buildings 1 through 3, associated driveways, parking areas, and landscaped areas	Building 1 – railroad platform Building 2 – printing operations Building 3 – university storage	Michigan State University	aerial photographs interviews
1967 – 1987	Buildings 1 through 4, associated driveways, parking areas, and landscaped areas	Building 1 – railroad platform Building 2 – printing operations Buildings 3 and 4 – university storage	Michigan State University	aerial photographs interviews soil survey city directories topographic map
1987 – present	Buildings 1 through 5, associated driveways, parking areas, and landscaped areas	Building 1 – transit platform Building 2 – printing operations Buildings 3, 4 and 5 – university storage	Michigan State University	aerial photographs interviews city directories site reconnaissance

The subject property consisted of undeveloped land from at least 1938 until approximately 1950 when a railroad platform and Building 2 were constructed. In 1963 Building 3 was constructed. In 1965 Building 1 was constructed. In 1967 Building 4 was constructed, and Building 5 was constructed in 1987. Operations at the subject property have included printing (1950 – c.2010), university storage (c.1963 – present), and a transit platform (c.1950 – present).

Historical Summary – Adjoining Properties

North, South and West

The adjoining properties to the north, south, and west have consisted of railroad tracks since at least 1938.

East
The adjoining property to the east consisted of a farmstead and agricultural land from at least 1938 until between 1955 and 1963 when development for MSU began.

4.5.1 Aerial Photographs

AKT Peerless obtained aerial photographs for the subject property from EDR. AKT Peerless' observations noted during the review of these photographs are summarized in the following table. Photocopies of select aerial photographs are presented as Appendix E.

Photo Dates	Observations (Subject Property)	Potential Environmental Concerns
1938	The subject property appears undeveloped	none observed
1950	The subject property appears to contain a railroad platform on the north central portion of the property	none observed
1955 1963	The subject property now contains Building 2, a portion of Building 3 and a railroad platform on the north central portion of the property	none observed
1970 1976 1984 1986	An addition has been made to Buildings 2 and 3 and Buildings 1 and 4 have been constructed.	none observed
1991 1995 2005	Building 5 has been constructed. All else remains the same	none observed

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

Photo Dates	Potential Environmental Concerns (Adjoining Properties)
1938 1950 1955 196 1970 1976 1981 1986 1991 1995 2005	No obvious evidence or indications of recognized environmental conditions or other potential environmental concerns were noted with respect to the adjoining properties during AKT Peerless' review of the referenced aerial photographs, aside from the railroad tracks located on the north, south and western adjoining properties since at least 1938.

4.5.2 Fire Insurance Maps

AKT Peerless' research did not identify historical fire insurance map coverage of the subject property or adjoining properties. A copy of the "No Coverage" statement provided by EDR is

presented in Appendix F.

4.5.3 City Directories

City Directories from various years between 1972 and 2009-2010 were reviewed at the Library of Michigan. The purpose of this review was to determine the past occupancy of the subject property. Information obtained from the reviewed directories is summarized in the following table:

Dates	Subject Property Occupants (1240 South Harrison Road)
1972	address not listed
1976-1977 1982-1983 1987-1988 1992-1993	Amtrak
1997-1998	Amtrak Natl Rl Svc
2002-2003	address not listed
2009-2010	Amtrak/Greyhound Package Express/Indian Trails Motor Coach/National Railroad Pass Corp

An address that is not listed typically indicates that (1) the property was vacant at that time, (2) a potential building was unoccupied at that 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.

AKT Peerless also reviewed city directories for select adjoining properties to determine their past occupancy. No obvious or potential environmental concerns associated with historical occupants of the adjoining properties were noted.

4.5.4 Assessing Department Records

AKT Peerless reviewed tax assessment records on the subject property at the East Lansing Assessing Department. The following table summarizes features or items of potential environmental concern, if any, that were noted during the record review.

Environmental Issue	Comments
Storage Tanks	none identified
Asbestos-Containing Materials	none identified
PCB Materials	none identified
On-site Well/Septic System	none identified
Disposal Facilities/Fill Material (e.g., lagoons, pits, landfills, etc.)	none identified

No additional information that could indicate potential environmental concerns at the subject property was found in the records. Copies of information obtained from the East Lansing

Assessing Department are included in Appendix F.

4.5.5 Building Department Records

AKT Peerless reviewed building records for the subject property at the East Lansing Building Department. AKT Peerless' review did not identify potential environmental concerns associated with the subject property.

5.0 INTERVIEWS

AKT Peerless provided questionnaires to the subject property owner and key site manager, and as available, conducted interviews.

5.1 INTERVIEW WITH SUBJECT PROPERTY OWNER

AKT Peerless interviewed Mr. Tom Grover, Michigan State University Environmental Compliance Officer, regarding knowledge of the subject property and provided an owner questionnaire. No information was reported that would be considered material to identifying recognized environmental conditions in connection with the subject property. However, during AKT Peerless' site reconnaissance a suspected vent pipe and fill port were observed to the west of Building 3. Mr. Grover confirmed that the vent pipe and fill port are in association with a 550-gallon heating oil UST. The UST is not currently in use. Further, Mr. Grover also indicated that arrangements are being made to remove the UST in accordance with applicable federal, state, and local regulations. In addition, Mr. Grover indicated that arrangements are also being made to remove the hazardous substances and/or wastes associated with the former printing operations in accordance with applicable federal, state, and local regulations.

5.2 INTERVIEW WITH KEY SITE MANAGER

Refer to Section 5.1

5.3 INTERVIEW WITH SUBJECT PROPERTY OCCUPANT(S)

Refer to Section 5.1

5.4 INTERVIEW(S) WITH OTHERS

No interviews with others were not conducted during the course of this assessment.

6.0 SUBJECT PROPERTY RECONNAISSANCE

6.1 METHODOLOGY AND LIMITING CONDITIONS

The subject property reconnaissance consisted of visual and physical observations of the subject property. AKT Peerless visually and/or physically observed the periphery of the subject property. In addition, AKT Peerless observed the subject property from all adjacent public thoroughfares. AKT Peerless viewed the subject property following a grid pattern designed to

cover representative portions of the unimproved areas.

Ms. Janet Michaluk of AKT Peerless conducted the subject property reconnaissance on July 19, 2010. Mr. Andrew Smith , Michigan State University Occupational Safety Compliance Officer, Mr. Tom Grover, Michigan State University Environmental Compliance Officer, Ms. Mary Lindsey-Frary, Senior Environmental Coordinator, and Mr. Joshua Croff, Intern with the City of East Lansing, accompanied Ms. Michaluk during the reconnaissance. AKT Peerless encountered the following project specific facts or conditions that limited our ability to access the subject property:

- Visual observations of the interior of certain portions of the subject buildings were limited due to the absence of electric lighting and/or dim lighting.
- Visual observations of the ticket office in Building 1 were limited due to lack of access.
- Visual observations of the storage containers to the west of Building 5 were limited due to the lack of access.
- Visual observations of exterior portions of subject property boundary were limited due to the presence of dense vegetation.

6.2 GENERAL SUBJECT PROPERTY SETTING AND OPERATIONS

The subject property consists of a several university storage buildings, a former printing operations building, and a transit platform, paved parking areas and driveways, and landscaped areas. In general, the subject property is higher than the adjoining properties to the north, but is lower than the adjoining properties to the east, south, and west. Building 1 of the subject property is currently used for a transit platform. Building 2 was most recently used for printing operations, however, operations ceased in early 2010. Building 2 is currently used for storage and office space. Buildings 3 through 5 are used for university storage (i.e. furniture, and educational equipment).

6.3 OBSERVATIONS

6.3.1 Hazardous Substances and Petroleum Products

AKT Peerless did not observe hazardous substances or petroleum products at the subject property, except for the following:

Building 1

Large quantities of roofing repair materials (i.e. roof patch, carbon, zep cleaner, tar, asphalt, caulk, mineral spirits, roofing acrylics) were stored in containers between <1-gallon and 55-gallon drums in the garage area of Building 1. These materials are used to make roof repairs at MSU. These containers were observed to be in good condition with no signs of leaks or spills. In addition, the concrete appeared to be in excellent condition with no cracks and limited engineered floor seams. Further, no floor drains were observed in the hazardous substance storage areas within Building 1.

Building 2
AKT Peerless observed two flammable storage areas within Building 2. The flammable storage areas contained small containers (<5-gallon) of printing solutions, inks, and greases used in printing operations. The containers appeared to be in good condition with no signs of leaks or spills. In addition, the concrete appeared to be in excellent condition with no cracks and limited engineered floor seams. Further, no floor drains were observed in the hazardous substance storage areas within Building 2

Although these materials appeared to be stored properly, it is AKT Peerless' opinion that the bulk storage of these hazardous substances over time represents a REC to the subject property.

Further, AKT Peerless observed several small (i.e., <1-gallon) containers of general maintenance cleaning supplies within the storage areas of the subject buildings. All materials appeared to be stored in their original containers with no signs of leaks or spills. In addition, these materials were not located near any of the interior floor drains within the subject buildings. Refer to Section 6.3.2 for further information.

6.3.2 Hazardous and Non-Hazardous Waste

General refuse is collected on a weekly basis by MSU. In addition, if not intended for future use, the materials discussed in Section 6.3.1 would be considered wastes and should be properly characterized and removed from the subject property. Mr. Grover indicated that arrangements are being made to remove the hazardous substances and/or wastes associated with the former printing operations in accordance with applicable federal, state, and local regulations.

6.3.3 Storage Tanks

AKT Peerless did not observe evidence of current or former UST systems (e.g., vent pipes, fill ports, dispensing pumps, patched pavement, etc.) at the subject property, except for the presence of an approximately 550-gallon heating oil UST located to the west of Building 3. AKT Peerless' observed a suspected fill port and vent pipe during the site reconnaissance. Mr. Tom Grover, Michigan State University Environmental Compliance Officer, confirmed the presence of the UST. The UST is not currently in use.

AKT Peerless did not observe evidence of current or former AST systems (e.g., stands, secondary containments, etc.) at the subject property.

6.3.4 Unidentified Substances/Containers

AKT Peerless did not observe evidence of unidentified substances or other suspect containers on the subject property.

6.3.5 Potential PCB Containing Equipment

AKT Peerless inspected the subject property for the presence of liquid-cooled electrical units such as transformers and large capacitors. Such units are notable since they may be potential sources of PCBs (polychlorinated biphenyls). AKT Peerless did not observe suspect PCB-containing equipment at the subject property, except for the following:

Source Description	Source Location	Responsibility	Observations
fluorescent light fixtures	subject building interiors	subject property owner	no evidence of a release
two pad-mounted transformers	interior of Building 2	subject property owner	no evidence of a release

Fluorescent light ballasts manufactured before 1980 may contain PCBs. These ballasts are considered small capacitors under the Toxic Substances Control Act (TSCA). An inspection of these fluorescent light ballasts for evidence of PCB content was beyond the scope of this assessment. However, no obvious evidence of leaking units was noted. Given the subject buildings dates of construction (1950 – Building 2, 1963 – Building 3, 1965 – Building 1, 1967 – Building 4, and 1987 – Building 5), it is AKT Peerless' opinion that fixtures in Buildings 1 through 4 may contain PCBs.

AKT Peerless observed two pad-mounted transformers within Building 2. These transformers are the responsibility of subject property owner. AKT Peerless did not observe evidence or indication of oil stains, leaks, or spills near the transformers.

6.3.6 Interior Staining / Corrosion

AKT Peerless observed several light stains throughout the subject buildings. These stains were small in nature and are considered a deminimis condition.

6.3.7 Drains and Sumps

AKT Peerless did not observe drains or sumps in the subject buildings.

6.3.8 Discharge Features

Storm water that falls upon the subject property appears to percolate directly into the ground or into catch basins located throughout the subject property.

6.3.9 Pits, Ponds, and Lagoons

AKT Peerless did not observe pits, ponds, or lagoons, or evidence thereof, at the subject property.

6.3.10 Solid Waste Dumping / Landfills

AKT Peerless did not observe evidence of solid waste dumping or landfills at the subject property, except for the presence of wood debris from student lofts formerly utilized at MSU. In addition, abandoned unknown machinery was located to the west of Building 5.

6.3.11 Stained Soil, Stressed Vegetation, Stressed/Stained Pavement

AKT Peerless did not observe any evidence of stained soil, stressed vegetation, stressed pavement, or stained pavement at the subject property, except for the presence of stained soil/pavement located beneath the abandoned unknown machinery located to the west of

Building 5.

6.3.12 Well and Septic Systems

AKT Peerless did not observe physical evidence or indication of wells or septic systems at the subject property.

6.3.13 Other Observations

AKT Peerless did not observe evidence of other potential environmental concerns at the subject property.

6.4 NON-ASTM SCOPE CONSIDERATIONS

As described below in Section 6.4.1, AKT Peerless' scope of work included conducting a preliminary asbestos inspection.

AKT Peerless did not evaluate any other potential environmental conditions (i.e., further areas of possible business/environmental concern and/or liability) that are outside the scope of ASTM Standard Practice E 1527-05. Examples of such potential environmental conditions that were beyond the scope of this Phase I ESA include cultural and historic resources, ecological resources, endangered species, health and safety, high-voltage power lines, indoor air quality, industrial hygiene, lead-based paints (LBPs), lead in drinking water, asbestos containing materials (ACMs), moisture intrusion/suspect mold growth, noise pollution, radon, regulatory compliance/non-compliance and/or wetlands.

AKT Peerless advises users of this document who wish to obtain an evaluation of the subject property relative to any of the aforementioned non-ASTM issues to engage the services of a qualified environmental professional.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 RECOGNIZED ENVIRONMENTAL CONDITIONS

We have performed a Phase I ESA of the subject property in conformance with the scope and limitations of ASTM Standard Practice E 1527-05 and AAI 40 CFR Part 312. Any exceptions to, or deletions from, this practice are described in Section 8 and Appendix A of this report. This assessment has revealed no evidence of RECs in connection with the subject property, except for the following:

1. As described in Sections 5.1 and 6.3.3, an approximately 550-gallon heating oil UST with associated fill port and vent pipe is located to the west of Building 3. The UST is not currently in use. In addition, the installation date is unknown.

2. As described in Sections 6.3.10 and 6.3.11, AKT Peerless observed stained soil/pavement beneath abandoned unknown machinery located to the west of Building 5.

3. As described in Section 6.3.1, AKT Peerless observed storage of large quantities of roofing repair materials within the garage area of Building 1. It is AKT Peerless opinion that bulk storage of hazardous substances may have adversely impacted the subject property.

4. As described throughout this report, Building 2 was used for printing operations from 1950 until early 2010. It is AKT Peerless' opinion that the historical use of the subject property in association with the use and storage of hazardous substances and/or wastes may have adversely impacted the subject property.

5. As described in Section 4.5, the adjoining properties to the north, south, and west have contained railroad tracks since at least 1938. Potential concerns typically associated with railroad spurs include the use of fill materials as ballast to support ties and rails of the railroad tracks, and leaks or spills of hazardous materials or petroleum products. In addition, two train derailments with associated releases of coal and diesel fuel occurred during the last 30 years to the north of the subject property.

Because RECs were identified during the performance of the Phase I ESA, further investigation and/or assessment is warranted in order to determine the nature, extent, magnitude, and materiality of the RECs associated with the subject property. In addition, if not intended for future use, the materials discussed in Section 6.3.1 would be considered wastes and should be properly characterized and removed from the subject property. Further, AKT Peerless recommends removal of the 550-gallon heating oil UST in accordance with applicable federal, state, and local regulations.

7.2 HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS

AKT Peerless did not identify HRECs in connection with the subject property.

7.3 AREAS OF POTENTIAL CONCERN AND SIGNIFICANT DATA GAPS

AKT Peerless did not identify other areas of potential concern in connection with the subject property during the course of this ESA, except for the following:

- As discussed in Section 6.3.5, based on the age of the subject building, fluorescent light ballasts noted during the site inspection may contain PCBs. It is AKT Peerless' opinion these fixtures represent a minimal environmental risk to the subject property. However, upon replacement of the fixtures during future renovations, the ballasts should be evaluated and, if PCB-containing, handled in accordance with applicable regulations.
- As discussed in Section 6.3.5, the two pad-mounted transformers located within Building 2 noted during the site inspection may contain PCBs.
- AKT Peerless was unable to determine what additional heating fuels (e.g., coal, propane, oil, natural gas, etc.) were used at the subject property prior to the connection of natural gas.

AKT Peerless did not identify evidence of an adverse environmental effect upon the subject property in connection with the areas of potential concern listed above. Nevertheless, it is AKT Peerless' opinion that a potential exists for PCB containing light ballasts, transformers, and/or an

additional heating oil container to be present at the subject property.

Consequently, AKT Peerless recommends that such items, if identified or encountered during future development activities, be decommissioned, removed, and/or disposed in accordance with applicable federal, state, and local regulations. Additional action beyond that recommended above may be warranted if evidence of additional, actual or historical heating oil USTs is identified at the subject property in the future.

AKT Peerless did not identify or encounter any instances of significant data gaps during the course of this ESA.

8.0 DEVIATIONS

AKT Peerless did not deviate from ASTM Standard Practice E 1527-05 when performing this Phase I ESA (i.e., no components of that practice were deleted, and no additions to it were made).

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our knowledge and professional belief, we meet the definition of environmental professional as defined in ASTM E-1527-05 and §312.10 of 40 CFR 312 or conducted this inquiry under the supervision or responsible charge of, an environmental professional. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in ASTM E-1527-05 and 40 CFR Part 312.

Janet Michaluk
Environmental Consultant
AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES
Farmington, Michigan Office

phone: 248.615.1333

David A. Van Haaren
Director of Lansing Operations
AKT PEERLESS ENVIRONMENTAL & ENERGY SERVICES
Lansing, Michigan Office

phone: 517.482.9227

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QUALIFICATIONS

AKTPEERLESS
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Professional Environmental Services

PROFESSIONAL PROFILE

DAVID A. VAN HAAREN

Director of Lansing Operations
Environmental Compliance and Assessment Services

EDUCATION

Bachelor of Science: Industrial and Environmental Health Management/ Hazardous Waste Management, 1994
Ferris State University, Big Rapids, Michigan

PROFESSIONAL EXPERIENCE

Regional Manager-Mid Michigan/Senior Associate
AKT Peerless Environmental Services

Vice President of Operations
Peerless Environmental Services, Inc.

AREA OF EXPERTISE

(1) Brownfield redevelopment

(2) Management of federal and state environmental grant programs

(3) Coordination and technical oversight of environmental assessments/investigations

(4) Design and implementation of “due care” strategies for a brownfield sites

(5) Cost estimating and proposal preparation

(6) Liaison with regulatory agencies

Mr. Van Haaren has fourteen (14) years experience in environmental assessments, brownfield redevelopment project management, federal and state environmental grant program implementation, management and implementation of brownfield financial incentives, environmental response activities, corrective action and regulatory compliance management.

Mr. Van Haaren has managed hundreds of investigations at commercial and industrial properties to evaluate the presence and extent of environmental impact. Information obtained during these investigations is typically used to evaluate environmental risk and determine appropriate response activities necessary to allow for the intended use of a property in a manner that protects public health and safety.

SUMMARY OF SELECTED PROJECTS

(1) Technical advisor for a Brownfield Redevelopment Authority under a U.S. EPA Brownfields Cleanup Revolving Loan Fund (BCRLF). The BCRLF was designed to test loan fund models and facilitate coordinated public and private cleanup efforts on brownfield properties.

(2) Acted as senior project manager and technical advisor for several communities with U.S. EPA brownfield assessment grants. The primary objective of each brownfield grant was to perform brownfield inventories, conduct Phase I and Phase II environmental site assessments (ESAs), baseline environmental site assessments (BEAs) and EPA quality assurance project plans (QAPPs). Responsibilities also included acting as a liaison between brownfield communities, U.S. EPA project managers, and stakeholders, project budget tracking, quarterly reporting and participation in environmental subcommittees.

(3) Senior project manager for the investigation, cleanup and redevelopment of a 25-acre former industrial site. Responsibilities included management and oversight of a comprehensive hydrogeological investigation, soil remediation and the development/implementation of brownfield incentives, including $2.2 million in brownfield tax increment financing and the use of a tax revenue bond. Redevelopment included 180 owner-occupied, single-family housing and condominium units.

(4) Senior project manager for the investigation, cleanup and redevelopment of a 37-acre former dumpsite. Investigation activities included a geophysical survey, soil borings and excavation of test pits, soil and groundwater assessment, waste characterization, and an assessment of fill depths and methane. Responsibilities also included the development and implementation of brownfield incentives, including $1.2 million in brownfield tax increment financing.

(5) Project manager and environmental consultant for the investigation, cleanup and redevelopment of a 22-acre former industrial site located along the Saginaw River in Bay City, Michigan. Responsibilities included management and oversight of a comprehensive hydrogeological investigation, BEA activities and cleanup of an abandoned underground storage tank and several areas of environmental impact. Responsibilities also included serving as technical advisor to a local environmental subcommittee for the project and liaison to the City, MDEQ, MDNR, and the developer. Redevelopment included 66 residential condominiums and a riverfront riparian park.

(6) Performed project management and technical oversight of Phase I, Phase II and BEA activities at a 100-year old, seven-city block former manufacturing facility located in the City of Saginaw. The site had previously housed over 30 businesses ranging from a chemical manufacturer to a dry cleaning firm. Contaminants discovered during site investigation activities included PCBs, extensive petroleum contamination and metals. Project activities included utilizing MDEQ grant money to conduct site investigations. Also assisted in the development plans to allow for the placement of new manufacturing plant on the impacted site and qualify the new owner for an exemption from liability for pre-existing contamination.

CERTIFICATIONS AND SPECIALIZED TRAINING

ASTM International Risk-Based Corrective Action Training, October 2003

OSHA 29 CFR 1910.120 – Forty and Eight Hour Refresher HAZWOPER Training

OSHA 29 CFR 1910.120 – Eight Hour HAZWOPER Site Supervisor Training

Title V, Michigan Renewable Operating Permit Training for Consultants – MDEQ

Asbestos Awareness Training

Cardiopulmonary Resuscitation (CPR) and Standard First Aid Training Certification

PROFESSIONAL AFFILIATIONS

Member
Lansing Regional Chamber of Commerce

Member
Regional Economic Development (RED) Team

Member
National Association of Environmental Professionals

Member
ASTM Committee E50 on Environmental Assessment

JANET J. MICHALUK

Environmental Consultant
Environmental Compliance and Assessment Services

EDUCATION

Master's Degree: Project Management, 2009
Keller Graduate School of Management, Naperville, Illinois

Bachelor of Science: Environmental Studies & Applications in Resource Development, 2002
Michigan State University, East Lansing, Michigan

PROFESSIONAL EXPERIENCE

Environmental Consultant
AKT Peerless Environmental Services

Radon Gas Measurement Technician
Air Quality Control Agency

AREA OF EXPERTISE

(1) Conducting Phase I environmental site assessments (ESAs)

(2) Conducting field operations such as soil, surface water, and groundwater sampling

(3) Oversight of field operations such as monitoring well installation, and contaminant delineation, contaminant excavation, and UST removal

(4) Conducting geophysical surveys

(5) Preparing Phase I Reports

(6) Preparing Phase II Subsurface Investigation Reports

(7) Preparing Baseline Environmental Assessment Reports

(8) Preparing Section 20107a Compliance Evaluations

(9) Preparing Closure Reports

(10) Creating maps, diagrams, and drawings using AutoCAD and GIS software

(11) Experience in building and property inspections related to identifying Recognized Environmental Conditions.

AREA OF EXPERTISE (continued)

Ms. Michaluk has experience in investigative activities regarding hazardous materials, substances or contaminants; including environmental site assessment and long-term monitoring and removal activities. Ms. Michaluk has conducted subsurface investigations to evaluate the presence and/or extent of soil and groundwater contamination.

SUMMARY OF SELECTED PROJECTS

(1) Performed Phase I ESAs (including project management, site reconnaissance, regulatory and historical records investigations, and report completion) for financial institutions, manufacturing facilities, real estate developers, property managers, and insurance companies. Properties included industrial, commercial, and residential sites. Properties assessed were located in Michigan.

(2) Supervised drilling and mobile lab operations. Activities included: selecting boring locations, collecting soil samples, field screening soil samples, installing monitoring wells, and selecting samples for laboratory analysis.

(3) Conducted vertical profiling and discrete sampling of groundwater at specific depths to determine the vertical extent of contamination. Conducted delineation procedures to determine the exact location and extent of soil contamination.

(4) Conducted long term monitoring including well development and well sampling procedures.

(5) Conducted geophysical surveys using an EM-61MK2 metal detector, and prepared scaled, contoured site maps depicting anomalous areas.

CERTIFICATIONS

Occupational Safety and Health Administration (OSHA) 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER)

OSHA 8-Hour refresher courses

CPR and First Aid

AHERA Asbestos Inspector Course

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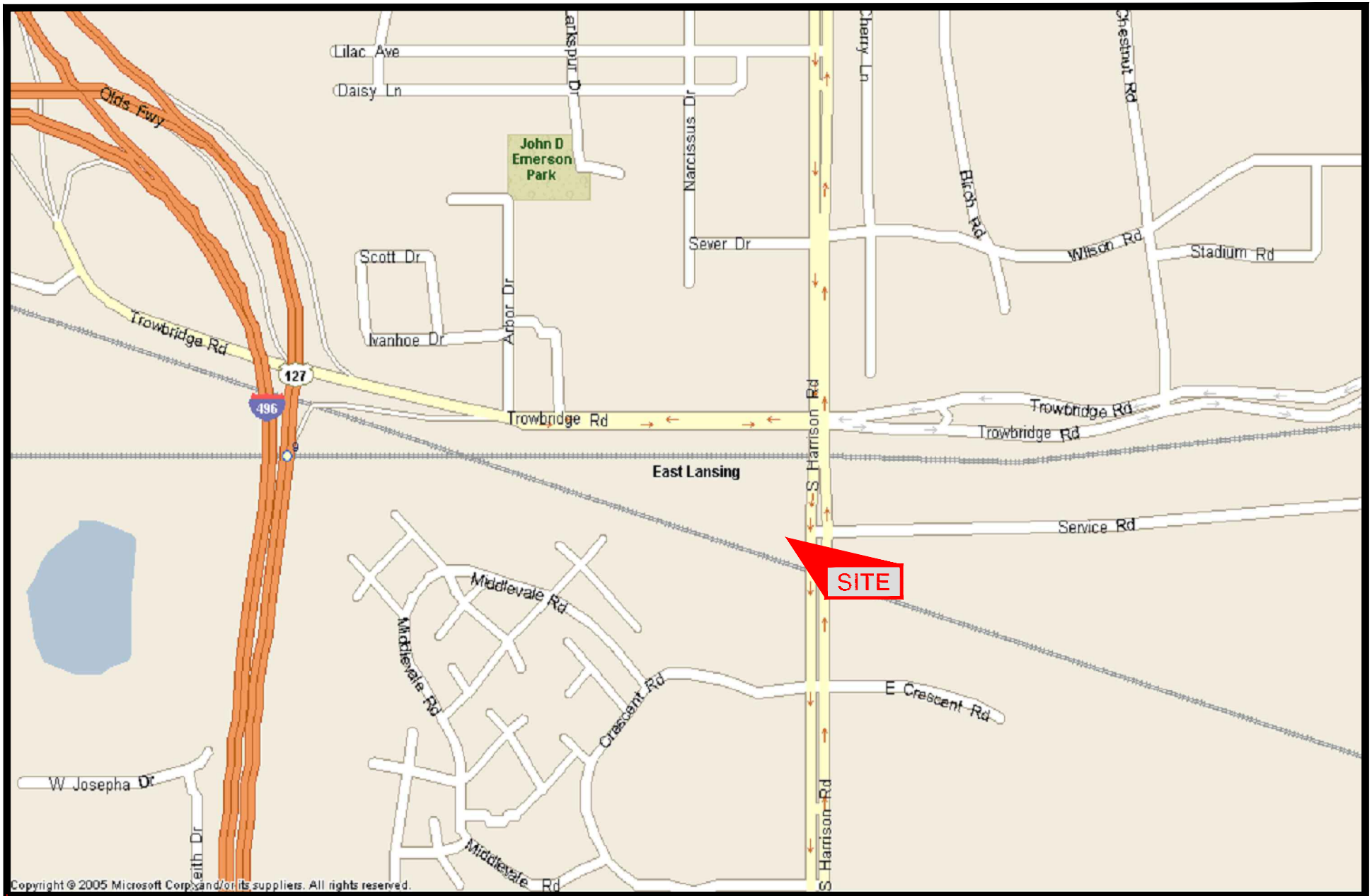
FIGURES



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CHICAGO DETROIT FARMINGTON LANSING SAGINAW
www.aktpeerless.com

SUBJECT PROPERTY LOCATION MAP
AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-1-17

LEGEND

N
W E
S

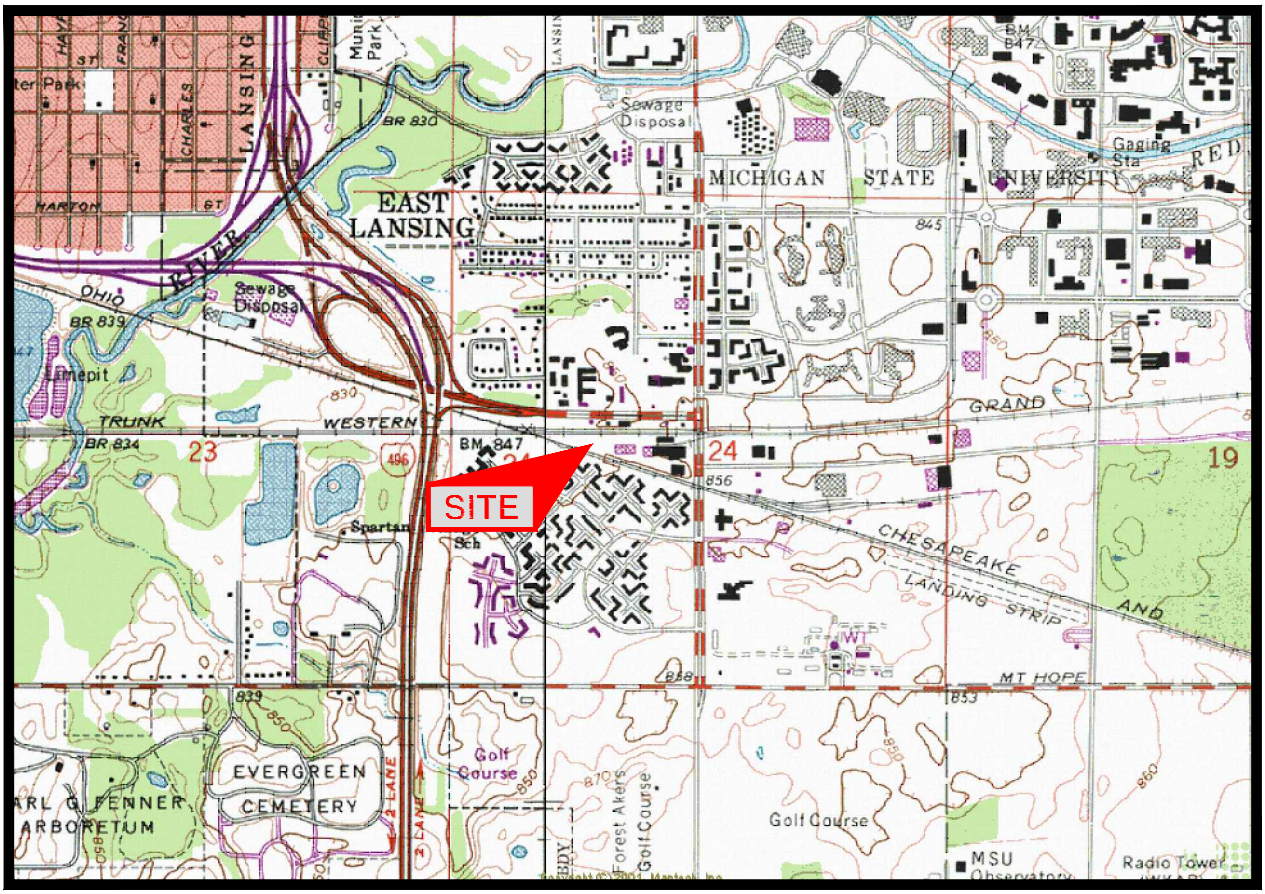
DRAWN BY: OGO
DATE: 07-26-10

FIGURE 1

EAST LANSING 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 5 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

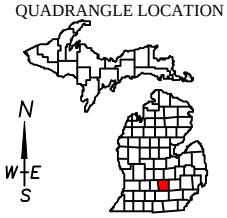


IMAGE TAKEN FROM 1970 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1976

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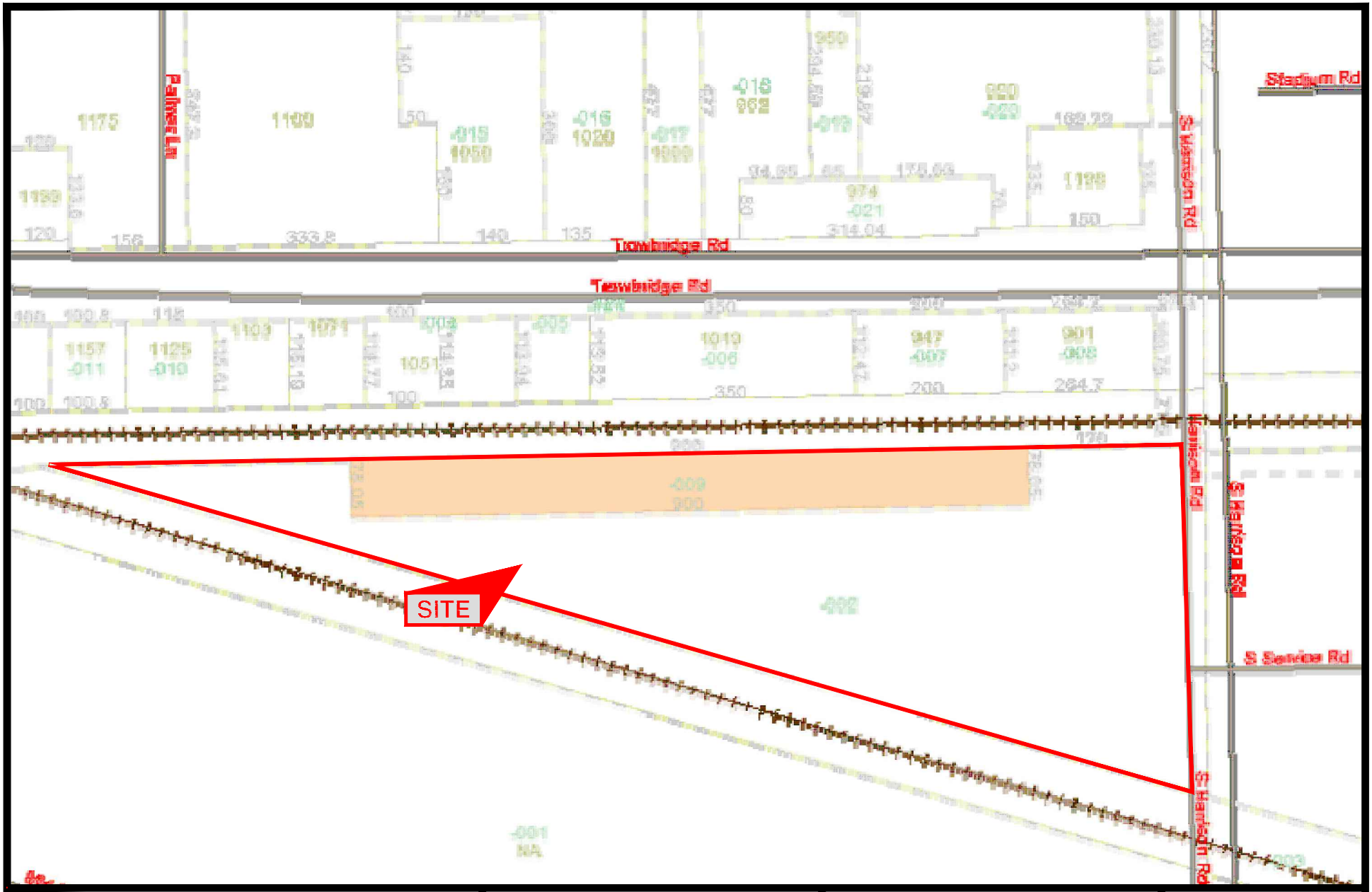
TOPOGRAPHIC LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-1-17

DRAWN BY: OGO
DATE: 07-26-10

FIGURE 2



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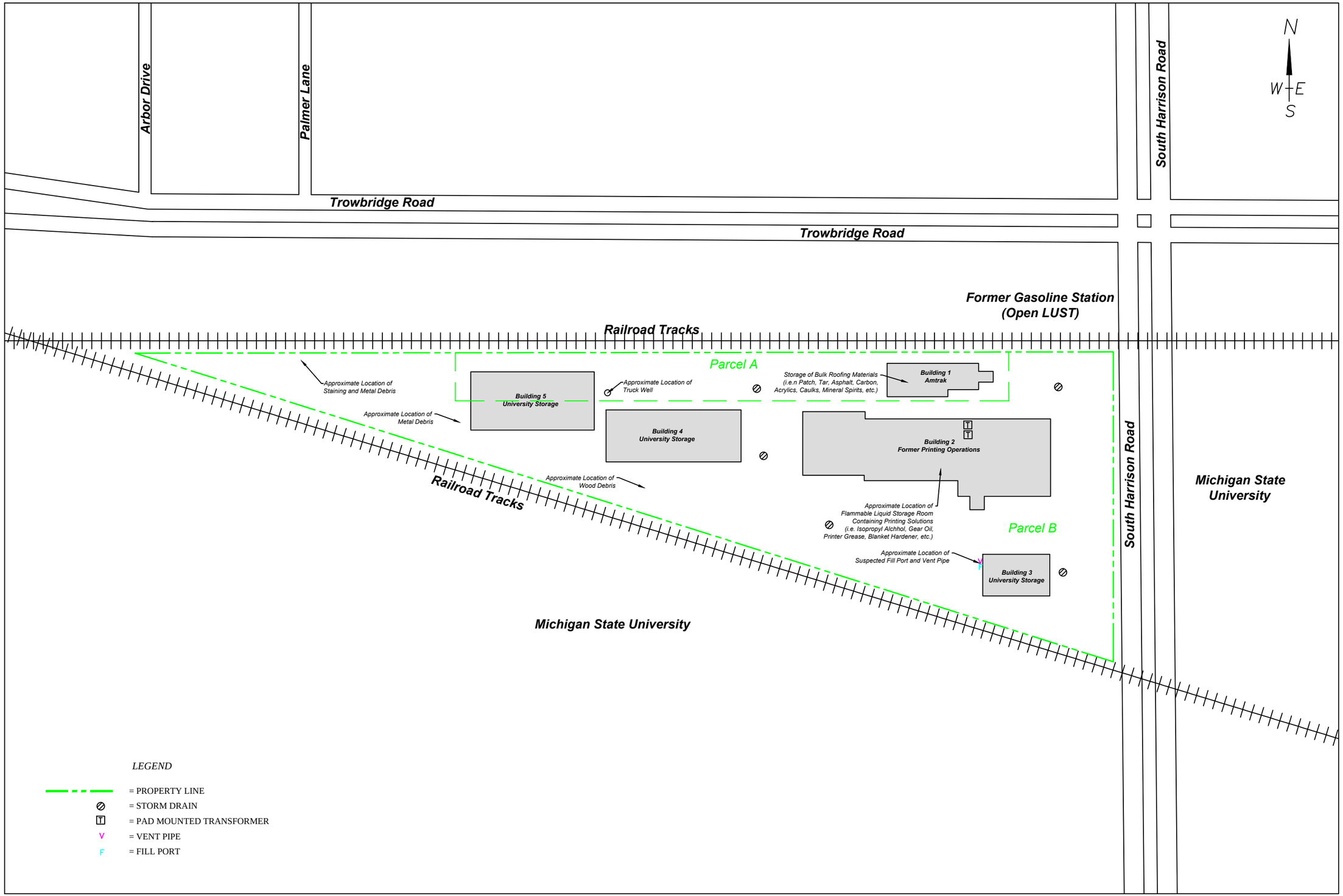
PARCEL MAP
AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-1-17

LEGEND

N
W E
S

DRAWN BY: OGO
DATE: 07-26-10

FIGURE 3



DRAWN BY: OGO
DATE: 07-26-10

0 75 150
SCALE: 1" = 150'±0

FIGURE 4

SUBJECT PROPERTY MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-1-17

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APPENDIX A

GENERAL LIMITATIONS AND EXCEPTIONS

General Limitations and Exceptions

Subject to the proposal, scope-of-services, and the related terms and conditions referenced in Section 1.0 of this Phase I ESA, 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, but disclaims any responsibility for consequential damages.

Although AKT Peerless believes that the findings, opinions, and recommendations contained herein are reliable and appropriate, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive, or that the information obtained from any data sources is complete or accurate.

Along with the inherent limitations set forth in various sections of ASTM Standard Practice E 1527-05, the accuracy and completeness of this report may be limited by the following facts or conditions:

- Due to the poor scale of the historical aerial photographs, the presence or absence of small features (e.g., individual drums, fuel dispensers) could not be discerned reliably.
- AKT Peerless made reasonable efforts to determine if USTs or related equipment (collectively referred to as UST systems) are or have been present at the subject property. AKT Peerless defines reasonable efforts as obtaining and evaluating information from visual observations of unobstructed areas and from the secondary sources cited in this report. AKT Peerless recognizes, and suggests users of this assessment acknowledge, that the accuracy of our conclusions relative to the on-site presence or use of UST systems may be directly affected by the presence of physical obstructions at the time of the reconnaissance, or affected by our receipt and evaluation of incorrect information.
- AKT Peerless' 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 conditions at any nearby sites present an environmental threat to the subject property.
- Unless specifically noted otherwise, invasive investigation of any kind has not been performed during this Phase I ESA, nor has observation under floors, above ceilings, behind walls, within the surface and subsurface soil, within groundwater, within confined spaces, roof tops, or inaccessible areas been performed.
- AKT Peerless did not conduct sampling or analysis of air, soil, groundwater, surface water, or building materials as part of this Phase I ESA, unless specifically noted otherwise.
- This Phase I ESA did not include a physical inspection of the adjoining properties, which AKT Peerless observed from the subject property and from readily accessible public rights-of-way.
- AKT Peerless typically does not review historical or environmental information about nearby sites in detail unless known activities or events at a nearby site appear to present an environmental threat to the subject property.
- AKT Peerless' scope of services did not include conducting a review of property title

documentation. AKT Peerless requested property title documentation and environmental cleanup liens from the Client, but was not provided this information, unless specifically noted otherwise. However, as described in this report, AKT Peerless made reasonable attempts to determine if the State Environmental Agency maintains documentation regarding environmental liens recorded against the subject property.

- This assessment did not include a review or audit of operational environmental compliance issues, or of any environmental management systems, that may be associated with the subject property.
- This Phase I ESA did not include any investigation or evaluation of issues not specifically related to petroleum products or hazardous substances as defined in CERCLA (i.e., other areas of potential business environmental risk such as radon, lead in drinking water, etc.).
- The information and opinions contained in the report are given in light of this 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.
- Although AKT Peerless believes the results contained in herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive, or that the information provided by the Client, third parties, or the secondary information sources cited in this report is complete or accurate.
- AKT Peerless is not in a position to provide an opinion regarding the Fair Market Value of the subject property. Therefore, a comparison of the purchase price of the subject property to other similar real estate transactions was not conducted during this assessment.
- 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 relied upon specific or common knowledge of the Client, or information provided to the Client, to identify environmental liens, institutional controls, activity use limitations, or property valuation issues. As possible within the time frame and cost of this project, AKT Peerless looked for any obvious environmental information regarding these issues made readily available during the course of this ESA.
- The information and opinions presented in this report are for the exclusive use of the Client. 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 written consent from the Client, or as required by law or by a Court order.
- Any third parties to whom the right to rely on the contents of this report have been granted by AKT Peerless, which is explicitly 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 Client.

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APPENDIX B

LEGAL DESCRIPTION

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 33-20-01-24-123-009

Property Address [collapse]

MSU PROPERTY
EAST LANSING, MI 48824

Owner Information [collapse]

BOARD OF TRUSTEES
MICH STATE UNIVERSITY
E LANSING, MI 48824

Unit: 33-20

Taxpayer Information [collapse]

BOARD OF TRUSTEES
MICH STATE UNIVERSITY
E LANSING, MI 48824

General Information for Tax Year 2010 [collapse]

Property Class:	099	**Assessed Value:**	$0
School District:	33010 - EAST LANSING	**Taxable Value:**	$0
State Equalized Value:	$0	**Map #**	
	0	**Date of Last Name Chg:**	09/04/2009

Date Filed:	
Principal Residence Exemption (2009 May 1):	0.0000 %
Principal Residence Exemption (2009 Final):	0.0000 %
Principal Residence Exemption (2010 May 1):	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$0	$0	$0
2008	$0	$0	$0

Land Information [collapse]

Acreage:	0.00	**Frontage:**	0.00 Ft.
Zoning Code:		**Depth:**	0.00 Ft.
Land Value:	$0	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	
Renaissance Zone:	NO		
ECF Neighborhood Code:			

Legal Information for 33-20-01-24-123-009 [collapse]

COM AT PT AT INT OF W'LY LN OF HARRISON RD WITH N'LY RR PROPERTY LN S'LY 71.5 FT TO A PT THAT IS S'LY AT R/A 36.5 FT FROM C/L OF RR WESTWARD MAIN TRACK W'LY 170 FT TO POB CONT W'LY PLL WITH SD MAIN TRACK 1070.86 FT S'LY AT R/A 78.05 FT E'LY 1070.86 FT N'LY AT R/A 78.05 FT TO POB SEC 24 T4NR2W

Sales Information

0 sale record(s) found.						
Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 33-20-01-24-300-002

Property Address [collapse]

MSU PROPERTY
EAST LANSING, MI 48824

Owner Information [collapse]

STATE BOARD OF AGRICULTURE
E LANSING, MI 48824

Unit: 33-20

Taxpayer Information [collapse]

STATE BOARD OF AGRICULTURE
E LANSING, MI 48824

General Information for Tax Year 2010 [collapse]

Property Class:	099	**Assessed Value:**	$0
School District:	33010 - EAST LANSING	**Taxable Value:**	$0
State Equalized Value:	$0	**Map #**	
	0	**Date of Last Name Chg:**	09/04/2009

Date Filed:	
Principal Residence Exemption (2009 May 1):	0.0000 %
Principal Residence Exemption (2009 Final):	0.0000 %
Principal Residence Exemption (2010 May 1):	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$0	$0	$0
2008	$0	$0	$0

Land Information [collapse]

Acreage:	0.00	**Frontage:**	0.00 Ft.
Zoning Code:		**Depth:**	0.00 Ft.
Land Value:	$0	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	
Renaissance Zone:	NO		
ECF Neighborhood Code:			

Legal Information for 33-20-01-24-300-002 [collapse]

THAT PART OF SW 1/4 LYING S OF GTW RR R/W & N OF C&O RR R/W EXC N 50 FT & EXC BEG AT PT ON GTW RR S'LY BDRY LN THAT IS W'LY 170 FT FROM INT OF S'LY BDRY WITH W'LY R/W LN OF HARR- ISON RD W'LY ON S'LY BDRY LN 900 FT N'LY AT R/A 91 FT TO PT THAT IS S'LY AT R/A 11 FT FROM C/L OF GTW RR E MAIN TRACK E'LY PLL WITH TRACK 900 FT S'LY AT R/A 91 FT TO POB SEC 24 T4NR2W

Sales Information

0 sale record(s) found.						
Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page

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APPENDIX C

RECONNAISSANCE PHOTOGRAPHS

Photograph No. 1
View of subject property – Building 1 – facing east

Photograph No. 2
View of Building 1 – interior – waiting area

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 3
View of Building 1 – interior – ticket counter

Photograph No. 4
View of Building 1 – interior – roofing material storage

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 5
View of subject property – Building 2 – facing west

Photograph No. 6
View of Building 2 – interior – shipping and receiving

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 7
View of Building 2 – interior – print shop

Photograph No. 8
View of Building 2 – interior – flammable storage area

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 9
View of Building 2 – interior – office area

Photograph No. 10
View of Building 2 – interior – utility room - pad-mounted transformers

AKTPEERLESS
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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 11
View of subject property – Building 3 – facing west

Photograph No. 12
View of Building 3 – interior – university storage

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 13
View of subject property – Building 4 – facing east

Photograph No. 14
View of subject property – Building 4 – facing southwest

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 15
View of Building 4 – interior

Photograph No. 16
View of subject property – Buildings 4 and 5 – facing northeast

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 17
View of Building 5 – truck well

Photograph No. 18
View of Building 4 – interior – university storage

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 19
View of subject property – exterior – metal debris with staining

Photograph No. 20
View of subject property exterior – fill port/vent pipe (550-gallon heating oil UST)

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 20
View of adjoining property – to the north

Photograph No. 21
View of adjoining property – to the east

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PROPERTY PHOTOGRAPHS

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan

Project Number: 6643S

Photograph No. 20
View of adjoining property – to the south and west

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environmental & energy services

APPENDIX D

STANDARD ENVIRONMENTAL RECORD DATABASE REPORT

Amtrak Station
1240 South Harrison Road
East Lansing, MI 48823

Inquiry Number: 2816107.2s
July 14, 2010

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

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

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1240 SOUTH HARRISON ROAD
EAST LANSING, MI 48823

COORDINATES

Latitude (North):	42.718700 - 42˚ 43' 7.3''
Longitude (West):	84.495900 - 84˚ 29' 45.2''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	705044.8
UTM Y (Meters):	4732404.0
Elevation:	849 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	42084-F4 EAST LANSING, MI
Most Recent Revision:	1976
West Map:	42084-F5 LANSING SOUTH, MI
Most Recent Revision:	1973

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2006, 2005
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

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

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS ..... Contaminated Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Facilities Database

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ..... Aboveground Tanks
INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

EXECUTIVE SUMMARY

State and tribal institutional control / engineering control registries

AUL ..... Engineering and Institutional Controls

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ..... Brownfields and UST Site Database

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
HIST LF ..... Inactive Solid Waste Facilities
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
DEL SHWS ..... Delisted List of Contaminated Sites
CDL ..... Clandestine Drug Lab Listing
US HIST CDL ..... National Clandestine Laboratory Register

Local Land Records

LIENS 2 ..... CERCLA Lien Information
LUCIS ..... Land Use Control Information System
LIENS ..... Lien List

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
SPILLS ..... Pollution Emergency Alerting System

Other Ascertainable Records

RCRA-NonGen ..... RCRA - Non Generators
DOT OPS ..... Incident and Accident Data
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
MINES ..... Mines Master Index File

EXECUTIVE SUMMARY

TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
UIC	Underground Injection Wells Database
DRYCLEANERS	Drycleaning Establishments
NPDES	List of Active NPDES Permits
AIRS	Permit and Emissions Inventory Data
BEA	BASELINE ENVIRONMENTAL ASSESSMENT DATABASE
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH	Coal Ash Disposal Sites
COAL ASH DOE	Sleam-Electric Plan Operation Data
FINANCIAL ASSURANCE	Financial Assurance Information Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

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

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

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

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting

the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 02/17/2010 has revealed that there is 1 RCRA-CESQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MOBIL OIL CORP	***1198 S HARRISON***	***NE 1/8 - 1/4 (0.129 mi.)***	***A3***	***10***

State and tribal leaking storage tank lists

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

A review of the LUST list, as provided by EDR, and dated 05/21/2010 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MAJIK Facility Status: Open	901 TROWBRIDGE RD	ENE 0 - 1/8 (0.121 mi.)	A1	7
MARATHON PETROLEUM Facility Status: Closed Facility Status: Closed **Additional key fields are available in the Map Findings section*	***1198 S HARRISON RD***	***NE 1/8 - 1/4 (0.129 mi.)***	***A2***	***7***

State and tribal registered storage tank lists

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

A review of the UST list, as provided by EDR, and dated 05/21/2010 has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

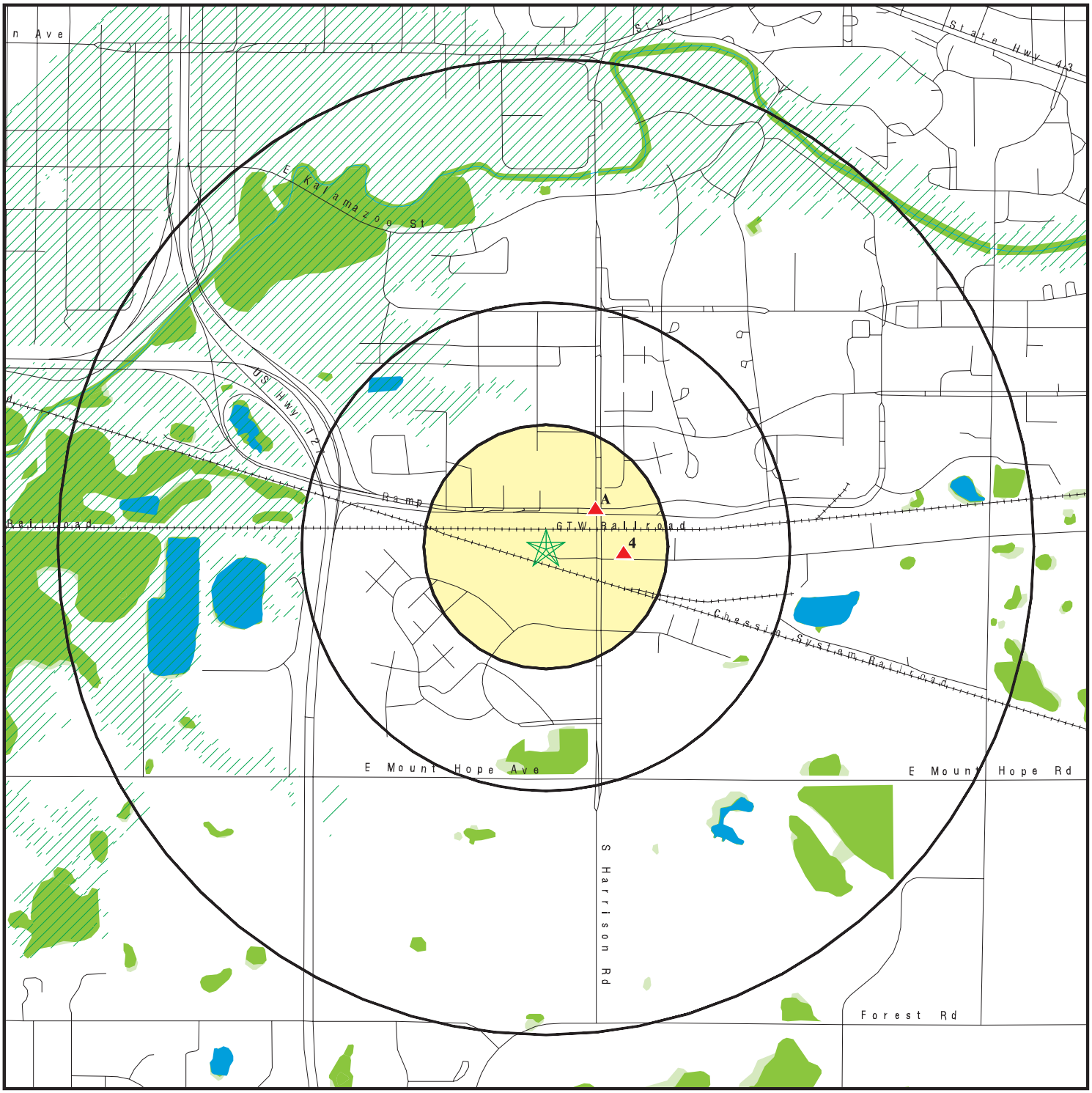
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARATHON PETROLEUM	***1198 S HARRISON RD***	***NE 1/8 - 1/4 (0.129 mi.)***	***A2***	***7***
MICHIGAN STATE UNIVERSITY/POWE	SERVICE DR	E 1/8 - 1/4 (0.160 mi.)	4	12

EXECUTIVE SUMMARY

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

Site Name	Database(s)
NE CRNR CHANDLER/LAKE LANSING RD	SHWS
ONE HOUR MARTINIZING	SHWS
LAUNDRY & DRY CLEANING VILLAGE	SHWS
MSU JOLLY RD SITE	SHWS
USDA AVIAN DISEASE/RESEARCH LAB	SHWS
MSU POWER PLANT DUMP SITE	SHWS
BAKER ST CONTAMINATION AREA	SHWS
CONRAIL	SHWS
FIDELITY DR	CERC-NFRAP, SHWS
FORMER LANSING CONNECTING RR	SHWS
MUNICIPAL WELL LANSING NO 60 10	SHWS, DEL SHWS
FORMER EAST DICKMAN ROAD FILLING S	LUST
FORMER GAS STATION	LUST, UST
DUNBAR FOREST RESEARCH	LUST
HIDDEN LAKE GARDENS	LUST, UST
RED CEDAR ELEMENTARY SCHOOL	UST
PUBLIC WORKS BUILDING	UST
WILLOW LAKES PARTY STORE	AST
I 496 RAMP WBOVERCONRAIL	RCRA-NonGen, FINDS
S USHY 27 & TROWBRIDGE RD	RCRA-NonGen
1800 E STATE RD	RCRA-CESQG

OVERVIEW MAP - 2816107.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

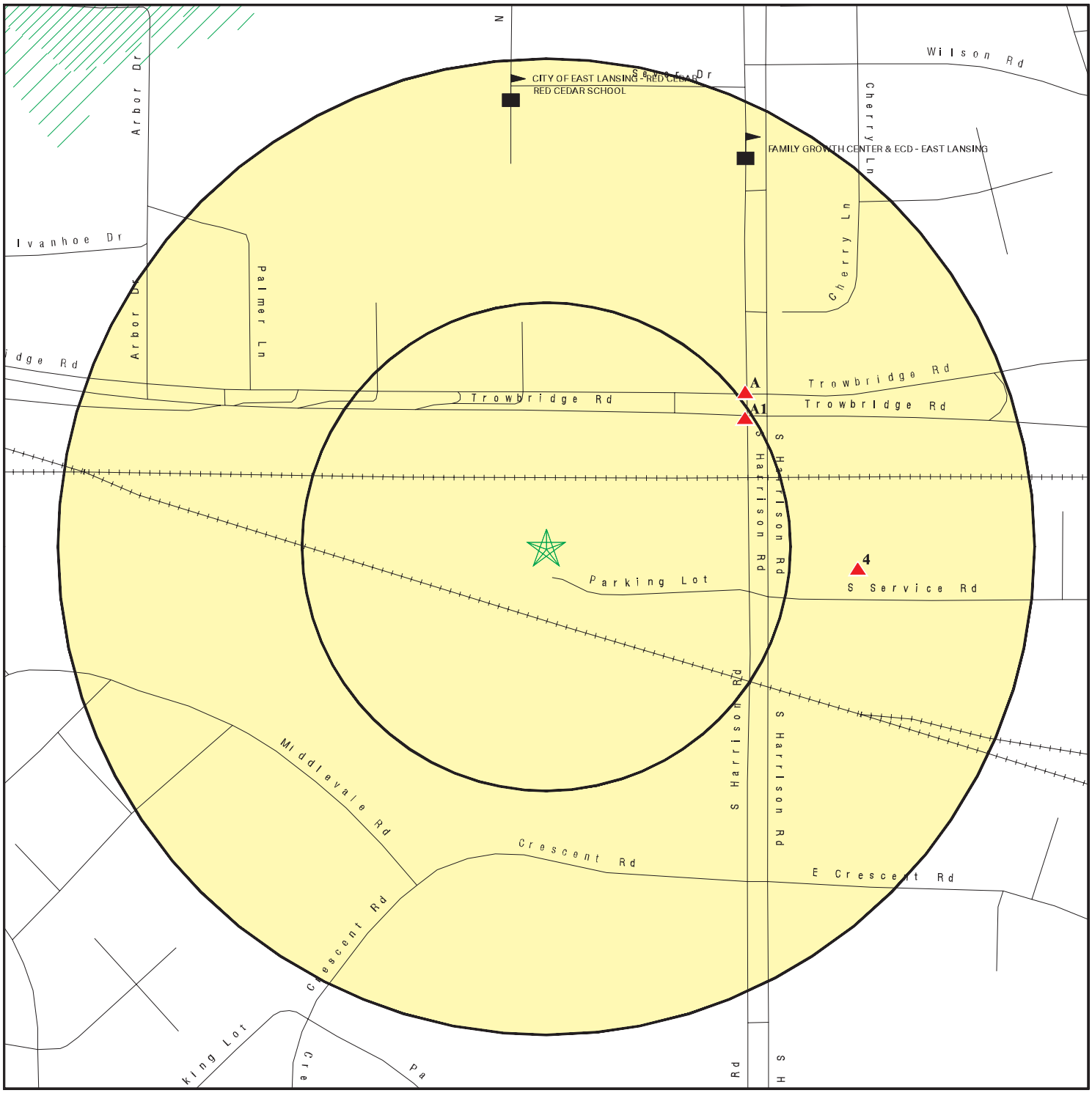
0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Amtrak Station	CLIENT: AKT Peerless Environmental Svc
ADDRESS: 1240 South Harrison Road East Lansing MI 48823	CONTACT: Janet Michaluk INQUIRY #: 2816107.2s
LAT/LONG: 42.7187 / 84.4959	DATE: July 14, 2010 9:53 am

DETAIL MAP - 2816107.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone

0 1/16 1/8 1/4 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Amtrak Station	CLIENT: AKT Peerless Environmental Svc
ADDRESS: 1240 South Harrison Road East Lansing MI 48823	CONTACT: Janet Michaluk INQUIRY #: 2816107.2s
LAT/LONG: 42.7187 / 84.4959	DATE: July 14, 2010 9:54 am

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	1	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
SHWS		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST		0.500	1	1	0	NR	NR	2
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	0	2	NR	NR	NR	2

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL		0.500	0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
HIST LF		0.500	0	0	0	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
DEL SHWS		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
SPILLS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
UIC		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
BEA		0.500	0	0	0	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
COAL ASH		0.500	0	0	0	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 ENE < 1/8 0.121 mi. 641 ft. | **MAJIK 901 TROWBRIDGE RD EAST LANSING, MI 48823** | **LUST** | **S102851856 N/A**

Site 1 of 3 in cluster A

Relative: Higher

Actual: 850 ft.

LUST:

Facility ID:	50001482
Source:	STATE OF MICHIGAN
Owner Name:	Nrt Owner
Owner Address:	Unknown
Owner City,St,Zip:	Unknown, MI 99999
Owner Contact:	Not reported
Owner Phone:	Not reported
Country:	USA
District:	Lansing District Office
Site Name:	Majik Market
Latitude:	42.7196310000
Longitude:	-84.4940550000
Date of Collection:	01-11-2001
Method of Collection:	Address Matching-House Number
Accuracy:	100
Accuracy Value Unit:	FEET
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0329-85
Release Date:	Jan 1 1900
Substance Released:	Not reported
Release Status:	Open
Release Closed Date:	Not reported

A2 NE 1/8-1/4 0.129 mi. 683 ft. | **MARATHON PETROLEUM 1198 S HARRISON RD EAST LANSING, MI 48823** | **LUST UST** | **U003833594 N/A**

Site 2 of 3 in cluster A

Relative: Higher

Actual: 850 ft.

LUST:

Facility ID:	00016723
Source:	STATE OF MICHIGAN
Owner Name:	Marathon Petroleum
Owner Address:	539 S Main St
Owner City,St,Zip:	Findlay, OH 45840
Owner Contact:	Not reported
Owner Phone:	(419) 421-2121
Country:	USA
District:	Lansing District Office
Site Name:	Marathon Unit #3719
Latitude:	42.7199050000
Longitude:	-84.4940570000
Date of Collection:	01-12-1998
Method of Collection:	GPS Code Meas. Standard Positioning Service SA Off
Accuracy:	10
Accuracy Value Unit:	METERS
Horizontal Data:	NAD83
Point Line Area:	POINT
Desc Category:	Plant Entrance (Freight)
Leak Number:	C-0078-02

MARATHON PETROLEUM (Continued) **U003833594**

Release Date: Feb 15 2002
Substance Released: Used Oil
Release Status: Closed
Release Closed Date: May 16 2002

Leak Number: C-0508-91
Release Date: Dec 4 1990
Substance Released: Not reported
Release Status: Closed
Release Closed Date: May 16 2002

Leak Number: C-1666-91
Release Date: Aug 12 1991
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-4111-85
Release Date: Oct 27 1991
Substance Released: Gasoline
Release Status: Open
Release Closed Date: Not reported

UST:
Facility ID: 00016723
Facility Type: ACTIVE
Latitude: 42.7199050000
Longitude: -84.4940570000
Owner Name: Marathon Petroleum
Owner Address: 539 S Main St
Owner City,St,Zip: Findlay, OH 45840
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (419) 421-2121
Contact: James Decke
Contact Phone: (517) 337-3067
Date of Collection: 01-12-1998
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 1
Tank Status: Currently In Use
Capacity: 6000
Install Date: Apr 22 1983
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Inventory Control, Automatic Tank Gauging
Pipe Realease Detection: Automatic Line Leak Detectors
Piping Material: Fiberglass Reinforced Plastic
Piping Type: Pressure
Constr Material: Fiberglass Reinforced Plastic
Impressed Device: No

MARATHON PETROLEUM (Continued) **U003833594**

Tank ID:	2
Tank Status:	**Currently In Use**
Capacity:	10000
Install Date:	Jan 1 1991
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Inventory Control, Automatic Tank Gauging
Pipe Realease Detection:	Automatic Line Leak Detectors
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	3
Tank Status:	**Currently In Use**
Capacity:	10000
Install Date:	Apr 22 1983
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Inventory Control, Automatic Tank Gauging
Pipe Realease Detection:	Automatic Line Leak Detectors
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	4
Tank Status:	**Currently In Use**
Capacity:	12000
Install Date:	Jan 1 1983
Product:	Gasoline
Remove Date:	Not reported
Tank Release Detection:	Inventory Control, Automatic Tank Gauging
Pipe Realease Detection:	Automatic Line Leak Detectors
Piping Material:	Fiberglass Reinforced Plastic
Piping Type:	Pressure
Constr Material:	Fiberglass Reinforced Plastic
Impressed Device:	No

Tank ID:	5
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Jan 1 1990
Product:	Used Oil
Remove Date:	Jan 29 2002
Tank Release Detection:	Manual Tank Gauging
Pipe Realease Detection:	Line Tightness Testing
Piping Material:	Fiberglass reinforced plastic
Piping Type:	Gravity Fed?
Constr Material:	Fiberglass Reinforced plastic
Impressed Device:	No

Tank ID:	Phantom

MARATHON PETROLEUM (Continued) **U003833594**

Tank Status:	**Non-Registered Tank**
Capacity:	Not reported
Install Date:	Not reported
Product:	Unknown
Remove Date:	Not reported
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Constr Material:	Not reported
Impressed Device:	No

A3 **MOBIL OIL CORP** **RCRA-CESQG** **1000529074**
NE **1198 S HARRISON** **FINDS** **MID985615079**
1/8-1/4 **EAST LANSING, MI 48823**
0.129 mi.
683 ft. **Site 3 of 3 in cluster A**

Relative:
Higher

Actual:
850 ft.

RCRA-CESQG:

Date form received by agency:	12/31/2001
Facility name:	MOBIL OIL CORP
Facility address:	1198 S HARRISON EAST LANSING, MI 48823
EPA ID:	MID985615079
Mailing address:	12265 W BAYAUD AVE LAKEWOOD, CO 80228
Contact:	DAN HORTON
Contact address:	1198 S HARRISON EAST LANSING, MI 48823
Contact country:	Not reported
Contact telephone:	(703) 849-3330
Contact email:	Not reported
EPA Region:	05
Classification:	Conditionally Exempt Small Quantity Generator
Description:	Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name:	MOBIL OIL CORP
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner

MOBIL OIL CORP (Continued) **1000529074**

Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: MOBIL OIL CORP
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Pesticides
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: Thermostats
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: DEVICES CONTAINING ELEMENTAL MERCURY
Accumulated waste on-site: No
Generated waste on-site: No

Waste type: MERCURY THERMOMETERS
Accumulated waste on-site: No
Generated waste on-site: No

MOBIL OIL CORP (Continued) **1000529074**

Waste type: MERCURY SWITCHES
Accumulated waste on-site: No
Generated waste on-site: No

Historical Generators:
Date form received by agency: 10/09/2001
Facility name: MOBIL OIL CORP
Classification: Not a generator, verified

Date form received by agency: 06/05/1991
Facility name: MOBIL OIL CORP
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110003658925

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

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4 East 1/8-1/4 0.160 mi. 845 ft. | **MICHIGAN STATE UNIVERSITY/POWER & WATER SERVICE DR EAST LANSING, MI 48824** | **UST** | **U000255299 N/A**

Relative: Higher

Actual: 851 ft.

UST:
Facility ID: 00017678
Facility Type: ACTIVE
Latitude: 42.7177180000
Longitude: -84.4835380000
Owner Name: Michigan State University/Power & Water
Owner Address: T B Simon Power Plant
Owner City,St,Zip: East Lansing, MI 48824
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (517) 335-3314
Contact: Denis R Zietlow
Contact Phone: (517) 353-5360
Date of Collection: 17-08-2001
Accuracy: 10
Accuracy Value Unit: METERS
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 1
Tank Status: Removed from Ground

MICHIGAN STATE UNIVERSITY/POWER & WATER (Continued) **U000255299**

Capacity:	2000
Install Date:	Apr 29 1985
Product:	Diesel
Remove Date:	Aug 30 1993
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Cathodically Protected,Fiberglass reinforced plastic,Galvanized Steel
Piping Type:	Not reported
Constr Material:	Asphalt Coated or Bare Steel,Fiberglass Reinforced plastic,Lined Interier
Impressed Device:	No

Tank ID:	2
Tank Status:	**Currently In Use**
Capacity:	2500
Install Date:	Sep 1 1993
Product:	Diesel
Remove Date:	Not reported
Tank Release Detection:	Automatic Tank Gauging,Inter Monitoring Double Walled Tank
Pipe Realease Detection:	Interstitial Monitoring Double Walled Piping
Piping Material:	Double Walled,Fiberglass reinforced plastic
Piping Type:	Suction: No Valve At Tank
Constr Material:	Double Walled,Fiberglass Reinforced plastic
Impressed Device:	No

Tank ID:	3
Tank Status:	**Removed from Ground**
Capacity:	1000
Install Date:	Jan 1 1950
Product:	Diesel
Remove Date:	Aug 31 1993
Tank Release Detection:	Not reported
Pipe Realease Detection:	Not reported
Piping Material:	Bare Steel,Unknown
Piping Type:	Suction: Valve at Tank
Constr Material:	Asphalt Coated or Bare Steel
Impressed Device:	No

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EAST LANSING	1000691593		I 496 RAMP WBOVERCONRAIL	48823	RCRA-NonGen, FINDS
EAST LANSING	S103095262	NE CRNR CHANDLER/LAKE LANSING RD	NE CORNER CHANDLER & LAKE LANS		SHWS
EAST LANSING	S109171540	FORMER EAST DICKMAN ROAD FILLING S	100 FEET WEST OF MAIN ST		LUST
EAST LANSING	S104005094	ONE HOUR MARTINIZING	13311335 GRAND RIVER AVE	48823	SHWS
EAST LANSING	S104005095	LAUNDRY & DRY CLEANING VILLAGE	13671403 GRAND RIVER AVE	48823	SHWS
EAST LANSING	S103595380	MSU JOLLY RD SITE	JOLLY RD	48823	SHWS
EAST LANSING	S105144097	USDA AVIAN DISEASE/RESEARCH LAB	3606 E MOUNT HOPE	48823	SHWS
EAST LANSING	S103085662	MSU POWER PLANT DUMP SITE	MSU CAMPUS OFF SERVICE RD	48823	SHWS
EAST LANSING	A100270316	WILLOW LAKES PARTY STORE	7113 SAGINAW HWY	48823	AST
EAST LANSING	U003833116	RED CEDAR ELEMENTARY SCHOOL	SEVER DR	48823	UST
EAST LANSING	1008373658		1800 E STATE RD	48823	RCRA-CESQG
LANSING	S103085648	BAKER ST CONTAMINATION AREA	BAKER ST & WASHINGTON ST	48910	SHWS
LANSING	S103085652	CONRAIL	CAVANAUGH RD	48910	SHWS
LANSING	1003871896		FIDELITY DR	48910	CERC-NFRAP, SHWS
LANSING	S105144113	FORMER LANSING CONNECTING RR	NULL	48912	SHWS
LANSING	U003995481	PUBLIC WORKS BUILDING	1800 EAST STATE RD	48823	UST
LANSING	1007096027		S USHY 27 & TROWBRIDGE RD	48910	RCRA-NonGen
LANSING	S103085672	MUNICIPAL WELL LANSING NO 60 10	WAYCROSS ST	48910	SHWS, DEL SHWS
OWOSSO	U000715149	FORMER GAS STATION	2415 E MAIN	48823	LUST, UST
SAULT SAINTE MARIE	S106900454	DUNBAR FOREST RESEARCH	ROUTE 1, BOX 179	48824	LUST
TIPTON	U000258444	HIDDEN LAKE GARDENS	ELTON HIGHWAY	48824	LUST, UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

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

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 05/07/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 05/07/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/17/2010
Next Scheduled EDR Contact: 08/30/2010
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

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

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 05/07/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

Federal CERCLIS list

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

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

Date of Government Version: 01/29/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 07/12/2010
Next Scheduled EDR Contact: 10/11/2010
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPAa??s Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/30/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 09/02/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 19

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 07/12/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2010
Date Data Arrived at EDR: 03/31/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/17/2010
Next Scheduled EDR Contact: 08/30/2010
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

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

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

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

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

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

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/22/2010
Date Made Active in Reports: 02/11/2010
Number of Days to Update: 20

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

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

Date of Government Version: 05/03/2010
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 36

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

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

Date of Government Version: 04/05/2010
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 12

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 07/08/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

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

Date of Government Version: 05/21/2010
Date Data Arrived at EDR: 05/25/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 15

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 05/25/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/04/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/03/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 07/07/2010
Number of Days to Update: 64

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

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

Date of Government Version: 05/21/2010
Date Data Arrived at EDR: 05/25/2010
Date Made Active in Reports: 06/15/2010
Number of Days to Update: 21

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 05/25/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

AST: Aboveground Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 02/05/2010
Date Data Arrived at EDR: 03/12/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 33

Source: Department of Natural Resources & Environment
Telephone: 517-373-8168
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: No Update Planned

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 12/30/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 76

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/12/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/04/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/03/2010
Date Data Arrived at EDR: 05/05/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 22

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls
A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/26/2010
Date Data Arrived at EDR: 03/26/2010
Date Made Active in Reports: 04/13/2010
Number of Days to Update: 18

Source: Department of Natural Resources & Environment
Telephone: 517-373-4828
Last EDR Contact: 06/07/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 07/08/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database
All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 06/01/2010
Date Data Arrived at EDR: 06/01/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 8

Source: Department of Natural Resources & Environment
Telephone: 517-373-4805
Last EDR Contact: 05/17/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations
A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detrot Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 06/21/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

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

Date of Government Version: 03/02/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/25/2010
Next Scheduled EDR Contact: 10/11/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

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

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 06/08/2010
Next Scheduled EDR Contact: 08/23/2010
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/19/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 05/10/2010
Date Data Arrived at EDR: 05/11/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 29

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 11/21/2008
Number of Days to Update: 3

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 04/15/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/05/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 03/30/2010
Date Data Arrived at EDR: 04/30/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 40

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 04/26/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

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

Date of Government Version: 04/06/2010
Date Data Arrived at EDR: 04/07/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 50

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Annually

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 12/08/2009
Date Data Arrived at EDR: 03/12/2010
Date Made Active in Reports: 03/23/2010
Number of Days to Update: 11

Source: Department of Natural Resources & Environment
Telephone: 517-373-8427
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/12/2010
Next Scheduled EDR Contact: 08/23/2010
Data Release Frequency: Varies

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

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

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

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/30/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 62

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/16/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

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

Date of Government Version: 04/11/2010
Date Data Arrived at EDR: 04/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 28

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/08/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Varies

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

Date of Government Version: 04/29/2010
Date Data Arrived at EDR: 05/07/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 20

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/16/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites
Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Varies

MINES: Mines Master Index File

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

Date of Government Version: 02/12/2010
Date Data Arrived at EDR: 03/10/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 68

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/09/2010
Next Scheduled EDR Contact: 09/20/2010
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

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

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 36

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 06/04/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

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

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 07/07/2010
Next Scheduled EDR Contact: 10/11/2010
Data Release Frequency: Every 4 Years

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

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

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Quarterly

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

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

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

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2010
Date Data Arrived at EDR: 04/29/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 18

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 06/25/2010
Next Scheduled EDR Contact: 10/11/2010
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

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

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 41

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/22/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

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

Date of Government Version: 03/18/2010
Date Data Arrived at EDR: 04/06/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 51

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/13/2010
Date Data Arrived at EDR: 04/14/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

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

Date of Government Version: 04/14/2010
Date Data Arrived at EDR: 04/16/2010
Date Made Active in Reports: 05/27/2010
Number of Days to Update: 41

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 07/07/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

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

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

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

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 05/12/2010
Number of Days to Update: 76

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/25/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 02/02/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 03/23/2010
Number of Days to Update: 20

Source: Department of Natural Resources & Environment
Telephone: 517-241-1515
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/28/2010
Date Data Arrived at EDR: 05/17/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 23

Source: Department of Natural Resources & Environment
Telephone: 517-335-4586
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 04/13/2010
Date Data Arrived at EDR: 04/14/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 56

Source: Department of Natural Resources & Environment
Telephone: 517-241-1300
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 10/09/2009
Date Made Active in Reports: 11/17/2009
Number of Days to Update: 39

Source: Department of Natural Resources & Environment
Telephone: 517-373-7074
Last EDR Contact: 07/09/2010
Next Scheduled EDR Contact: 10/11/2010
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 05/27/2010
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 12

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

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

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 02/10/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/10/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: N/A

FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 05/04/2010
Date Data Arrived at EDR: 05/06/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 34

Source: Department of Natural Resources & Environment
Telephone: 517-335-6610
Last EDR Contact: 07/12/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Varies

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 04/05/2010
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 12

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 07/08/2010
Next Scheduled EDR Contact: 10/18/2010
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 12/18/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2010
Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/14/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites
Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/19/2010
Date Data Arrived at EDR: 04/19/2010
Date Made Active in Reports: 06/09/2010
Number of Days to Update: 51

Source: Department of Natural Resources & Environment
Telephone: 586-753-3754
Last EDR Contact: 07/12/2010
Next Scheduled EDR Contact: 10/25/2010
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

OTHER DATABASE(S)

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

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/04/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 02/05/2010
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 04/30/2010
Date Data Arrived at EDR: 05/13/2010
Date Made Active in Reports: 06/21/2010
Number of Days to Update: 39

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/13/2010
Next Scheduled EDR Contact: 08/23/2010
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 05/24/2010
Next Scheduled EDR Contact: 09/06/2010
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 11/03/2009
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 02/22/2010
Number of Days to Update: 10

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/01/2010
Next Scheduled EDR Contact: 09/13/2010
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/21/2010
Next Scheduled EDR Contact: 10/04/2010
Data Release Frequency: Annually

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

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

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

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Day Care Centers, Group & Family Homes
Source: Bureau of REgulatory Services
Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MI 48823

TARGET PROPERTY COORDINATES

Latitude (North):	42.71870 - 42˚ 43' 7.3''
Longitude (West):	84.4959 - 84˚ 29' 45.3''
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	705044.8
UTM Y (Meters):	4732404.0
Elevation:	849 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	42084-F4 EAST LANSING, MI
Most Recent Revision:	1976
West Map:	42084-F5 LANSING SOUTH, MI
Most Recent Revision:	1973

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

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

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

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

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

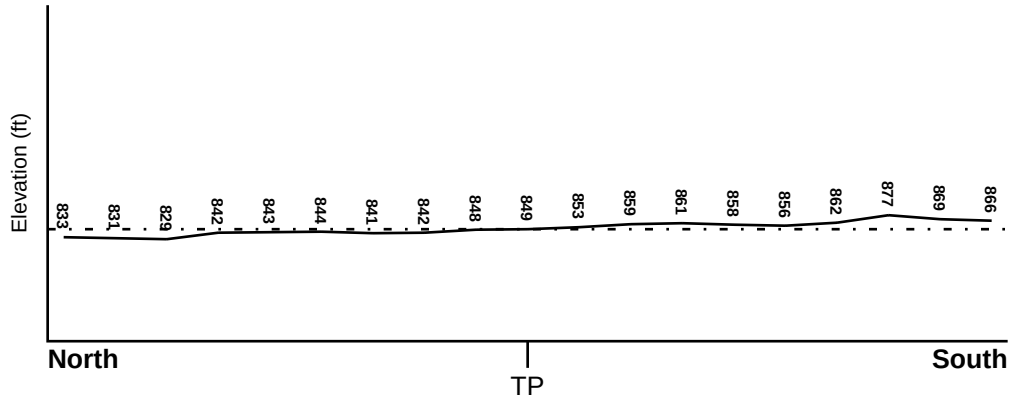
TOPOGRAPHIC INFORMATION

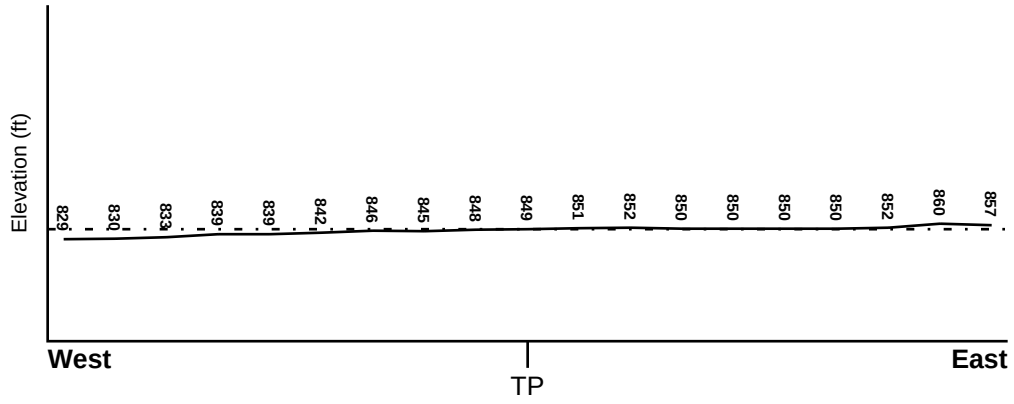
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient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

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 849 ft.

0 1/2 1 Miles

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

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

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

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
INGHAM, MI	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	2600890005B - FEMA Q3 Flood data
Additional Panels in search area:	2600900002B - FEMA Q3 Flood data 2606320005A - FEMA Q3 Flood data 2600930001A - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
EAST LANSING	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

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

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

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

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

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

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

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

ROCK STRATIGRAPHIC UNIT

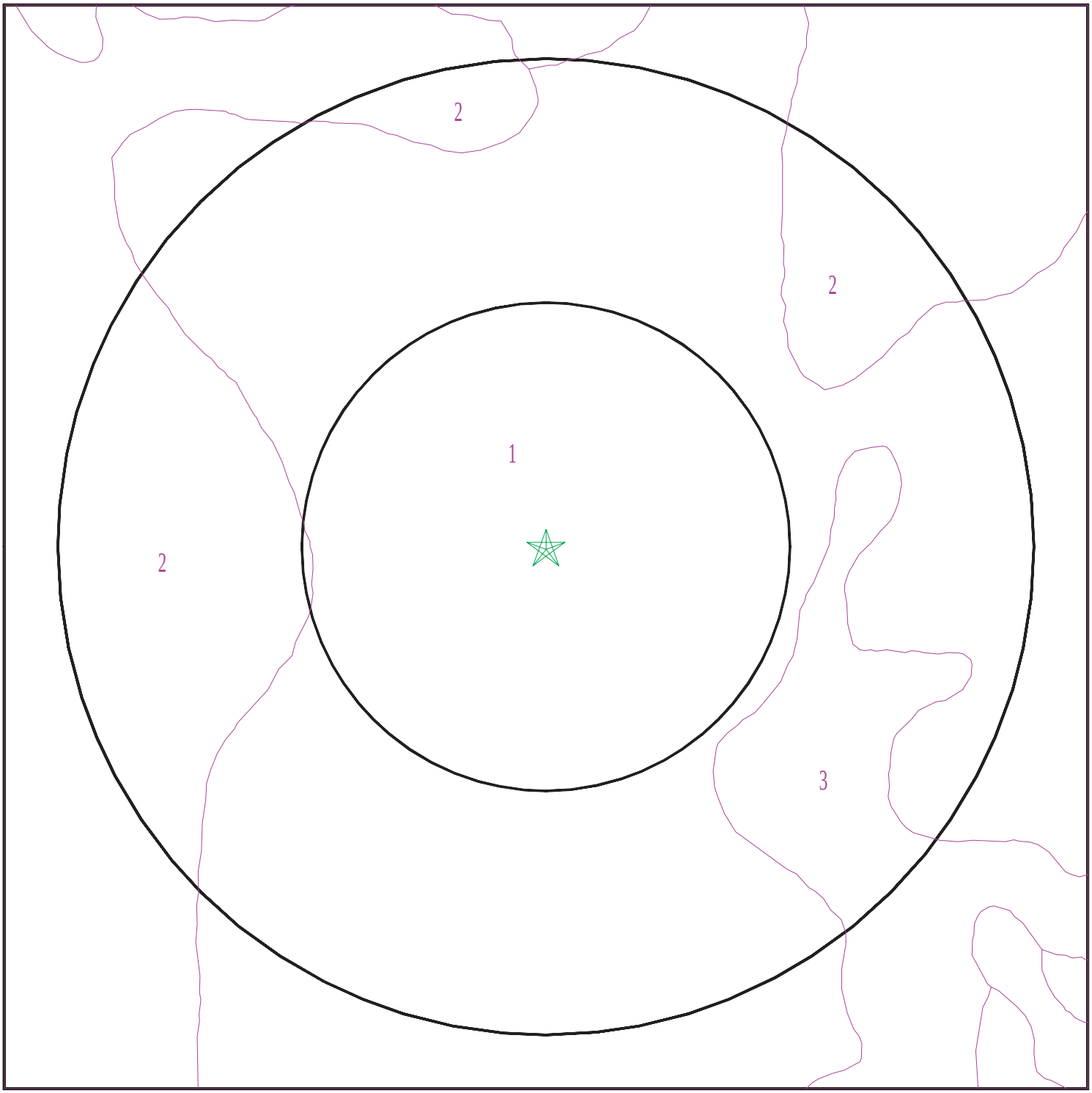
Era:	Paleozoic
System:	Pennsylvanian
Series:	Des Moinesian Series
Code:	PP2 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

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

SSURGO SOIL MAP - 2816107.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Amtrak Station	CLIENT:	AKT Peerless Environmental Svc
ADDRESS:	1240 South Harrison Road East Lansing MI 48823	CONTACT:	Janet Michaluk
		INQUIRY #:	2816107.2s
LAT/LONG:	42.7187 / 84.4959	DATE:	July 14, 2010 9:54 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

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

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 130 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 3

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 4

Soil Component Name: Gilford

Soil Surface Texture: sandy loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Very poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	38 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 8.4 Min: 7.9
3	38 inches	50 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 8.4 Min: 7.9
4	50 inches	59 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS2318018	0 - 1/8 Mile SW
B7	USGS2318001	1/2 - 1 Mile South
D13	USGS2318004	1/2 - 1 Mile SE
18	USGS2318027	1/2 - 1 Mile NNE
24	USGS2318015	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

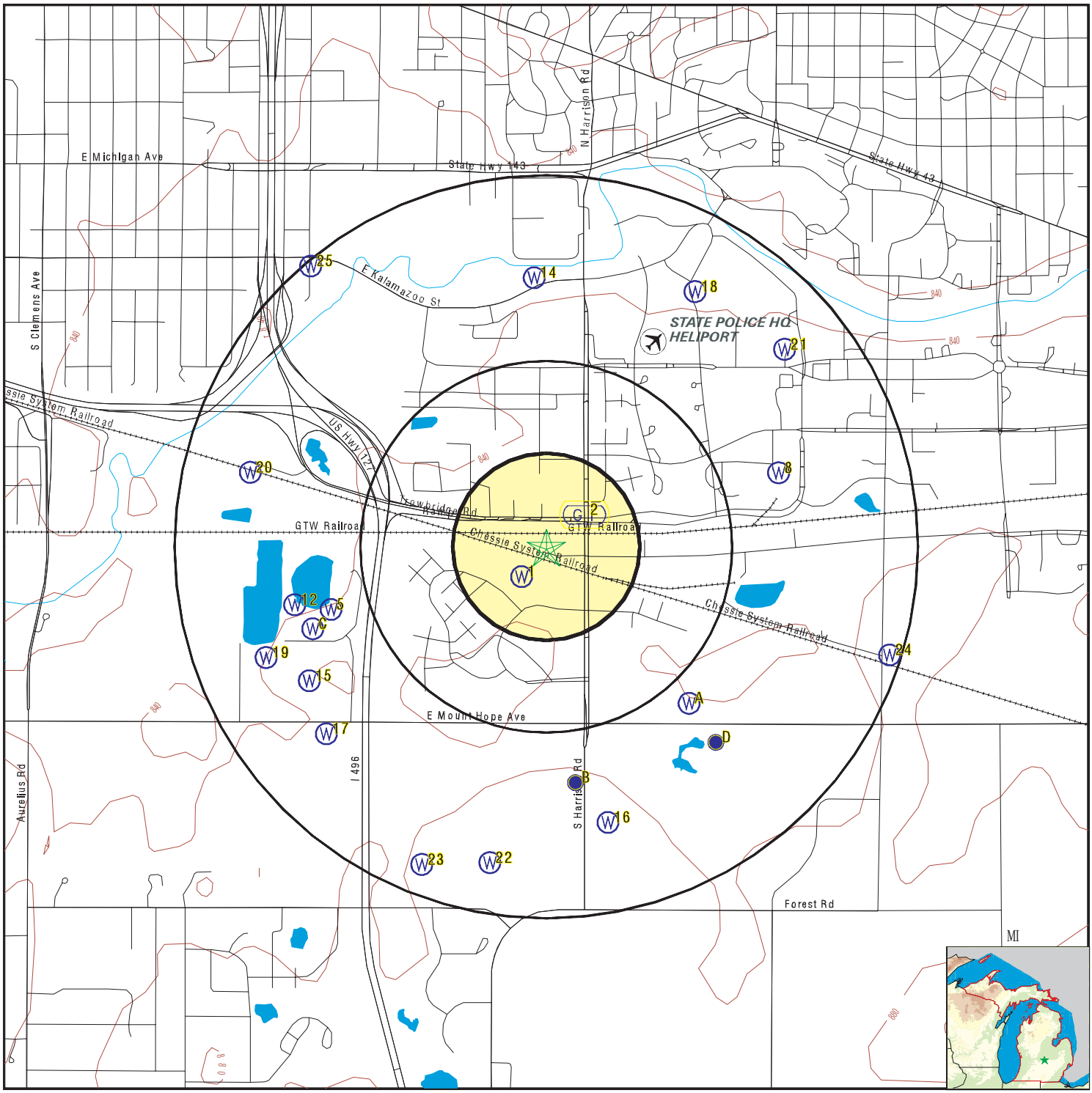
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

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

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A3	MI20101484	1/2 - 1 Mile SE
A4	MI20101483	1/2 - 1 Mile SE
5	MI20105067	1/2 - 1 Mile WSW
B6	MI20101493	1/2 - 1 Mile South
8	MI20100907	1/2 - 1 Mile ENE
C9	MI20101475	1/2 - 1 Mile WSW
C10	MI20101474	1/2 - 1 Mile WSW
D11	MI20101492	1/2 - 1 Mile SE
12	MI20105069	1/2 - 1 Mile WSW
14	MI20105063	1/2 - 1 Mile North
15	MI20101473	1/2 - 1 Mile WSW
16	MI20101491	1/2 - 1 Mile SSE
17	MI20101497	1/2 - 1 Mile SW
19	MI20105068	1/2 - 1 Mile WSW
20	MI20101476	1/2 - 1 Mile WNW
21	MI20100905	1/2 - 1 Mile NE
22	MI20105072	1/2 - 1 Mile South
23	MI20101489	1/2 - 1 Mile SSW
25	MI20101426	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 2816107.2s



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

0 1/4 1/2 1 Miles

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

N

SITE NAME: Amtrak Station	CLIENT: AKT Peerless Environmental Svc
ADDRESS: 1240 South Harrison Road East Lansing MI 48823	CONTACT: Janet Michaluk
LAT/LONG: 42.7187 / 84.4959	INQUIRY #: 2816107.2s
	DATE: July 14, 2010 9:54 am

Map ID Direction Distance Elevation	Database	EDR ID Number
1 **SW** **0 - 1/8 Mile** **Higher**	**FED USGS**	**USGS2318018**

Agency cd:	USGS	Site no:	424303084295001
Site name:	04N 02W 24CABD 01 INGHAM CO (SPARTAN VILLAGE)		
Latitude:	424303	EDR Site id:	USGS2318018
Longitude:	0842950	Dec lat:	42.71753502
Dec lon:	-84.49719897	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	065
Country:	US	Land net:	04N 02W 24CABD01
Location map:	EAST LANSING	Map scale:	24000
Altitude:	853.0		
Altitude method:	Level or other surveying method		
Altitude accuracy:	.1		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Upper Grand. Michigan. Area = 1730 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19350101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	N		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	453	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	442600200		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1965-07-01	Ground water data end date:	1965-07-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1965-07-01	92.00	

A3 **SE** **1/2 - 1 Mile** **Higher**	**MI WELLS**	**MI20101484**

Wellid:	33000006374	Import id:	33040224002
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	24
Owner name:	MSU POULTRY RESEARCH		
Well addr:	3606 E MT. HOPE RD.		
Well depth:	352		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	0
Const date:	1939-07-24 00:00:00.000	Case type:	Unknown
Case dia:	8		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7129233176		
Longitude:	-84.487860325		
Methd coll:	Interpolation-Map		
Elevation:	861		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	859	Elev dif:	2
Elev miv:	861	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	10
Pct aq d:	1	Pct aq r:	14
Pct maq:	10	Pct maq d:	0
Pct maq r:	14	Pct cm:	25
Pct cm d:	93	Pct cm r:	0
Pct pcm:	55	Pct pcm d:	6
Pct pcm r:	73	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	95
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.66807		
Vert Conduct:	.00026		
T2:	50.1055		
D50plek:	7.77982		

A4
SE
1/2 - 1 Mile
Higher

MI WELLS **MI20101483**

Wellid:	33000006373	Import id:	33040224001
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	24
Owner name:	MSU POULTRY RESEARCH		
Well addr:	3606 E MT. HOPE RD.		
Well depth:	350		
Well type:	Other		
Wssn:	0		
Well num:	Not Reported	Driller id:	408
Const date:	1977-11-11 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	84		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7122664713		
Longitude:	-84.4888257213		
Methd coll:	Interpolation-Map		
Elevation:	859		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	856	Elev dif:	3
Elev miv:	859	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	69
Pct aq d:	0	Pct aq r:	88
Pct maq:	8	Pct maq d:	0
Pct maq r:	11	Pct cm:	22

Pct cm d:	100	Pct cm r:	0
Pct pcm:	1	Pct pcm d:	0
Pct pcm r:	1	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	76
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.0001		
Vert Conduct:	.0001		
T2:	.0056		
D50plek:	.00154		

Map ID Direction Distance Elevation		Database	EDR ID Number
5 **WSW** **1/2 - 1 Mile** **Lower**		**MI WELLS**	**MI20105067**

Wellid:	33000010367	Import id:	33040223026
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	MOTZ DEVELOPMENT		
Well addr:	3065 W. JOSEPH		
Well depth:	245		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	418
Const date:	1993-10-18 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	119		
Screen frm:	0		
Screen to:	0		
Swl:	56		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	20
Latitude:	42.716257134		
Longitude:	-84.5072622872		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	10
Elev miv:	850	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	57
Pct aq d:	21	Pct aq r:	79
Pct maq:	7	Pct maq d:	0
Pct maq r:	11	Pct cm:	37
Pct cm d:	79	Pct cm r:	10
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	95
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	75
Pct maq 1:	0	Pct cm 1:	25
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	25	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	100
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	6.66676		
Vert Conduct:	.00011		
T2:	500.007		
D50plek:	67.74991		

B6
South
1/2 - 1 Mile
Higher

MI WELLS **MI20101493**

Wellid:	33000006383	Import id:	33040225302
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	25
Owner name:	MICHIGAN STATE UNIVERSITY		
Well addr:	MSU WELL #16		
Well depth:	367		
Well type:	Type I public		
Wssn:	4340		
Well num:	MSU WELL #16	Driller id:	0
Const date:	1956-02-17 00:00:00.000	Case type:	Unknown
Case dia:	12		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	123.9		
Screen frm:	0		
Screen to:	0		
Swl:	59.5		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	490
Latitude:	42.7095365844		
Longitude:	-84.4942814964		
Methd coll:	Interpolation-Map		
Elevation:	871		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	5
Elev miv:	871	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	64
Pct aq d:	0	Pct aq r:	89
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	15
Pct cm d:	47	Pct cm r:	3
Pct pcm:	21	Pct pcm d:	53
Pct pcm r:	8	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	104
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	45
Pct pcm 3:	55	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00658		
Vert Conduct:	.00028		
T2:	.5529		
D50plek:	.13463		

B7
South **FED USGS** **USGS2318001**
1/2 - 1 Mile
Higher

Agency cd:	USGS	Site no:	424234084294001
Site name:	04N 02W 25BADA 01		
Latitude:	424234	EDR Site id:	USGS2318001
Longitude:	0842940	Dec lat:	42.70947952
Dec lon:	-84.49442102	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	065
Country:	US	Land net:	S25T04NR02WM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	870		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Upper Grand. Michigan. Area = 1730 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19560101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	367	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1958-04-23
Water quality data end date:	1968-02-29	Water quality data count:	2
Ground water data begin date:	1956-01-01	Ground water data end date:	1956-01-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1956-01-01	59.00	

8
ENE **MI WELLS** **MI20100907**
1/2 - 1 Mile
Higher

Wellid:	33000005566	Import id:	33040119301
County:	Ingham	Township:	Meridian
Town range:	04N 01W	Section:	19
Owner name:	MICHIGAN STATE UNIVERSITY		
Well addr:	MSU WELL #11		
Well depth:	435		
Well type:	Type I public		
Wssn:	4340		
Well num:	MSU WELL #11	Driller id:	0
Const date:	1947-09-06 00:00:00.000	Case type:	Steel-black
Case dia:	14		
Case depth:	145		
Screen frm:	0		
Screen to:	0		
Swl:	41		
Test depth:	142		
Test hours:	12		
Test rate:	650	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	375
Latitude:	42.7215843311		
Longitude:	-84.4836109022		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	4
Elev miv:	850	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	56
Pct aq d:	0	Pct aq r:	67
Pct maq:	9	Pct maq d:	35
Pct maq r:	3	Pct cm:	20
Pct cm d:	0	Pct cm r:	24
Pct pcm:	11	Pct pcm d:	65
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	72
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	15	Pct cm 1:	0
Pct pcm 1:	85	Pct na 1:	0

Pct aq 2:	0	Pct maq 2:	100
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	10	Pct cm 3:	0
Pct pcm 3:	90	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.04288		
Vert Conduct:	.00172		
T2:	2.23		
D50plek:	.29911		

C9
WSW **MI WELLS** **MI20101475**
1/2 - 1 Mile
Higher

Wellid:	33000006351	Import id:	33040223025
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	DELTA BUILDERS/DENNIS ROZEN		
Well addr:	3133 E. MT HOPE		
Well depth:	222		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	819
Const date:	1985-05-09 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Case depth:	95		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	80		
Test hours:	1		
Test rate:	30	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7154447442		
Longitude:	-84.5081841523		
Methd coll:	Interpolation-Map		
Elevation:	850		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	850	Elev dif:	0
Elev miv:	850	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	59	Pct maq d:	0
Pct maq r:	100	Pct cm:	14
Pct cm d:	33	Pct cm r:	0
Pct pcm:	27	Pct pcm d:	67
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	90
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00061		
Vert Conduct:	.00021		
T2:	.043		
D50plek:	.01129		

C10
WSW **MI WELLS** **MI20101474**
1/2 - 1 Mile
Higher

Wellid:	33000006335	Import id:	33040223009
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	RUSS, RANDY & RHONDA		
Well addr:	E. MT. HOPE AVE.		
Well depth:	222		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	819
Const date:	1985-07-01 00:00:00.000	Case type:	Unknown
Case dia:	5		
Case depth:	115		
Screen frm:	0		
Screen to:	0		
Swl:	80		
Test depth:	100		
Test hours:	1		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7155601687		
Longitude:	-84.5082831578		
Methd coll:	Interpolation-Map		
Elevation:	852		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	850	Elev dif:	2
Elev miv:	852	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	59	Pct maq d:	0
Pct maq r:	100	Pct cm:	14

Pct cm d:	33	Pct cm r:	0
Pct pcm:	27	Pct pcm d:	67
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	90
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	100
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	100	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00061		
Vert Conduct:	.00021		
T2:	.043		
D50plek:	.01129		

Map ID Direction Distance Elevation		Database	EDR ID Number
D11 **SE** **1/2 - 1 Mile** **Higher**		**MI WELLS**	**MI20101492**

Wellid:	33000006382	Import id:	33040225301
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	25
Owner name:	MICHIGAN STATE UNIVERSITY		
Well addr:	MSU WELL #15		
Well depth:	360		
Well type:	Type I public		
Wssn:	4340		
Well num:	MSU WELL #15	Driller id:	0
Const date:	1956-05-12 00:00:00.000	Case type:	Unknown
Case dia:	12		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	480
Latitude:	42.7115650552		
Longitude:	-84.4869415684		
Methd coll:	Interpolation-Map		
Elevation:	851		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	850	Elev dif:	1
Elev miv:	851	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	71
Pct aq d:	0	Pct aq r:	89
Pct maq:	3	Pct maq d:	0
Pct maq r:	3	Pct cm:	10
Pct cm d:	20	Pct cm r:	7
Pct pcm:	11	Pct pcm d:	53
Pct pcm r:	0	Pct na:	6
Pct na d:	27	Pct na r:	0
Pct flag:	Not Reported	Rock top:	74
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	100

Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	75	Pct pcm 2:	25
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	100	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00725		
Vert Conduct:	.00035		
T2:	.3915		
D50plek:	.06322		

12
WSW **MI WELLS** **MI20105069**
1/2 - 1 Mile
Lower

Wellid:	33000010369	Import id:	33040223028
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	JERRY GRANGER		
Well addr:	MT HOPE RD		
Well depth:	295		
Well type:	Irrigation		
Wssn:	0		
Well num:	Not Reported	Driller id:	1686
Const date:	Not Reported	Case type:	PVC Plastic
Case dia:	5		

Case depth:	153		
Screen frm:	0		
Screen to:	0		
Swl:	48		
Test depth:	100		
Test hours:	.5		
Test rate:	50	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	80
Latitude:	42.7164383112		
Longitude:	-84.5091838897		
Methd coll:	*U		
Elevation:	840		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	833	Elev dif:	7
Elev miv:	840	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	52
Pct aq d:	29	Pct aq r:	59
Pct maq:	17	Pct maq d:	0
Pct maq r:	22	Pct cm:	24
Pct cm d:	40	Pct cm r:	20
Pct pcm:	5	Pct pcm d:	25
Pct pcm r:	0	Pct na:	1
Pct na d:	6	Pct na r:	0
Pct flag:	Not Reported	Rock top:	63
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	80
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	20
Pct aq 2:	10	Pct maq 2:	0
Pct cm 2:	80	Pct pcm 2:	10
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	30
Pct pcm 3:	70	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	4.65159		
Vert Conduct:	.00016		
T2:	200.0185		
D50plek:	16.36863		

D13
SE
1/2 - 1 Mile
Higher

FED USGS **USGS2318004**

Agency cd:	USGS	Site no:	424238084291301
Site name:	04N 02W 25AABA 01		
Latitude:	424238	EDR Site id:	USGS2318004
Longitude:	0842913	Dec lat:	42.7105906
Dec lon:	-84.48692077	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	065
Country:	US	Land net:	S25T04NR02WM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	865		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Upper Grand. Michigan. Area = 1730 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19520101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	360	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1968-02-29
Water quality data end date:	1968-02-29	Water quality data count:	1
Ground water data begin date:	1952-01-01	Ground water data end date:	1952-01-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1952-01-01	42.00	

14
North
1/2 - 1 Mile
Lower

MI WELLS **MI20105063**

Wellid:	33000010324	Import id:	33040213001
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	13
Owner name:	J. CARTER CO		
Well addr:	KALAMAZOO ST		
Well depth:	280		
Well type:	Irrigation		
Wssn:	0		
Well num:	Not Reported	Driller id:	2228
Const date:	1999-05-11 00:00:00.000	Case type:	Other
Case dia:	6		
Case depth:	100		
Screen frm:	0		
Screen to:	0		
Swl:	35		
Test depth:	280		
Test hours:	0		
Test rate:	150	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	75
Latitude:	42.7291868537		
Longitude:	-84.4965278975		
Methd coll:	Interpolation-Map		
Elevation:	835		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	833	Elev dif:	2
Elev miv:	835	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	13
Pct aq d:	31	Pct aq r:	9
Pct maq:	62	Pct maq d:	0
Pct maq r:	76	Pct cm:	13
Pct cm d:	0	Pct cm r:	15
Pct pcm:	13	Pct pcm d:	69
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	51
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0

Pct aq 2:	80	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	20
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	51.61339		
Vert Conduct:	.00207		
T2:	1600.015		
D50plek:	84.18991		

15
WSW **MI WELLS** **MI20101473**
1/2 - 1 Mile
Higher

Wellid:	33000006334	Import id:	33040223002
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	GRANGER, KEITH		
Well addr:	3101 MT. HOPE AVE.		
Well depth:	300		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	390
Const date:	1966-08-30 00:00:00.000	Case type:	Unknown
Case dia:	4		

Case depth:	147		
Screen frm:	0		
Screen to:	0		
Swl:	75		
Test depth:	0		
Test hours:	0		
Test rate:	50	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7134775678		
Longitude:	-84.5084123566		
Methd coll:	Interpolation-Map		
Elevation:	837		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	856	Elev dif:	19
Elev miv:	837	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	12
Pct aq d:	37	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	30
Pct cm d:	15	Pct cm r:	38
Pct pcm:	16	Pct pcm d:	48
Pct pcm r:	0	Pct na:	42
Pct na d:	0	Pct na r:	63
Pct flag:	Not Reported	Rock top:	100
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	25
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	50	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	50
Pct na 2:	0	Pct aq 3:	75
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	25	Pct na 3:	0
Pct aq 4:	35	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	65
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	100	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	40.006		
Vert Conduct:	.01667		
T2:	3200.48		
D50plek:	419.4667		

16
SSE **MI WELLS** **MI20101491**
1/2 - 1 Mile
Higher

Wellid:	33000006381	Import id:	33040225012
County:	Ingham	Township:	Alaiedon
Town range:	03N 01W	Section:	25
Owner name:	MICHIGAN STATE UNIV		
Well addr:	HARRISON RD		
Well depth:	205		
Well type:	Type II public		
Wssn:	2016033		
Well num:	001	Driller id:	383
Const date:	1997-12-23 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	99		
Screen frm:	0		
Screen to:	0		
Swl:	52		
Test depth:	70		
Test hours:	2		
Test rate:	40	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	12
Latitude:	42.7079527		
Longitude:	-84.49263		
Methd coll:	GPS Code Measurement Differential (DGPS)		
Elevation:	1000		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	ELEV_DIF > 20 feet -- Abs(Elevation feet DEM_Elevation) > 20 feet		
Swl flag:	Not Reported		
Elev dem:	863	Elev dif:	137
Elev miv:	1000	Aq code:	Not Reported
Aq flag:	Lithology Problem (Drift under Rock)	Pct aq:	0
Pct aq d:	0	Pct aq r:	0
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	0

Pct cm d:	0	Pct cm r:	0
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	-9
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	75
Pct pcm 1:	25	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

Map ID Direction Distance Elevation		Database	EDR ID Number
17 **SW** **1/2 - 1 Mile** **Lower**		**MI WELLS**	**MI20101497**

Wellid:	33000006387	Import id:	33040226003
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	26
Owner name:	HAGEN, JOHN		
Well addr:	3100 E MT. HOPE		
Well depth:	260		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	383
Const date:	1968-09-24 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	127		
Screen frm:	0		
Screen to:	0		
Swl:	72		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7114064193		
Longitude:	-84.5075124248		
Methd coll:	Interpolation-Map		
Elevation:	845		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	846	Elev dif:	1
Elev miv:	845	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	52
Pct aq d:	21	Pct aq r:	69
Pct maq:	7	Pct maq d:	0
Pct maq r:	11	Pct cm:	25
Pct cm d:	33	Pct cm r:	20
Pct pcm:	17	Pct pcm d:	46
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	94
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	10
Pct maq 1:	0	Pct cm 1:	90
Pct pcm 1:	0	Pct na 1:	0

Pct aq 2:	90	Pct maq 2:	0
Pct cm 2:	10	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	55
Pct pcm 3:	45	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	24.32492		
Vert Conduct:	.00043		
T2:	1800.0443		
D50plek:	224.7175		

18
NNE
1/2 - 1 Mile
Lower

FED USGS **USGS2318027**

Agency cd:	USGS	Site no:	424343084291701
Site name:	04N 02W 24DDCC 01		
Latitude:	424343	EDR Site id:	USGS2318027
Longitude:	0842917	Dec lat:	42.72864601
Dec lon:	-84.48803209	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	065
Country:	US	Land net:	S24T04NR02WM
Location map:	Not Reported	Map scale:	Not Reported

Altitude:	865		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Upper Grand. Michigan. Area = 1730 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19390101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	352	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1953-04-23
Water quality data end date:	1953-04-23	Water quality data count:	1
Ground water data begin date:	1939-02-01	Ground water data end date:	1939-02-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1939-02-01	35.00	

19
WSW **MI WELLS** **MI20105068**
1/2 - 1 Mile
Lower

Wellid:	33000010368	Import id:	33040223027
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	LARRY SCHAEFER		
Well addr:	2925 E. MT. HOPE		
Well depth:	260		
Well type:	Household		
Wssn:	0		
Well num:	Not Reported	Driller id:	383
Const date:	1995-01-12 00:00:00.000	Case type:	PVC Plastic
Case dia:	5		
Case depth:	97		
Screen frm:	0		
Screen to:	0		
Swl:	50		
Test depth:	61		
Test hours:	2		
Test rate:	20	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	10
Latitude:	42.7143817503		
Longitude:	-84.510695824		

Methd coll:	Interpolation-Map		
Elevation:	845		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	840	Elev dif:	5
Elev miv:	845	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	44
Pct aq d:	0	Pct aq r:	61
Pct maq:	0	Pct maq d:	0
Pct maq r:	0	Pct cm:	35
Pct cm d:	24	Pct cm r:	39
Pct pcm:	20	Pct pcm d:	76
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	70
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	100	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	35
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	20
Pct pcm 3:	80	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.01455		
Vert Conduct:	.00026		
T2:	.7277		
D50plek:	.10296		

20
WNW **MI WELLS** **MI20101476**
1/2 - 1 Mile
Lower

Wellid:	33000006352	Import id:	33040223301
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	23
Owner name:	BOARD OF WATER & LIGHT		
Well addr:	BWL WELL 67-A		
Well depth:	365		
Well type:	Type I public		
Wssn:	3760		
Well num:	BWL WELL 67-A	Driller id:	550
Const date:	1969-01-08 00:00:00.000	Case type:	Unknown
Case dia:	12		
Case depth:	81.9		
Screen frm:	0		
Screen to:	0		
Swl:	122		
Test depth:	235		
Test hours:	8		
Test rate:	300	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7216017623		
Longitude:	-84.5115340304		
Methd coll:	Interpolation-Map		
Elevation:	829		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	827	Elev dif:	2
Elev miv:	829	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	38
Pct aq d:	100	Pct aq r:	27
Pct maq:	34	Pct maq d:	0
Pct maq r:	40	Pct cm:	22
Pct cm d:	0	Pct cm r:	26
Pct pcm:	5	Pct pcm d:	0
Pct pcm r:	6	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	55
D r type:	AQ / AQ	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	71.42857		
Vert Conduct:	63.63636		
T2:	2500		
D50plek:	145.15051		

21
NE
1/2 - 1 Mile
Lower

MI WELLS **MI20100905**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Wellid:	33000005563	Import id:	33040118001
County:	Ingham	Township:	Meridian
Town range:	04N 01W	Section:	18
Owner name:	MICHIGAN STATE COLLEGE CAMPUS		
Well addr:	M.S.C. WELL # 25		
Well depth:	270		
Well type:	Public		
Wssn:	0		
Well num:	Not Reported	Driller id:	0
Const date:	Not Reported	Case type:	Unknown
Case dia:	0		
Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.72639748		
Longitude:	-84.48329386		
Methd coll:	Interpolation-Map		
Elevation:	840		
Elev methd:	Classical Surveying Techniques	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	843	Elev dif:	3
Elev miv:	840	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	59
Pct aq d:	0	Pct aq r:	69
Pct maq:	9	Pct maq d:	0
Pct maq r:	11	Pct cm:	10
Pct cm d:	0	Pct cm r:	11
Pct pcm:	7	Pct pcm d:	0
Pct pcm r:	9	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	39
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	100
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0

Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

22
South
1/2 - 1 Mile
Higher

MI WELLS **MI20105072**

Wellid:	33000010375	Import id:	33040225013
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	25
Owner name:	PARISH CORP		
Well addr:	MSU EDC WELL		
Well depth:	358		
Well type:	Irrigation		
Wssn:	0		
Well num:	Not Reported	Driller id:	1997
Const date:	Not Reported	Case type:	Steel-black
Case dia:	8		
Case depth:	110		
Screen frm:	0		
Screen to:	0		
Swl:	75		
Test depth:	88		
Test hours:	8		
Test rate:	55	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7063847619		
Longitude:	-84.4988734893		

Methd coll:	*U		
Elevation:	861		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	876	Elev dif:	15
Elev miv:	861	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	70
Pct aq d:	0	Pct aq r:	92
Pct maq:	1	Pct maq d:	0
Pct maq r:	1	Pct cm:	17
Pct cm d:	52	Pct cm r:	6
Pct pcm:	11	Pct pcm d:	48
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	84
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	F
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	100	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	0
Pct maq 3:	0	Pct cm 3:	20
Pct pcm 3:	80	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0

Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	.00066		
Vert Conduct:	.00023		
T2:	.0424		
D50plek:	.01019		

23
SSW **MI WELLS** **MI20101489**
1/2 - 1 Mile
Higher

Wellid:	33000006379	Import id:	33040225005
County:	Ingham	Township:	Alaiedon
Town range:	03N 01W	Section:	25
Owner name:	MICHIGAN STATE UNIVERSITY		
Well addr:	FORREST ACRES GOLF COURSE		
Well depth:	241		
Well type:	Type II public		
Wssn:	2010233		
Well num:	001	Driller id:	522
Const date:	1976-08-26 00:00:00.000	Case type:	Unknown
Case dia:	4		
Case depth:	105		
Screen frm:	0		
Screen to:	0		
Swl:	66		
Test depth:	100		
Test hours:	0		
Test rate:	15	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	7
Latitude:	42.7063157		
Longitude:	-84.502467		
Methd coll:	GPS Code Measurement Differential (DGPS)		
Elevation:	870		
Elev methd:	Topographoc Map Interpolation	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	Not Reported		
Elev dem:	866	Elev dif:	4
Elev miv:	870	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	57
Pct aq d:	12	Pct aq r:	83
Pct maq:	10	Pct maq d:	0
Pct maq r:	15	Pct cm:	15
Pct cm d:	37	Pct cm r:	1
Pct pcm:	19	Pct pcm d:	51
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	90
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0

A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	0
Pct maq 1:	0	Pct cm 1:	100
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	0	Pct maq 2:	0
Pct cm 2:	65	Pct pcm 2:	35
Pct na 2:	0	Pct aq 3:	55
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	45	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	100
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0
Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	N	Loc match:	Y
Aq code 1:	Not Reported		
Hit swl:	Not Reported		
Athk2:	0		
Horiz Conduct:	0		
Vert Conduct:	0		
T2:	0		
D50plek:	0		

24
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS2318015**

Agency cd:	USGS	Site no:	424252084284001
Site name:	04N 01W 19CCAA 01		
Latitude:	424252	EDR Site id:	USGS2318015
Longitude:	0842840	Dec lat:	42.71447943
Dec lon:	-84.47775382	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	065
Country:	US	Land net:	S19T04NR01WM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	865		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5.		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Upper Grand. Michigan. Area = 1730 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19540101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SAGINAW FORMATION		
Well depth:	365	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1968-02-29
Water quality data end date:	1968-02-29	Water quality data count:	1
Ground water data begin date:	1954-10-01	Ground water data end date:	1954-10-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1954-10-01	47.00	

25
NW
1/2 - 1 Mile
Lower

MI WELLS **MI20101426**

Wellid:	33000006255	Import id:	33040214302
County:	Ingham	Township:	Lansing
Town range:	04N 02W	Section:	14
Owner name:	BOARD OF WATER & LIGHT		
Well addr:	BWL WELL 40-15		
Well depth:	430		
Well type:	Type I public		
Wssn:	3760		
Well num:	BWL WELL 40-15	Driller id:	729
Const date:	Not Reported	Case type:	Unknown
Case dia:	0		

Case depth:	0		
Screen frm:	0		
Screen to:	0		
Swl:	999.99		
Test depth:	0		
Test hours:	0		
Test rate:	0	Test methd:	Unknown
Grouted:	1	Pmp cpcity:	0
Latitude:	42.7296418729		
Longitude:	-84.5083407115		
Methd coll:	Interpolation-Map		
Elevation:	828.44		
Elev methd:	Classical Surveying Techniques	Depth flag:	Not Reported
Elev flag:	Not Reported		
Swl flag:	SWL > Well Depth		
Elev dem:	827	Elev dif:	1
Elev miv:	828	Aq code:	Rock Well
Aq flag:	Not Reported	Pct aq:	61
Pct aq d:	100	Pct aq r:	54
Pct maq:	28	Pct maq d:	0
Pct maq r:	33	Pct cm:	11
Pct cm d:	0	Pct cm r:	13
Pct pcm:	0	Pct pcm d:	0
Pct pcm r:	0	Pct na:	0
Pct na d:	0	Pct na r:	0
Pct flag:	Not Reported	Rock top:	65
D r type:	Not Reported	Spc cpcity:	0
A thicknes:	0	A pct aq:	0
A pct maq:	0	A pct pcm:	0
A pct cm:	0	A pct na:	0
A thickns2:	0	A pct aq2:	0
A pct maq2:	0	A pct pcm2:	0
A pct cm2:	0	A pct na2:	0
A hit swl:	F	A hit top:	T
A hit rock:	F	A sc lith1:	Not Reported
A sc lmod1:	Not Reported	A sc lmaq1:	Not Reported
A sc lpct1:	0	A sc lith2:	Not Reported
A sc lmod2:	Not Reported	A sc lmaq2:	Not Reported
A sc lpct2:	0	Pct aq 1:	100
Pct maq 1:	0	Pct cm 1:	0
Pct pcm 1:	0	Pct na 1:	0
Pct aq 2:	100	Pct maq 2:	0
Pct cm 2:	0	Pct pcm 2:	0
Pct na 2:	0	Pct aq 3:	100
Pct maq 3:	0	Pct cm 3:	0
Pct pcm 3:	0	Pct na 3:	0
Pct aq 4:	0	Pct maq 4:	0
Pct cm 4:	0	Pct pcm 4:	0
Pct na 4:	0	Pct aq 5:	0
Pct maq 5:	0	Pct cm 5:	0
Pct pcm 5:	0	Pct na 5:	0
Pct aq 6:	0	Pct maq 6:	0
Pct cm 6:	0	Pct pcm 6:	0
Pct na 6:	0	Pct aq 7:	0
Pct maq 7:	0	Pct cm 7:	0
Pct pcm 7:	0	Pct na 7:	0
Pct aq 8:	0	Pct maq 8:	0
Pct cm 8:	0	Pct pcm 8:	0
Pct na 8:	0	Pct aq 9:	0
Pct maq 9:	0	Pct cm 9:	0
Pct pcm 9:	0	Pct na 9:	0

Pct aq 10:	0	Pct maq 10:	0
Pct cm 10:	0	Pct pcm 10:	0
Pct na 10:	0	Pct aq 11:	0
Pct maq 11:	0	Pct cm 11:	0
Pct pcm 11:	0	Pct na 11:	0
Pct aq 12:	0	Pct maq 12:	0
Pct cm 12:	0	Pct pcm 12:	0
Pct na 12:	0	Pct aq 13:	0
Pct maq 13:	0	Pct cm 13:	0
Pct pcm 13:	0	Pct na 13:	0
Within sec:	Y	Loc match:	Y
Aq code 1:	R		
Hit swl:	F		
Athk2:	0		
Horiz Conduct:	50		
Vert Conduct:	50		
T2:	2250		
D50plek:	168.8641		

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RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
Random	48823	1	12/23/87	1.3	20.1%	1.3	22.3%
Random	48823	0	1/27/88	11.9	2.9%		
Random	48823	0	2/20/88	1.6	10.9%		
Random	48823	0	12/30/87	3.0	11.0%		
Random	48823	0	5/21/87	3.2	18.4%		
Random	48823	0	3/27/87	3.9	6.2%		
Random	48823	0	11/5/87	26.2	3.3%		
Geographic	48823	0	4/21/88	0.6	41.4%		
Geographic	48823	0	3/18/88	2.2	16.6%		
Geographic	48823	0	4/21/88	2.4	11.1%		
Geographic	48823	0	4/21/88	3.6	7.9%		

State Database: MI Radon

Radon Test Results

Zip	Less than sign	Pci/L
48823		3.60
48823		4.80
48823		1.00
48823		4.30
48823		1.40
48823		4.60
48823		1.20
48823	<	0.30
48823		0.50
48823		1.40
48823		3.80
48823		1.60
48823		1.90
48823		0.70
48823		1.90
48823		3.40
48823		2.20
48823		1.40
48823		0.60
48823		1.60
48823		0.80
48823		6.80
48823		2.30
48823		

AREA RADON INFORMATION

		4.60
48823		2.10
48823		11.00
48823		1.50
48823	<	0.30
48823		17.90
48823		10.20
48823		3.40
48823		3.10
48823		1.50
48823		3.20
48823	<	0.30
48823		1.50
48823		1.30
48823	<	0.20
48823		2.00
48823		4.60
48823	<	0.30
48823		2.40
48823		2.80
48823		3.20
48823		0.70
48823		0.40
48823		3.30
48823		2.00
48823		2.30
48823		2.40
48823		1.80
48823		0.60
48823		1.90
48823		1.10
48823		2.30
48823		0.30
48823		1.30
48823		1.10
48823		2.80
48823		1.60
48823		0.90
48823	<	0.20
48823	<	0.30
48823		2.20
48823		0.50
48823		5.00
48823		0.70
48823		1.60
48823		3.20
48823		0.30
48823		1.20
48823		1.80
48823		2.30
48823		6.50
48823		2.30
48823		1.50
48823		1.80
48823		2.40
48823		2.20
48823		

AREA RADON INFORMATION

		0.50
48823		3.10
48823		2.20
48823		0.50
48823		5.30
48823		9.50
48823		0.90
48823		11.80
48823		1.70
48823		1.90
48823		0.50
48823		11.10
48823		0.50
48823		1.60
48823		2.80
48823		0.90
48823		3.30
48823		8.00
48823		1.10
48823		2.50
48823		2.90
48823		0.80
48823		0.40
48823		0.50
48823		1.50
48823		7.80
48823		1.40
48823		1.40
48823		1.20
48823		2.20
48823		4.60
48823		1.20
48823		1.10
48823		2.70
48823		2.10
48823		0.50
48823		0.40
48823		1.40
48823	<	0.30
48823		0.80
48823		5.40
48823		0.60
48823		0.60
48823		0.80
48823		2.00
48823		0.60
48823	<	0.30
48823		1.10
48823		3.70
48823		3.60
48823		2.70
48823		5.20
48823		2.00
48823		5.10
48823		16.60
48823		1.10
48823		

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RADON

AREA RADON INFORMATION

		1.50
48823		1.00
48823		1.40
48823		2.10
48823		1.10
48823		1.40
48823		1.80
48823		11.90
48823		1.80
48823		2.90
48823	<	0.30
48823		0.70
48823		2.10
48823		9.20
48823		2.60
48823		0.50
48823		1.40
48823		0.80
48823	<	0.30
48823		0.90
48823		2.70
48823		1.70
48823		3.00
48823		1.70
48823		41.50
48823		4.70

Federal EPA Radon Zone for INGHAM County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 48823

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	9.180 pCi/L	60%	20%	20%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory
Source: Department of Natural Resources
Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

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

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data
Source: Department of Environmental Quality
Telephone: 517-335-9218

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells
Source: Department of Natural Resources and Environment
Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon
Source: Department of Environmental Quality
Telephone: 517-335-9551
Radon Test Results

Michigan Radon Test Results
Source: Department of Environmental Quality
Telephone: 517-335-8037
These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

AKTPEERLESS
environmental & energy services

APPENDIX E

AERIAL PHOTOGRAPH DOCUMENTATION

Amtrak Station
1240 South Harrison Road
East Lansing, MI 48823

Inquiry Number: 2816107.4
July 19, 2010

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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

Date EDR Searched Historical Sources:

Aerial Photography July 19, 2010

Target Property:

1240 South Harrison Road

East Lansing, MI 48823

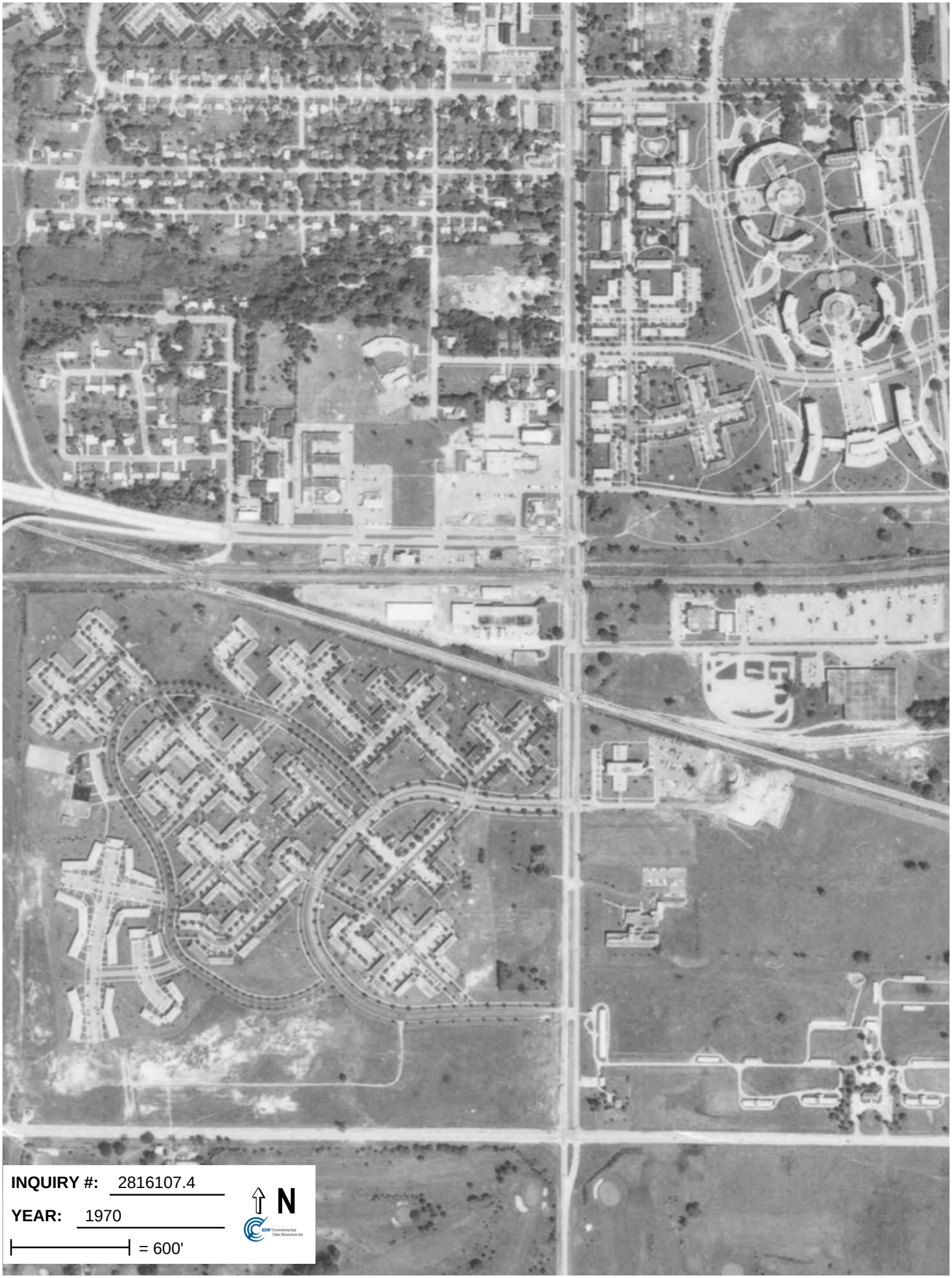
Year	***Scale***	***Details***	***Source***
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	AAA
1950	Aerial Photograph. Scale: 1"=500'	Flight Year: 1950 Best Copy Available from original source	PMA
1955	Aerial Photograph. Scale: 1"=500'	Flight Year: 1955	CSS
1963	Aerial Photograph. Scale: 1"=500'	Flight Year: 1963	ASCS
1970	Aerial Photograph. Scale: 1"=600'	Flight Year: 1970	ASCS
1976	Aerial Photograph. Scale: 1"=600'	Flight Year: 1976	SCS
1981	Aerial Photograph. Scale: 1"=600'	Flight Year: 1981	ASCS
1986	Aerial Photograph. Scale: 1"=500'	Flight Year: 1986	Tri County Regional Planning
1991	Aerial Photograph. Scale: 1"=500'	Flight Year: 1991	Tri County Regional Planning
1995	Aerial Photograph. Scale: 1"=500'	Flight Year: 1995	Tri County Regional Planning
2005	Aerial Photograph. Scale: 1"=604'	Flight Year: 2005	EDR


INQUIRY #: 2816107.4
YEAR: 1938
= 500'
N


24
INQUIRY #: 2816107.4
YEAR: 1950
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 2816107.4
YEAR: 1955
= 500'
N


INQUIRY #: 2816107.4
YEAR: 1963
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 2816107.4
YEAR: 1970
= 600'
N


INQUIRY #: 2816107.4
YEAR: 1976
= 600'
N
EDR Environmental Data Resources Inc


INQUIRY #: 2816107.4
YEAR: 1981
= 600'
N
EDR Environmental Data Resources Inc


INQUIRY #: 2816107.4
YEAR: 1986
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 2816107.4
YEAR: 1991
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 2816107.4
YEAR: 1995
= 500'
N


INQUIRY #: 2816107.4
YEAR: 2005
= 604'
N

AKTPEERLESS
environmental & energy services

APPENDIX F

HISTORICAL RESEARCH DOCUMENTATION

Amtrak Station
1240 South Harrison Road
East Lansing, MI 48823

Inquiry Number: 2816107.3
July 14, 2010

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

7/14/10

Site Name:
Amtrak Station
1240 South Harrison Road
East Lansing, MI 48823

Client Name:
AKT Peerless Environmental
115 West Allegan
Lansing, MI 48901

EDR Inquiry # 2816107.3

Contact: Janet Michaluk

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by AKT Peerless Environmental Svc were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name:	Amtrak Station
Address:	1240 South Harrison Road
City, State, Zip:	East Lansing, MI 48823
Cross Street:	
P.O. #	NA
Project:	6643S-1-17
Certification #	A0C7-4011-B014

Sanborn® Library search results
Certification # A0C7-4011-B014

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

AKT Peerless Environmental Svc (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 33-20-01-24-123-009

Property Address [collapse]

MSU PROPERTY
EAST LANSING, MI 48824

Owner Information [collapse]

BOARD OF TRUSTEES
MICH STATE UNIVERSITY
E LANSING, MI 48824

Unit: 33-20

Taxpayer Information [collapse]

BOARD OF TRUSTEES
MICH STATE UNIVERSITY
E LANSING, MI 48824

General Information for Tax Year 2010 [collapse]

Property Class:	099	**Assessed Value:**	$0
School District:	33010 - EAST LANSING	**Taxable Value:**	$0
State Equalized Value:	$0	**Map #**	
	0	**Date of Last Name Chg:**	09/04/2009

Date Filed:	
Principal Residence Exemption (2009 May 1):	0.0000 %
Principal Residence Exemption (2009 Final):	0.0000 %
Principal Residence Exemption (2010 May 1):	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$0	$0	$0
2008	$0	$0	$0

Land Information [collapse]

Acreage:	0.00	**Frontage:**	0.00 Ft.
Zoning Code:		**Depth:**	0.00 Ft.
Land Value:	$0	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	
Renaissance Zone:	NO		
ECF Neighborhood Code:			

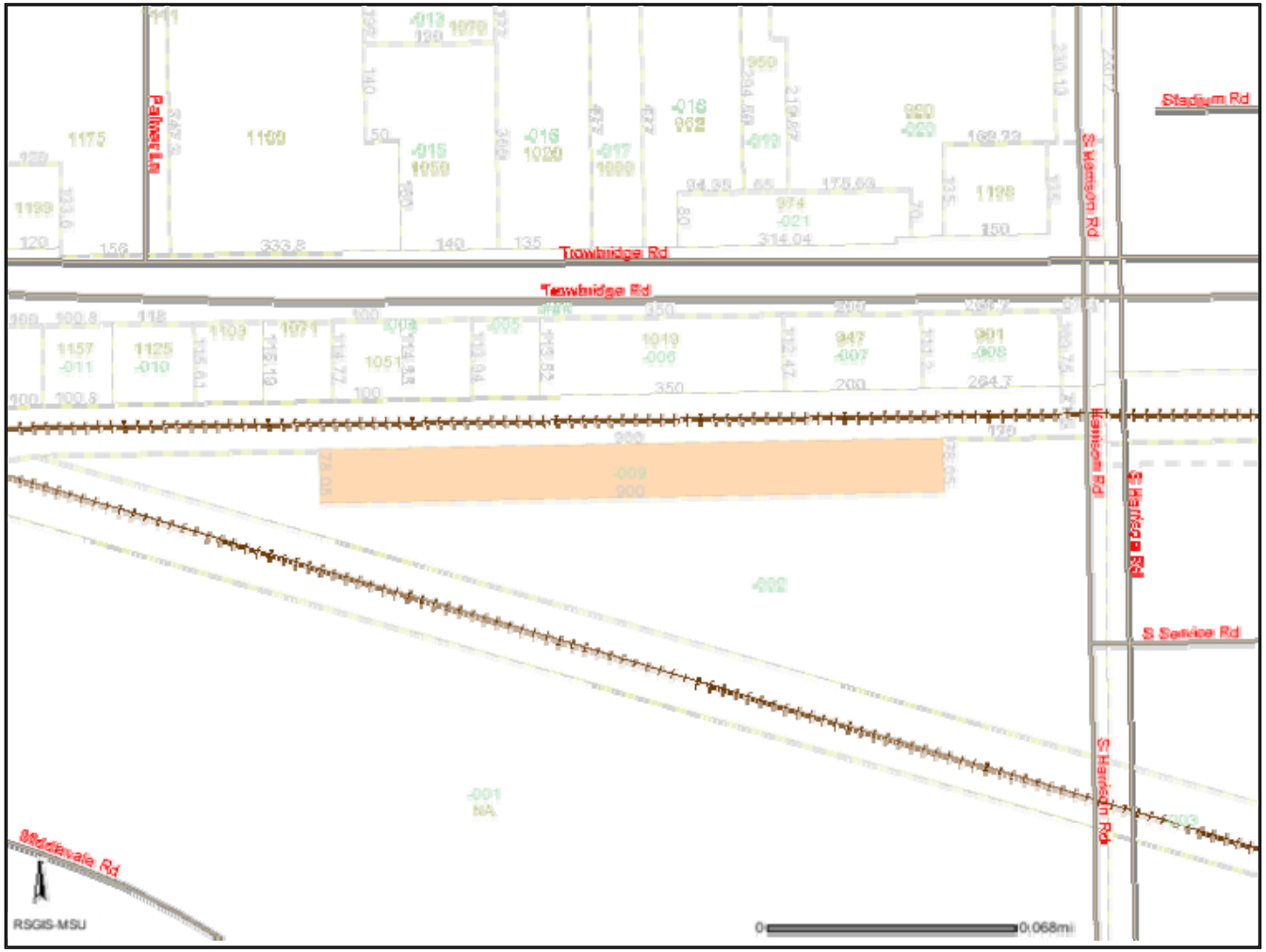
Legal Information for 33-20-01-24-123-009 [collapse]

COM AT PT AT INT OF W'LY LN OF HARRISON RD WITH N'LY RR PROPERTY LN S'LY 71.5 FT TO A PT THAT IS S'LY AT R/A 36.5 FT FROM C/L OF RR WESTWARD MAIN TRACK W'LY 170 FT TO POB CONT W'LY PLL WITH SD MAIN TRACK 1070.86 FT S'LY AT R/A 78.05 FT E'LY 1070.86 FT N'LY AT R/A 78.05 FT TO POB SEC 24 T4NR2W

Sales Information

0 sale record(s) found.						
Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page

Ingham County Equalization/Tax Mapping Viewer




TROWBRIDGE
TROWE
Harrison

General Property Information

[Back to Non-Printer Friendly Version] [Send To Printer]

Parcel: 33-20-01-24-300-002

Property Address [collapse]

MSU PROPERTY
EAST LANSING, MI 48824

Owner Information [collapse]

STATE BOARD OF AGRICULTURE
E LANSING, MI 48824

Unit: 33-20

Taxpayer Information [collapse]

STATE BOARD OF AGRICULTURE
E LANSING, MI 48824

General Information for Tax Year 2010 [collapse]

Property Class:	099	**Assessed Value:**	$0
School District:	33010 - EAST LANSING	**Taxable Value:**	$0
State Equalized Value:	$0	**Map #**	
	0	**Date of Last Name Chg:**	09/04/2009

Date Filed:	
Principal Residence Exemption (2009 May 1):	0.0000 %
Principal Residence Exemption (2009 Final):	0.0000 %
Principal Residence Exemption (2010 May 1):	0.0000 %

Previous Year Info	MBOR Assessed	Final S.E.V.	Final Taxable
2009	$0	$0	$0
2008	$0	$0	$0

Land Information [collapse]

Acreage:	0.00	**Frontage:**	0.00 Ft.
Zoning Code:		**Depth:**	0.00 Ft.
Land Value:	$0	**Mortgage Code:**	
Land Improvements:	$0	**Lot Dimensions/Comments:**	
Renaissance Zone:	NO		
ECF Neighborhood Code:			

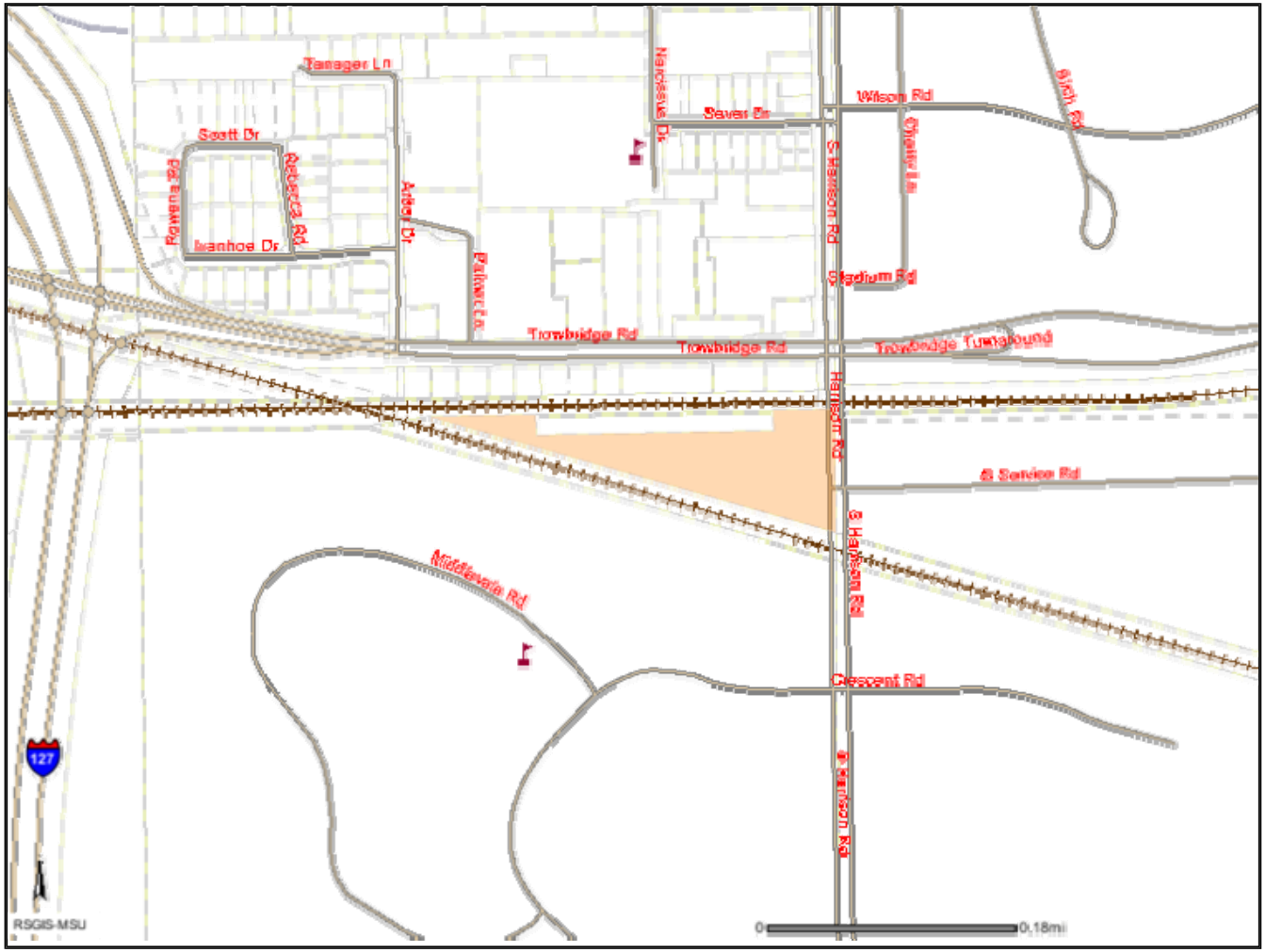
Legal Information for 33-20-01-24-300-002 [collapse]

THAT PART OF SW 1/4 LYING S OF GTW RR R/W & N OF C&O RR R/W EXC N 50 FT & EXC BEG AT PT ON GTW RR S'LY BDRY LN THAT IS W'LY 170 FT FROM INT OF S'LY BDRY WITH W'LY R/W LN OF HARR- ISON RD W'LY ON S'LY BDRY LN 900 FT N'LY AT R/A 91 FT TO PT THAT IS S'LY AT R/A 11 FT FROM C/L OF GTW RR E MAIN TRACK E'LY PLL WITH TRACK 900 FT S'LY AT R/A 91 FT TO POB SEC 24 T4NR2W

Sales Information

0 sale record(s) found.						
Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms Of Sale	Liber/Page

Ingham County Equalization/Tax Mapping Viewer




TROWBRIDGE
TROWE
Harrison

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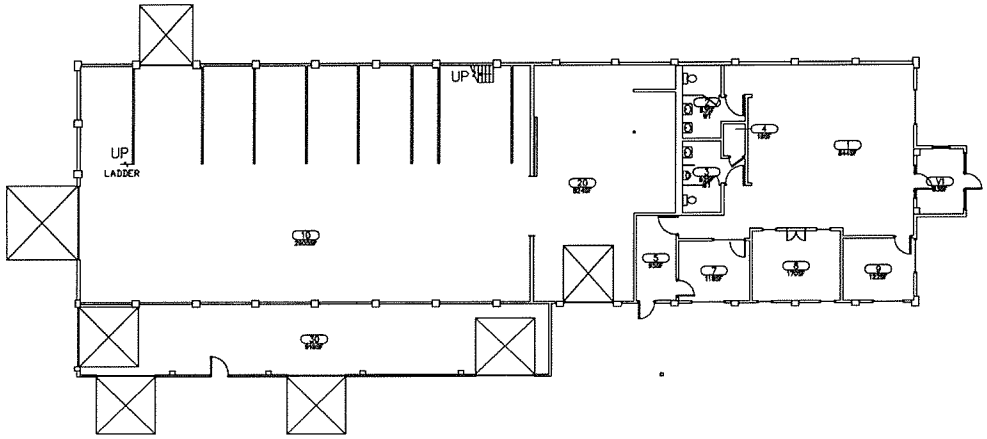


FIRST FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

AMTRAK STATION

FIRST FLOOR PLAN

N

ORIG. DRAWN BY PAR
APPROVED BY
DATE 10/11/04
SCALE 1"=20'

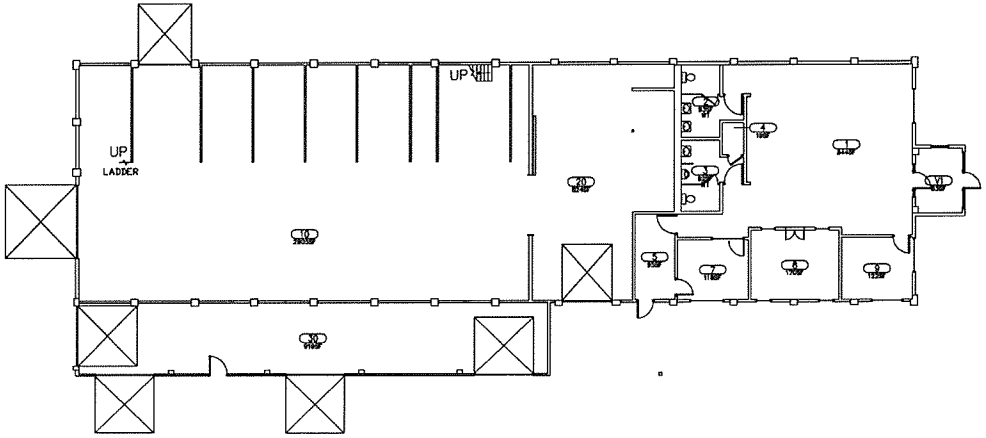
LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

BUILDING NO. 193

SHEET 1 OF 3

O_0193_01_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0193_01_BASE.dwg



FIRST FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

AMTRAK STATION

FIRST FLOOR PLAN

N

ORIG. DRAWN BY PAR
APPROVED BY
DATE 10/11/04
SCALE 1"=20'

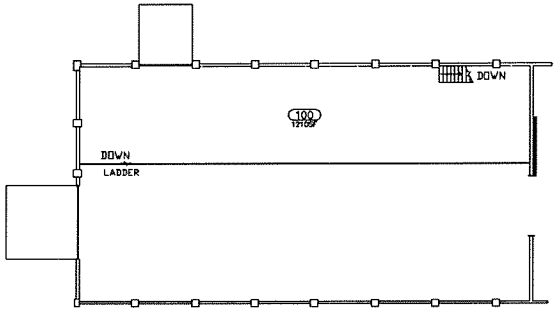
LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

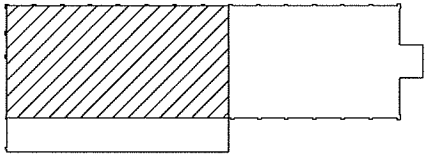
BUILDING NO. 193

SHEET 1 OF 3

O_0193_01_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0193_M_BASE.dwg





MEZZANINE PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

AMTRAK STATION

MEZZANINE PLAN

N

ORIG. DRAWN BY PAR
APPROVED BY
DATE 10/05/04
SCALE 1"=20'

LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

BUILDING NO. 193

SHEET 2 OF 3

O_0193_M_BASE.DWG

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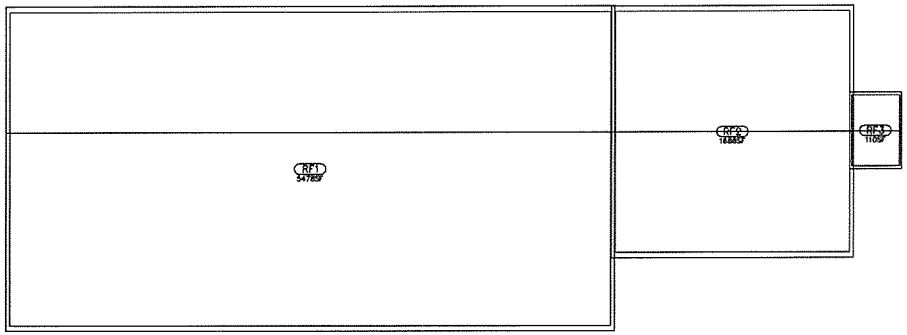

ROOF PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

AMTRAK STATION

ROOF PLAN

N

ORIG. DRAWN BY PAR
APPROVED BY
DATE 10/11/04
SCALE 1"=20'

LAST REVISED ON 09-11-07
LAST REVISED BY KRR
LAST EXPORTED

BUILDING NO. 193

SHEET 3 OF 3

O_0193_R_BASE.DWG

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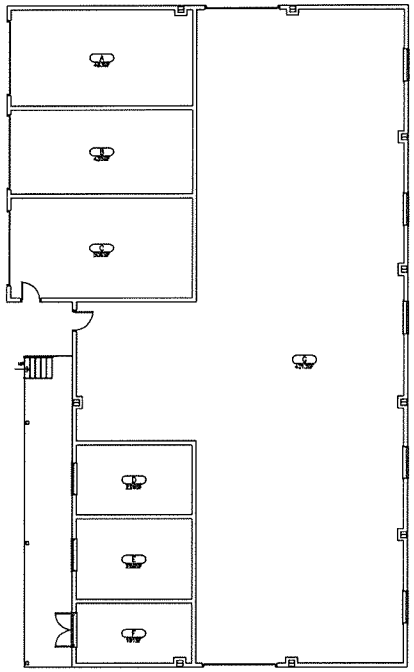


FIRST FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

RENTAL STORAGE FACILITY A

FIRST FLOOR PLAN

ORIG. DRAWN BY JJV
APPROVED BY SDF
DATE 11-05-99
SCALE 1" = 20'

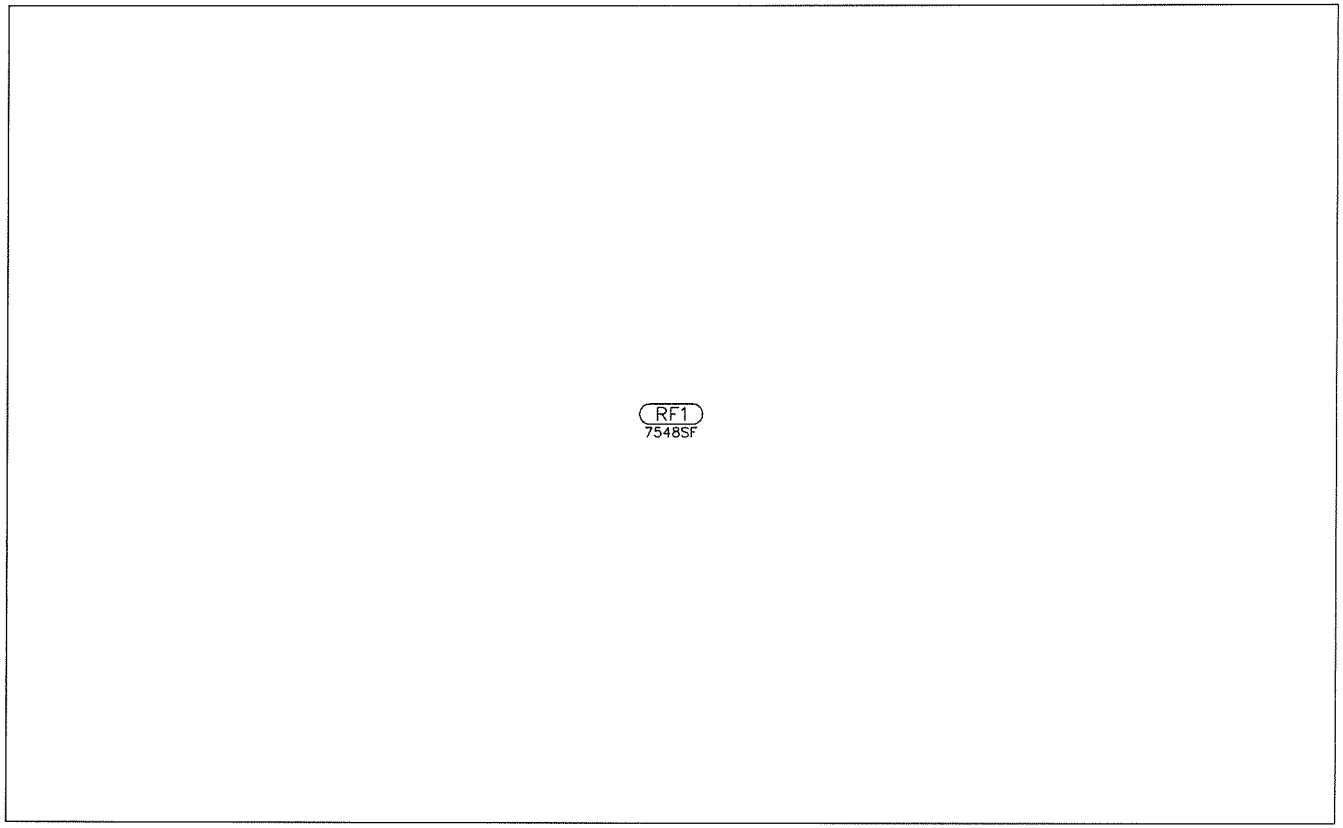
LAST REVISED ON 03-16-07
LAST REVISED BY BMC
LAST EXPORTED

BUILDING NO. 162

SHEET 1 OF 2

O_0162_01_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0162_R_BASE.dwg



ROOF PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

RENTAL STORAGE FACILITY A

ROOF PLAN

ORIG. DRAWN BY JJV
APPROVED BY
DATE 11-05-99
SCALE 1" = 10'

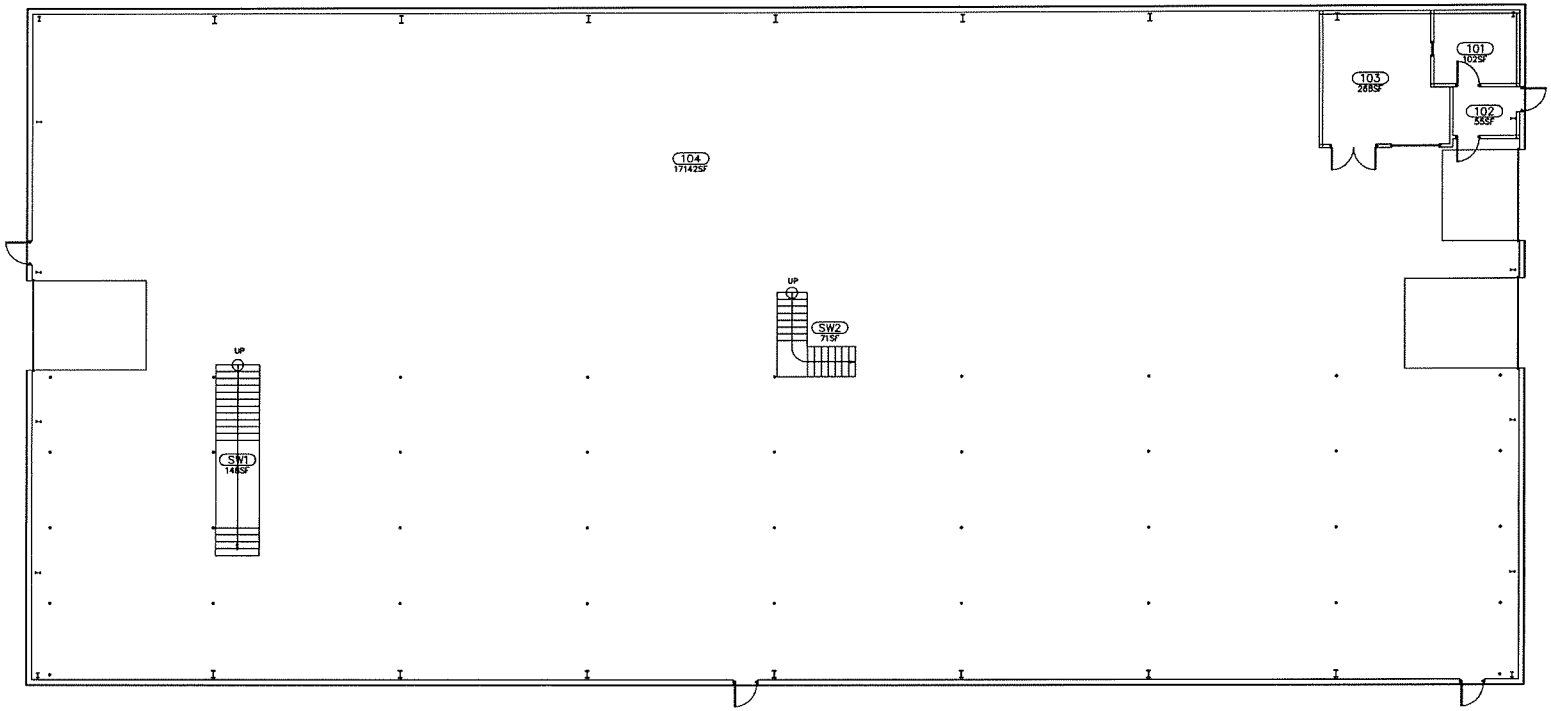
LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

BUILDING NO. 162

SHEET 2 OF 2

O_0162_R_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0205_01_BASE.dwg



FIRST FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

RENTAL STORAGE FACILITY B

FIRST FLOOR PLAN

N

ORIG. DRAWN BY JRP
APPROVED BY
DATE 11-07-01
SCALE 1" = 16'

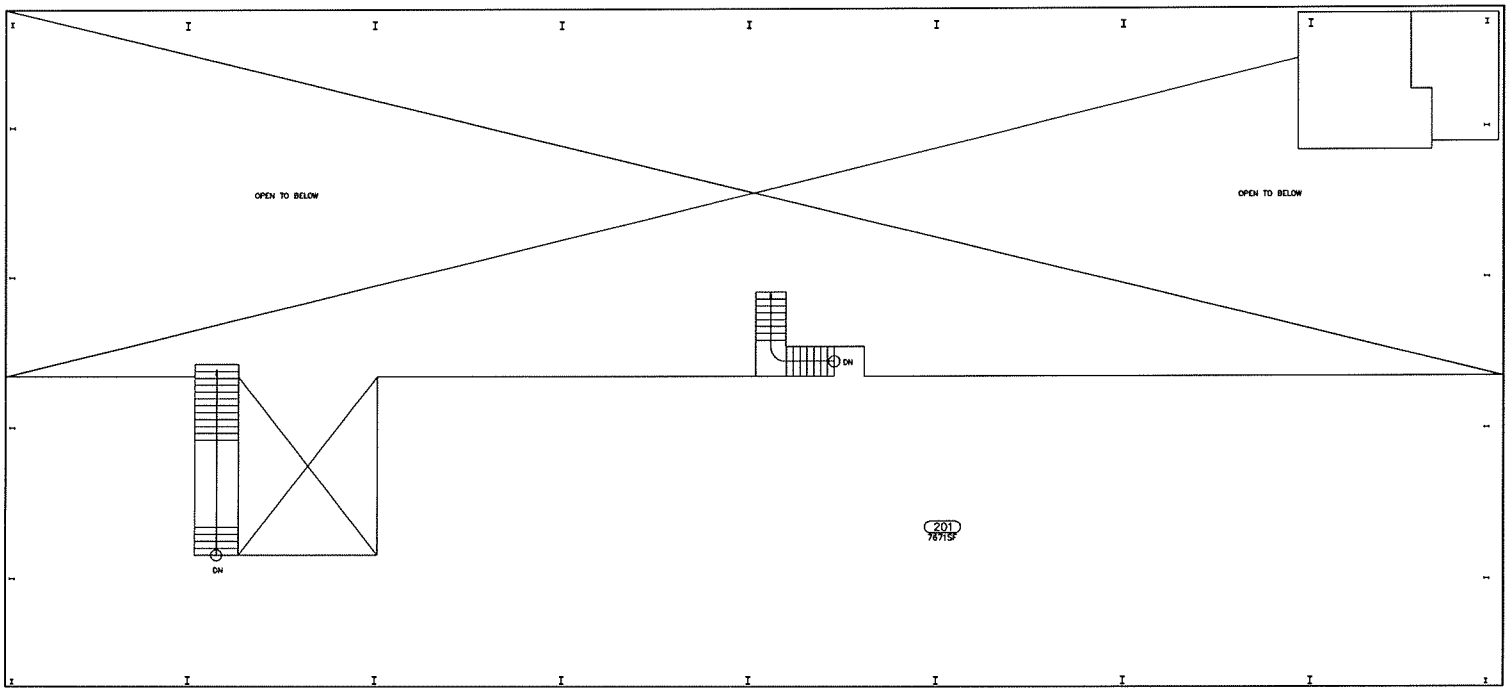
LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

BUILDING NO. 205

SHEET 1 OF 3

O_0205_01_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0205_M_BASE.dwg



MEZZANINE FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

RENTAL STORAGE FACILITY B

MEZZANINE FLOOR PLAN

N

ORIG. DRAWN BY JRP
APPROVED BY
DATE 11-07-01
SCALE 1" = 16'

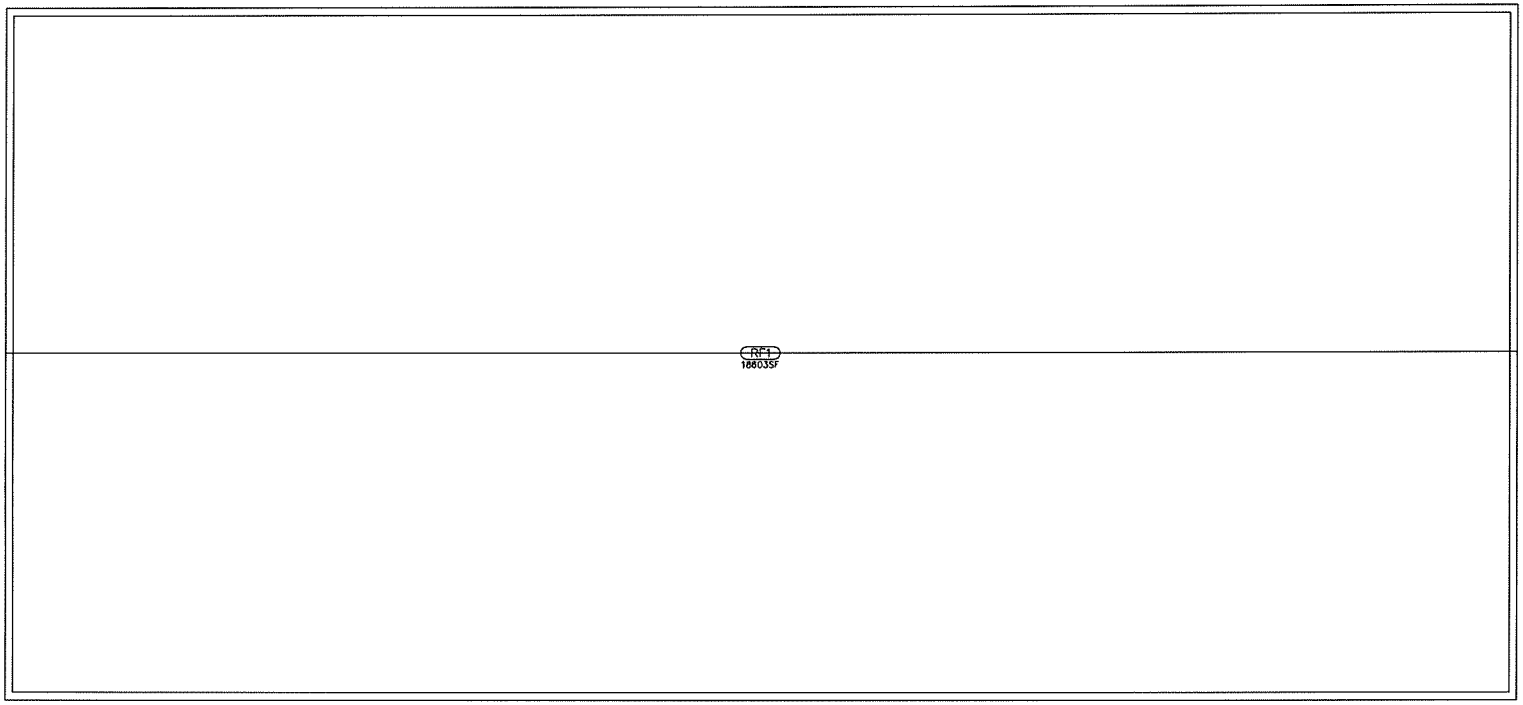
LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

BUILDING NO.
205

SHEET
2
OF 3

O_0205_M_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0205_R_BASE.dwg



ROOF PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

RENTAL STORAGE FACILITY B

ROOF PLAN

N

ORIG. DRAWN BY JRP
APPROVED BY
DATE 11-07-01
SCALE 1" = 16'

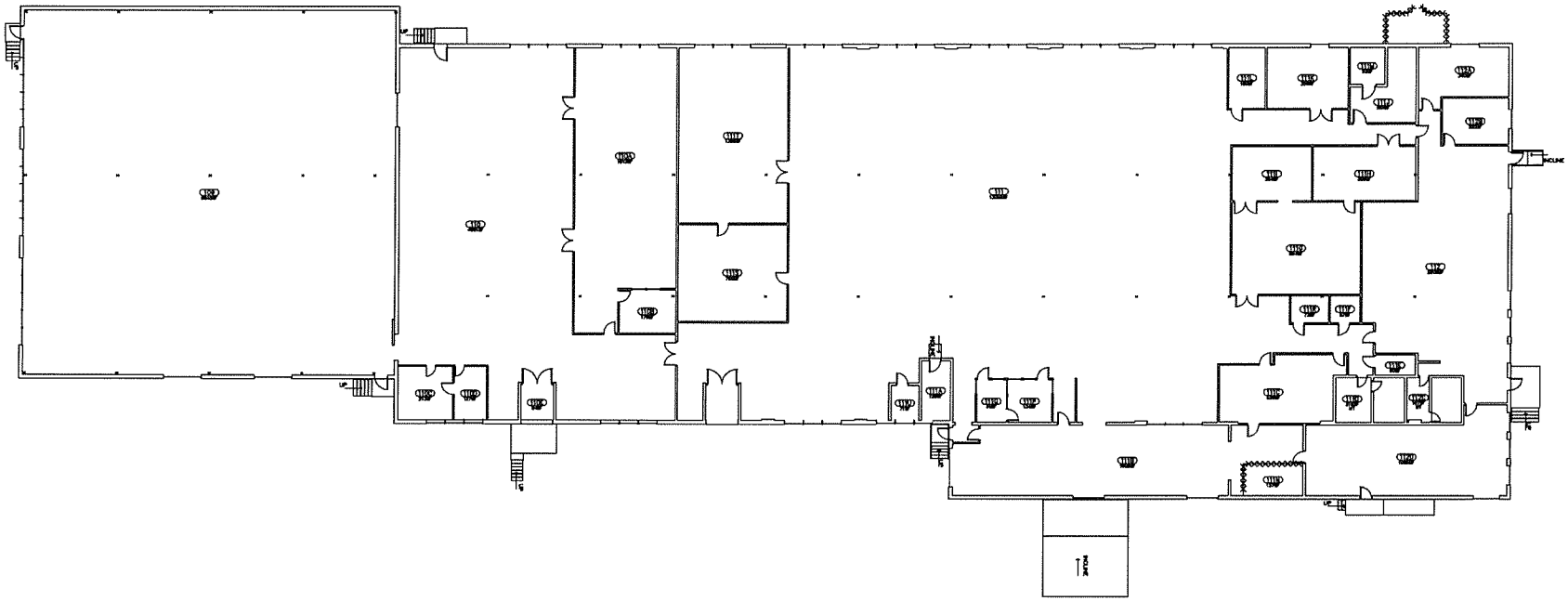
LAST REVISED ON 08-21-07
LAST REVISED BY KRR
LAST EXPORTED

BUILDING NO. 205

SHEET 3 OF 3

O_0205_R_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0161_01_BASE.dwg



FIRST FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

PRINTING SERVICES BUILDING

FIRST FLOOR PLAN

N

ORIG. DRAWN BY YSW
APPROVED BY
DATE 06-03-99
SCALE 1" = 30'

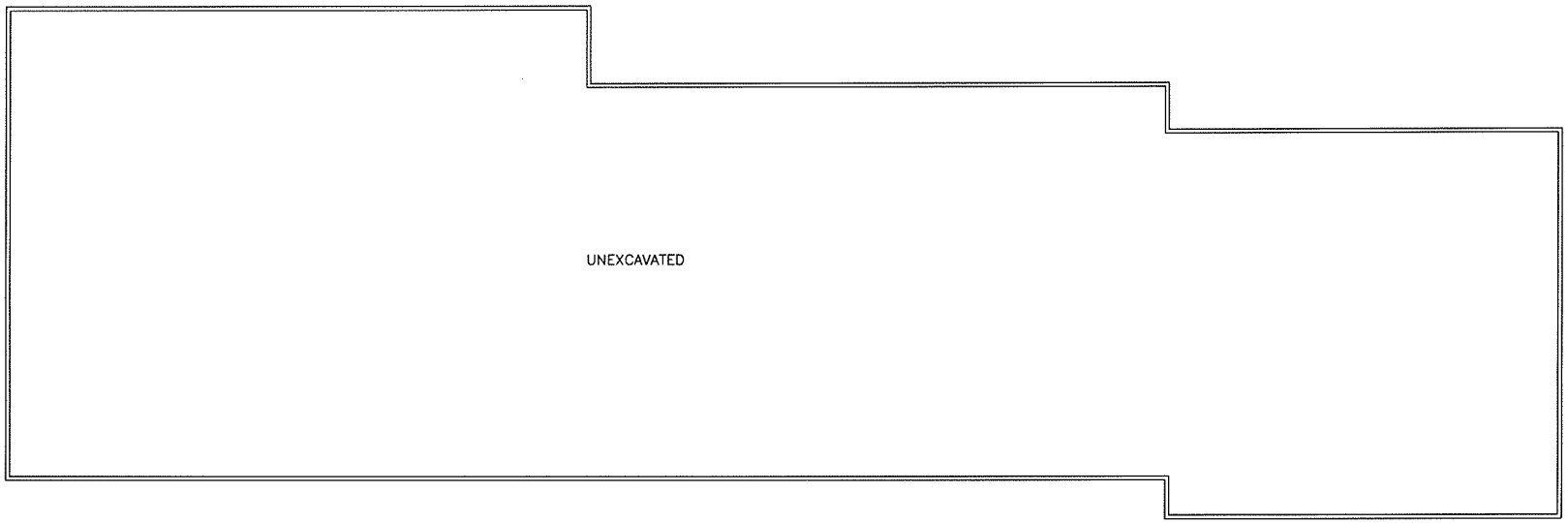
LAST REVISED ON 5-19-06
LAST REVISED BY AMM
LAST EXPORTED

BUILDING NO. 161

SHEET 2 OF 3

O_0161_01_BASE.DWG

Last Export Date: 4/16/2009 Filename: O_0161_F_BASE.dwg



FOUNDATION PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

PRINTING SERVICES BUILDING

FOUNDATION PLAN

N

ORIG. DRAWN BY YSW
APPROVED BY
DATE 06-03-99
SCALE 1" = 30'

LAST REVISED ON
LAST REVISED BY
LAST EXPORTED

BUILDING NO. 161

SHEET 1 OF 3

O_0161_F_BASE.DWG

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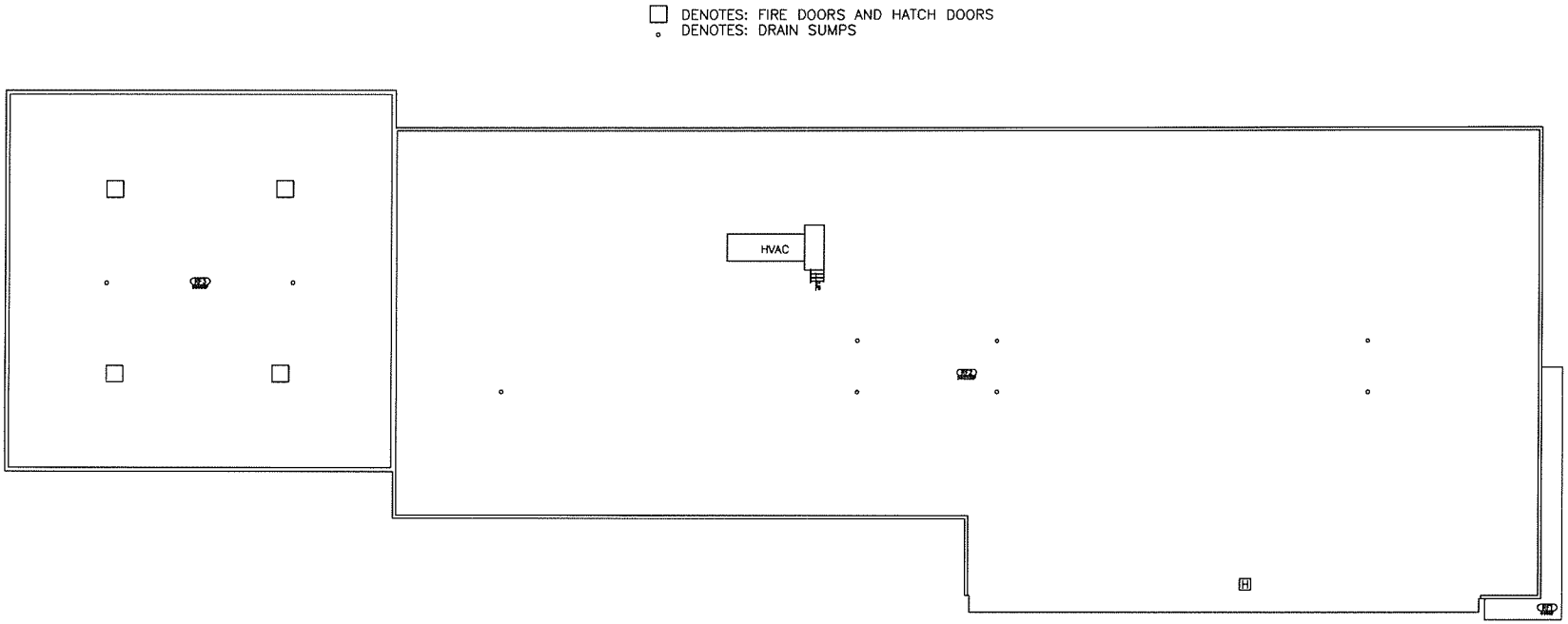

ROOF PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

PRINTING SERVICES BUILDING

ROOF PLAN

N

ORIG. DRAWN BY YSW
APPROVED BY
DATE 08-03-99
SCALE 1" = 30'

LAST REVISED ON 09-05-06
LAST REVISED BY JJC
LAST EXPORTED

BUILDING NO. 161

SHEET 3 OF 3

O_0161_R_BASE.DWG

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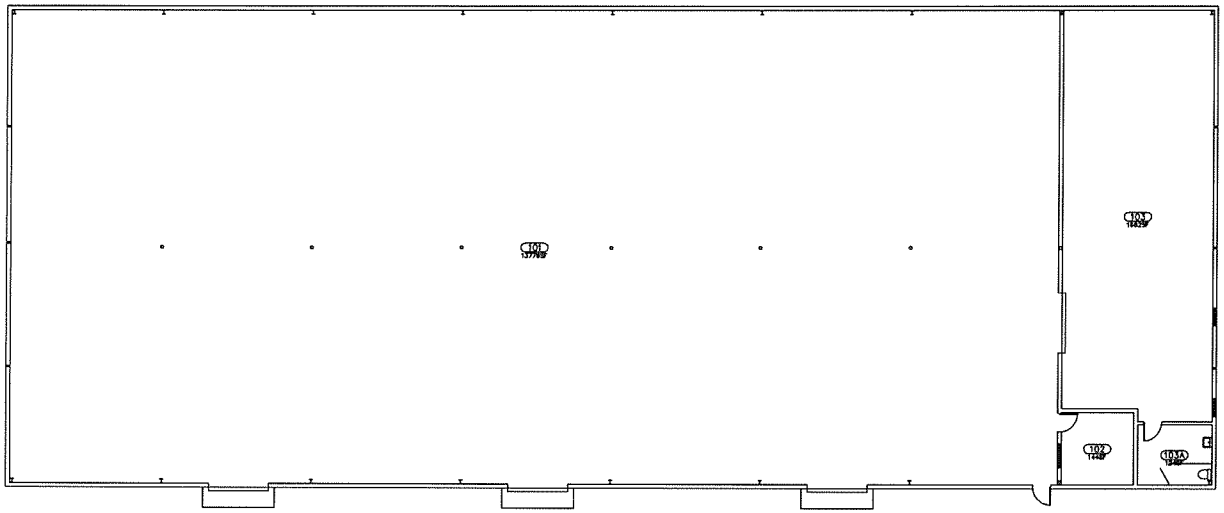

FIRST FLOOR PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

SURPLUS STORE

FIRST FLOOR PLAN

N

ORIG. DRAWN BY JCM
APPROVED BY
DATE 07-21-92
SCALE 1" = 20'

LAST REVISED ON 03-28-01
LAST REVISED BY GIS
LAST EXPORTED

BUILDING NO. 190

SHEET 1 OF 2

O_0190_01_BASE.DWG

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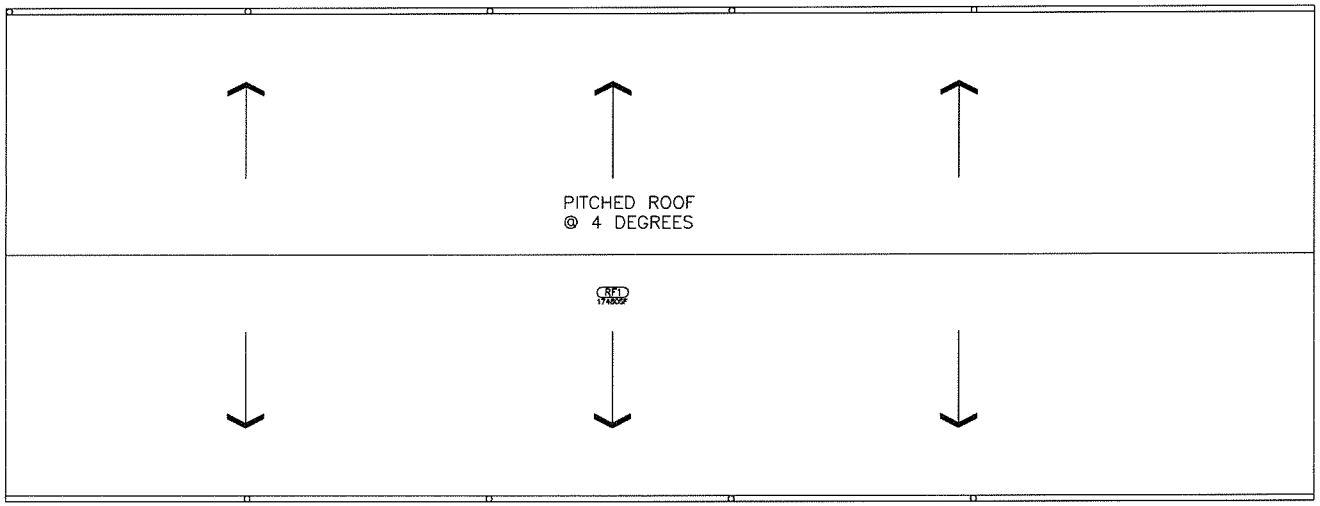


ROOF PLAN

MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

SALVAGE BUILDING

ROOF PLAN

N

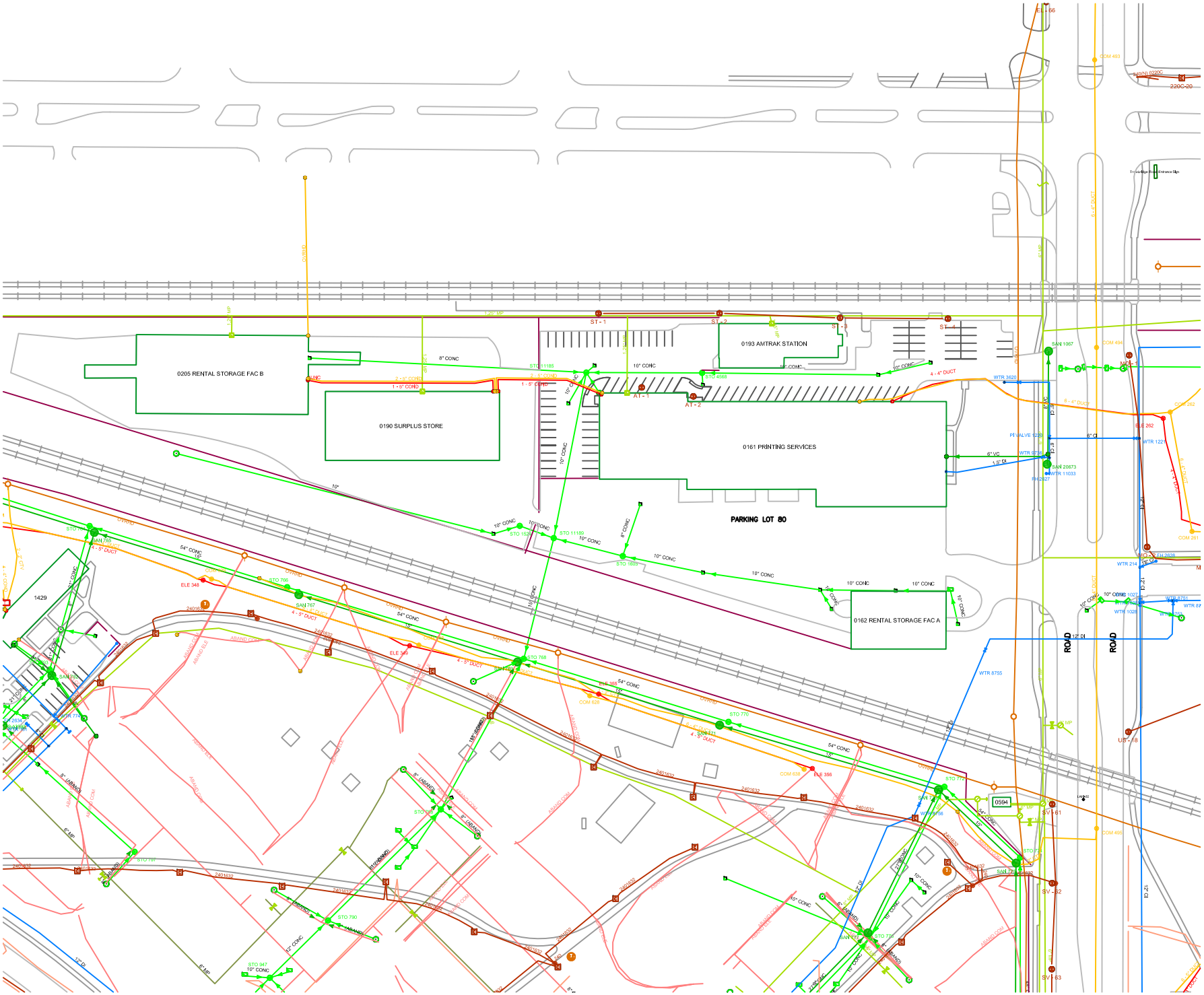
ORIG. DRAWN BY JCM
APPROVED BY
DATE 07-21-92
SCALE 1" = 20'

LAST REVISED ON 09-05-06
LAST REVISED BY JJC
LAST EXPORTED

BUILDING NO. 190

SHEET 2 OF 2

O_0190_R_BASE.DWG



MICHIGAN STATE UNIVERSITY
PHYSICAL PLANT DIVISION
ENGINEERING AND ARCHITECTURAL SERVICES

DRAWN NLV
APPROVED
DATE 07/15/10
SCALE 1"=150'
REVISIONS

CAPITAL PROJ. NO.

SHEET

OF

AKTPEERLESS
environmental & energy services

APPENDIX C

AKT PEERLESS' SEPTEMBER 2010 PHASE II ESA

AKTPEERLESS
environmental & energy services

PHASE II ENVIRONMENTAL SITE ASSESSMENT
1240 SOUTH HARRISON ROAD
(PARCEL IDENTIFICATION NUMBERS:
33-20-01-24-123-009 AND 33-20-01-24-300-002)
EAST LANSING, MICHIGAN

for

CITY OF EAST LANSING
EAST LANSING, MICHIGAN

AND

MICHIGAN STATE UNIVERSITY
EAST LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 6643S-2-20
SEPTEMBER 2, 2010

REVISED EDITION

AKTPEERLESS
environmental & energy services

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AKTPEERLESS
environmental & energy services

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(continued)

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AKTPEERLESS
environmental & energy services

PHASE II ENVIRONMENTAL SITE ASSESSMENT

1240 SOUTH HARRISON ROAD
(PARCEL IDENTIFICATION NUMBERS:
33-20-01-24-123-009 AND 33-20-01-24-300-002)
EAST LANSING, MICHIGAN

AKT PEERLESS PROJECT NO. 6643S-2-20

1.0 INTRODUCTION

The City of East Lansing retained AKT Peerless Environmental & Energy Services (AKT Peerless) to conduct a Phase II Environmental Site Assessment (ESA) of a property located at 1240 South Harrison Road (Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002) in East Lansing, Michigan (subject property). This Phase II ESA was conducted in accordance with AKT Peerless' Proposal for a Phase II ESA (Proposal Number PS-11138), dated August 4, 2010, Phase II Sampling and Analysis Plan (SAP), dated August 4, 2010, and is based on American Society for Testing and Materials (ASTM) Designation E 1903-97 *"Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process."*

This Phase II ESA scope of work is intended to evaluate the recognized environmental conditions (RECs) presented in Section 2.4. AKT Peerless' Phase II ESA report documents field activities, sampling protocols, and laboratory results. AKT Peerless' Phase II ESA was performed for the benefit of the City of East Lansing and Michigan State University (MSU), who may rely on the contents and conclusions of this report.

2.0 BACKGROUND

2.1 SITE DESCRIPTION AND PHYSICAL SETTING

The subject property is located in the southwest ¼ of Section 24 in East Lansing (T.4N./R.2W.), Ingham County, Michigan. The subject property is situated west of South Harrison Road. It consists of a nearly rectangular shaped parcel and an irregular shaped parcel that total approximately 15.70 acres.

The following table presents additional information regarding the subject property. For ease of reference in this report, AKT Peerless has designated each of the subject property parcels with a letter. These designations have no relevance to legally recorded data about the subject property.

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	1240 South Harrison Road	33-20-01-24-123-009	Board of Trustees, Michigan State University	1.61
B	Unaddressed Property	33-20-01-24-300-002	State Board of Agriculture	14.09

The subject property contains one 8,010 square foot transportation hub building, one 43,894 square foot former printing services building, one 7,036 square foot university storage building, one 16, 293 square foot university storage building, and one 25,792 square foot university storage building. The exterior of the subject property is improved with paved and landscaped areas. A truck well is located on the east side of Building 5. Several Bay doors are located on all subject buildings. In addition, a 550-gallon heating oil underground storage tank (UST) was formerly located to the west of Building 3.

The subject property is zoned manufacturing district (M-1). The subject property is currently used for a transportation hub and university storage.

Refer to Figure 1, Topographic Location Map and Figure 2, Sample Location Map.

2.2 SUBJECT PROPERTY HISTORY AND LAND USE

The subject property is currently used for a transportation hub and university storage.

The subject property consisted of undeveloped land from at least 1938 until approximately 1950 when a railroad platform and Building 2 were constructed. In 1963 Building 3 was constructed. In 1965 Building 1 was constructed. In 1967 Building 4 was constructed, and Building 5 was constructed in 1987. Operations at the subject property have included printing (1950 – c.2010), university storage (c.1963 – present), and a transit platform (c.1950 – present).

2.3 ADJACENT PROPERTY LAND USE

The following table describes the current uses of the adjoining properties and identified occupants:

Direction	Address	Current Use / Occupant
North	Unaddressed properties	Transit / Railroad tracks
South		
West		
East	Unaddressed property	University / MSU

2.4 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

2.4.1 AKT Peerless' August 2010 Phase I ESA

AKT Peerless completed a Phase I ESA for the property located at 1240 South Harrison Road (Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002) in East Lansing, Michigan on August 7, 2010. AKT Peerless' Phase I ESA included, but was not limited to, a site walkover, review of government records, assembly and review of data from area maps and directories, assessment of aerial photographs, and interviews with the site owner, others familiar with the subject property, and government officials.

Based on the results of the findings of the Phase I ESA, the following RECs were identified for the subject property:

1. An approximately 550-gallon heating oil UST with associated fill port and vent pipe is located to the west of Building 3. The UST is not currently in use. In addition, the installation date is unknown.

2. AKT Peerless observed stained soil/pavement beneath abandoned unknown machinery located to the west of Building 5.

3. AKT Peerless observed storage of large quantities of roofing repair materials within the garage area of Building 1. It is AKT Peerless' opinion that bulk storage of hazardous substances may have adversely impacted the subject property.

4. Building 2 was used for printing operations from 1950 until early 2010. It is AKT Peerless' opinion that the historical use of the subject property in association with the use and storage of hazardous substances and/or wastes may have adversely impacted the subject property.

5. The adjoining properties to the north, south, and west have contained railroad tracks since at least 1938. Potential concerns typically associated with railroad spurs include the use of fill materials as ballast to support ties and rails of the railroad tracks, and leaks or spills of hazardous materials or petroleum products. In addition, two train derailments with associated releases of coal and diesel fuel occurred during the last 30 years to the north of the subject property.

3.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES

3.1 SCOPE OF ASSESSMENT

To further evaluate the RECs, AKT Peerless conducted a subsurface investigation of the subject property that included: (1) the advancement of nine soil borings, (2) the installation of one temporary groundwater monitoring well, and (3) the collection of 12 soil samples and two groundwater samples. The following samples were submitted for laboratory analyses:

- 12 soil samples for select laboratory analysis including: volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), base neutral acids (BNAs), Michigan 10 Metals

(arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium, silver, and zinc), hexavalent chromium, fine and coarse fraction lead, and Michigan Department of Natural Resources and Environment (MDNRE) Light Distillate Oil Parameters [benzene, toluene, ethylbenzene, and xylenes (BTEX), trimethylbenzene isomers (TMBs), and PNAs].

- Two groundwater samples for select laboratory analysis including: VOCs, BNAs, Michigan 10 Metals, and MDNRE Light Distillate Oil Parameters.

The following table summarizes each REC, the site investigation activities performed to address each REC, and the laboratory parameters used to address each REC.

Summary of AKT Peerless' Scope of Investigation

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
REC 1	Heating oil UST	Tank East End Tank West End Tank Basin	MDNRE Light Distillate Oil Parameters
REC 2	Stained soil/pavement	B-3	VOCs, PNAs, Michigan 10 Metals, Hexavalent Chromium (B-4 only)
REC 3	Storage of roofing materials	B-4	
REC 4	Former printing operations	B-5 B-6 B-7	VOCs, Michigan 10 Metals
REC 5	Adjoining railroad tracks	B-8 B-9/TMW B-10 B-11	VOCs, BNAs, Michigan 10 Metals, Hexavalent Chromium (B-9, B-10, and B-11 only), Fine and Coarse Fraction Lead (B-10 only)

3.1.1 UST Evaluation

On August 10, 2010, Strata Environmental Services (Strata) began removal of the approximately 550-gallon heating oil UST located to the west of Building 3. During the removal process groundwater was observed in the UST cavity at approximately 4-feet below ground surface (bgs). Removal was halted to arrange for removal of groundwater in the UST Cavity. On August 10, 2010 AKT Peerless collected a soil sample from each end of the UST Cavity (Tank East End and Tank West End) and a groundwater sample from the UST Cavity (Tank Basin). Further, Ms. Mary Lindsey-Frary, Senior Environmental Coordinator with MSU, indicated that on August 11, 2010, groundwater was pumped from the excavation and the UST was removed and properly disposed of.

3.1.2 Soil Evaluation

On August 10, 2010, AKT Peerless advanced nine soil borings at the subject property. AKT Peerless used hydraulic drive/direct-push (Geoprobe®) and hand-auger sampling techniques and

followed the drilling procedures outlined in ASTM publication D 6282-98 "*Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations.*" AKT Peerless collected continuous soil samples from the soil borings in 4-foot intervals to the maximum depth explored of 20-feet bgs. AKT Peerless personnel inspected, field-screened, and logged the samples collected at each soil boring location. Refer to Figure 2, Sample Location Map. Boring logs are provided in Appendix A.

3.1.3 Groundwater Evaluation

AKT Peerless encountered groundwater in all of the soil borings advanced at the subject property. AKT Peerless installed a temporary groundwater monitor well at one of the nine boring locations. A 1-inch polyvinyl chloride (PVC) riser with a 5-foot screen was utilized for each temporary groundwater monitor well. Groundwater sampling was conducted using low-flow sampling methodologies described in the April 1996 United States Environmental Protection Agency (USEPA) document Groundwater Issue titled "*Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures.*" Stabilization data recorded for each well were documented in Low-Flow Sampling Logs included in Appendix B. Refer to Figure 2, Sample Location Map.

3.1.4 Deviations from the Sampling and Analysis Plan

This Phase II ESA was conducted under a USEPA Brownfield Assessment Grant awarded to the City of East Lansing. On August 4, 2010, AKT Peerless prepared a Phase II SAP on behalf of the City of East Lansing. On August 6, 2010 the SAP was approved by the USEPA Region 5 Project Manager. In completing field activities, the following deviations from the approved SAP were made:

- Groundwater was not encountered in soil boring B-8 to a maximum depth of 20-feet bgs. A second soil sample was collected.
- Excavation of the 550-gallon UST occurred on August 10 and 11, 2010. Therefore, soil borings B-1/TMW and B-2 were not advanced. In place of the soil borings, two soil samples (Tank East End and Tank West End) and a groundwater sample (Tank Basin) were collected from the UST Cavity.
- Sample Duplicate, Matrix Spike and Matrix Spike Duplicate samples were submitted for chemical analysis based on the chemical analysis of the parent sample.

3.2 QUALITY ASSURANCE/QUALITY CONTROL

To ensure the accuracy of data collected during on site activities, AKT Peerless implemented proper quality assurance/quality control (QA/QC) measures. The QA/QC procedures included, but were not limited to: (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

3.2.1 Decontamination of Equipment

During sample collection, AKT Peerless adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

3.2.2 Calibration of Field Equipment

All field instruments were calibrated prior to first use on-site to ensure accuracy. Field instruments utilized during investigation activities at this subject property were a photoionization detector (PID), a water quality indicator meter (the meter measures pH, temperature, dissolved oxygen, conductivity and oxidation reduction potential), and a turbidity meter (the turbidity meter malfunctioned during the subsurface investigation and was not able to be used).

During AKT Peerless' Phase II ESA, a PID was used to screen all soil samples. The PID was maintained in a calibrated condition using 100 ppm isobutylene span gas prior to subsurface investigations.

The water quality indicator meter was used to measure indicator parameters during low-flow sampling conducted at the subject property. The meter was calibrated using known standards and in accordance with manufacturer specifications prior to first use on the subject property. The meter was designed to measure turbidity, pH, temperature, dissolved oxygen, conductivity and oxidation reduction potential.

3.2.3 Documentation of Activities

During AKT Peerless' Phase II ESA activities, subject property conditions (i.e. soil boring locations, weather conditions) were documented. AKT Peerless visually inspected the soil and groundwater samples and prepared a geologic log for each soil boring. The logs include soil characteristics such as: (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture and water table depth, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). Soil types were classified in accordance with ASTM publication D-2488 "*Unified Soil Classification System.*" All soil and groundwater samples were delivered to a laboratory under chain-of-custody documentation. See Appendix A for AKT Peerless' soil boring logs. See Figure 2, Sample Location Map.

3.2.4 Sample Preservation Techniques

AKT Peerless collected soil samples according to USEPA Publication SW-846, "*Test Methods for Evaluating Solid Waste.*" Soil and groundwater samples were collected in laboratory-supplied containers, stored on ice or at approximately 4 degrees Celsius, and submitted under chain-of-custody documentation.

Soil samples collected for volatile analyses were field preserved with methanol in accordance with USEPA Method 5035. Soil samples collected for PNAs, BNAs, and metals analyses were stored in unpreserved, 4-ounce wide-mouth jars.

Groundwater samples collected from the temporary well and UST Cavity were collected with a peristaltic pump and dedicated tubing. Groundwater samples for VOC analyses were collected with zero headspace into 40 ml glass vials and preserved with hydrochloric acid. Groundwater samples for metal analyses were collected into plastic bottles and preserved with nitric acid. Groundwater samples collected for analysis of PNAs and BNAs were collected into 1-liter amber glass jars.

3.2.5 QA/QC Sample Collection

AKT Peerless collected QA/QC samples for soil and water matrices in accordance with the QA/QC sample procedures outlined in the, *"Quality Assurance Project Plan (QAPP), Brownfield Assessment Program, Hazardous Substances and Petroleum Site Assessment Grant, East Lansing."* dated November 2008, Revision 1. The following table describes the QA/QC samples collected for each matrix.

Summary of AKT Peerless QA/QC Sampling

Number of Assessment Samples & Matrix	Number of QA/QC Samples				
	Field Equipment Blank	Field Duplicate	Trip Blank	MS/MSD	Field Blank
12/Soil	1	1	1	1	1
2/Water	-	1	1	1	-

3.3 LABORATORY ANALYSES AND METHODS

AKT Peerless submitted 12 soil and two groundwater samples for laboratory analyses. The following table summarizes the location, depth, matrix, and laboratory analysis for each sample.

Summary of Laboratory Analyses

Sample Name/Depth (in feet)	Matrix	VOCs	PNAs	BNAs	Michigan 10 Metals	MDNRE Light Distillate Oil Parameters	Fine and Coarse Fraction Lead	Hexavalent Chromium
Tank East End (4')	S					☑		
Tank West End (4')	S					☑		
B-3 (0.5-1')	S	☑	☑		☑			
B-4 (2-4')	S	☑	☑		☑			☑
B-5 (0.5-1')	S	☑			☑			

Sample Name/Depth (in feet)	Matrix	VOCs	PNAs	BNAs	Michigan 10 Metals	MDNRE Light Distillate Oil Parameters	Fine and Coarse Fraction Lead	Hexavalent Chromium
B-6 (0.5-1')	S	☑			☑			
B-7 (0.5-1')	S	☑			☑			
B-8 (6-8')	S	☑		☑	☑			
B-8 (18-20')	S	☑		☑	☑			
B-9 (9-11')	S	☑		☑	☑			☑
B-10 (0-0.5')	S	☑		☑	☑			☑
B-11 (0-0.5')	S	☑		☑	☑		☑	☑
Tank Basin	W					☑		
B-9/TMW	W	☑		☑	☑			

Note: S = Soil sample, W = Water sample

The laboratory analyzed the samples for: (1) VOCs in accordance with USEPA Method 8260B/5035; (2) PNAs and BNAs in accordance with USEPA Method 8270C; (3) metals in accordance with USEPA Method 6020 and 7471A, (4) hexavalent chromium in accordance with USEPA Method 3500 – Cr B, and (5) fine and coarse fraction lead in accordance with USEPA Method 3050B.

4.0 EVALUATION AND PRESENTATION OF RESULTS

4.1 SUBSURFACE CONDITIONS

4.1.1 Soil and Groundwater Conditions based on Published Material

According to the Michigan Department of Natural Resources (MDNR) Geological Survey Division's *Bedrock Geology of Southern Michigan* (1987), bedrock beneath the subject property is classified as Grand River Formation, which is included in the Conemaugh series within the Pennsylvanian system of the Paleozoic Era. The depth to bedrock beneath the subject property was not readily available prior to the completion of this Phase I ESA.

According to the Michigan Geological Survey Division's publication, *Quaternary Geology of Southern Michigan* (1982), soil in the subject property area is defined as end of moraines of medium-textured till. These soils are described as gray, grayish brown or reddish brown, nonsorted glacial debris; matrix is dominantly loam and silt loam texture, variable amounts of cobbles and boulders. Occurs in narrow linear belts of hummocky relief marking former standstills of ice-sheet margin. Includes small areas of ground moraine as well as outwash. Soil thickness tends to be somewhat greater than adjacent ground moraine areas. Typically, end moraines of medium-textured till are associated with moderate hydraulic permeability.

According to the United States Department of Agriculture (USDA) *web soil survey*, soil at the subject property is classified as belonging to the Urban land – Bowyer – Sprinks complex (UeB),

with 0 to 10 percent slopes, and the Urban land – Marlette complex (UtB), with 2 to 12 percent slopes.

Typically, the water table aquifer flows toward a major drainage feature or in the same direction as the drainage basin. The Red Cedar River, which flows to the west, is located approximately 3,966 feet north of the subject property. Therefore, AKT Peerless infers that groundwater beneath the subject property flows to the north-northwest, with potential influence from the Red Cedar River.

4.1.2 Soil and Groundwater Conditions based on Field Observations

During drilling activities, AKT Peerless encountered the following soil types:

- FILL in one soil boring from just below the ground surface to at least 4-feet bgs. The fill was generally brown in color, dry, and contained varying amounts of sand, and a tar/slag-like material.
- SAND in most soil borings from varying depths between just below the ground surface and 12-feet bgs, ranging in thickness between 2-feet and 8-feet. The sand was generally brown in color, dry to saturated, fine to medium grained, and contained varying amounts of silt, clay and gravel.
- CLAY in several soil borings from varying depths between 2-feet and 4-feet bgs, ranging in thickness between 2-feet and 6.5-feet. The clay was generally brown to gray in color, dry, soft, and contained varying amounts of sand.
- SILT in one soil boring (B-8) from varying depths between 2-feet and 8-feet bgs, and approximately 4-feet in thickness. The silt was generally brown to gray in color, dry to moist, and contained varying amounts of sand and clay.

AKT Peerless encountered groundwater in one soil boring and the UST Cavity at depths ranging between 4-feet and 11-feet bgs. The groundwater in the UST Cavity appears to be shallow and perched on the clay layer encountered at approximately 4-feet bgs. Groundwater does not appear to be continuous across the site.

Aside from the fill encountered in soil boring B-4, the subsurface soils at the property are consistent with the description of end of moraines of medium-textured till as described in the *Quaternary Geology of Southern Michigan.* See Figure 2, Sample Location Map. See Appendix A for AKT Peerless' soil boring logs.

4.2 MDNRE RELEVANT EXPOSURE PATHWAYS AND APPLICABLE CRITERIA

4.2.1 Relevant Exposure Pathways

As defined in Michigan Public Act 451 Part 201, "relevant pathway" means an exposure pathway that is reasonable and relevant because there is a reasonable potential for exposure to a hazardous substance. The analysis of potential exposure pathways is based on known existing conditions at the subject property. The following subsections identify the relevant exposure pathways based on the subject property conditions observed.

4.2.1.1 Ingestion of Groundwater Pathway

Groundwater was encountered in one of the soil borings drilled at the subject property by AKT Peerless in August 2010 and the UST Cavity. Groundwater was encountered between 4-feet and 11-feet bgs. Groundwater does not appear to be hydraulically continuous across the site. However, ingestion of groundwater at the subject property may be a relevant exposure pathway as potable water in the area is provided by municipal wells located throughout the City of Lansing.

4.2.1.2 Groundwater Venting to Surface Water Pathway

Groundwater Venting to Surface Water is not a human exposure pathway, but rather an exposure pathway based on aquatic toxicity. The subject property is located approximately 3,966 feet south of the Red Cedar River. Therefore, groundwater venting to surface water is a relevant exposure pathway.

4.2.1.3 Groundwater Contact Pathway

Groundwater was encountered in one of the soil borings drilled at the subject property by AKT Peerless in August 2010 and the UST Cavity. Groundwater was encountered between 4-feet and 11-feet bgs. Groundwater does not appear to be hydraulically continuous across the site. However, groundwater contact is a relevant exposure pathway due to the shallow occurrence of groundwater.

4.2.1.4 Volatilization to Indoor Air Inhalation Pathway

Volatilization to Indoor Air Inhalation is a relevant exposure pathway.

4.2.1.5 Volatilization to Ambient Air Pathway

Volatilization to Ambient Air is a relevant exposure pathway.

4.2.1.6 Particulate Inhalation Pathway

Particulate Inhalation is a relevant exposure pathway.

4.2.1.7 Direct Contact Pathway

Direct Contact is a relevant exposure pathway.

4.2.2 Applicable Criteria

Applicable criterion means a cleanup criterion for a relevant pathway. A criterion is not applicable if the exposure pathway is not relevant. Based on the exposure pathway evaluation, the applicable pathways at the subject property include:

- Drinking Water Protection Criteria (DWP)/Drinking Water Criteria (DW);

- Groundwater to Surface Water Protection Criteria (GSIP)/Groundwater to Surface Water Criteria (GSI);
- Groundwater Contact Protection Criteria (GCP);
- Soil Volatilization to Indoor Air Inhalation (SVIAI)/Groundwater Volatilization to Indoor Air Inhalation (GVIAI);
- Infinite Source Volatile Soil Inhalation (VSIC);
- Particulate Soil Inhalation (PSI), and;
- Soil Direct Contact (DC)/Groundwater Contact (GC);
- Soil Saturation Concentration Screening Levels (CSAT);
- Water Solubility (SOL);
- Flammability and Explosivity Screening Levels (FESL); and
- Acute Inhalation Screening Levels (AISL).

AKT Peerless compared the laboratory analytical data to the applicable Part 201 Residential/Commercial I Generic Cleanup Criteria as published by the MDNRE-Remediation Division (formerly Remediation and Redevelopment Division).

4.3 LABORATORY ANALYTICAL RESULTS

AKT Peerless collected soil and groundwater samples for the purpose of determining if the subject property meets the definition of a *facility*. Analytical results were compared with MDNRE Residential/Commercial I GCC provided in MDNRE RD's Operational Memorandum No. 1, Tables 1 and 2.

4.3.1 Soil Analytical Results

AKT Peerless submitted 12 soil samples for select laboratory analysis including: VOCs, PNAs, BNAs, Michigan 10 Metals, and/or MDNRE Light Distillate Oil Parameters. The results of the laboratory analyses of the soil samples are summarized in the table below:

Summary of Soil Analytical Results

Soil Boring Location & Depth	Parameter	MDNRE Criteria Exceeded						
		DWP	GSIP	GCP	SVIAI	VSI	PSI	DC
B-4 (2-4')	Naphthalene	☑	☑					
	Acenaphthene		☑					
	Anthracene	☑		☑				
	Benzo(a)anthracene							☑
	Benzo(a)pyrene							☑
	Benzo(b)fluoranthene							☑
	Fluoranthene		☑					
	Fluorene		☑					
	Phenanthrene	☑	☑			☑		
	Tetrachloroethylene	☑	☑					
B-10 (0-0.5')	Total Chromium		☑					
	Benzo(a)pyrene							☑
	Fluoranthene		☑					
	Phenanthrene		☑					
B-11 (0-0.5')	Benzo(a)pyrene							☑
	Fluoranthene		☑					

*- Sample identification: SB-# indicates soil boring and (#-#) indicates sample depth in feet.
DWP – Drinking Water Protection Criteria
GSIP – Groundwater Surface Water Interface Protection Criteria
GCP – Groundwater Contact Protection Criteria
SVIAI – Soil Volatilization to Indoor Air Inhalation Criteria
VSI – Volatile Soil Inhalation Criteria
PSI – Particulate Soil Inhalation Criteria
DC – Direct Contact Criteria

According to laboratory analytical results, all remaining target parameter concentrations were not detected above MDNRE Residential/Commercial I Generic Cleanup Criteria and/or laboratory method detection limits (MDLs).

Refer to Figure 3 for a site map with soil analytical results exceeding MDNRE Residential/Commercial I Generic Cleanup Criteria. Refer to Table 1 for a summary of soil analytical results. Refer to Appendix C for a complete analytical laboratory report.

4.3.2 Groundwater Analytical Results

AKT Peerless submitted two groundwater samples for laboratory analysis of VOCs, BNAs, Michigan 10 metals and/or MDNRE Light Distillate Oil Parameters. According to laboratory analytical results, target parameter concentrations were not detected above MDNRE Residential/Commercial I Generic Cleanup Criteria and/or laboratory MDLs.

Refer to Figure 2, Sample Location Map. Refer to Table 2 for a summary of groundwater analytical results. Refer to Appendix C for a complete analytical laboratory report.

4.3.3 Quality Assurance/Quality Control Analytical Results

4.3.3.1 Soil

QA/QC samples were collected in accordance with the QA/QC sample procedures outlined in the *"QAPP, Brownfield Assessment Program, Hazardous Substances and Petroleum Site Assessment Grant, City of East Lansing,"* dated November 2008 Revision 1. Samples were analyzed within hold times and in accordance with specified methods for each analytical group. Laboratory analytical results for samples analyzed met QA/QC data quality objectives as outlined in the QAPP and the site-specific Phase II SAP.

4.3.3.2 Groundwater

QA/QC samples were collected in accordance with the QA/QC sample procedures outlined in the *"QAPP, Brownfield Assessment Program, Hazardous Substances and Petroleum Site Assessment Grant, MACC,"* dated November 2008 Revision 1. Samples were analyzed within hold times and in accordance with specified methods for each analytical group. Laboratory analytical results for samples analyzed met QA/QC data quality objectives as outlined in the QAPP and the site-specific Phase II SAP.

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 SUMMARY OF ENVIRONMENTAL CONCERNS

Based on AKT Peerless' August 2010, Phase I ESA, the following environmental concerns were identified:

- Heating Oil UST;
- Stained pavement/soil;
- Storage of roofing materials;
- Former printing operations; and
- Railroad tracks on adjoining properties.

5.2 SUMMARY OF SUBSURFACE INVESTIGATION

On August 10, 2010, AKT Peerless conducted a subsurface investigation at the subject property to further evaluate environmental concerns identified during previous environmental investigations. AKT Peerless: (1) drilled nine soil borings, (2) installed one temporary

monitoring well, and (3) collected soil and groundwater samples for laboratory analyses. AKT Peerless submitted soil and groundwater samples for laboratory analyses of select parameters, including: VOCs, PNAs, BNAs, Michigan 10 Metals, hexavalent chromium, fine and coarse fraction lead, and/or MDNRE Light Distillate Oil Parameters.

5.3 CONCLUSIONS

AKT Peerless conducted soil and groundwater sampling in areas most likely to be impacted by contaminants based on the past use of the subject property. The results of the investigation indicate the following:

- Naphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, fluorene, phenanthrene, and tetrachloroethylene were detected in subsurface soils in the vicinity of the roofing material storage in Building 1 (B-4) at concentrations exceeding the MDNRE Part 201 Residential/Commercial I Generic Cleanup Criteria. Various concentrations in soil were detected above the groundwater surface water interface protection criteria, drinking water protection criteria, groundwater contact protection, direct contact criteria, and volatile soil inhalation criteria. Further, total chromium, benzo(a)pyrene, fluoranthene, and phenanthrene were detected in subsurface soils in the vicinity of the southern property boundary (B-10 and/or B-11) at concentrations exceeding MDNRE Part 201 Residential/Commercial I Generic Cleanup Criteria. Various concentrations were detected above the groundwater surface water interface protection criteria, and direct contact criteria.

Based on laboratory analytical results, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended.

5.4 RECOMMENDATIONS

5.4.1 Current Owner

AKT Peerless recommends that the current owner remove the abandoned machinery to the west of Building 5. In addition, AKT Peerless recommends additional sampling of soil in the vicinity of soil boring B-4 in an attempt to vertically and horizontally define the identified impact.

5.4.2 Future Owner(s)/Operator(s)

In addition to those recommendations provided in Section 5.4.1, AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA) report. 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 BEA is conducted prior 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 MDNRE and subsequent purchaser or transferee.

In addition, because the subject property meets the definition of a *facility*, AKT Peerless recommends conducting a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to the MDNRE and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.

6.0 LIMITATIONS

The information and opinions obtained in this report are for the exclusive use of the City of East Lansing and MSU. 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 your 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 City of East Lansing.

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, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by City of East Lansing, MSU, or third parties is complete or accurate.

7.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The following individuals contributed to the completion of this investigation.

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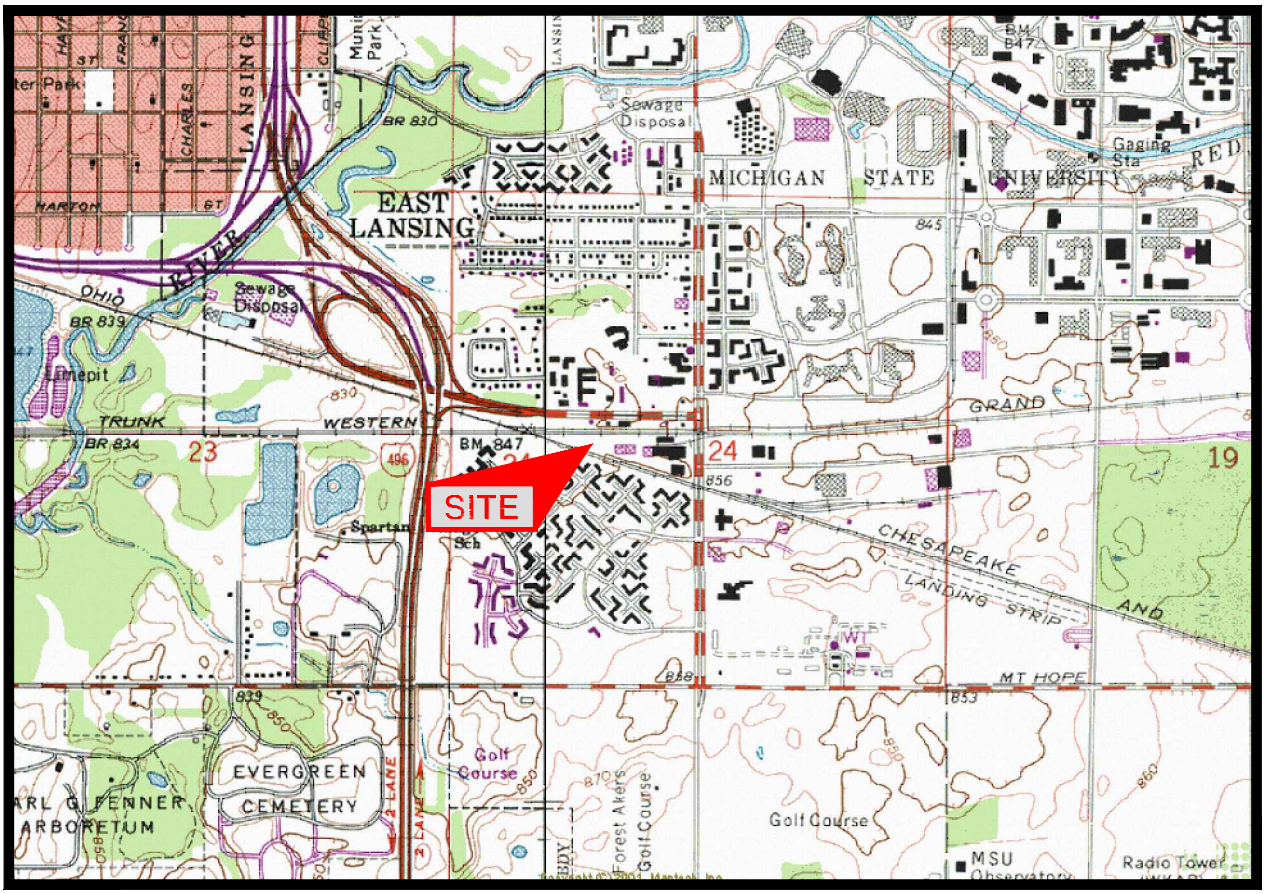
FIGURES

EAST LANSING 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 5 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

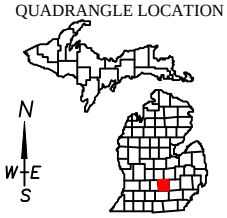


IMAGE TAKEN FROM 1970 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1976

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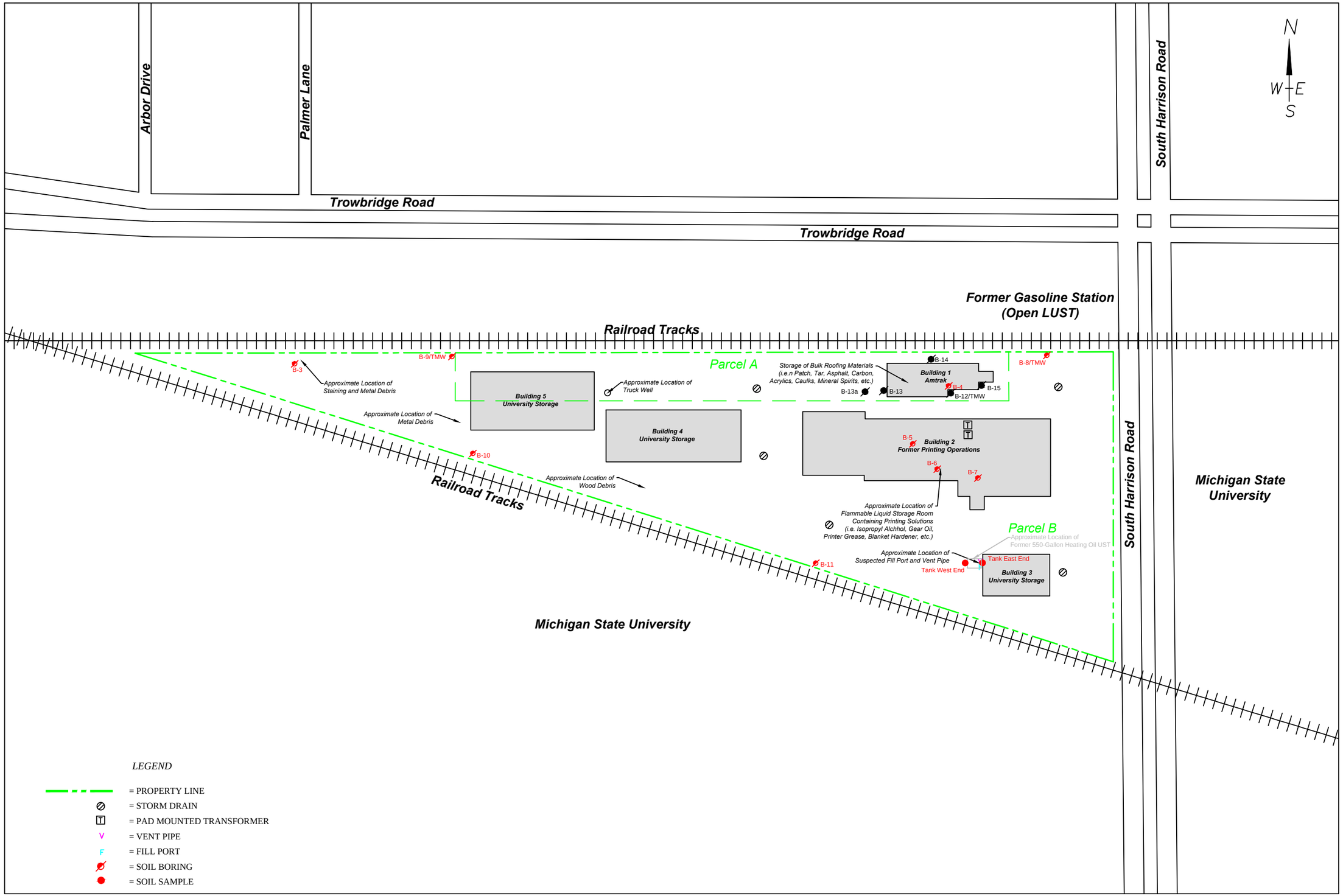
TOPOGRAPHIC LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-2-20

DRAWN BY: OGO
DATE: 08-18-10

FIGURE 1



LEGEND

- = PROPERTY LINE
- = STORM DRAIN
- = PAD MOUNTED TRANSFORMER
- V = VENT PIPE
- F = FILL PORT
- = SOIL BORING
- = SOIL SAMPLE

DRAWN BY: OGO
DATE: 08-18-10

0 75 150
SCALE: 1" = 150'±0

FIGURE 2

SAMPLE LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 66435-2-20

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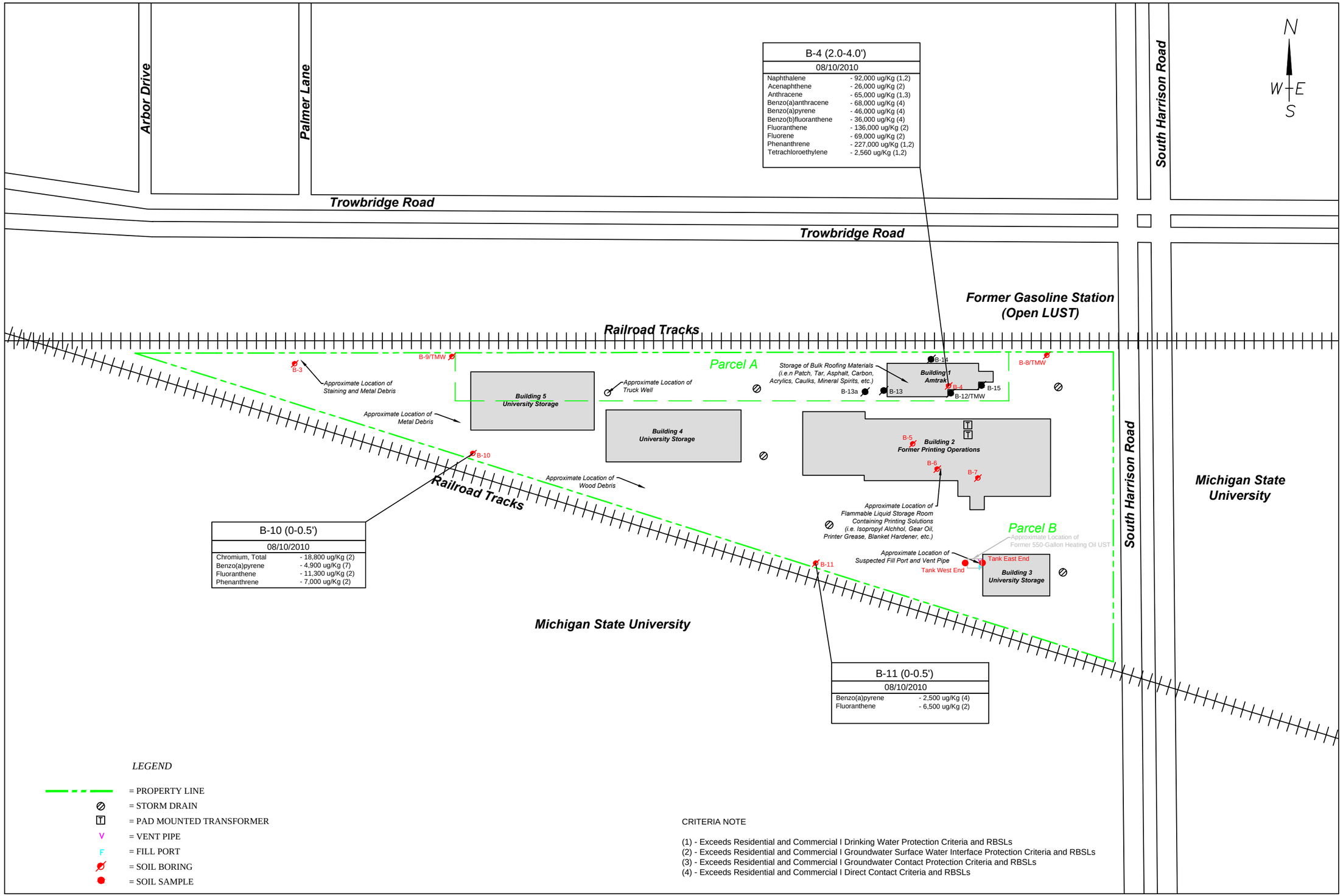

LEGEND

- = PROPERTY LINE
- = STORM DRAIN
- = PAD MOUNTED TRANSFORMER
- V = VENT PIPE
- F = FILL PORT
- = SOIL BORING
- = SOIL SAMPLE

CRITERIA NOTE

(1) - Exceeds Residential and Commercial I Drinking Water Protection Criteria and RBSLs
(2) - Exceeds Residential and Commercial I Groundwater Surface Water Interface Protection Criteria and RBSLs
(3) - Exceeds Residential and Commercial I Groundwater Contact Protection Criteria and RBSLs
(4) - Exceeds Residential and Commercial I Direct Contact Criteria and RBSLs

DRAWN BY: OGO
DATE: 08-18-10

0 75 150
SCALE: 1" = 150'±

FIGURE 3

SITE MAP WITH SOIL RESULTS EXCEEDING MDNRE GRCC

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 66435-2-20

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TABLES

Table 1, Summary of Soil Analytical Results
Amtrak Property
Phase II ESA - August 2010
1240 South Harrison Road
East Lansing, Michigan
AKT Peerless Project No. 6643S

Parameters*	Chemical Abstract Service Number	Statewide Default Background Levels	Residential and Commercial I Drinking Water Protection Criteria and RBSLs	Groundwater Surface Water Interface Protection Criteria and RBSLs	Groundwater Contact Protection Criteria and RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation Criteria and RBSLs	Direct Contact Criteria and RBSLs	Soil Saturation Concentration Screening Levels														
Guidesheet Number →		#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20														
													Sample Location	Tank East End	Tank West End	B-3 (0.5-1)	B-4 (2-4)	B-5 (0.5-1)	B-6 (0.5-1)	B-7 (0.5-1)	B-8 (6-8)	B-8 (18-20)	B-9 (9-11)	B-10 (0-0.5)	B-11 (0-0.5)	FDS B-7 (0.5-1)
													Collection Date	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010	08/10/2010
(Refer to detailed laboratory report for method reference data)													Depth	4 feet	4 feet	0.5-1 feet	2-4 feet	0.5-1 feet	0.5-1 feet	0.5-1 feet	6-8 feet	18-20 feet	9-11 feet	0-0.5 feet	0-0.5 feet	0.5-1 feet
Metals ug/Kg																										
Arsenic	7440-38-2	5,800	4,600	70,000 (X)	2.0E+6	NLV	NLV	NLV	NLV	7.2E+5	7,600	NA		NS	NS	**1,250**	**2,610**	**710**	**740**	**1,010**	**580**	**360**	**240**	**5,290**	**1,600**	**810**
Barium (B)	7440-39-3	75,000	1.3E+6	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	3.3E+8	3.7E+7	NA		NS	NS	**22,500**	**30,800**	**8,700**	**7,700**	**7,000**	**12,600**	**1,900**	**44,200**	**41,900**	**24,500**	**6,500**
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	2.3E+8	NLV	NLV	NLV	NLV	1.7E+6	5.5E+5			NS	NS	<200	**290**	<200	<200	<200	**330**	<200	<200	**2,070**	**330**	<200
Chromium, Total	7440-47-3	18,000 (total)	30,000	**3,300**	1.4E+8	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA		NS	NS	**2,420**	**3,830**	**1,500**	**1,490**	**1,090**	**800**	**730**	**3,950**	**18,800**	**4,030**	**930**
Chromium III (B,H)	16065-83-1	18,000 (total)	1.0E+9 (D)	(G,X)	1.0E+9 (D)	NLV	NLV	NLV	NLV	3.3E+8	7.9E+8	NA		NS	NS	NS	**3,830**	NS	NS	NS	NS	NS	**3,950**	**18,800**	**4,030**	NS
Chromium VI	18540-29-9	NA	30,000	3,300	1.4E+8	NLV	NLV	NLV	NLV	2.6E+5	2.5E+6	NA		NS	NS	NS	BDL	NS	NS	NS	NS	NS	BDL	BDL	BDL	NS
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	1.3E+8	2.0E+7	NA		NS	NS	**4,900**	**14,300**	**2,500**	**2,300**	**3,000**	**2,300**	**2,500**	**5,400**	**39,500**	**7,800**	**2,000**
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA		NS	NS	**7,250**	**35,400**	**3,640**	**2,300**	**2,580**	**1,790**	**1,750**	**6,480**	**92,300**	**16,100**	**1,810**
Fine Fraction Lead	-	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**16,200**	NS	NS
Coarse Fraction Lead	-	21,000	7.0E+5	(G,X)	ID	NLV	NLV	NLV	NLV	1.0E+8	4.0E+5	NA		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**83,800**	NS	NS
Mercury, Total	7439-97-6	130	1,700	50 (M); 1.2	47,000	48,000	52,000	52,000	52,000	2.0E+7	1.6E+5	NA		NS	NS	<50	<50	<50	<50	<50	<50	<50	<50	<50	**69**	<50
Selenium (B)	7782-49-2	410	4,000	400	7.8E+7	NLV	NLV	NLV	NLV	1.3E+8	2.6E+6	NA		NS	NS	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500	<500
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	2.0E+8	NLV	NLV	NLV	NLV	6.7E+6	2.5E+6	NA		NS	NS	<200	<200	<200	<200	**3,310**	<200	<200	<200	**240**	<200	**590**
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	1.0E+9 (D)	NLV	NLV	NLV	NLV	ID	1.7E+8	NA		NS	NS	**12,300**	**35,700**	**4,500**	**3,700**	**6,200**	**3,400**	**7,200**	**10,400**	**264,000**	**38,400**	**5,200**
Semivolatiles, BNAs, ug/Kg																										
bis(2-Ethylhexyl)phthalate	117-81-7	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	7.0E+8	2.8E+6	1.0E+7		NS	NS	NS	NS	NS	NS	NS	<300	<300	<300	**400**	**600**	NS
Naphthalene	91-20-3	NA	**35,000**	**870**	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA		<300	<300	<300	**92,000**	NS	NS	NS	<300	<300	<300	<300	<300	NS
Remaining BNAs	Varies	-	-	-	-	-	-	-	-	-	-	-		NS	NS	NS	NS	NS	NS	NS	BDL	BDL	BDL	BDL	BDL	NS
Semivolatiles, PNAs ug/Kg																										
Acenaphthene	83-32-9	NA	3.0E+5	**4,400**	9.7E+5	1.9E+8	8.1E+7	8.1E+7	8.1E+7	1.4E+10	4.1E+7	NA		<300	<300	<300	**26,000**	NS	NS	NS	<300	<300	<300	**700**	**500**	NS
Acenaphthylene	208-96-8	NA	5,900	ID	4.4E+5	1.6E+6	2.2E+6	2.2E+6	2.2E+6	2.3E+9	1.6E+6	NA		<300	<300	<300	<2,000	NS	NS	NS	<300	<300	<300	<300	<300	NS
Anthracene	120-12-7	NA	**41,000**	ID	**41,000**	1.0E+9 (D)	1.4E+9	1.4E+9	1.4E+9	6.7E+10	2.3E+8	NA		<300	<300	<300	**65,000**	NS	NS	NS	<300	<300	<300	**1,700**	**1,200**	NS
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	**20,000**	NA		**300**	<300	<300	**68,000**	NS	NS	NS	<300	<300	<300	**5,000**	**2,600**	NS
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	**2,000**	NA		**500**	<300	<300	**46,000**	NS	NS	NS	<300	<300	<300	**4,900**	**2,500**	NS
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	**20,000**	NA		**500**	<300	<300	**36,000**	NS	NS	NS	<300	<300	<300	**4,400**	**2,100**	NS
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	8.0E+8	2.5E+6	NA		**300**	<300	<300	**11,000**	NS	NS	NS	<300	<300	<300	**2,500**	**1,500**	NS
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2.0E+5	NA		**400**	<300	<300	**46,000**	NS	NS	NS	<300	<300	<300	**3,900**	**1,900**	NS
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA		**400**	<300	<300	**56,000**	NS	NS	NS	<300	<300	<300	**5,100**	**2,500**	NS
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2,000	NA		<300	<300	<300	**2,000**	NS	NS	NS	<300	<300	<300	**<300**	**<300**	NS
Fluoranthene	206-44-0	NA	7.3E+5	**5,500**	7.3E+5	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA		**300**	<300	<300	**136,000**	NS	NS	NS	<300	<300	<300	**11,300**	**6,500**	NS
Fluorene	86-73-7	NA	3.9E+5	**5,300**	8.9E+5	5.8E+8	1.3E+8	1.3E+8	1.3E+8	9.3E+9	2.7E+7	NA		<300	<300	<300	**69,000**	NS	NS	NS	<300	<300	<300	**700**	**500**	NS
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA		<300	<300	<300	**13,000**	NS	NS	NS	<300	<300	<300	**2,400**	**1,400**	NS
1-Methylnaphthalene*	90-12-0	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		<300	<300	<300	**27,000**	NS	NS	NS	<300	<300	<300	<300	<300	NS
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		<300	<300	<300	**49,000**	NS	NS	NS	<300	<300	<300	<300	<300	NS
Phenanthrene	85-01-8	NA	**56,000**	**5,300**	1.1E+6	2.8E+6	**1.6E+5**	**1.6E+5**	**1.6E+5**	6.7E+6	1.6E+6	NA		<300	<300	<300	**227,000**	NS	NS	NS	<300	<300	<300	**7,000**	**4,700**	NS
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA		**400**	<300	<300	**105,000**	NS	NS	NS	<300	<300	<300	**8,900**	**5,100**	NS
Volatiles ug/Kg																										
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		NS	NS	<400	**2,600**	<400	<400	<300	<400	<400	<400	<400	<300	<300
Naphthalene	91-20-3	NA	35,000	**870**	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA		NS	NS	<400	**5,700**	<400	<400	<300	<400	<400	<400	<400	<300	<300
Tetrachloroethylene	127-18-4	NA	**100**	**900 (X)**	88,000 (C)	11,000	1.8E+5	4.8E+5	1.1E+6	5.4E+9	88,000 (C)	88,000		NS	NS	<50	**2,560**	<60	<50	<50	<50	<70	<70	<60	<50	<50
Xylenes (I)	1330-20-7	NA	5,600	700	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	6.1E+7	1.3E+8	2.9E+11	1.5E+5 (C)	1.5E+5		<160	<150	<150	**100**	<160	<150	<150	<150	<170	<170	<160	<150	<150
Remaining VOCs	Varies	-	-	-	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Petroleum Hydrocarbons ug/Kg																										
Diesel Range Organics (DRO)	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000		**6,000**	**8,000**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 2, Summary of Groundwater Analytical Results
Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
AKT Peerless No. 6643S

Guidesheet Number →		#1	#3	#4	#6	#7	#8	#9				
Parameters*	**Chemical Abstract Service Number**	**Residential and Commercial I Drinking Water Criteria and RBSLs**	**Groundwater Surface Water Interface Protection Criteria and RBSLs**	**Residential and Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria and RBSLs**	**Groundwater Contact Criteria and RBSLs**	**Water Solubility**	**Flammability and Explosivity Screening Level**	**Acute Inhalation Screening Level**	Sample Location	Tank Basin	B-9/ TMW	FDW Tank Basin
									Collection Date	08/10/2010	08/10/2010	08/10/2010
**(Refer to detailed laboratory report for method reference data)*									Depth	4 feet	11 feet	4 feet
Metals												
Arsenic	7440-38-2	10 (A)	150 (X)	NLV	4,300	NA	ID	ID		NS	**6**	NS
Barium (B)	7440-39-3	2,000 (A)	(G,X)	NLV	1.4E+7	NA	ID	ID		NS	**157**	NS
Zinc (B)	7440-66-6	2,400	(G)	NLV	1.1E+8	NA	ID	ID		NS	**6**	NS
Remaining Metals	Varies	-	-	-	-	-	-	-		NS	BDL	NS
Semivolatiles, BNAs												
bis(2-Ethylhexyl)phthalate	117-81-7	6.0 (A)	32	NLV	320 (AA)	340	NA	340 (S)		NS	**10**	NS
Remaininag BNAs	Varies	-	-	-	-	-	-	-		NS	BDL	NS
Semivolatiles, PNAs												
PNAs	Varies	-	-	-	-	-	-	-		BDL	BDL	BDL
Volatiles, VOCs												
VOCs	Varies	-	-	-	-	-	-	-		BDL	BDL	BDL

FOOTNOTES

FOR THE PART 201 CRITERIA/PART 213 RISK-BASED SCREENING LEVELS
RRD OPERATIONAL MEMORANDUM No. 1

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 pa 399, mcl 325.1005.
(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.
(C) Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}. Concentrations greater than C_{sat} are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.
(D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).
(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.
(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.
(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria.
(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules.
(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.
(K) Hazardous substance may be flammable or explosive, or both.
(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.
(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.
(O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin.
(P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.
(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.
(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West allegan Street, lansing, michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the superintendent of documents, government printing office, washington, dc 20401 (stock number 869-044-00155-1), or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.
(S) Criterion defaults to the hazardous substance-specific water solubility limit.
(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, subpart d and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart d and subpart g of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the superintendent of documents, Government Printing Office, Washington, dc 20401, or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the tsca standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.
(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, dc 20401 (stock number 869-044-00155-1), or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.
(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.
(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.
(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. see formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.
(Y) Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre.
(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.
(AA) Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.
(BB) The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.
(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH3 in the surface water. This percent NH3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).
(DD) Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.
(EE) The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.
(FF) The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.
(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m3.
ID Insufficient data to develop criterion.
NA A criterion or value is not available or, in the case of background and CAS numbers, not applicable.
NLL Hazardous substance is not likely to leach under most soil conditions.
NLV Hazardous substance is not likely to volatilize under most conditions.
ug/Kg Micrograms per kilogram
ug/L Micorgrams per liter
NS Not sampled
* Criterion not developed. Contaminant levels measured against compound with nearest chemical structure
BDL Below Laboratory Method Detection Limits

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Appendix A

Soil Boring Logs

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

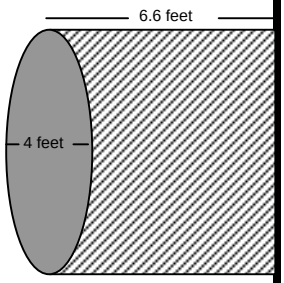
Tank East End and Tank West End

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	Strata Environmental	WEATHER:	85 F Sunny
TECHNICIAN:		EXCAVATION DEPTH:	4 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	4 feet bgs
DRILLING METHOD:	Excavator	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
					White	**Concrete**	D
				SW	Brown	**Sand:** fine to medium grained, trace gravel	D
2							
4				CL	Brown	**Clay:** soft, trace gravel End of Excavation at 4 feet bgs	S
6							
8							
10							
12							
14							
16							
18							
20							

UST DIAGRAM



Note:
UST contained approximately 8 inches of liquid

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-3

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	4 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Black	**Asphalt**	D	
			0	SW	Brown	**Sand:** fine to medium grained, trace silt and gravel	D	
2		90	0	ML	Brown	**Clay:** soft, trace sand	D	
4			0			End of boring at 4 feet bgs		
6								
8								
10								
12								
14								
16								
18								
20								

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-4

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	4 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Hand-Auger	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	*GEOLOGIC DESCRIPTION*	MOISTURE	*TEMPORARY WELL DIAGRAM*
			0		White	**Concrete**	D	
			0		Brown	**Fill:** sand, tar/slag-like material		
2			0			staining and odor from 2 to 4 feet bgs		
			0					
4						Refusal at 4 feet bgs		
6								
8								
10								
12								
14								
16								
18								
20								

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-5

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Cloudy
TECHNICIAN:	Pat Hall	BORING DEPTH:	3 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Hand-Auger	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	*GEOLOGIC DESCRIPTION*	MOISTURE	*TEMPORARY WELL DIAGRAM*
			0		White	**Concrete**	D	
			0		Brown	**Sand:** fine to medium grained, trace gravel	D	
2			0					
						Refusal at 3 feet bgs		
4								
6								
8								
10								
12								
14								
16								
18								
20								

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-6

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	4 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Hand-Auger	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	*GEOLOGIC DESCRIPTION*	MOISTURE	*TEMPORARY WELL DIAGRAM*
			0		White	**Concrete**	D	
			0		Brown	**Sand:** fine to medium grained, trace gravel	D	
2			0					
			0					
4						End of boring at 4 feet bgs		
6								
8								
10								
12								
14								
16								
18								
20								

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-7

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Cloudy
TECHNICIAN:	Pat Hall	BORING DEPTH:	3 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Hand-Auger	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	*GEOLOGIC DESCRIPTION*	MOISTURE	*TEMPORARY WELL DIAGRAM*
			0		White	**Concrete**	D	
			0		Brown	**Sand:** fine to medium grained, trace gravel	D	
2			0					
						Refusal at 3 feet bgs		
4								
6								
8								
10								
12								
14								
16								
18								
20								

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-8

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Cloudy
TECHNICIAN:	Pat Hall	BORING DEPTH:	20 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Black	**Asphalt/Base**	D	
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
2		60	0	ML	Brown	**Silt:** trace sand and clay	D	
4			0					
6		60	0	SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
8			0	ML	Gray	**Silt:** trace sand and clay	M	
10		95	0					
12			0	SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
14		80	0					
16			0					
18		70	0					
20			0			End of boring at 20 feet bgs		

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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

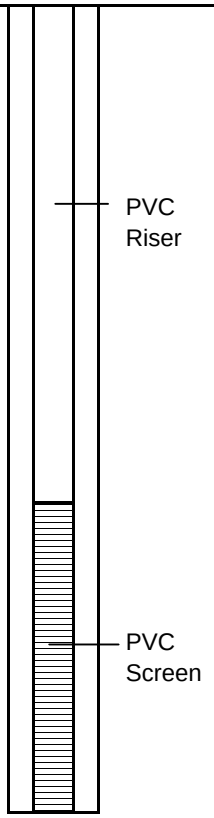
B-9/TMW

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Cloudy
TECHNICIAN:	Pat Hall	BORING DEPTH:	13 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	11 feet bgs
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	8-13 feet bgs
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	1 inch diameter PVC

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE
			0		Black	**Asphalt/Base**	D
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel and silt	D
2		80	0				
			0				
4			0	ML	Brown/Gray	**Clay:** soft, trace sand	D
			0				
6		90	0				
			0	ML	Dark Brown	**Clay:** soft, some organic material	M
8			0	CL	Brown	**Clay:** soft	D
			0				
10		90	0				
				SW	Brown	**Sand:** fine to medium grained, trace gravel	S
12							
						End of boring at 13 feet bgs	
14							
16							
18							
20							

TEMPORARY WELL DIAGRAM



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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-10

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	4 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Dark Brown	**Topsoil:** 2 inches	D	
			0	SC	Brown	**Sand:** fine to medium grained, trace gravel and clay	D	
2			0					
			0					
4						End of boring at 4 feet bgs		
6								
8								
10								
12								
14								
16								
18								
20								

AKTPEERLESS
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BORING LOG

Amtrak
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S-2-20

B-11

Drawn By: Janet Michaluk
Date: 08.13.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	85 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	4 feet bgs
DATE DRILLED:	08.10.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERVAL	% RECOVERY	PID VALUE	USCS SOIL CLASS.	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0	SC	Brown	**Sand:** fine to medium grained, trace gravel and clay	D	
			0					
2			0					
			0					
4						End of boring at 4 feet bgs		
6								
8								
10								
12								
14								
16								
18								
20								

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Appendix B

Low-Flow Sampling Logs

AKTPEERLESS environmental & energy services	LOW FLOW LOG Amtrak 1240 South Harrison Road East Lansing, Michigan PROJECT NUMBER: 6643S-2-20	B-9/TMW

FIELD PERSONNEL:	Janet Michaluk	WELL SCREEN INTERVAL (FEET):	8-13 feet bgs
DATE:	08.10.10 or 08.11.10	WELL SCREEN DIAMETER (INCHES):	1 inch
TIME:	11:30	INITIAL STATIC WATER LEVEL (0.01 FEET):	11 feet bgs
WEATHER:	85 F Cloudy	PURGING START TIME:	11:44
		PUMPING RATE:	0.3L/min
		SAMPLE COLLECTION TIME:	12:00

TIME	*pH*	*CONDUCTIVITY*	*DISSOLVED OXYGEN*	*ORP/eh*	*TEMPERATURE*	*TURBIDITY*
(Minutes)	(+/- 0.1 units)	(+/- 3% m^s/cm^c)	(+/- 10% mg/L)	(+/- 10 mV)	(+/- 3% C)	(+/- 10% or <10 NTU)
0	7.5	1.875	1.73	-98.3	16.55	
3	7.47	1.875	0.72	-101.7	16.43	
6	7.46	1.867	0.5	-104.4	16.79	
9	7.47	1.8736	0.46	-105.9	16.85	
12	7.47	1.876	0.45	-107.3	16.85	
15						
18			Note: The turbidity meter malfunctioned in the field and was inoperative. Both a filtered and non-filtered sample was collected			
21						
24						
27						
30						
33						
36						
39						
42						
45						
48						
51						
54						
57						
60						

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Appendix C

Laboratory Analytical Report

Analytical Laboratory Report

Supplemental Report

Report ID: S45212.01(03)
Generated on 11/16/2010
Replaces report S45212.01(02) generated on 08/19/2010

Report to

Attention: Janet Michaluk
AKT Peerless Environmental
22725 Orchard Lake Rd.
Farmington, MI 48336

Phone: 248-615-1333 FAX:
Email: michalukj@aktpeerless.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S45212.01-S45212.24
Project: Monitoring
Collected Date: 08/10/2010
Submitted Date/Time: 08/10/2010 14:40
Sampled by: Unknown
P.O. #: 6643S-2-20

TPH DRO removed from report per client request

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Sample Summary (24 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S45212.01	Tank East End	Soil	08/10/2010
S45212.02	Tank West End	Soil	08/10/2010
S45212.03	B-3 (0.5-1)	Soil	08/10/2010
S45212.04	B-4 (2-4)	Soil	08/10/2010
S45212.05	B-5 (0.5-1)	Soil	08/10/2010
S45212.06	B-6 (0.5-1)	Soil	08/10/2010
S45212.07	B-7 (0.5-1)	Soil	08/10/2010
S45212.08	B-8 (6-8)	Soil	08/10/2010
S45212.09	B-8 (18-20)	Soil	08/10/2010
S45212.10	B-9 (9-11)	Soil	08/10/2010
S45212.11	B-10 (0-0.5)	Soil	08/10/2010
S45212.12	B-11 (0-0.5)	Soil	08/10/2010
S45212.13	Tank Basin	Groundwater	08/10/2010
S45212.14	B-9/ TMW	Groundwater	08/10/2010
S45212.15	MB	Methanol	08/10/2010
S45212.16	TB-1	Water	08/10/2010
S45212.17	FDS	Soil	08/10/2010
S45212.18	FDW	Groundwater	08/10/2010
S45212.19	FEB	Water	08/10/2010
S45212.20	FB	Water	08/10/2010
S45212.21	B-5 (0.5-1) MS	Soil	08/10/2010
S45212.22	B-5 (0.5-1) MSD	Soil	08/10/2010
S45212.23	B-9/ TMW MS	Groundwater	08/10/2010
S45212.24	B-9/ TMW MSD	Groundwater	08/10/2010

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S45212.01
Sample Tag: Tank East End
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
DRO Extraction	Completed			3510C	08/10/10 22:06	EMR		
PNA Extraction	Completed			3550B	08/10/10 22:05	EMR		
Inorganics								
Total Solids	88	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	120-12-7	
Benzo(a)anthracene	300	ug/kg	300	8270C	08/11/10 21:29	PL	56-55-3	
Benzo(a)pyrene	500	ug/kg	300	8270C	08/11/10 21:29	PL	50-32-8	
Benzo(b)fluoranthene	500	ug/kg	300	8270C	08/11/10 21:29	PL	205-99-2	
Benzo(k)fluoranthene	400	ug/kg	300	8270C	08/11/10 21:29	PL	207-08-9	
Benzo(ghi)perylene	300	ug/kg	300	8270C	08/11/10 21:29	PL	191-24-2	
Chrysene	400	ug/kg	300	8270C	08/11/10 21:29	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	53-70-3	
Fluoranthene	300	ug/kg	300	8270C	08/11/10 21:29	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	85-01-8	
Pyrene	400	ug/kg	300	8270C	08/11/10 21:29	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/11/10 21:29	PL	90-12-0	
Organics - Volatiles								
BTEX/TMBs								
Benzene	Not detected	ug/kg	60	5035/8260B	08/13/10 17:27	JGH	71-43-2	
Toluene	Not detected	ug/kg	60	5035/8260B	08/13/10 17:27	JGH	108-88-3	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/13/10 17:27	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:27	JGH		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/13/10 17:27	JGH	95-47-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:27	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:27	JGH	108-67-8	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:27	JGH	526-73-8	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:27	JGH	103-65-1	
Isopropylbenzene	Not detected	ug/kg	200	5035/8260B	08/13/10 17:27	JGH	98-82-8	

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S45212.02
Sample Tag: Tank West End
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
DRO Extraction	Completed			3510C	08/10/10 22:06	EMR		
PNA Extraction	Completed			3550B	08/10/10 22:05	EMR		
Inorganics								
Total Solids	94	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/11/10 21:51	PL	90-12-0	
Organics - Volatiles								
BTEX/TMBs								
Benzene	Not detected	ug/kg	50	5035/8260B	08/13/10 17:45	JGH	71-43-2	
Toluene	Not detected	ug/kg	50	5035/8260B	08/13/10 17:45	JGH	108-88-3	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	08/13/10 17:45	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:45	JGH		
o-Xylene	Not detected	ug/kg	50	5035/8260B	08/13/10 17:45	JGH	95-47-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:45	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:45	JGH	108-67-8	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:45	JGH	526-73-8	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	08/13/10 17:45	JGH	103-65-1	
Isopropylbenzene	Not detected	ug/kg	200	5035/8260B	08/13/10 17:45	JGH	98-82-8	

Lab Sample ID: S45212.03
Sample Tag: B-3 (0.5-1)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
PNA Extraction	Completed			3550B	08/10/10 22:04	EMR		
Inorganics								
Total Solids	93	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	1.25	mg/kg	0.10	6020	08/12/10 14:52	SLS	7440-38-2	
Barium	22.5	mg/kg	1.0	6020	08/12/10 14:52	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 14:52	SLS	7440-43-9	
Chromium	2.42	mg/kg	0.50	6020	08/12/10 14:52	SLS	7440-47-3	
Copper	4.9	mg/kg	1.0	6020	08/12/10 14:52	SLS	7440-50-8	
Lead	7.25	mg/kg	0.30	6020	08/12/10 14:52	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:11	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 14:52	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 14:52	SLS	7440-22-4	
Zinc	12.3	mg/kg	1.0	6020	08/12/10 14:52	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/11/10 22:14	PL	90-12-0	

Lab Sample ID: S45212.03 (continued)
Sample Tag: B-3 (0.5-1)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/13/10 18:03	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:03	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/13/10 18:03	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	08/13/10 18:03	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 18:03	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:03	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:03	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:03	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/13/10 18:03	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	79-34-5	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.03 (continued)
Sample Tag: B-3 (0.5-1)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:03	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:03	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:03	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:03	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:03	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:03	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:03	JGH	91-57-6	

Lab Sample ID: S45212.04
Sample Tag: B-4 (2-4)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
PNA Extraction	Completed			3550B	08/10/10 22:04	EMR		
Inorganics								
Chromium VI	Not detected	mg/kg	2	3500-Cr B	08/19/10 16:35	JKB	18540-29-9	
Total Solids	91	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	2.61	mg/kg	0.10	6020	08/12/10 14:55	SLS	7440-38-2	
Barium	30.8	mg/kg	1.0	6020	08/12/10 14:55	SLS	7440-39-3	
Cadmium	0.29	mg/kg	0.20	6020	08/12/10 14:55	SLS	7440-43-9	
Chromium	3.83	mg/kg	0.50	6020	08/12/10 14:55	SLS	7440-47-3	
Copper	14.3	mg/kg	1.0	6020	08/12/10 14:55	SLS	7440-50-8	
Lead	35.4	mg/kg	0.30	6020	08/12/10 14:55	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:13	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 14:55	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 14:55	SLS	7440-22-4	
Zinc	35.7	mg/kg	1.0	6020	08/12/10 14:55	SLS	7440-66-6	
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	26,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	83-32-9	XY
Acenaphthylene	Not detected	ug/kg	2,000	8270C	08/13/10 22:19	PL	208-96-8	XY
Anthracene	65,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	120-12-7	XY
Benzo(a)anthracene	68,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	56-55-3	XY
Benzo(a)pyrene	46,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	50-32-8	XY
Benzo(b)fluoranthene	36,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	205-99-2	XY
Benzo(k)fluoranthene	46,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	207-08-9	XY
Benzo(ghi)perylene	11,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	191-24-2	XY
Chrysene	56,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	218-01-9	XY
Dibenzo(ah)anthracene	2,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	53-70-3	XY
Fluoranthene	136,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	206-44-0	XY
Fluorene	69,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	86-73-7	XY
Indeno(1,2,3-cd)pyrene	13,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	193-39-5	XY
Naphthalene	92,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	91-20-3	XY
Phenanthrene	227,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	85-01-8	XY
Pyrene	105,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	129-00-0	XY
2-Methylnaphthalene	49,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	91-57-6	XY
1-Methylnaphthalene	27,000	ug/kg	2,000	8270C	08/13/10 22:19	PL	90-12-0	XY

X-Elevated reporting limit due to matrix interference Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S45212.04 (continued)
Sample Tag: B-4 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/13/10 18:21	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:21	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/13/10 18:21	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	08/13/10 18:21	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 18:21	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:21	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:21	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:21	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	79-00-5	
Tetrachloroethene	2,560	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/13/10 18:21	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH		
o-Xylene	100	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	79-34-5	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.04 (continued)
Sample Tag: B-4 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:21	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:21	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:21	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:21	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:21	JGH	87-61-6	
Naphthalene	5,700	ug/kg	400	8260B/5035	08/13/10 18:21	JGH	91-20-3	
2-Methylnaphthalene	2,600	ug/kg	400	8260B/5035	08/13/10 18:21	JGH	91-57-6	

Lab Sample ID: S45212.05
Sample Tag: B-5 (0.5-1)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	0.71	mg/kg	0.10	6020	08/12/10 15:28	SLS	7440-38-2	
Barium	8.7	mg/kg	1.0	6020	08/12/10 15:28	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 15:28	SLS	7440-43-9	
Chromium	1.50	mg/kg	0.50	6020	08/12/10 15:28	SLS	7440-47-3	
Copper	2.5	mg/kg	1.0	6020	08/12/10 15:28	SLS	7440-50-8	
Lead	3.64	mg/kg	0.30	6020	08/12/10 15:28	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:15	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:28	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 15:28	SLS	7440-22-4	
Zinc	4.5	mg/kg	1.0	6020	08/12/10 15:28	SLS	7440-66-6	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/13/10 18:40	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:40	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/13/10 18:40	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	08/13/10 18:40	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 18:40	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:40	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	71-55-6	

Lab Sample ID: S45212.05 (continued)
Sample Tag: B-5 (0.5-1)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:40	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:40	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/13/10 18:40	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:40	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/13/10 18:40	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	08/13/10 18:40	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:40	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:40	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:40	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:40	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:40	JGH	91-57-6	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.06
Sample Tag: B-6 (0.5-1)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	96	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	0.74	mg/kg	0.10	6020	08/12/10 14:58	SLS	7440-38-2	
Barium	7.7	mg/kg	1.0	6020	08/12/10 14:58	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 14:58	SLS	7440-43-9	
Chromium	1.49	mg/kg	0.50	6020	08/12/10 14:58	SLS	7440-47-3	
Copper	2.3	mg/kg	1.0	6020	08/12/10 14:58	SLS	7440-50-8	
Lead	2.30	mg/kg	0.30	6020	08/12/10 14:58	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:26	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 14:58	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 14:58	SLS	7440-22-4	
Zinc	3.7	mg/kg	1.0	6020	08/12/10 14:58	SLS	7440-66-6	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/13/10 18:58	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:58	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/13/10 18:58	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	08/13/10 18:58	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 18:58	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 18:58	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	71-55-6	

Lab Sample ID: S45212.06 (continued)
Sample Tag: B-6 (0.5-1)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:58	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 18:58	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/13/10 18:58	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 18:58	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 18:58	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 18:58	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:58	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:58	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:58	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 18:58	JGH	91-57-6	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.07
Sample Tag: B-7 (0.5-1)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	99	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	1.01	mg/kg	0.10	6020	08/12/10 15:01	SLS	7440-38-2	
Barium	7.0	mg/kg	1.0	6020	08/12/10 15:01	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 15:01	SLS	7440-43-9	
Chromium	1.09	mg/kg	0.50	6020	08/12/10 15:01	SLS	7440-47-3	
Copper	3.0	mg/kg	1.0	6020	08/12/10 15:01	SLS	7440-50-8	
Lead	2.58	mg/kg	0.30	6020	08/12/10 15:01	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:29	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:01	SLS	7782-49-2	
Silver	3.31	mg/kg	0.20	6020	08/12/10 15:01	SLS	7440-22-4	
Zinc	6.2	mg/kg	1.0	6020	08/12/10 15:01	SLS	7440-66-6	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:16	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	700	8260B/5035	08/13/10 19:16	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:16	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	71-55-6	

Lab Sample ID: S45212.07 (continued)
Sample Tag: B-7 (0.5-1)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	2,000	8260B/5035	08/13/10 19:16	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	2,000	8260B/5035	08/13/10 19:16	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/13/10 19:16	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:16	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:16	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:16	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:16	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 19:16	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 19:16	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	300	8260B/5035	08/13/10 19:16	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	300	8260B/5035	08/13/10 19:16	JGH	91-57-6	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.08
Sample Tag: B-8 (6-8)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/12/10 21:14	EMR		
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	94	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	0.58	mg/kg	0.10	6020	08/12/10 15:04	SLS	7440-38-2	
Barium	12.6	mg/kg	1.0	6020	08/12/10 15:04	SLS	7440-39-3	
Cadmium	0.33	mg/kg	0.20	6020	08/12/10 15:04	SLS	7440-43-9	
Chromium	0.80	mg/kg	0.50	6020	08/12/10 15:04	SLS	7440-47-3	
Copper	2.3	mg/kg	1.0	6020	08/12/10 15:04	SLS	7440-50-8	
Lead	1.79	mg/kg	0.30	6020	08/12/10 15:04	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:31	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:04	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 15:04	SLS	7440-22-4	
Zinc	3.4	mg/kg	1.0	6020	08/12/10 15:04	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	85-68-7	
4-Chloroaniline	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	59-50-7	
2-Chlorophenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	7005-72-3	
Chrysene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	218-01-9	
p,m-Cresol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	3/4-Cresol	

Lab Sample ID: S45212.08 (continued)
Sample Tag: B-8 (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
o-Cresol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/kg	2,000	8270C	08/16/10 04:48	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	120-83-2	
Diethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	800	8270C	08/16/10 04:48	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/kg	800	8270C	08/16/10 04:48	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	117-84-0	
Fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	193-39-5	
Isophorone	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	91-57-6	
Naphthalene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	91-20-3	
2-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 04:48	PL	88-74-4	
3-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 04:48	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 04:48	PL	100-01-6	
Nitrobenzene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	98-95-3	
2-Nitrophenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	88-75-5	
4-Nitrophenol	Not detected	ug/kg	800	8270C	08/16/10 04:48	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	621-64-7	
Pentachlorophenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	85-01-8	
Phenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	108-95-2	
Pyrene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 04:48	PL	88-06-2	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/13/10 19:34	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:34	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	74-88-4	

Lab Sample ID: S45212.08 (continued)
Sample Tag: B-8 (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/13/10 19:34	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	08/13/10 19:34	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/13/10 19:34	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:34	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 19:34	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 19:34	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/13/10 19:34	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.08 (continued)
Sample Tag: B-8 (6-8)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:34	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/13/10 19:34	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:34	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:34	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:34	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:34	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:34	JGH	91-57-6	

Lab Sample ID: S45212.09
Sample Tag: B-8 (18-20)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/12/10 21:14	EMR		
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	84	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	0.36	mg/kg	0.10	6020	08/12/10 15:07	SLS	7440-38-2	
Barium	1.9	mg/kg	1.0	6020	08/12/10 15:07	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 15:07	SLS	7440-43-9	
Chromium	0.73	mg/kg	0.50	6020	08/12/10 15:07	SLS	7440-47-3	
Copper	2.5	mg/kg	1.0	6020	08/12/10 15:07	SLS	7440-50-8	
Lead	1.75	mg/kg	0.30	6020	08/12/10 15:07	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:33	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:07	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 15:07	SLS	7440-22-4	
Zinc	7.2	mg/kg	1.0	6020	08/12/10 15:07	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	85-68-7	
4-Chloroaniline	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	59-50-7	
2-Chlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	7005-72-3	
Chrysene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	218-01-9	
p,m-Cresol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	3/4-Cresol	

Lab Sample ID: S45212.09 (continued)
Sample Tag: B-8 (18-20)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
o-Cresol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/kg	2,000	8270C	08/16/10 05:17	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	120-83-2	
Diethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	800	8270C	08/16/10 05:17	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/kg	800	8270C	08/16/10 05:17	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	117-84-0	
Fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	193-39-5	
Isophorone	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	91-57-6	
Naphthalene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	91-20-3	
2-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 05:17	PL	88-74-4	
3-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 05:17	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 05:17	PL	100-01-6	
Nitrobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	98-95-3	
2-Nitrophenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	88-75-5	
4-Nitrophenol	Not detected	ug/kg	800	8270C	08/16/10 05:17	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	621-64-7	
Pentachlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	85-01-8	
Phenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	108-95-2	
Pyrene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:17	PL	88-06-2	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:52	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	74-88-4	

Lab Sample ID: S45212.09 (continued)
Sample Tag: B-8 (18-20)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:52	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 19:52	JGH	109-99-9	
Chloroform	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 19:52	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 19:52	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	56-23-5	
Benzene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	08/13/10 19:52	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH		
o-Xylene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	95-47-6	
Styrene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.09 (continued)
Sample Tag: B-8 (18-20)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 19:52	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 19:52	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	08/13/10 19:52	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 19:52	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:52	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:52	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:52	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 19:52	JGH	91-57-6	

Lab Sample ID: S45212.10
Sample Tag: B-9 (9-11)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/12/10 21:14	EMR		
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Chromium VI	Not detected	mg/kg	2	3500-Cr B	08/19/10 16:45	JKB	18540-29-9	
Total Solids	85	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	0.24	mg/kg	0.10	6020	08/12/10 15:10	SLS	7440-38-2	
Barium	44.2	mg/kg	1.0	6020	08/12/10 15:10	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 15:10	SLS	7440-43-9	
Chromium	3.95	mg/kg	0.50	6020	08/12/10 15:10	SLS	7440-47-3	
Copper	5.4	mg/kg	1.0	6020	08/12/10 15:10	SLS	7440-50-8	
Lead	6.48	mg/kg	0.30	6020	08/12/10 15:10	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:36	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:10	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 15:10	SLS	7440-22-4	
Zinc	10.4	mg/kg	1.0	6020	08/12/10 15:10	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	85-68-7	
4-Chloroaniline	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	59-50-7	
2-Chlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	7005-72-3	
Chrysene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	218-01-9	

Lab Sample ID: S45212.10 (continued)
Sample Tag: B-9 (9-11)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
p,m-Cresol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	3/4-Cresol	
o-Cresol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/kg	2,000	8270C	08/16/10 05:45	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	120-83-2	
Diethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	800	8270C	08/16/10 05:45	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/kg	800	8270C	08/16/10 05:45	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	117-84-0	
Fluoranthene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	193-39-5	
Isophorone	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	91-57-6	
Naphthalene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	91-20-3	
2-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 05:45	PL	88-74-4	
3-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 05:45	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 05:45	PL	100-01-6	
Nitrobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	98-95-3	
2-Nitrophenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	88-75-5	
4-Nitrophenol	Not detected	ug/kg	800	8270C	08/16/10 05:45	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	621-64-7	
Pentachlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	85-01-8	
Phenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	108-95-2	
Pyrene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 05:45	PL	88-06-2	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/13/10 20:10	JGH	67-64-1	

Lab Sample ID: S45212.10 (continued)
Sample Tag: B-9 (9-11)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,000	8260B/5035	08/13/10 20:10	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/13/10 20:10	JGH	109-99-9	
Chloroform	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 20:10	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/13/10 20:10	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	56-23-5	
Benzene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	08/13/10 20:10	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH		
o-Xylene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	95-47-6	
Styrene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	103-65-1	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.10 (continued)
Sample Tag: B-9 (9-11)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/13/10 20:10	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	70	8260B/5035	08/13/10 20:10	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	08/13/10 20:10	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/13/10 20:10	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 20:10	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/13/10 20:10	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 20:10	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/13/10 20:10	JGH	91-57-6	

Lab Sample ID: S45212.11
Sample Tag: B-10 (0-0.5)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/12/10 21:14	EMR		
Lead, Coarse Digestion	Completed			3050B	08/19/10 12:00	PER		
Lead, Fine and Coarse Prep	Completed			3050B	08/19/10 08:30	JRT		
Lead, Fine Digestion	Completed			3050B	08/19/10 12:00	PER		
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Chromium VI	Not detected	mg/kg	2	3500-Cr B	08/19/10 16:55	JKB	18540-29-9	
Total Solids	87	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Total Solids	91	%	1	Std M 2540 B	08/19/10 08:30	JRT		
Metals								
% Coarse by Weight	83.8	%		6020	08/19/10 08:30	JRT		
% Fine by Weight	16.2	%		6020	08/19/10 08:30	JRT		
Arsenic	5.29	mg/kg	0.10	6020	08/12/10 15:13	SLS	7440-38-2	
Barium	41.9	mg/kg	1.0	6020	08/12/10 15:13	SLS	7440-39-3	
Cadmium	2.07	mg/kg	0.20	6020	08/12/10 15:13	SLS	7440-43-9	
Chromium	18.8	mg/kg	0.50	6020	08/12/10 15:13	SLS	7440-47-3	
Copper	39.5	mg/kg	1.0	6020	08/12/10 15:13	SLS	7440-50-8	
Lead, Coarse	22.9	mg/kg	0.30	6020	08/19/10 15:10	PER	7439-92-1	
Lead, Fine	48.9	mg/kg	0.30	6020	08/19/10 15:12	PER		
Lead, Total Calculated	27.1	mg/kg	0.30	6020	08/19/10 15:00	PER	7439-92-1C	
Lead	92.3	mg/kg	0.30	6020	08/12/10 15:13	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:38	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:13	SLS	7782-49-2	
Silver	0.24	mg/kg	0.20	6020	08/12/10 15:13	SLS	7440-22-4	
Zinc	264	mg/kg	1.0	6020	08/12/10 15:13	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	700	ug/kg	300	8270C	08/16/10 06:43	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	208-96-8	
Anthracene	1,700	ug/kg	300	8270C	08/16/10 06:43	PL	120-12-7	
Benzo(a)anthracene	5,000	ug/kg	300	8270C	08/16/10 06:43	PL	56-55-3	
Benzo(b)fluoranthene	4,400	ug/kg	300	8270C	08/16/10 06:43	PL	205-99-2	
Benzo(k)fluoranthene	3,900	ug/kg	300	8270C	08/16/10 06:43	PL	207-08-9	
Benzo(ghi)perylene	2,500	ug/kg	300	8270C	08/16/10 06:43	PL	191-24-2	
Benzo(a)pyrene	4,900	ug/kg	300	8270C	08/16/10 06:43	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	108-60-1	

Lab Sample ID: S45212.11 (continued)
Sample Tag: B-10 (0-0.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
bis(2-Ethylhexyl)phthalate	400	ug/kg	300	8270C	08/16/10 06:43	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	85-68-7	
4-Chloroaniline	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	59-50-7	
2-Chlorophenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	7005-72-3	
Chrysene	5,100	ug/kg	300	8270C	08/16/10 06:43	PL	218-01-9	
p,m-Cresol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	3/4-Cresol	
o-Cresol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/kg	2,000	8270C	08/16/10 06:43	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	120-83-2	
Diethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	800	8270C	08/16/10 06:43	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/kg	800	8270C	08/16/10 06:43	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	117-84-0	
Fluoranthene	11,300	ug/kg	300	8270C	08/16/10 06:43	PL	206-44-0	
Fluorene	700	ug/kg	300	8270C	08/16/10 06:43	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	2,400	ug/kg	300	8270C	08/16/10 06:43	PL	193-39-5	
Isophorone	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	91-57-6	
Naphthalene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	91-20-3	
2-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 06:43	PL	88-74-4	
3-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 06:43	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 06:43	PL	100-01-6	
Nitrobenzene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	98-95-3	
2-Nitrophenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	88-75-5	
4-Nitrophenol	Not detected	ug/kg	800	8270C	08/16/10 06:43	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	621-64-7	
Pentachlorophenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	87-86-5	
Phenanthrene	7,000	ug/kg	300	8270C	08/16/10 06:43	PL	85-01-8	
Phenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	108-95-2	

Lab Sample ID: S45212.11 (continued)
Sample Tag: B-10 (0-0.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
Pyrene	8,900	ug/kg	300	8270C	08/16/10 06:43	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 06:43	PL	88-06-2	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/17/10 14:48	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	08/17/10 14:48	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/17/10 14:48	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/17/10 14:48	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/17/10 14:48	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	08/17/10 14:48	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.11 (continued)
Sample Tag: B-10 (0-0.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 14:48	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	08/17/10 14:48	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	08/17/10 14:48	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/17/10 14:48	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/17/10 14:48	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	08/17/10 14:48	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	08/17/10 14:48	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	08/17/10 14:48	JGH	91-57-6	

Lab Sample ID: S45212.12
Sample Tag: B-11 (0-0.5)
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57292

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/12/10 21:14	EMR		
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Chromium VI	Not detected	mg/kg	2	3500-Cr B	08/19/10 17:00	JKB	18540-29-9	
Total Solids	94	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	1.60	mg/kg	0.10	6020	08/12/10 15:16	SLS	7440-38-2	
Barium	24.5	mg/kg	1.0	6020	08/12/10 15:16	SLS	7440-39-3	
Cadmium	0.33	mg/kg	0.20	6020	08/12/10 15:16	SLS	7440-43-9	
Chromium	4.03	mg/kg	0.50	6020	08/12/10 15:16	SLS	7440-47-3	
Copper	7.8	mg/kg	1.0	6020	08/12/10 15:16	SLS	7440-50-8	
Lead	16.1	mg/kg	0.30	6020	08/12/10 15:16	SLS	7439-92-1	
Mercury	0.069	mg/kg	0.050	7471A	08/16/10 16:40	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:16	SLS	7782-49-2	
Silver	Not detected	mg/kg	0.20	6020	08/12/10 15:16	SLS	7440-22-4	
Zinc	38.4	mg/kg	1.0	6020	08/12/10 15:16	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	500	ug/kg	300	8270C	08/16/10 12:48	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	208-96-8	
Anthracene	1,200	ug/kg	300	8270C	08/16/10 12:48	PL	120-12-7	
Benzo(a)anthracene	2,600	ug/kg	300	8270C	08/16/10 12:48	PL	56-55-3	
Benzo(b)fluoranthene	2,100	ug/kg	300	8270C	08/16/10 12:48	PL	205-99-2	
Benzo(k)fluoranthene	1,900	ug/kg	300	8270C	08/16/10 12:48	PL	207-08-9	
Benzo(ghi)perylene	1,500	ug/kg	300	8270C	08/16/10 12:48	PL	191-24-2	
Benzo(a)pyrene	2,500	ug/kg	300	8270C	08/16/10 12:48	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	600	ug/kg	300	8270C	08/16/10 12:48	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	85-68-7	
4-Chloroaniline	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	59-50-7	
2-Chlorophenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	7005-72-3	
Chrysene	2,500	ug/kg	300	8270C	08/16/10 12:48	PL	218-01-9	

Lab Sample ID: S45212.12 (continued)
Sample Tag: B-11 (0-0.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
p,m-Cresol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	3/4-Cresol	
o-Cresol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/kg	2,000	8270C	08/16/10 12:48	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	120-83-2	
Diethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	800	8270C	08/16/10 12:48	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/kg	800	8270C	08/16/10 12:48	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	117-84-0	
Fluoranthene	6,500	ug/kg	300	8270C	08/16/10 12:48	PL	206-44-0	
Fluorene	500	ug/kg	300	8270C	08/16/10 12:48	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	1,400	ug/kg	300	8270C	08/16/10 12:48	PL	193-39-5	
Isophorone	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	91-57-6	
Naphthalene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	91-20-3	
2-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 12:48	PL	88-74-4	
3-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 12:48	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	800	8270C	08/16/10 12:48	PL	100-01-6	
Nitrobenzene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	98-95-3	
2-Nitrophenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	88-75-5	
4-Nitrophenol	Not detected	ug/kg	800	8270C	08/16/10 12:48	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	621-64-7	
Pentachlorophenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	87-86-5	
Phenanthrene	4,700	ug/kg	300	8270C	08/16/10 12:48	PL	85-01-8	
Phenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	108-95-2	
Pyrene	5,100	ug/kg	300	8270C	08/16/10 12:48	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	300	8270C	08/16/10 12:48	PL	88-06-2	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/17/10 15:08	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/17/10 15:08	JGH	67-64-1	

Lab Sample ID: S45212.12 (continued)
Sample Tag: B-11 (0-0.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/17/10 15:08	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	08/17/10 15:08	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:08	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/17/10 15:08	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/17/10 15:08	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/17/10 15:08	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/17/10 15:08	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	103-65-1	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.12 (continued)
Sample Tag: B-11 (0-0.5)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:08	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:08	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:08	JGH	91-57-6	

Lab Sample ID: S45212.13
Sample Tag: Tank Basin
Collected Date/Time: 08/10/2010
Matrix: Groundwater
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
DRO Extraction	Completed			3510C	08/11/10 10:19	PL		
PNA Extraction	Completed			3510C	08/11/10 20:33	EMR		
Organics - Semi-Volatiles								
TPH DRO (C10-C28)	3,800	ug/L	300	8015M	08/11/10 16:33	PL		XY
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	208-96-8	
Anthracene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	191-24-2	
Chrysene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	53-70-3	
Fluoranthene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	206-44-0	
Fluorene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	91-20-3	
Phenanthrene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	85-01-8	
Pyrene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	8270C	08/13/10 19:35	PL	90-12-0	
Organics - Volatiles								
BTEX/TMBs								
Benzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	71-43-2	
Toluene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	108-88-3	
Ethylbenzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	100-41-4	
p,m-Xylene	Not detected	ug/L	100	8260B	08/11/10 21:56	JGH		
o-Xylene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	95-47-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	108-67-8	
1,2,3-Trimethylbenzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	526-73-8	
n-Propylbenzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	103-65-1	
Isopropylbenzene	Not detected	ug/L	50	8260B	08/11/10 21:56	JGH	98-82-8	

X-Elevated reporting limit due to matrix interference Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S45212.14
Sample Tag: B-9/ TMW
Collected Date/Time: 08/10/2010
Matrix: Groundwater
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR
2	125ml Plastic	HNO3	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	08/12/10 22:34	EMR		
Mercury Digestion	Completed			7471A	08/13/10 09:30	JRT		
Metal Digestion	Completed			3015A	08/11/10 12:00	SLS		
Metals								
Arsenic	0.006	mg/L	0.002	200.8	08/11/10 15:36	SLS	7440-38-2	
Barium	0.157	mg/L	0.005	200.8	08/11/10 15:36	SLS	7440-39-3	
Cadmium	Not detected	mg/L	0.0005	200.8	08/11/10 15:36	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	08/11/10 15:36	SLS	7440-47-3	
Copper	Not detected	mg/L	0.004	200.8	08/11/10 15:36	SLS	7440-50-8	
Lead	Not detected	mg/L	0.003	200.8	08/11/10 15:36	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1	08/13/10 13:05	JRT	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	08/11/10 15:36	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	08/11/10 15:36	SLS	7440-22-4	
Zinc	0.006	mg/L	0.005	200.8	08/11/10 15:36	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	208-96-8	
Anthracene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	10	ug/L	5	8270C	08/16/10 02:25	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	08/16/10 02:25	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	08/16/10 02:25	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	7005-72-3	
Chrysene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	218-01-9	
p,m-Cresol	Not detected	ug/L	20	8270C	08/16/10 02:25	PL	3/4-Cresol	
o-Cresol	Not detected	ug/L	10	8270C	08/16/10 02:25	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	2	8270C	08/16/10 02:25	PL	53-70-3	

Lab Sample ID: S45212.14 (continued)
Sample Tag: B-9/ TMW

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
Dibenzofuran	Not detected	ug/L	4	8270C	08/16/10 02:25	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	08/16/10 02:25	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	8270C	08/16/10 02:25	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	30	8270C	08/16/10 02:25	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	117-84-0	
Fluoranthene	Not detected	ug/L	1	8270C	08/16/10 02:25	PL	206-44-0	
Fluorene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	08/16/10 02:25	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	8270C	08/16/10 02:25	PL	193-39-5	
Isophorone	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	91-57-6	
Naphthalene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	91-20-3	
2-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 02:25	PL	88-74-4	
3-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 02:25	PL	99-09-2	
4-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 02:25	PL	100-01-6	
Nitrobenzene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	30	8270C	08/16/10 02:25	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	87-86-5	
Phenanthrene	Not detected	ug/L	2	8270C	08/16/10 02:25	PL	85-01-8	
Phenol	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	108-95-2	
Pyrene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/L	5	8270C	08/16/10 02:25	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	4	8270C	08/16/10 02:25	PL	88-06-2	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	8260B	08/15/10 17:56	JGH	60-29-7	
Acetone	Not detected	ug/L	50	8260B	08/15/10 17:56	JGH	67-64-1	
Methyl iodide	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	74-88-4	
Carbon disulfide	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	1634-04-4	

Lab Sample ID: S45212.14 (continued)
Sample Tag: B-9/ TMW

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Acrylonitrile	Not detected	ug/L	2	8260B	08/15/10 17:56	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	08/15/10 17:56	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	75-71-8	
Chloromethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	74-87-3	
Vinyl chloride	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	75-01-4	
Bromomethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	74-83-9	
Chloroethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	75-35-4	
Methylene chloride	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/L	90	8260B	08/15/10 17:56	JGH	109-99-9	
Chloroform	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	67-66-3	
Bromochloromethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	08/15/10 17:56	JGH	108-10-1	
2-Hexanone	Not detected	ug/L	50	8260B	08/15/10 17:56	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	56-23-5	
Benzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	107-06-2	
Trichloroethene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	75-27-4	
Dibromomethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	10061-01-5	
Toluene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	106-93-4	
Chlorobenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	630-20-6	
Ethylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	100-41-4	
p,m-Xylene	Not detected	ug/L	2	8260B	08/15/10 17:56	JGH		
o-Xylene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	95-47-6	
Styrene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	98-82-8	
Bromoform	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	103-65-1	
Bromobenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	95-63-6	

Lab Sample ID: S45212.14 (continued)
Sample Tag: B-9/ TMW

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
sec-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 17:56	JGH	104-51-8	
Hexachloroethane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	87-61-6	
Naphthalene	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/L	5	8260B	08/15/10 17:56	JGH	91-57-6	

Lab Sample ID: S45212.15
Sample Tag: MB
Collected Date/Time: 08/10/2010
Matrix: Methanol
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/17/10 15:28	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/17/10 15:28	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/17/10 15:28	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	08/17/10 15:28	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:28	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/17/10 15:28	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/17/10 15:28	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	08/17/10 15:28	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/17/10 15:28	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S45212.15 (continued)
Sample Tag: MB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:28	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:28	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:28	JGH	91-57-6	

Lab Sample ID: S45212.16
Sample Tag: TB-1
Collected Date/Time: 08/10/2010
Matrix: Water
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	8260B	08/15/10 18:15	JGH	60-29-7	
Acetone	Not detected	ug/L	50	8260B	08/15/10 18:15	JGH	67-64-1	
Methyl iodide	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	74-88-4	
Carbon disulfide	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/L	2	8260B	08/15/10 18:15	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	08/15/10 18:15	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	75-71-8	
Chloromethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	74-87-3	
Vinyl chloride	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	75-01-4	
Bromomethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	74-83-9	
Chloroethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	75-35-4	
Methylene chloride	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/L	90	8260B	08/15/10 18:15	JGH	109-99-9	
Chloroform	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	67-66-3	
Bromochloromethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	08/15/10 18:15	JGH	108-10-1	
2-Hexanone	Not detected	ug/L	50	8260B	08/15/10 18:15	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	56-23-5	
Benzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	107-06-2	
Trichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	75-27-4	
Dibromomethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	10061-01-5	
Toluene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	106-93-4	
Chlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	630-20-6	
Ethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	100-41-4	

Lab Sample ID: S45212.16 (continued)
Sample Tag: TB-1

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
p,m-Xylene	Not detected	ug/L	2	8260B	08/15/10 18:15	JGH		
o-Xylene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	95-47-6	
Styrene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	98-82-8	
Bromoform	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	103-65-1	
Bromobenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:15	JGH	104-51-8	
Hexachloroethane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	87-61-6	
Naphthalene	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/L	5	8260B	08/15/10 18:15	JGH	91-57-6	

Lab Sample ID: S45212.17
Sample Tag: FDS
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.5	IR
1	4oz Glass	None	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	99	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	0.81	mg/kg	0.10	6020	08/12/10 15:19	SLS	7440-38-2	
Barium	6.5	mg/kg	1.0	6020	08/12/10 15:19	SLS	7440-39-3	
Cadmium	Not detected	mg/kg	0.20	6020	08/12/10 15:19	SLS	7440-43-9	
Chromium	0.93	mg/kg	0.50	6020	08/12/10 15:19	SLS	7440-47-3	
Copper	2.0	mg/kg	1.0	6020	08/12/10 15:19	SLS	7440-50-8	
Lead	1.81	mg/kg	0.30	6020	08/12/10 15:19	SLS	7439-92-1	
Mercury	Not detected	mg/kg	0.050	7471A	08/16/10 16:42	JRT	7439-97-6	
Selenium	Not detected	mg/kg	0.50	6020	08/12/10 15:19	SLS	7782-49-2	
Silver	0.59	mg/kg	0.20	6020	08/12/10 15:19	SLS	7440-22-4	
Zinc	5.2	mg/kg	1.0	6020	08/12/10 15:19	SLS	7440-66-6	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	08/17/10 15:48	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	700	8260B/5035	08/17/10 15:48	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	08/17/10 15:48	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	71-55-6	

Lab Sample ID: S45212.17 (continued)
Sample Tag: FDS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	2,000	8260B/5035	08/17/10 15:48	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	2,000	8260B/5035	08/17/10 15:48	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	08/17/10 15:48	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	08/17/10 15:48	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	08/17/10 15:48	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	08/17/10 15:48	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	200	8260B/5035	08/17/10 15:48	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:48	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:48	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:48	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	300	8260B/5035	08/17/10 15:48	JGH	91-57-6	

M-Result reported to MDL not RDL

Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S45212.18
Sample Tag: FDW
Collected Date/Time: 08/10/2010
Matrix: Groundwater
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
DRO Extraction	Completed			3510C	08/12/10 22:55	EMR		
PNA Extraction	Completed			3510C	08/11/10 20:33	EMR		
Organics - Semi-Volatiles								
TPH DRO (C10-C28)	6,200	ug/L	200	8015M	08/15/10 23:59	PL		X
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	208-96-8	
Anthracene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	191-24-2	
Chrysene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	53-70-3	
Fluoranthene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	206-44-0	
Fluorene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	91-20-3	
Phenanthrene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	85-01-8	
Pyrene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	8270C	08/13/10 19:58	PL	90-12-0	
Organics - Volatiles								
BTEX/TMBs								
Benzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	71-43-2	
Toluene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	108-88-3	
Ethylbenzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	100-41-4	
p,m-Xylene	Not detected	ug/L	100	8260B	08/11/10 22:14	JGH		
o-Xylene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	95-47-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	108-67-8	
1,2,3-Trimethylbenzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	526-73-8	
n-Propylbenzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	103-65-1	
Isopropylbenzene	Not detected	ug/L	50	8260B	08/11/10 22:14	JGH	98-82-8	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S45212.19
Sample Tag: FEB
Collected Date/Time: 08/10/2010
Matrix: Water
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR
1	125ml Plastic	HNO3	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	08/12/10 22:34	EMR		
Mercury Digestion	Completed			7471A	08/13/10 09:30	JRT		
Metal Digestion	Completed			3015A	08/11/10 12:00	SLS		
Metals								
Arsenic	Not detected	mg/L	0.002	200.8	08/11/10 15:21	SLS	7440-38-2	
Barium	Not detected	mg/L	0.005	200.8	08/11/10 15:21	SLS	7440-39-3	
Cadmium	Not detected	mg/L	0.0005	200.8	08/11/10 15:21	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	08/11/10 15:21	SLS	7440-47-3	
Copper	Not detected	mg/L	0.004	200.8	08/11/10 15:21	SLS	7440-50-8	
Lead	Not detected	mg/L	0.003	200.8	08/11/10 15:21	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1	08/13/10 13:01	JRT	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	08/11/10 15:21	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	08/11/10 15:21	SLS	7440-22-4	
Zinc	Not detected	mg/L	0.005	200.8	08/11/10 15:21	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	208-96-8	
Anthracene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	08/16/10 02:54	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	08/16/10 02:54	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	7005-72-3	
Chrysene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	218-01-9	
p,m-Cresol	Not detected	ug/L	20	8270C	08/16/10 02:54	PL	3/4-Cresol	
o-Cresol	Not detected	ug/L	10	8270C	08/16/10 02:54	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	2	8270C	08/16/10 02:54	PL	53-70-3	

Lab Sample ID: S45212.19 (continued)
Sample Tag: FEB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
Dibenzofuran	Not detected	ug/L	4	8270C	08/16/10 02:54	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	08/16/10 02:54	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	8270C	08/16/10 02:54	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	30	8270C	08/16/10 02:54	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	117-84-0	
Fluoranthene	Not detected	ug/L	1	8270C	08/16/10 02:54	PL	206-44-0	
Fluorene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	08/16/10 02:54	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	8270C	08/16/10 02:54	PL	193-39-5	
Isophorone	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	91-57-6	
Naphthalene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	91-20-3	
2-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 02:54	PL	88-74-4	
3-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 02:54	PL	99-09-2	
4-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 02:54	PL	100-01-6	
Nitrobenzene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	30	8270C	08/16/10 02:54	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	87-86-5	
Phenanthrene	Not detected	ug/L	2	8270C	08/16/10 02:54	PL	85-01-8	
Phenol	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	108-95-2	
Pyrene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/L	5	8270C	08/16/10 02:54	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	4	8270C	08/16/10 02:54	PL	88-06-2	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	8260B	08/15/10 18:33	JGH	60-29-7	
Acetone	Not detected	ug/L	50	8260B	08/15/10 18:33	JGH	67-64-1	
Methyl iodide	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	74-88-4	
Carbon disulfide	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	1634-04-4	

Lab Sample ID: S45212.19 (continued)
Sample Tag: FEB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Acrylonitrile	Not detected	ug/L	2	8260B	08/15/10 18:33	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	08/15/10 18:33	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	75-71-8	
Chloromethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	74-87-3	
Vinyl chloride	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	75-01-4	
Bromomethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	74-83-9	
Chloroethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	75-35-4	
Methylene chloride	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/L	90	8260B	08/15/10 18:33	JGH	109-99-9	
Chloroform	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	67-66-3	
Bromochloromethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	08/15/10 18:33	JGH	108-10-1	
2-Hexanone	Not detected	ug/L	50	8260B	08/15/10 18:33	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	56-23-5	
Benzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	107-06-2	
Trichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	75-27-4	
Dibromomethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	10061-01-5	
Toluene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	106-93-4	
Chlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	630-20-6	
Ethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	100-41-4	
p,m-Xylene	Not detected	ug/L	2	8260B	08/15/10 18:33	JGH		
o-Xylene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	95-47-6	
Styrene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	98-82-8	
Bromoform	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	103-65-1	
Bromobenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	95-63-6	

Lab Sample ID: S45212.19 (continued)
Sample Tag: FEB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
sec-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:33	JGH	104-51-8	
Hexachloroethane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	87-61-6	
Naphthalene	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/L	5	8260B	08/15/10 18:33	JGH	91-57-6	

Lab Sample ID: S45212.20
Sample Tag: FB
Collected Date/Time: 08/10/2010
Matrix: Water
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR
1	125ml Plastic	HNO3	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	08/12/10 22:34	EMR		
Mercury Digestion	Completed			7471A	08/13/10 09:30	JRT		
Metal Digestion	Completed			3015A	08/11/10 12:00	SLS		
Metals								
Arsenic	Not detected	mg/L	0.002	200.8	08/11/10 15:25	SLS	7440-38-2	
Barium	Not detected	mg/L	0.005	200.8	08/11/10 15:25	SLS	7440-39-3	
Cadmium	Not detected	mg/L	0.0005	200.8	08/11/10 15:25	SLS	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	08/11/10 15:25	SLS	7440-47-3	
Copper	Not detected	mg/L	0.004	200.8	08/11/10 15:25	SLS	7440-50-8	
Lead	Not detected	mg/L	0.003	200.8	08/11/10 15:25	SLS	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1	08/13/10 13:03	JRT	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	08/11/10 15:25	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	08/11/10 15:25	SLS	7440-22-4	
Zinc	Not detected	mg/L	0.005	200.8	08/11/10 15:25	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	208-96-8	
Anthracene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	08/16/10 03:22	PL	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	08/16/10 03:22	PL	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	7005-72-3	
Chrysene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	218-01-9	
p,m-Cresol	Not detected	ug/L	20	8270C	08/16/10 03:22	PL	3/4-Cresol	
o-Cresol	Not detected	ug/L	10	8270C	08/16/10 03:22	PL	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	2	8270C	08/16/10 03:22	PL	53-70-3	

Lab Sample ID: S45212.20 (continued)
Sample Tag: FB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
Dibenzofuran	Not detected	ug/L	4	8270C	08/16/10 03:22	PL	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	08/16/10 03:22	PL	120-83-2	
Diethyl phthalate	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	105-67-9	
Dimethyl phthalate	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	20	8270C	08/16/10 03:22	PL	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	30	8270C	08/16/10 03:22	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	117-84-0	
Fluoranthene	Not detected	ug/L	1	8270C	08/16/10 03:22	PL	206-44-0	
Fluorene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	08/16/10 03:22	PL	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	77-47-4	
Hexachloroethane	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	2	8270C	08/16/10 03:22	PL	193-39-5	
Isophorone	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	91-57-6	
Naphthalene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	91-20-3	
2-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 03:22	PL	88-74-4	
3-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 03:22	PL	99-09-2	
4-Nitroaniline	Not detected	ug/L	30	8270C	08/16/10 03:22	PL	100-01-6	
Nitrobenzene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	98-95-3	
2-Nitrophenol	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	88-75-5	
4-Nitrophenol	Not detected	ug/L	30	8270C	08/16/10 03:22	PL	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	86-30-6	
N-Nitrosodi-n-propylamine	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	621-64-7	
Pentachlorophenol	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	87-86-5	
Phenanthrene	Not detected	ug/L	2	8270C	08/16/10 03:22	PL	85-01-8	
Phenol	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	108-95-2	
Pyrene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/L	5	8270C	08/16/10 03:22	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	4	8270C	08/16/10 03:22	PL	88-06-2	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	8260B	08/15/10 18:51	JGH	60-29-7	
Acetone	Not detected	ug/L	50	8260B	08/15/10 18:51	JGH	67-64-1	
Methyl iodide	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	74-88-4	
Carbon disulfide	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	1634-04-4	

Lab Sample ID: S45212.20 (continued)
Sample Tag: FB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Acrylonitrile	Not detected	ug/L	2	8260B	08/15/10 18:51	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	08/15/10 18:51	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	75-71-8	
Chloromethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	74-87-3	
Vinyl chloride	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	75-01-4	
Bromomethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	74-83-9	
Chloroethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	75-35-4	
Methylene chloride	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/L	90	8260B	08/15/10 18:51	JGH	109-99-9	
Chloroform	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	67-66-3	
Bromochloromethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	08/15/10 18:51	JGH	108-10-1	
2-Hexanone	Not detected	ug/L	50	8260B	08/15/10 18:51	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	56-23-5	
Benzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	107-06-2	
Trichloroethene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	75-27-4	
Dibromomethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	10061-01-5	
Toluene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	106-93-4	
Chlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	630-20-6	
Ethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	100-41-4	
p,m-Xylene	Not detected	ug/L	2	8260B	08/15/10 18:51	JGH		
o-Xylene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	95-47-6	
Styrene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	98-82-8	
Bromoform	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	103-65-1	
Bromobenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	95-63-6	

Lab Sample ID: S45212.20 (continued)
Sample Tag: FB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
sec-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/L	1	8260B	08/15/10 18:51	JGH	104-51-8	
Hexachloroethane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	87-61-6	
Naphthalene	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/L	5	8260B	08/15/10 18:51	JGH	91-57-6	

Lab Sample ID: S45212.21
Sample Tag: B-5 (0.5-1) MS
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	95	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	23.0	mg/kg	0.10	6020	08/12/10 15:31	SLS	7440-38-2	
Barium	30.5	mg/kg	1.0	6020	08/12/10 15:31	SLS	7440-39-3	
Cadmium	21.59	mg/kg	0.20	6020	08/12/10 15:31	SLS	7440-43-9	
Chromium	26.1	mg/kg	0.50	6020	08/12/10 15:31	SLS	7440-47-3	
Copper	24.9	mg/kg	1.0	6020	08/12/10 15:31	SLS	7440-50-8	
Lead	24.1	mg/kg	0.30	6020	08/12/10 15:31	SLS	7439-92-1	
Mercury	0.115	mg/kg	0.050	7471A	08/16/10 16:17	JRT	7439-97-6	
Selenium	18.2	mg/kg	0.50	6020	08/12/10 15:31	SLS	7782-49-2	
Silver	19.34	mg/kg	0.20	6020	08/12/10 15:31	SLS	7440-22-4	
Zinc	27.2	mg/kg	1.0	6020	08/12/10 15:31	SLS	7440-66-6	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	2,000	ug/kg	200	8260B/5035	08/13/10 20:29	JGH	60-29-7	1
Acetone	3,000	ug/kg	1,000	8260B/5035	08/13/10 20:29	JGH	67-64-1	1
Methyl iodide	2,300	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	74-88-4	1
Carbon disulfide	2,100	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	75-15-0	1
tert-Methyl butyl ether (MTBE)	2,600	ug/kg	200	8260B/5035	08/13/10 20:29	JGH	1634-04-4	1
Acrylonitrile	2,700	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	107-13-1	1
2-Butanone (MEK)	2,600	ug/kg	800	8260B/5035	08/13/10 20:29	JGH	78-93-3	1
Dichlorodifluoromethane	1,200	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	75-71-8	1
Chloromethane	1,700	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	74-87-3	1
Vinyl chloride	2,020	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	75-01-4	1
Bromomethane	1,200	ug/kg	200	8260B/5035	08/13/10 20:29	JGH	74-83-9	1
Chloroethane	1,100	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	75-00-3	1
Trichlorofluoromethane	1,400	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	75-69-4	1
1,1-Dichloroethene	2,240	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	75-35-4	1
Methylene chloride	2,500	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	75-09-2	1
trans-1,2-Dichloroethene	2,410	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	156-60-5	1
1,1-Dichloroethane	2,370	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	75-34-3	1
cis-1,2-Dichloroethene	2,560	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	156-59-2	1
Tetrahydrofuran	2,000	ug/kg	1,000	8260B/5035	08/13/10 20:29	JGH	109-99-9	1
Chloroform	2,500	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	67-66-3	1
Bromochloromethane	2,600	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	74-97-5	1

1-Spiked at 2.5mg/kg

Lab Sample ID: S45212.21 (continued)
Sample Tag: B-5 (0.5-1) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1-Trichloroethane	2,520	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	71-55-6	1
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	08/13/10 20:29	JGH	108-10-1	1
2-Hexanone	3,000	ug/kg	3,000	8260B/5035	08/13/10 20:29	JGH	591-78-6	1
Carbon tetrachloride	2,520	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	56-23-5	1
Benzene	2,540	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	71-43-2	1
1,2-Dichloroethane	2,510	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	107-06-2	1
Trichloroethene	2,480	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	79-01-6	1
1,2-Dichloropropane	2,570	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	78-87-5	1
Bromodichloromethane	2,500	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	75-27-4	1
Dibromomethane	2,600	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	74-95-3	1
cis-1,3-Dichloropropene	2,630	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	10061-01-5	1
Toluene	2,500	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	108-88-3	1
trans-1,3-Dichloropropene	2,400	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	10061-02-6	1
1,1,2-Trichloroethane	2,600	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	79-00-5	1
Tetrachloroethene	2,500	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	127-18-4	1
trans-1,4-Dichloro-2-butene	2,710	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	110-57-6	1
Dibromochloromethane	2,100	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	124-48-1	1
1,2-Dibromoethane	2,580	ug/kg	20	8260B/5035	08/13/10 20:29	JGH	106-93-4	1M
Chlorobenzene	2,470	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	108-90-7	1
1,1,1,2-Tetrachloroethane	2,600	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	630-20-6	1
Ethylbenzene	2,540	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	100-41-4	1
p,m-Xylene	5,200	ug/kg	100	8260B/5035	08/13/10 20:29	JGH		1
o-Xylene	2,580	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	95-47-6	1
Styrene	2,560	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	100-42-5	1
Isopropylbenzene	2,400	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	98-82-8	1
Bromoform	2,200	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	75-25-2	1
1,1,2,2-Tetrachloroethane	2,790	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	79-34-5	1
1,2,3-Trichloropropane	3,000	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	96-18-4	1
n-Propylbenzene	2,600	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	103-65-1	1
Bromobenzene	2,600	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	108-86-1	1
1,3,5-Trimethylbenzene	2,700	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	108-67-8	1
tert-Butylbenzene	2,670	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	98-06-6	1
1,2,4-Trimethylbenzene	2,800	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	95-63-6	1
sec-Butylbenzene	2,460	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	135-98-8	1
p-Isopropyltoluene	2,600	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	99-87-6	1
1,3-Dichlorobenzene	2,500	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	541-73-1	1
1,4-Dichlorobenzene	2,400	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	106-46-7	1
1,2-Dichlorobenzene	2,500	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	95-50-1	1
1,2,3-Trimethylbenzene	2,400	ug/kg	100	8260B/5035	08/13/10 20:29	JGH	526-73-8	1
n-Butylbenzene	2,530	ug/kg	50	8260B/5035	08/13/10 20:29	JGH	104-51-8	1
Hexachloroethane	1,900	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	67-72-1	1
1,2-Dibromo-3-chloropropane	2,400	ug/kg	300	8260B/5035	08/13/10 20:29	JGH	96-12-8	1
1,2,4-Trichlorobenzene	2,500	ug/kg	400	8260B/5035	08/13/10 20:29	JGH	120-82-1	1
1,2,3-Trichlorobenzene	2,600	ug/kg	400	8260B/5035	08/13/10 20:29	JGH	87-61-6	1
Naphthalene	2,600	ug/kg	400	8260B/5035	08/13/10 20:29	JGH	91-20-3	1
2-Methylnaphthalene	2,800	ug/kg	400	8260B/5035	08/13/10 20:29	JGH	91-57-6	1

1-Spiked at 2.5mg/kg
M-Result reported to MDL not RDL

Lab Sample ID: S45212.22
Sample Tag: B-5 (0.5-1) MSD
Collected Date/Time: 08/10/2010
Matrix: Soil
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Mercury Digestion	Completed			7471A	08/16/10 14:00	JRT		
Metal Digestion	Completed			3050B	08/12/10 12:00	SLS		
Inorganics								
Total Solids	95	%	1	Std M 2540 B	08/11/10 11:45	DJS		
Metals								
Arsenic	22.4	mg/kg	0.10	6020	08/12/10 15:34	SLS	7440-38-2	
Barium	31.4	mg/kg	1.0	6020	08/12/10 15:34	SLS	7440-39-3	
Cadmium	21.37	mg/kg	0.20	6020	08/12/10 15:34	SLS	7440-43-9	
Chromium	25.7	mg/kg	0.50	6020	08/12/10 15:34	SLS	7440-47-3	
Copper	24.3	mg/kg	1.0	6020	08/12/10 15:34	SLS	7440-50-8	
Lead	23.6	mg/kg	0.30	6020	08/12/10 15:34	SLS	7439-92-1	
Mercury	0.113	mg/kg	0.050	7471A	08/16/10 16:20	JRT	7439-97-6	
Selenium	18.1	mg/kg	0.50	6020	08/12/10 15:34	SLS	7782-49-2	
Silver	19.16	mg/kg	0.20	6020	08/12/10 15:34	SLS	7440-22-4	
Zinc	27.2	mg/kg	1.0	6020	08/12/10 15:34	SLS	7440-66-6	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	2,200	ug/kg	200	8260B/5035	08/13/10 20:47	JGH	60-29-7	1
Acetone	3,000	ug/kg	1,000	8260B/5035	08/13/10 20:47	JGH	67-64-1	1
Methyl iodide	2,500	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	74-88-4	1
Carbon disulfide	2,300	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	75-15-0	1
tert-Methyl butyl ether (MTBE)	2,700	ug/kg	200	8260B/5035	08/13/10 20:47	JGH	1634-04-4	1
Acrylonitrile	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	107-13-1	1
2-Butanone (MEK)	2,700	ug/kg	800	8260B/5035	08/13/10 20:47	JGH	78-93-3	1
Dichlorodifluoromethane	1,300	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	75-71-8	1
Chloromethane	1,800	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	74-87-3	1
Vinyl chloride	2,150	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	75-01-4	1
Bromomethane	1,300	ug/kg	200	8260B/5035	08/13/10 20:47	JGH	74-83-9	1
Chloroethane	1,100	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	75-00-3	1
Trichlorofluoromethane	1,500	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	75-69-4	1
1,1-Dichloroethene	2,370	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	75-35-4	1
Methylene chloride	2,600	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	75-09-2	1
trans-1,2-Dichloroethene	2,570	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	156-60-5	1
1,1-Dichloroethane	2,530	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	75-34-3	1
cis-1,2-Dichloroethene	2,730	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	156-59-2	1
Tetrahydrofuran	2,000	ug/kg	1,000	8260B/5035	08/13/10 20:47	JGH	109-99-9	1
Chloroform	2,700	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	67-66-3	1
Bromochloromethane	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	74-97-5	1

1-Spiked at 2.5mg/kg

Lab Sample ID: S45212.22 (continued)
Sample Tag: B-5 (0.5-1) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1-Trichloroethane	2,730	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	71-55-6	1
4-Methyl-2-pentanone (MIBK)	3,000	ug/kg	3,000	8260B/5035	08/13/10 20:47	JGH	108-10-1	1
2-Hexanone	3,000	ug/kg	3,000	8260B/5035	08/13/10 20:47	JGH	591-78-6	1
Carbon tetrachloride	2,660	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	56-23-5	1
Benzene	2,710	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	71-43-2	1
1,2-Dichloroethane	2,630	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	107-06-2	1
Trichloroethene	2,710	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	79-01-6	1
1,2-Dichloropropane	2,770	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	78-87-5	1
Bromodichloromethane	2,700	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	75-27-4	1
Dibromomethane	2,800	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	74-95-3	1
cis-1,3-Dichloropropene	2,900	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	10061-01-5	1
Toluene	2,700	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	108-88-3	1
trans-1,3-Dichloropropene	2,610	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	10061-02-6	1
1,1,2-Trichloroethane	2,780	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	79-00-5	1
Tetrachloroethene	2,660	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	127-18-4	1
trans-1,4-Dichloro-2-butene	2,840	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	110-57-6	1
Dibromochloromethane	2,400	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	124-48-1	1
1,2-Dibromoethane	2,800	ug/kg	20	8260B/5035	08/13/10 20:47	JGH	106-93-4	1M
Chlorobenzene	2,640	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	108-90-7	1
1,1,1,2-Tetrachloroethane	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	630-20-6	1
Ethylbenzene	2,720	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	100-41-4	1
p,m-Xylene	5,500	ug/kg	100	8260B/5035	08/13/10 20:47	JGH		1
o-Xylene	2,720	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	95-47-6	1
Styrene	2,680	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	100-42-5	1
Isopropylbenzene	2,600	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	98-82-8	1
Bromoform	2,400	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	75-25-2	1
1,1,2,2-Tetrachloroethane	2,840	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	79-34-5	1
1,2,3-Trichloropropane	3,100	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	96-18-4	1
n-Propylbenzene	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	103-65-1	1
Bromobenzene	2,700	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	108-86-1	1
1,3,5-Trimethylbenzene	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	108-67-8	1
tert-Butylbenzene	2,770	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	98-06-6	1
1,2,4-Trimethylbenzene	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	95-63-6	1
sec-Butylbenzene	2,740	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	135-98-8	1
p-Isopropyltoluene	2,800	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	99-87-6	1
1,3-Dichlorobenzene	2,700	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	541-73-1	1
1,4-Dichlorobenzene	2,600	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	106-46-7	1
1,2-Dichlorobenzene	2,700	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	95-50-1	1
1,2,3-Trimethylbenzene	2,700	ug/kg	100	8260B/5035	08/13/10 20:47	JGH	526-73-8	1
n-Butylbenzene	2,730	ug/kg	50	8260B/5035	08/13/10 20:47	JGH	104-51-8	1
Hexachloroethane	2,200	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	67-72-1	1
1,2-Dibromo-3-chloropropane	2,500	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	96-12-8	1
1,2,4-Trichlorobenzene	2,600	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	120-82-1	1
1,2,3-Trichlorobenzene	2,600	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	87-61-6	1
Naphthalene	2,700	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	91-20-3	1
2-Methylnaphthalene	2,800	ug/kg	300	8260B/5035	08/13/10 20:47	JGH	91-57-6	1

1-Spiked at 2.5mg/kg
M-Result reported to MDL not RDL

Lab Sample ID: S45212.23
Sample Tag: B-9/ TMW MS
Collected Date/Time: 08/10/2010
Matrix: Groundwater
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR
2	125ml Plastic	HNO3	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	08/12/10 22:34	EMR		
Mercury Digestion	Completed			7471A	08/13/10 09:30	JRT		
Metal Digestion	Completed			3015A	08/11/10 12:00	SLS		
Metals								
Arsenic	0.282	mg/L	0.002	200.8	08/11/10 15:39	SLS	7440-38-2	
Barium	0.408	mg/L	0.005	200.8	08/11/10 15:39	SLS	7440-39-3	
Cadmium	0.2649	mg/L	0.0005	200.8	08/11/10 15:39	SLS	7440-43-9	
Chromium	0.263	mg/L	0.005	200.8	08/11/10 15:39	SLS	7440-47-3	
Copper	0.254	mg/L	0.004	200.8	08/11/10 15:39	SLS	7440-50-8	
Lead	0.266	mg/L	0.003	200.8	08/11/10 15:39	SLS	7439-92-1	
Mercury	0.0020	mg/L	0.0002	245.1	08/13/10 13:08	JRT	7439-97-6	
Selenium	0.307	mg/L	0.005	200.8	08/11/10 15:39	SLS	7782-49-2	
Silver	0.2245	mg/L	0.0005	200.8	08/11/10 15:39	SLS	7440-22-4	
Zinc	0.272	mg/L	0.005	200.8	08/11/10 15:39	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	44	ug/L	5	8270C	08/16/10 03:51	PL	83-32-9	1
Acenaphthylene	41	ug/L	5	8270C	08/16/10 03:51	PL	208-96-8	1
Anthracene	47	ug/L	5	8270C	08/16/10 03:51	PL	120-12-7	1
Benzo(a)anthracene	48	ug/L	1	8270C	08/16/10 03:51	PL	56-55-3	1
Benzo(b)fluoranthene	46	ug/L	1	8270C	08/16/10 03:51	PL	205-99-2	1
Benzo(k)fluoranthene	47	ug/L	1	8270C	08/16/10 03:51	PL	207-08-9	1
Benzo(ghi)perylene	45	ug/L	1	8270C	08/16/10 03:51	PL	191-24-2	1
Benzo(a)pyrene	50	ug/L	1	8270C	08/16/10 03:51	PL	50-32-8	1
bis(2-Chloroethoxy)methane	39	ug/L	5	8270C	08/16/10 03:51	PL	111-91-1	1
bis(2-Chloroethyl)ether	34	ug/L	5	8270C	08/16/10 03:51	PL	111-44-4	1
bis(2-Chloroisopropyl)ether	34	ug/L	5	8270C	08/16/10 03:51	PL	108-60-1	1
bis(2-Ethylhexyl)phthalate	53	ug/L	5	8270C	08/16/10 03:51	PL	117-81-7	1
4-Bromophenyl phenyl ether	44	ug/L	5	8270C	08/16/10 03:51	PL	101-55-3	1
Butyl benzyl phthalate	48	ug/L	5	8270C	08/16/10 03:51	PL	85-68-7	1
4-Chloroaniline	40	ug/L	10	8270C	08/16/10 03:51	PL	106-47-8	1
2-Chloronaphthalene	44	ug/L	5	8270C	08/16/10 03:51	PL	91-58-7	1
4-Chloro-3-methylphenol	45	ug/L	5	8270C	08/16/10 03:51	PL	59-50-7	1
2-Chlorophenol	40	ug/L	10	8270C	08/16/10 03:51	PL	95-57-8	1
4-Chlorophenyl phenyl ether	46	ug/L	5	8270C	08/16/10 03:51	PL	7005-72-3	1
Chrysene	39	ug/L	1	8270C	08/16/10 03:51	PL	218-01-9	1
p,m-Cresol	50	ug/L	20	8270C	08/16/10 03:51	PL	3/4-Cresol	1
o-Cresol	40	ug/L	10	8270C	08/16/10 03:51	PL	95-48-7	1

1-Wet Weight Spike: 0.054 mg/L

Lab Sample ID: S45212.23 (continued)
Sample Tag: B-9/ TMW MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
Dibenzo(ah)anthracene	41	ug/L	2	8270C	08/16/10 03:51	PL	53-70-3	1
Dibenzofuran	43	ug/L	4	8270C	08/16/10 03:51	PL	132-64-9	1
di-n-Butyl phthalate	49	ug/L	5	8270C	08/16/10 03:51	PL	84-74-2	1
1,2-Dichlorobenzene	33	ug/L	1	8270C	08/16/10 03:51	PL	95-50-1	1
1,3-Dichlorobenzene	31	ug/L	1	8270C	08/16/10 03:51	PL	541-73-1	1
1,4-Dichlorobenzene	32	ug/L	1	8270C	08/16/10 03:51	PL	106-46-7	1
3,3'-Dichlorobenzidine	24	ug/L	5	8270C	08/16/10 03:51	PL	91-94-1	1
2,4-Dichlorophenol	50	ug/L	10	8270C	08/16/10 03:51	PL	120-83-2	1
Diethyl phthalate	47	ug/L	5	8270C	08/16/10 03:51	PL	84-66-2	1
2,4-Dimethylphenol	41	ug/L	5	8270C	08/16/10 03:51	PL	105-67-9	1
Dimethyl phthalate	45	ug/L	5	8270C	08/16/10 03:51	PL	131-11-3	1
4,6-Dinitro-2-methylphenol	50	ug/L	20	8270C	08/16/10 03:51	PL	534-52-1	1
2,4-Dinitrophenol	50	ug/L	30	8270C	08/16/10 03:51	PL	51-28-5	1
2,4-Dinitrotoluene	47	ug/L	5	8270C	08/16/10 03:51	PL	121-14-2	1
2,6-Dinitrotoluene	49	ug/L	5	8270C	08/16/10 03:51	PL	606-20-2	1
1,2-Diphenylhydrazine	39	ug/L	5	8270C	08/16/10 03:51	PL	122-66-7	1
di-n-Octyl phthalate	49	ug/L	5	8270C	08/16/10 03:51	PL	117-84-0	1
Fluoranthene	47	ug/L	1	8270C	08/16/10 03:51	PL	206-44-0	1
Fluorene	47	ug/L	5	8270C	08/16/10 03:51	PL	86-73-7	1
Hexachlorobenzene	40	ug/L	5	8270C	08/16/10 03:51	PL	118-74-1	1
Hexachlorobutadiene	40	ug/L	10	8270C	08/16/10 03:51	PL	87-68-3	1
Hexachlorocyclopentadiene	26	ug/L	5	8270C	08/16/10 03:51	PL	77-47-4	1
Hexachloroethane	31	ug/L	5	8270C	08/16/10 03:51	PL	67-72-1	1
Indeno(1,2,3-cd)pyrene	47	ug/L	2	8270C	08/16/10 03:51	PL	193-39-5	1
Isophorone	37	ug/L	5	8270C	08/16/10 03:51	PL	78-59-1	1
2-Methylnaphthalene	42	ug/L	5	8270C	08/16/10 03:51	PL	91-57-6	1
Naphthalene	39	ug/L	5	8270C	08/16/10 03:51	PL	91-20-3	1
2-Nitroaniline	50	ug/L	30	8270C	08/16/10 03:51	PL	88-74-4	1
3-Nitroaniline	40	ug/L	30	8270C	08/16/10 03:51	PL	99-09-2	1
4-Nitroaniline	50	ug/L	30	8270C	08/16/10 03:51	PL	100-01-6	1
Nitrobenzene	39	ug/L	5	8270C	08/16/10 03:51	PL	98-95-3	1
2-Nitrophenol	41	ug/L	5	8270C	08/16/10 03:51	PL	88-75-5	1
4-Nitrophenol	50	ug/L	30	8270C	08/16/10 03:51	PL	100-02-7	1
N-Nitrosodiphenylamine	96	ug/L	5	8270C	08/16/10 03:51	PL	86-30-6	1
N-Nitrosodi-n-propylamine	37	ug/L	5	8270C	08/16/10 03:51	PL	621-64-7	1
Pentachlorophenol	47	ug/L	5	8270C	08/16/10 03:51	PL	87-86-5	1
Phenanthrene	44	ug/L	2	8270C	08/16/10 03:51	PL	85-01-8	1
Phenol	41	ug/L	5	8270C	08/16/10 03:51	PL	108-95-2	1
Pyrene	47	ug/L	5	8270C	08/16/10 03:51	PL	129-00-0	1
1,2,4-Trichlorobenzene	36	ug/L	5	8270C	08/16/10 03:51	PL	120-82-1	1
2,4,5-Trichlorophenol	48	ug/L	5	8270C	08/16/10 03:51	PL	95-95-4	1
2,4,6-Trichlorophenol	47	ug/L	4	8270C	08/16/10 03:51	PL	88-06-2	1
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	50	ug/L	10	8260B	08/15/10 21:15	JGH	60-29-7	2
Acetone	Not detected	ug/L	50	8260B	08/15/10 21:15	JGH	67-64-1	2

1-Wet Weight Spike: 0.054 mg/L
2-Spiked at 50 ug/l

Lab Sample ID: S45212.23 (continued)
Sample Tag: B-9/ TMW MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Methyl iodide	46	ug/L	1	8260B	08/15/10 21:15	JGH	74-88-4	1
Carbon disulfide	43	ug/L	5	8260B	08/15/10 21:15	JGH	75-15-0	1
tert-Methyl butyl ether (MTBE)	50	ug/L	5	8260B	08/15/10 21:15	JGH	1634-04-4	1
Acrylonitrile	49	ug/L	2	8260B	08/15/10 21:15	JGH	107-13-1	1
2-Butanone (MEK)	40	ug/L	30	8260B	08/15/10 21:15	JGH	78-93-3	1
Dichlorodifluoromethane	30	ug/L	5	8260B	08/15/10 21:15	JGH	75-71-8	1
Chloromethane	42	ug/L	5	8260B	08/15/10 21:15	JGH	74-87-3	1
Vinyl chloride	45	ug/L	1	8260B	08/15/10 21:15	JGH	75-01-4	1
Bromomethane	50	ug/L	5	8260B	08/15/10 21:15	JGH	74-83-9	1
Chloroethane	49	ug/L	5	8260B	08/15/10 21:15	JGH	75-00-3	1
Trichlorofluoromethane	49	ug/L	1	8260B	08/15/10 21:15	JGH	75-69-4	1
1,1-Dichloroethene	49	ug/L	1	8260B	08/15/10 21:15	JGH	75-35-4	1
Methylene chloride	50	ug/L	5	8260B	08/15/10 21:15	JGH	75-09-2	1
trans-1,2-Dichloroethene	48	ug/L	1	8260B	08/15/10 21:15	JGH	156-60-5	1
1,1-Dichloroethane	48	ug/L	1	8260B	08/15/10 21:15	JGH	75-34-3	1
cis-1,2-Dichloroethene	50	ug/L	1	8260B	08/15/10 21:15	JGH	156-59-2	1
Tetrahydrofuran	Not detected	ug/L	90	8260B	08/15/10 21:15	JGH	109-99-9	1
Chloroform	52	ug/L	1	8260B	08/15/10 21:15	JGH	67-66-3	1
Bromochloromethane	51	ug/L	1	8260B	08/15/10 21:15	JGH	74-97-5	1
1,1,1-Trichloroethane	52	ug/L	1	8260B	08/15/10 21:15	JGH	71-55-6	1
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	08/15/10 21:15	JGH	108-10-1	1
2-Hexanone	Not detected	ug/L	50	8260B	08/15/10 21:15	JGH	591-78-6	1
Carbon tetrachloride	46	ug/L	1	8260B	08/15/10 21:15	JGH	56-23-5	1
Benzene	48	ug/L	1	8260B	08/15/10 21:15	JGH	71-43-2	1
1,2-Dichloroethane	49	ug/L	1	8260B	08/15/10 21:15	JGH	107-06-2	1
Trichloroethene	46	ug/L	1	8260B	08/15/10 21:15	JGH	79-01-6	1
1,2-Dichloropropane	51	ug/L	1	8260B	08/15/10 21:15	JGH	78-87-5	1
Bromodichloromethane	52	ug/L	1	8260B	08/15/10 21:15	JGH	75-27-4	1
Dibromomethane	49	ug/L	5	8260B	08/15/10 21:15	JGH	74-95-3	1
cis-1,3-Dichloropropene	53	ug/L	1	8260B	08/15/10 21:15	JGH	10061-01-5	1
Toluene	49	ug/L	1	8260B	08/15/10 21:15	JGH	108-88-3	1
trans-1,3-Dichloropropene	47	ug/L	1	8260B	08/15/10 21:15	JGH	10061-02-6	1
1,1,2-Trichloroethane	50	ug/L	1	8260B	08/15/10 21:15	JGH	79-00-5	1
Tetrachloroethene	45	ug/L	1	8260B	08/15/10 21:15	JGH	127-18-4	1
trans-1,4-Dichloro-2-butene	48	ug/L	1	8260B	08/15/10 21:15	JGH	110-57-6	1
Dibromochloromethane	46	ug/L	5	8260B	08/15/10 21:15	JGH	124-48-1	1
1,2-Dibromoethane	49	ug/L	1	8260B	08/15/10 21:15	JGH	106-93-4	1
Chlorobenzene	47	ug/L	1	8260B	08/15/10 21:15	JGH	108-90-7	1
1,1,1,2-Tetrachloroethane	53	ug/L	1	8260B	08/15/10 21:15	JGH	630-20-6	1
Ethylbenzene	50	ug/L	1	8260B	08/15/10 21:15	JGH	100-41-4	1
p,m-Xylene	98	ug/L	2	8260B	08/15/10 21:15	JGH		1
o-Xylene	52	ug/L	1	8260B	08/15/10 21:15	JGH	95-47-6	1
Styrene	51	ug/L	1	8260B	08/15/10 21:15	JGH	100-42-5	1
Isopropylbenzene	47	ug/L	5	8260B	08/15/10 21:15	JGH	98-82-8	1
Bromoform	43	ug/L	1	8260B	08/15/10 21:15	JGH	75-25-2	1
1,1,2,2-Tetrachloroethane	49	ug/L	1	8260B	08/15/10 21:15	JGH	79-34-5	1
1,2,3-Trichloropropane	54	ug/L	1	8260B	08/15/10 21:15	JGH	96-18-4	1
n-Propylbenzene	50	ug/L	1	8260B	08/15/10 21:15	JGH	103-65-1	1

1-Spiked at 50 ug/l

Lab Sample ID: S45212.23 (continued)
Sample Tag: B-9/ TMW MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromobenzene	50	ug/L	1	8260B	08/15/10 21:15	JGH	108-86-1	1
1,3,5-Trimethylbenzene	51	ug/L	1	8260B	08/15/10 21:15	JGH	108-67-8	1
tert-Butylbenzene	51	ug/L	1	8260B	08/15/10 21:15	JGH	98-06-6	1
1,2,4-Trimethylbenzene	52	ug/L	1	8260B	08/15/10 21:15	JGH	95-63-6	1
sec-Butylbenzene	51	ug/L	1	8260B	08/15/10 21:15	JGH	135-98-8	1
p-Isopropyltoluene	53	ug/L	5	8260B	08/15/10 21:15	JGH	99-87-6	1
1,3-Dichlorobenzene	51	ug/L	1	8260B	08/15/10 21:15	JGH	541-73-1	1
1,4-Dichlorobenzene	49	ug/L	1	8260B	08/15/10 21:15	JGH	106-46-7	1
1,2-Dichlorobenzene	50	ug/L	1	8260B	08/15/10 21:15	JGH	95-50-1	1
1,2,3-Trimethylbenzene	51	ug/L	1	8260B	08/15/10 21:15	JGH	526-73-8	1
n-Butylbenzene	50	ug/L	1	8260B	08/15/10 21:15	JGH	104-51-8	1
Hexachloroethane	45	ug/L	5	8260B	08/15/10 21:15	JGH	67-72-1	1
1,2-Dibromo-3-chloropropane	45	ug/L	5	8260B	08/15/10 21:15	JGH	96-12-8	1
1,2,4-Trichlorobenzene	45	ug/L	5	8260B	08/15/10 21:15	JGH	120-82-1	1
1,2,3-Trichlorobenzene	46	ug/L	5	8260B	08/15/10 21:15	JGH	87-61-6	1
Naphthalene	49	ug/L	5	8260B	08/15/10 21:15	JGH	91-20-3	1
2-Methylnaphthalene	40	ug/L	5	8260B	08/15/10 21:15	JGH	91-57-6	1

1-Spiked at 50 ug/l

Lab Sample ID: S45212.24
Sample Tag: B-9/ TMW MSD
Collected Date/Time: 08/10/2010
Matrix: Groundwater
COC Reference: 57293

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	1L Amber	None	Yes	4.5	IR
2	40ml Glass	HCL	Yes	4.5	IR
2	125ml Plastic	HNO3	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	08/12/10 22:34	EMR		
Mercury Digestion	Completed			7471A	08/13/10 09:30	JRT		
Metal Digestion	Completed			3015A	08/11/10 12:00	SLS		
Metals								
Arsenic	0.274	mg/L	0.002	200.8	08/11/10 15:43	SLS	7440-38-2	
Barium	0.405	mg/L	0.005	200.8	08/11/10 15:43	SLS	7440-39-3	
Cadmium	0.2625	mg/L	0.0005	200.8	08/11/10 15:43	SLS	7440-43-9	
Chromium	0.257	mg/L	0.005	200.8	08/11/10 15:43	SLS	7440-47-3	
Copper	0.239	mg/L	0.004	200.8	08/11/10 15:43	SLS	7440-50-8	
Lead	0.264	mg/L	0.003	200.8	08/11/10 15:43	SLS	7439-92-1	
Mercury	0.0020	mg/L	0.0002	245.1	08/13/10 13:10	JRT	7439-97-6	
Selenium	0.298	mg/L	0.005	200.8	08/11/10 15:43	SLS	7782-49-2	
Silver	0.2243	mg/L	0.0005	200.8	08/11/10 15:43	SLS	7440-22-4	
Zinc	0.268	mg/L	0.005	200.8	08/11/10 15:43	SLS	7440-66-6	
Organics - Semi-Volatiles								
Semi-Volatile Organics - MDEQ								
Acenaphthene	44	ug/L	5	8270C	08/16/10 04:19	PL	83-32-9	1
Acenaphthylene	41	ug/L	5	8270C	08/16/10 04:19	PL	208-96-8	1
Anthracene	47	ug/L	5	8270C	08/16/10 04:19	PL	120-12-7	1
Benzo(a)anthracene	48	ug/L	1	8270C	08/16/10 04:19	PL	56-55-3	1
Benzo(b)fluoranthene	45	ug/L	1	8270C	08/16/10 04:19	PL	205-99-2	1
Benzo(k)fluoranthene	47	ug/L	1	8270C	08/16/10 04:19	PL	207-08-9	1
Benzo(ghi)perylene	44	ug/L	1	8270C	08/16/10 04:19	PL	191-24-2	1
Benzo(a)pyrene	50	ug/L	1	8270C	08/16/10 04:19	PL	50-32-8	1
bis(2-Chloroethoxy)methane	39	ug/L	5	8270C	08/16/10 04:19	PL	111-91-1	1
bis(2-Chloroethyl)ether	34	ug/L	5	8270C	08/16/10 04:19	PL	111-44-4	1
bis(2-Chloroisopropyl)ether	34	ug/L	5	8270C	08/16/10 04:19	PL	108-60-1	1
bis(2-Ethylhexyl)phthalate	55	ug/L	5	8270C	08/16/10 04:19	PL	117-81-7	1
4-Bromophenyl phenyl ether	44	ug/L	5	8270C	08/16/10 04:19	PL	101-55-3	1
Butyl benzyl phthalate	47	ug/L	5	8270C	08/16/10 04:19	PL	85-68-7	1
4-Chloroaniline	40	ug/L	10	8270C	08/16/10 04:19	PL	106-47-8	1
2-Chloronaphthalene	44	ug/L	5	8270C	08/16/10 04:19	PL	91-58-7	1
4-Chloro-3-methylphenol	46	ug/L	5	8270C	08/16/10 04:19	PL	59-50-7	1
2-Chlorophenol	40	ug/L	10	8270C	08/16/10 04:19	PL	95-57-8	1
4-Chlorophenyl phenyl ether	46	ug/L	5	8270C	08/16/10 04:19	PL	7005-72-3	1
Chrysene	39	ug/L	1	8270C	08/16/10 04:19	PL	218-01-9	1
p,m-Cresol	50	ug/L	20	8270C	08/16/10 04:19	PL	3/4-Cresol	1
o-Cresol	40	ug/L	10	8270C	08/16/10 04:19	PL	95-48-7	1

1-Wet Weight Spike: 0.054 mg/L

Lab Sample ID: S45212.24 (continued)
Sample Tag: B-9/ TMW MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Semi-Volatile Organics - MDEQ (continued)								
Dibenzo(ah)anthracene	40	ug/L	2	8270C	08/16/10 04:19	PL	53-70-3	1
Dibenzofuran	43	ug/L	4	8270C	08/16/10 04:19	PL	132-64-9	1
di-n-Butyl phthalate	50	ug/L	5	8270C	08/16/10 04:19	PL	84-74-2	1
1,2-Dichlorobenzene	34	ug/L	1	8270C	08/16/10 04:19	PL	95-50-1	1
1,3-Dichlorobenzene	32	ug/L	1	8270C	08/16/10 04:19	PL	541-73-1	1
1,4-Dichlorobenzene	33	ug/L	1	8270C	08/16/10 04:19	PL	106-46-7	1
3,3'-Dichlorobenzidine	23	ug/L	5	8270C	08/16/10 04:19	PL	91-94-1	1
2,4-Dichlorophenol	50	ug/L	10	8270C	08/16/10 04:19	PL	120-83-2	1
Diethyl phthalate	47	ug/L	5	8270C	08/16/10 04:19	PL	84-66-2	1
2,4-Dimethylphenol	41	ug/L	5	8270C	08/16/10 04:19	PL	105-67-9	1
Dimethyl phthalate	46	ug/L	5	8270C	08/16/10 04:19	PL	131-11-3	1
4,6-Dinitro-2-methylphenol	50	ug/L	20	8270C	08/16/10 04:19	PL	534-52-1	1
2,4-Dinitrophenol	50	ug/L	30	8270C	08/16/10 04:19	PL	51-28-5	1
2,4-Dinitrotoluene	48	ug/L	5	8270C	08/16/10 04:19	PL	121-14-2	1
2,6-Dinitrotoluene	50	ug/L	5	8270C	08/16/10 04:19	PL	606-20-2	1
1,2-Diphenylhydrazine	39	ug/L	5	8270C	08/16/10 04:19	PL	122-66-7	1
di-n-Octyl phthalate	48	ug/L	5	8270C	08/16/10 04:19	PL	117-84-0	1
Fluoranthene	47	ug/L	1	8270C	08/16/10 04:19	PL	206-44-0	1
Fluorene	47	ug/L	5	8270C	08/16/10 04:19	PL	86-73-7	1
Hexachlorobenzene	39	ug/L	5	8270C	08/16/10 04:19	PL	118-74-1	1
Hexachlorobutadiene	40	ug/L	10	8270C	08/16/10 04:19	PL	87-68-3	1
Hexachlorocyclopentadiene	28	ug/L	5	8270C	08/16/10 04:19	PL	77-47-4	1
Hexachloroethane	32	ug/L	5	8270C	08/16/10 04:19	PL	67-72-1	1
Indeno(1,2,3-cd)pyrene	45	ug/L	2	8270C	08/16/10 04:19	PL	193-39-5	1
Isophorone	36	ug/L	5	8270C	08/16/10 04:19	PL	78-59-1	1
2-Methylnaphthalene	42	ug/L	5	8270C	08/16/10 04:19	PL	91-57-6	1
Naphthalene	39	ug/L	5	8270C	08/16/10 04:19	PL	91-20-3	1
2-Nitroaniline	50	ug/L	30	8270C	08/16/10 04:19	PL	88-74-4	1
3-Nitroaniline	40	ug/L	30	8270C	08/16/10 04:19	PL	99-09-2	1
4-Nitroaniline	50	ug/L	30	8270C	08/16/10 04:19	PL	100-01-6	1
Nitrobenzene	40	ug/L	5	8270C	08/16/10 04:19	PL	98-95-3	1
2-Nitrophenol	42	ug/L	5	8270C	08/16/10 04:19	PL	88-75-5	1
4-Nitrophenol	50	ug/L	30	8270C	08/16/10 04:19	PL	100-02-7	1
N-Nitrosodiphenylamine	96	ug/L	5	8270C	08/16/10 04:19	PL	86-30-6	1
N-Nitrosodi-n-propylamine	37	ug/L	5	8270C	08/16/10 04:19	PL	621-64-7	1
Pentachlorophenol	48	ug/L	5	8270C	08/16/10 04:19	PL	87-86-5	1
Phenanthrene	44	ug/L	2	8270C	08/16/10 04:19	PL	85-01-8	1
Phenol	41	ug/L	5	8270C	08/16/10 04:19	PL	108-95-2	1
Pyrene	47	ug/L	5	8270C	08/16/10 04:19	PL	129-00-0	1
1,2,4-Trichlorobenzene	37	ug/L	5	8270C	08/16/10 04:19	PL	120-82-1	1
2,4,5-Trichlorophenol	49	ug/L	5	8270C	08/16/10 04:19	PL	95-95-4	1
2,4,6-Trichlorophenol	47	ug/L	4	8270C	08/16/10 04:19	PL	88-06-2	1
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	50	ug/L	10	8260B	08/15/10 21:33	JGH	60-29-7	2
Acetone	Not detected	ug/L	50	8260B	08/15/10 21:33	JGH	67-64-1	2

1-Wet Weight Spike: 0.054 mg/L
2-Spiked at 50 ug/l

Lab Sample ID: S45212.24 (continued)
Sample Tag: B-9/ TMW MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Methyl iodide	47	ug/L	1	8260B	08/15/10 21:33	JGH	74-88-4	1
Carbon disulfide	44	ug/L	5	8260B	08/15/10 21:33	JGH	75-15-0	1
tert-Methyl butyl ether (MTBE)	49	ug/L	5	8260B	08/15/10 21:33	JGH	1634-04-4	1
Acrylonitrile	48	ug/L	2	8260B	08/15/10 21:33	JGH	107-13-1	1
2-Butanone (MEK)	40	ug/L	30	8260B	08/15/10 21:33	JGH	78-93-3	1
Dichlorodifluoromethane	29	ug/L	5	8260B	08/15/10 21:33	JGH	75-71-8	1
Chloromethane	41	ug/L	5	8260B	08/15/10 21:33	JGH	74-87-3	1
Vinyl chloride	45	ug/L	1	8260B	08/15/10 21:33	JGH	75-01-4	1
Bromomethane	49	ug/L	5	8260B	08/15/10 21:33	JGH	74-83-9	1
Chloroethane	48	ug/L	5	8260B	08/15/10 21:33	JGH	75-00-3	1
Trichlorofluoromethane	50	ug/L	1	8260B	08/15/10 21:33	JGH	75-69-4	1
1,1-Dichloroethene	50	ug/L	1	8260B	08/15/10 21:33	JGH	75-35-4	1
Methylene chloride	49	ug/L	5	8260B	08/15/10 21:33	JGH	75-09-2	1
trans-1,2-Dichloroethene	50	ug/L	1	8260B	08/15/10 21:33	JGH	156-60-5	1
1,1-Dichloroethane	49	ug/L	1	8260B	08/15/10 21:33	JGH	75-34-3	1
cis-1,2-Dichloroethene	51	ug/L	1	8260B	08/15/10 21:33	JGH	156-59-2	1
Tetrahydrofuran	Not detected	ug/L	90	8260B	08/15/10 21:33	JGH	109-99-9	1
Chloroform	52	ug/L	1	8260B	08/15/10 21:33	JGH	67-66-3	1
Bromochloromethane	51	ug/L	1	8260B	08/15/10 21:33	JGH	74-97-5	1
1,1,1-Trichloroethane	53	ug/L	1	8260B	08/15/10 21:33	JGH	71-55-6	1
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	08/15/10 21:33	JGH	108-10-1	1
2-Hexanone	Not detected	ug/L	50	8260B	08/15/10 21:33	JGH	591-78-6	1
Carbon tetrachloride	49	ug/L	1	8260B	08/15/10 21:33	JGH	56-23-5	1
Benzene	50	ug/L	1	8260B	08/15/10 21:33	JGH	71-43-2	1
1,2-Dichloroethane	49	ug/L	1	8260B	08/15/10 21:33	JGH	107-06-2	1
Trichloroethene	48	ug/L	1	8260B	08/15/10 21:33	JGH	79-01-6	1
1,2-Dichloropropane	52	ug/L	1	8260B	08/15/10 21:33	JGH	78-87-5	1
Bromodichloromethane	53	ug/L	1	8260B	08/15/10 21:33	JGH	75-27-4	1
Dibromomethane	49	ug/L	5	8260B	08/15/10 21:33	JGH	74-95-3	1
cis-1,3-Dichloropropene	53	ug/L	1	8260B	08/15/10 21:33	JGH	10061-01-5	1
Toluene	50	ug/L	1	8260B	08/15/10 21:33	JGH	108-88-3	1
trans-1,3-Dichloropropene	48	ug/L	1	8260B	08/15/10 21:33	JGH	10061-02-6	1
1,1,2-Trichloroethane	49	ug/L	1	8260B	08/15/10 21:33	JGH	79-00-5	1
Tetrachloroethene	47	ug/L	1	8260B	08/15/10 21:33	JGH	127-18-4	1
trans-1,4-Dichloro-2-butene	48	ug/L	1	8260B	08/15/10 21:33	JGH	110-57-6	1
Dibromochloromethane	46	ug/L	5	8260B	08/15/10 21:33	JGH	124-48-1	1
1,2-Dibromoethane	49	ug/L	1	8260B	08/15/10 21:33	JGH	106-93-4	1
Chlorobenzene	49	ug/L	1	8260B	08/15/10 21:33	JGH	108-90-7	1
1,1,1,2-Tetrachloroethane	54	ug/L	1	8260B	08/15/10 21:33	JGH	630-20-6	1
Ethylbenzene	53	ug/L	1	8260B	08/15/10 21:33	JGH	100-41-4	1
p,m-Xylene	103	ug/L	2	8260B	08/15/10 21:33	JGH		1
o-Xylene	54	ug/L	1	8260B	08/15/10 21:33	JGH	95-47-6	1
Styrene	53	ug/L	1	8260B	08/15/10 21:33	JGH	100-42-5	1
Isopropylbenzene	49	ug/L	5	8260B	08/15/10 21:33	JGH	98-82-8	1
Bromoform	44	ug/L	1	8260B	08/15/10 21:33	JGH	75-25-2	1
1,1,2,2-Tetrachloroethane	49	ug/L	1	8260B	08/15/10 21:33	JGH	79-34-5	1
1,2,3-Trichloropropane	54	ug/L	1	8260B	08/15/10 21:33	JGH	96-18-4	1
n-Propylbenzene	53	ug/L	1	8260B	08/15/10 21:33	JGH	103-65-1	1

1-Spiked at 50 ug/l

Lab Sample ID: S45212.24 (continued)
Sample Tag: B-9/ TMW MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromobenzene	51	ug/L	1	8260B	08/15/10 21:33	JGH	108-86-1	1
1,3,5-Trimethylbenzene	54	ug/L	1	8260B	08/15/10 21:33	JGH	108-67-8	1
tert-Butylbenzene	54	ug/L	1	8260B	08/15/10 21:33	JGH	98-06-6	1
1,2,4-Trimethylbenzene	55	ug/L	1	8260B	08/15/10 21:33	JGH	95-63-6	1
sec-Butylbenzene	55	ug/L	1	8260B	08/15/10 21:33	JGH	135-98-8	1
p-Isopropyltoluene	56	ug/L	5	8260B	08/15/10 21:33	JGH	99-87-6	1
1,3-Dichlorobenzene	53	ug/L	1	8260B	08/15/10 21:33	JGH	541-73-1	1
1,4-Dichlorobenzene	50	ug/L	1	8260B	08/15/10 21:33	JGH	106-46-7	1
1,2-Dichlorobenzene	51	ug/L	1	8260B	08/15/10 21:33	JGH	95-50-1	1
1,2,3-Trimethylbenzene	53	ug/L	1	8260B	08/15/10 21:33	JGH	526-73-8	1
n-Butylbenzene	54	ug/L	1	8260B	08/15/10 21:33	JGH	104-51-8	1
Hexachloroethane	48	ug/L	5	8260B	08/15/10 21:33	JGH	67-72-1	1
1,2-Dibromo-3-chloropropane	44	ug/L	5	8260B	08/15/10 21:33	JGH	96-12-8	1
1,2,4-Trichlorobenzene	47	ug/L	5	8260B	08/15/10 21:33	JGH	120-82-1	1
1,2,3-Trichlorobenzene	48	ug/L	5	8260B	08/15/10 21:33	JGH	87-61-6	1
Naphthalene	49	ug/L	5	8260B	08/15/10 21:33	JGH	91-20-3	1
2-Methylnaphthalene	42	ug/L	5	8260B	08/15/10 21:33	JGH	91-57-6	1

1-Spiked at 50 ug/l

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 2

57292

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Janet Michaluk
COMPANY: AKT Peerless
ADDRESS: 22725 Orchard Lake
CITY: Farmington STATE: MI ZIP CODE:
PHONE NO.: 248.615.1333 FAX NO.: 248.615.1334 P.O. NO.: 061435-2-20
E-MAIL ADDRESS: michaluk@aktpeerless.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS: 214 Janes Ave.
CITY: Saginaw STATE: MI ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME:
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☐ STANDARD ☒ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER, SL=SLUDGE, WW=WASTEWATER, O=OIL, S=SOIL, A=AIR, L=LIQUID, W=WASTE, SD=SOLID, M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	Michigan 10 Metals	BNAs	Light Distillate	SPECIAL INSTRUCTIONS/NOTES
45212.01	8/10/10		Tank East End	S	2	1					1						X	
.02			Tank West End														X	
.03			B-3 (0.5-1)										X	X	X			
.04			B-4 (2-4')										X	X	X			
.05			B-5 (0.5-1)										X		X			
.06			B-6 (0.5-1)										X		X			
.07			B-7 (0.5-1)										X		X			
.08			B-8 (6-8)										X		X	X		
.09			B-8 (18-20)										X		X	X		
.10			B-9 (9-11)										X		X	X		
.11			B-10 (0-0.5)										X		X	X		
.12			B-11 (0-0.5)										X		X	X		

RELINQUISHED BY: SIGNATURE/ORGANIZATION: Janet Michaluk	DATE: 8/10/10	TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE:	TIME:
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE:	TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE:	TIME:

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE:	TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE: 8-10-10	TIME: 14:10

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
NOTES: TEMP. ON ARRIVAL

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 2 OF 2

57293

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Janet Michaluk
COMPANY: AKT Peerless
ADDRESS: 22225 Orchard Lake Rd
CITY: Farmington STATE: MI ZIP CODE:
PHONE NO.: 248.615.1333 FAX NO.: 248.615.1334 P.O. NO.: 66435-2-20
E-MAIL ADDRESS: michaluk@aktpeerless.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☑ SAME
COMPANY:
ADDRESS: 214 Jones Ave
CITY: Saginaw STATE: MI ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: 66435-2-20
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Janet Michaluk

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☐ STANDARD ☑ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE O=OIL A=AIR W=WASTE M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOLS	PNAs	BNAs	MI 14 Metals	Light Distillate Oil	SPECIAL INSTRUCTIONS/NOTES
45212.13	8/10/10		Tank Basin	GW	4	2	2										X	
.14			B-9/TMW	GW	6	2	2	2					X		X	X		There are 2 metals containers labeled (F) 2 non filtered please run the non-filtered and hold the filtered
.15			MB	S	1						1		X					
.16			TB-1	W	1		1						X					
.17			FDS	S	2	1					1		X			X		
.18			FDW	GW	4	2	2						X		X	X		
.19			FEB	W	5	2	2	1					X		X	X		
.20			FB	W	5	2	2	1					X		X	X		
.21/.22			B-5 (0.5-1) MS/MSD	S	2	1					1		X			X		
.23/.24			B-9/TMW MS/MSD	GW	12	4	4	4					X		X	X		" "

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 8-10-10	TIME 1440

SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS
SEAL NO. | SEAL INTACT YES ☐ NO ☐ | INITIALS

NOTES: TEMP. ON ARRIVAL _____

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

AKTPEERLESS
environmental & energy services

APPENDIX D

STRATA'S SEPTEMBER 2010 LABORATORY ANALYTICAL REPORT

Fibertec
environmental
services

Friday, September 24, 2010

Fibertec Project Number:	41060
Project Identification:	Salvage /876-1556
Submittal Date:	09/17/2010

Mr. Ed Everett
Strata Environmental Services, Inc.
585 Jewett Road
Mason, MI 48854

Dear Mr. Everett,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**Strata Environmental Services, Inc.**	Sample Description:	**GP-2**	Chain of Custody:	**NA**
Client Project Name:	**Salvage**	Sample No:	**1**	Collect Date:	**09/17/10**
Client Project No:	**876-1556**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:07**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41060-001A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**17**		%	0.1	1.0	09/20/10	MC100920	09/21/10	MC100920

BTEX and TMB Isomers (EPA 5035/EPA 8260B) **Aliquot ID: 41060-001** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Benzene	U		µg/kg	120	10	09/23/10	V310I23B	09/23/10	V310I23B
2. Ethylbenzene	U		µg/kg	120	10	09/23/10	V310I23B	09/23/10	V310I23B
3. Naphthalene	U		µg/kg	330	10	09/23/10	V310I23B	09/23/10	V310I23B
4. Toluene	U		µg/kg	120	10	09/23/10	V310I23B	09/23/10	V310I23B
5. 1,2,3-Trimethylbenzene (NN)	**870**		µg/kg	120	10	09/23/10	V310I23B	09/23/10	V310I23B
6. 1,2,4-Trimethylbenzene	**6700**		µg/kg	120	10	09/23/10	V310I23B	09/23/10	V310I23B
7. 1,3,5-Trimethylbenzene	U		µg/kg	120	10	09/23/10	V310I23B	09/23/10	V310I23B
8. Xylenes	U		µg/kg	360	10	09/23/10	V310I23B	09/23/10	V310I23B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 41060-001A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
2. Acenaphthylene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
3. Anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
9. Chrysene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
11. Fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
12. Fluorene (SIM)	**780**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
14. 2-Methylnaphthalene (SIM)	**2100**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
15. Phenanthrene (SIM)	**960**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
16. Pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C

Client Identification:	**Strata Environmental Services, Inc.**	Sample Description:	**GP-3**	Chain of Custody:	**NA**
Client Project Name:	**Salvage**	Sample No:	**2**	Collect Date:	**09/17/10**
Client Project No:	**876-1556**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41060-002A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**14**		%	0.1	1.0	09/20/10	MC100920	09/21/10	MC100920

BTEX and TMB Isomers (EPA 5035/EPA 8260B) **Aliquot ID: 41060-002** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Benzene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
2. Ethylbenzene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
3. Naphthalene	U		µg/kg	330	1.0	09/23/10	V310I23B	09/24/10	V310I23B
4. Toluene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
5. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
6. 1,2,4-Trimethylbenzene	**240**		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
7. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
8. Xylenes	U		µg/kg	150	1.0	09/23/10	V310I23B	09/24/10	V310I23B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 41060-002A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
2. Acenaphthylene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
3. Anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
9. Chrysene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
11. Fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
12. Fluorene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
15. Phenanthrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
16. Pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A

Client Identification:	**Strata Environmental Services, Inc.**	Sample Description:	**GP-4**	Chain of Custody:	**NA**
Client Project Name:	**Salvage**	Sample No:	**3**	Collect Date:	**09/17/10**
Client Project No:	**876-1556**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41060-003A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**18**		%	0.1	1.0	09/20/10	MC100920	09/21/10	MC100920

BTEX and TMB Isomers (EPA 5035/EPA 8260B) **Aliquot ID: 41060-003** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Benzene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
2. Ethylbenzene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
3. Naphthalene	U		µg/kg	330	1.0	09/23/10	V310I23B	09/24/10	V310I23B
4. Toluene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
5. 1,2,3-Trimethylbenzene (NN)	**130**		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
6. 1,2,4-Trimethylbenzene	**360**		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
7. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
8. Xylenes	U		µg/kg	150	1.0	09/23/10	V310I23B	09/24/10	V310I23B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 41060-003A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
2. Acenaphthylene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
3. Anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
9. Chrysene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
11. Fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
12. Fluorene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
14. 2-Methylnaphthalene	**900**		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
15. Phenanthrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
16. Pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A

Client Identification:	**Strata Environmental Services, Inc.**	Sample Description:	**GP-5**	Chain of Custody:	**NA**
Client Project Name:	**Salvage**	Sample No:	**4**	Collect Date:	**09/17/10**
Client Project No:	**876-1556**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41060-004A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**15**		%	0.1	1.0	09/20/10	MC100920	09/21/10	MC100920

BTEX and TMB Isomers (EPA 5035/EPA 8260B) **Aliquot ID: 41060-004** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Benzene	U		µg/kg	120	10	09/23/10	V310I23B	09/24/10	V310I23B
2. Ethylbenzene	**4700**		µg/kg	120	10	09/23/10	V310I23B	09/24/10	V310I23B
3. Naphthalene	**35000**		µg/kg	330	10	09/23/10	V310I23B	09/24/10	V310I23B
4. Toluene	U		µg/kg	120	10	09/23/10	V310I23B	09/24/10	V310I23B
5. 1,2,3-Trimethylbenzene (NN)	**30000**		µg/kg	120	10	09/23/10	V310I23B	09/24/10	V310I23B
6. 1,2,4-Trimethylbenzene	**62000**		µg/kg	590	50	09/24/10	V310I24A	09/24/10	V310I24A
7. 1,3,5-Trimethylbenzene	**16000**		µg/kg	120	10	09/23/10	V310I23B	09/24/10	V310I23B
8. Xylenes	**5200**		µg/kg	350	10	09/23/10	V310I23B	09/24/10	V310I23B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 41060-004A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
2. Acenaphthylene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
3. Anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
9. Chrysene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
11. Fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
12. Fluorene (SIM)	**1600**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
14. 2-Methylnaphthalene (SIM)	**45000**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
15. Phenanthrene (SIM)	**1800**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
16. Pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C

Client Identification:	**Strata Environmental Services, Inc.**	Sample Description:	**GP-6**	Chain of Custody:	**NA**
Client Project Name:	**Salvage**	Sample No:	**5**	Collect Date:	**09/17/10**
Client Project No:	**876-1556**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41060-005A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**20**		%	0.1	1.0	09/20/10	MC100920	09/21/10	MC100920

BTEX and TMB Isomers (EPA 5035/EPA 8260B) **Aliquot ID: 41060-005** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Benzene	U		µg/kg	130	10	09/23/10	V310I23B	09/24/10	V310I23B
2. Ethylbenzene	**1900**		µg/kg	130	10	09/23/10	V310I23B	09/24/10	V310I23B
3. Naphthalene	**11000**		µg/kg	330	10	09/23/10	V310I23B	09/24/10	V310I23B
4. Toluene	U		µg/kg	130	10	09/23/10	V310I23B	09/24/10	V310I23B
5. 1,2,3-Trimethylbenzene (NN)	**11000**		µg/kg	130	10	09/23/10	V310I23B	09/24/10	V310I23B
6. 1,2,4-Trimethylbenzene	**22000**		µg/kg	130	10	09/23/10	V310I23B	09/24/10	V310I23B
7. 1,3,5-Trimethylbenzene	**6600**		µg/kg	130	10	09/23/10	V310I23B	09/24/10	V310I23B
8. Xylenes	**1700**		µg/kg	380	10	09/23/10	V310I23B	09/24/10	V310I23B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 41060-005A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
2. Acenaphthylene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
3. Anthracene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
4. Benzo(a)anthracene (SIM)	U		µg/kg	340	20	09/21/10	PS10I21C	09/22/10	S510I22C
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
9. Chrysene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	340	20	09/21/10	PS10I21C	09/22/10	S510I22C
11. Fluoranthene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
12. Fluorene (SIM)	**1100**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
14. 2-Methylnaphthalene (SIM)	**31000**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
15. Phenanthrene (SIM)	**1200**		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C
16. Pyrene (SIM)	U		µg/kg	330	20	09/21/10	PS10I21C	09/22/10	S510I22C

Client Identification:	**Strata Environmental Services, Inc.**	Sample Description:	**GP-7**	Chain of Custody:	**NA**
Client Project Name:	**Salvage**	Sample No:	**6**	Collect Date:	**09/17/10**
Client Project No:	**876-1556**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 41060-006A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**15**		%	0.1	1.0	09/20/10	MC100920	09/21/10	MC100920

BTEX and TMB Isomers (EPA 5035/EPA 8260B) **Aliquot ID: 41060-006** **Matrix: Soil/Solid** **Analyst: JAS**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Benzene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
2. Ethylbenzene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
3. Naphthalene	U		µg/kg	330	1.0	09/23/10	V310I23B	09/24/10	V310I23B
4. Toluene	U		µg/kg	50	1.0	09/23/10	V310I23B	09/24/10	V310I23B
5. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
6. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
7. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	09/23/10	V310I23B	09/24/10	V310I23B
8. Xylenes	U		µg/kg	150	1.0	09/23/10	V310I23B	09/24/10	V310I23B

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3550B/EPA 8270C) **Aliquot ID: 41060-006A** **Matrix: Soil/Solid** **Analyst: BDA**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
2. Acenaphthylene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
3. Anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
4. Benzo(a)anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
5. Benzo(a)pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
9. Chrysene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
11. Fluoranthene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
12. Fluorene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
15. Phenanthrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A
16. Pyrene	U		µg/kg	330	1.0	09/21/10	PS10I21C	09/21/10	S510I21A

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

100312

AKTPEERLESS
environmental & energy services

APPENDIX E

AKT PEERLESS' NOVEMBER 2010 SUPPLEMENTAL PHASE II LETTER REPORT

AKTPEERLESS
environmental & energy services

November 4, 2010

Mr. Tim Dempsey
City of East Lansing
410 Abbott Road
East Lansing, Michigan 48823

Subject: Supplemental Phase II Environmental Site Assessment
1240 South Harrison Road
(Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002)
East Lansing, Michigan 48823
AKT Peerless Project No. 6643S-4-20

Mr. Dempsey:

The City of East Lansing retained AKT Peerless Environmental & Energy Services (AKT Peerless) to conduct a Supplemental Phase II Environmental Site Assessment (ESA) of a property located at 1240 South Harrison Road (Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002) in East Lansing, Michigan (subject property). This Supplemental Phase II ESA was conducted in accordance with AKT Peerless' Proposal for a Phase II ESA (Proposal Number PS-11288), dated September 27, 2010, Phase II Sampling and Analysis Plan (SAP), dated October 6, 2010, and is based on American Society for Testing and Materials (ASTM) Designation E 1903-97 *"Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process."*

This Phase II ESA scope of work is intended to (1) further evaluate subsurface soil conditions in the area of soil boring B-4 advanced by AKT Peerless in August 2010. This letter report documents the field activities, sampling protocols, and laboratory results.

SITE DESCRIPTION

The subject property is located in the southwest ¼ of Section 24 in East Lansing (T.4N./R.2W.), Ingham County, Michigan. The subject property is situated west of South Harrison Road. It consists of a nearly rectangular shaped parcel and an irregular shaped parcel that total approximately 15.70 acres.

The following table presents additional information regarding the subject property. For ease of reference in this report, AKT Peerless has designated each of the subject property parcels with a letter. These designations have no relevance to legally recorded data about the subject property.

Parcel	Address	Tax Identification Number	Owner of Record	Approximate Acreage
A	1240 South Harrison Road	33-20-01-24-123-009	Board of Trustees, Michigan State University	1.61
B	Unaddressed Property	33-20-01-24-300-002	State Board of Agriculture	14.09

The subject property contains one 8,010 square foot transportation hub building (Building 1), one 43,894 square foot former printing services building (Building 2), one 7,036 square foot university storage building (Building 3), one 16,293 square foot university storage building (Building 4), and one 25,792 square foot university storage building (Building 5). The exterior of the subject property is improved with paved and landscaped areas. A truck well is located on the east side of Building 5. Several Bay doors are located on all subject buildings. In addition, a 550-gallon heating oil underground storage tank (UST) was formerly located to the west of Building 3.

The subject property is zoned manufacturing district (M-1). The subject property is currently used for a transportation hub and university storage.

Refer to Figure 1, Topographic Location Map and Figure 2, Sample Location Map.

PREVIOUS ENVIRONMENTAL INVESTIGATIONS

AKT Peerless' August 2010 Phase I ESA

AKT Peerless completed a Phase I ESA for the property located at 1240 South Harrison Road (Parcel Identification Numbers: 33-20-01-24-123-009 and 33-20-01-24-300-002) in East Lansing, Michigan on August 7, 2010. AKT Peerless' Phase I ESA included, but was not limited to, a site walkover, review of government records, assembly and review of data from area maps and directories, assessment of aerial photographs, and interviews with the site owner, others familiar with the subject property, and government officials.

Based on the results of the findings of the Phase I ESA, the following recognized environmental conditions (RECs) were identified for the subject property:

1. An approximately 550-gallon heating oil UST with associated fill port and vent pipe is located to the west of Building 3. The UST is not currently in use. In addition, the installation date is unknown.

2. AKT Peerless observed stained soil/pavement beneath abandoned unknown machinery located to the west of Building 5.

3. AKT Peerless observed storage of large quantities of roofing repair materials within the garage area of Building 1. It is AKT Peerless' opinion that bulk storage of hazardous substances may have adversely impacted the subject property.

4. Building 2 was used for printing operations from 1950 until early 2010. It is AKT Peerless' opinion that the historical use of the subject property in association with the use and storage of hazardous substances and/or wastes may have adversely impacted the subject property.

5. The adjoining properties to the north, south, and west have contained railroad tracks since at least 1938. Potential concerns typically associated with railroad spurs include the use of fill materials as ballast to support ties and rails of the railroad tracks, and leaks or spills of hazardous materials or petroleum products. In addition, two train derailments with associated releases of coal and diesel fuel occurred during the last 30 years to the north of the subject property.

AKT Peerless' September 2010 Phase II ESA
On August 10, 2010, AKT Peerless conducted a subsurface investigation at the subject property to further evaluate environmental concerns identified during previous environmental investigations. AKT Peerless: (1) drilled nine soil borings, (2) installed one temporary monitoring well, and (3) collected soil and groundwater samples for laboratory analyses. AKT Peerless submitted soil and groundwater samples for laboratory analyses of target parameters including: volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), base neutral acids (BNAs), Michigan 10 Metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium, silver, and zinc), hexavalent chromium, fine and coarse fraction lead, and/or Michigan Department of Natural Resources and Environment (MDNRE) Light Distillate Oil Parameters [benzene, toluene, ethylbenzene, and xylenes (BTEX), trimethylbenzene isomers (TMBs), PNAs, and diesel range organics (DROs)].

According to analytical results, naphthalene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, fluorene, and tetrachloroethylene were detected in subsurface soils in the vicinity of Building 1 (B-4) at concentrations exceeding the MDNRE Part 201 Residential/Commercial I Generic Cleanup Criteria (GCC). Further, total chromium, benzo(a)pyrene, and fluoranthene were detected in subsurface soils in the vicinity of the southern property boundary (B-10 and/or B-11) at concentrations exceeding MDNRE Part 201 Residential/Commercial I GCC. Therefore, AKT Peerless concluded that based on laboratory analytical results, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended.

SUBSURFACE INVESTIGATION

On October 14, 2010, AKT Peerless advanced five soil borings on the subject property and collected continuous soil samples from the soil borings in four-foot intervals to the maximum depth explored of twenty feet below ground surface (bgs). AKT Peerless personnel inspected and logged the samples collected at each soil boring location. The samples were submitted for laboratory analysis of volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PNAs). Refer to Figure 2 for sample location map. Soil boring logs are provided in Appendix A.

DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

This Phase II ESA was conducted under a United States Environmental Protection Agency (USEPA) Brownfield Assessment Grant awarded to the City of East Lansing. On October 6, 2010, AKT Peerless prepared a Phase II Sampling and Analysis Plan (SAP) on behalf of the City of East Lansing. On October 7, 2010 the SAP was approved by the USEPA Region 5 Project Manager. In completing field activities, the following deviations from the approved SAP were made:

- Groundwater was not encountered in any of the soil borings advanced on October 14, 2010 to a maximum depth of 20-feet bgs. A second soil sample was collected in each soil boring.
- Based on observations of potential fill material a second boring (B-13a) was advanced in the vicinity of soil boring B-13. Three soil samples were collected between the two soil borings.
- Based on photoionization detector (PID) results, an additional soil sample was collected from soil boring B-12.
- Sample Duplicate, Matrix Spike and Matrix Spike Duplicate samples were submitted for chemical analysis based on the chemical analysis of the parent sample.

QUALITY ASSURANCE/QUALITY CONTROL

To ensure the accuracy of data collected during on-site activities, AKT Peerless implemented proper quality assurance/quality control (QA/QC) measures. The QA/QC procedures included, but were not limited to, (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

During sample collection, AKT Peerless adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

During AKT Peerless' Phase II ESA activities, subject property conditions (i.e. soil boring locations, weather conditions) were documented. AKT Peerless visually inspected the soil samples and prepared a geologic log for each soil boring. The logs include soil characteristics such as (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture and water table depth, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). Soil types were classified in accordance with ASTM publication D-2488 "*Unified Soil Classification System.*" All soil samples were delivered to a laboratory under chain-of-custody documentation. See Appendix A for AKT Peerless' soil boring logs. See Figure 2 for sample location map.

AKT Peerless collected soil samples according to USEPA Publication SW-846, *Testing Methods for Evaluating Solid Waste.* Soil samples were collected in laboratory-supplied containers,

stored on ice at approximately 4 degrees Celsius, and submitted under chain-of-custody documentation.

Soil samples collected for volatile analyses (VOCs) were field preserved with methanol in accordance with U.S. EPA Method 5035. Soil samples collected for semi-volatile analyses (PNAs) analyses were stored in unpreserved, 4-ounce wide-mouth jars.

LOCAL GEOLOGY/HYDROGEOLOGY

During drilling activities, AKT Peerless encountered the following soil types:

- FILL in three soil borings from just below the ground surface to 4.0 feet bgs. The fill was generally brown in color, dry, and contained varying amounts of stone, sand, gravel, steel and a tar/slag-like material.
- SAND in most soil borings from varying depths between just below the ground surface and 19.0 feet bgs, ranging in thickness between 1.0 feet and 11.0 feet. The sand was generally brown in color, dry to moist, fine to coarse grained, and contained varying amounts of gravel.
- CLAY in most soil borings from varying depths between just below the ground surface and 5.0 feet bgs, ranging in thickness between 7.0 feet and 14.0 feet. The clay was generally brown in color, dry to moist, soft to stiff, and contained varying amounts of sand and silt.

Groundwater was not encountered during AKT Peerless' October 2010 Supplemental Phase II ESA.

Aside from the fill encountered in soil borings B-13, B-13a, and B-14, the subsurface soils at the property are consistent with the description of end of moraines of medium-textured till as described in the *Quaternary Geology of Southern Michigan.* See Figure 2, Sample Location Map. See Appendix A for AKT Peerless' soil boring logs.

LABORATORY ANALYSES AND METHODS

AKT Peerless submitted ten soil samples for laboratory analysis. The laboratory analyzed the samples for: (1) VOCs in accordance with USEPA Method 8260B/5035 and (2) PNAs in accordance with USEPA Method 8270C.

ANALYTICAL RESULTS

AKT Peerless conducted soil sampling in the vicinity of former soil boring B-4 based on previous analytical results. The results of the investigation indicate the following:

- Tetrachloroethylene (B-12) at concentrations exceeding the MDNRE Part 201 Residential/Commercial I GCC. The concentration in soil was detected above the drinking water protection criteria.

Based on laboratory analytical results of subsurface investigations, the subject property meets the definition of a *facility*, as defined in Part 201 of the NREPA, Michigan Public Act (PA) 451, 1994, as amended.

Refer to Figure 2 for a sample location map. Refer to Figure 3 for a site map with soil analytical results exceeding MDNRE GCC. Refer to Table 1 for a summary of soil analytical results. Refer to Appendix B for a complete analytical laboratory report.

CONCLUSIONS AND RECOMMENDATIONS

AKT Peerless completed five soil borings at the subject property to further investigate the known impact identified at soil boring B-4 in August 2010. Laboratory analytical results from one soil sample collected at the subject property indicate that a concentration of tetrachloroethylene in soil exceed MDNRE GCC. Therefore, based on this and the August 2010 subsurface investigation, the subject property meets the definition of a "facility", as defined in Part 201 of Natural Resources and Environmental Protection Act (NREPA), Michigan Public Act (PA) 451, 1994, as amended and no further subsurface investigations are warranted at this time.

Based on the presence of facility level contamination at the subject property, AKT Peerless recommends any future owner(s)/operator(s) prepare a Baseline Environmental Assessment (BEA) report. 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 BEA is conducted prior 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.

In addition, because the subject property meets the definition of a facility, AKT Peerless recommends conducting a Section 20107(a) Compliance Analysis to assure compliance with Due Care obligations. Due Care obligations include:

- Undertaking measures to prevent exacerbation of existing contamination.
- Exercising due care by undertaking response activities to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the subject property in a manner that the protects health and safety.
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that could result from those acts or omissions.
- Provide notifications to the MDEQ and others in regard to mitigating fire and explosions hazards, discarded or abandoned containers, contamination migrating beyond property boundaries, as applicable.

LIMITATIONS

The information and opinions obtained in this report are for the exclusive use of the City of East Lansing. 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 your 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 City of East Lansing.

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, but disclaims any responsibility for consequential damages. Although AKT Peerless believes that results contained herein are reliable, AKT Peerless cannot warrant or guarantee that the information provided is exhaustive or that the information provided by the City of East Lansing or third parties is complete or accurate.

CLOSING

If you have any questions or need additional information please contact the undersigned at 989.928.1573.

Sincerely,

David A. Van Haaren
Director of Lansing Operations
AKT PEERLESS ENVIRONMENTAL SERVICES
Saginaw, Michigan Office

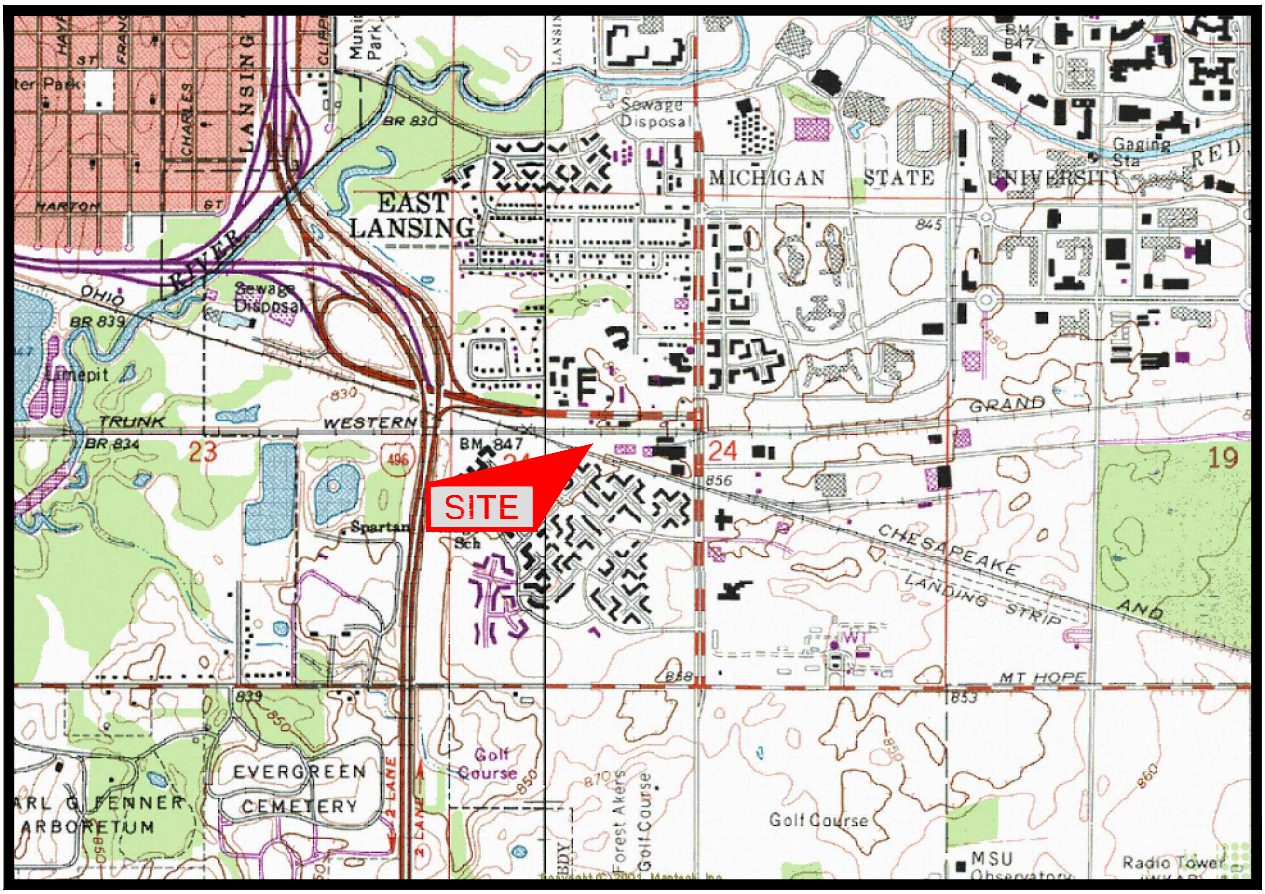
AKTPEERLESS
environmental & energy services

FIGURES

EAST LANSING 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 5 FEET
DATUM IS MEAN SEA LEVEL

MICHIGAN
QUADRANGLE LOCATION

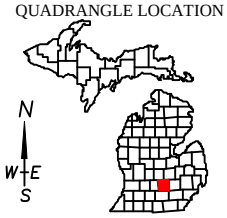


IMAGE TAKEN FROM 1970 U.S.G.S. TOPOGRAPHIC MAP
PHOTOREVISED 1976

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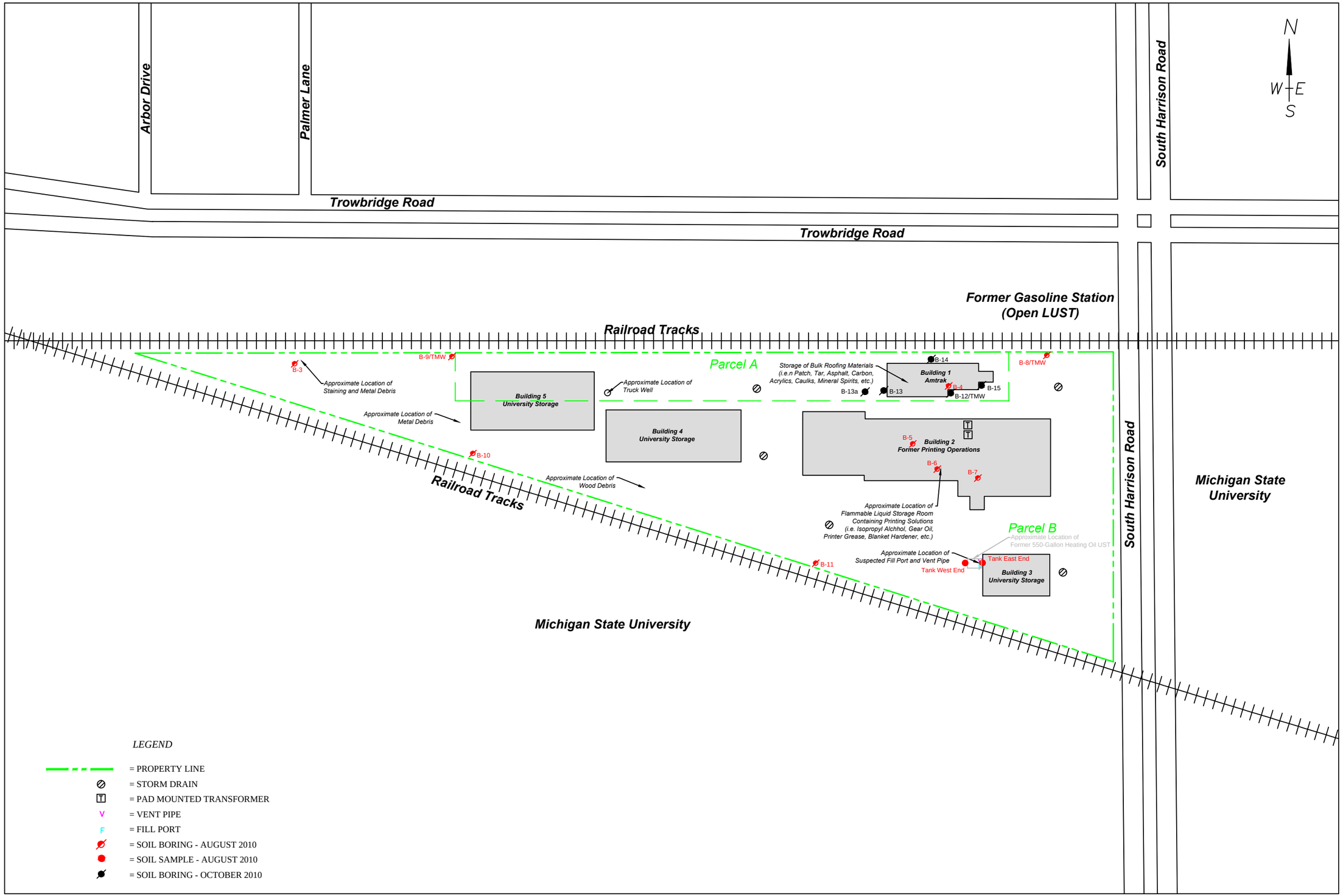
TOPOGRAPHIC LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-4-20

DRAWN BY: OGO
DATE: 9-29-10

FIGURE 1



LEGEND

- = PROPERTY LINE
- = STORM DRAIN
- = PAD MOUNTED TRANSFORMER
- V = VENT PIPE
- F = FILL PORT
- = SOIL BORING - AUGUST 2010
- = SOIL SAMPLE - AUGUST 2010
- = SOIL BORING - OCTOBER 2010

DRAWN BY: OGO
DATE: 9-29-10

0 75 150
SCALE: 1" = 150'±

FIGURE 2

SAMPLE LOCATION MAP

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-4-20

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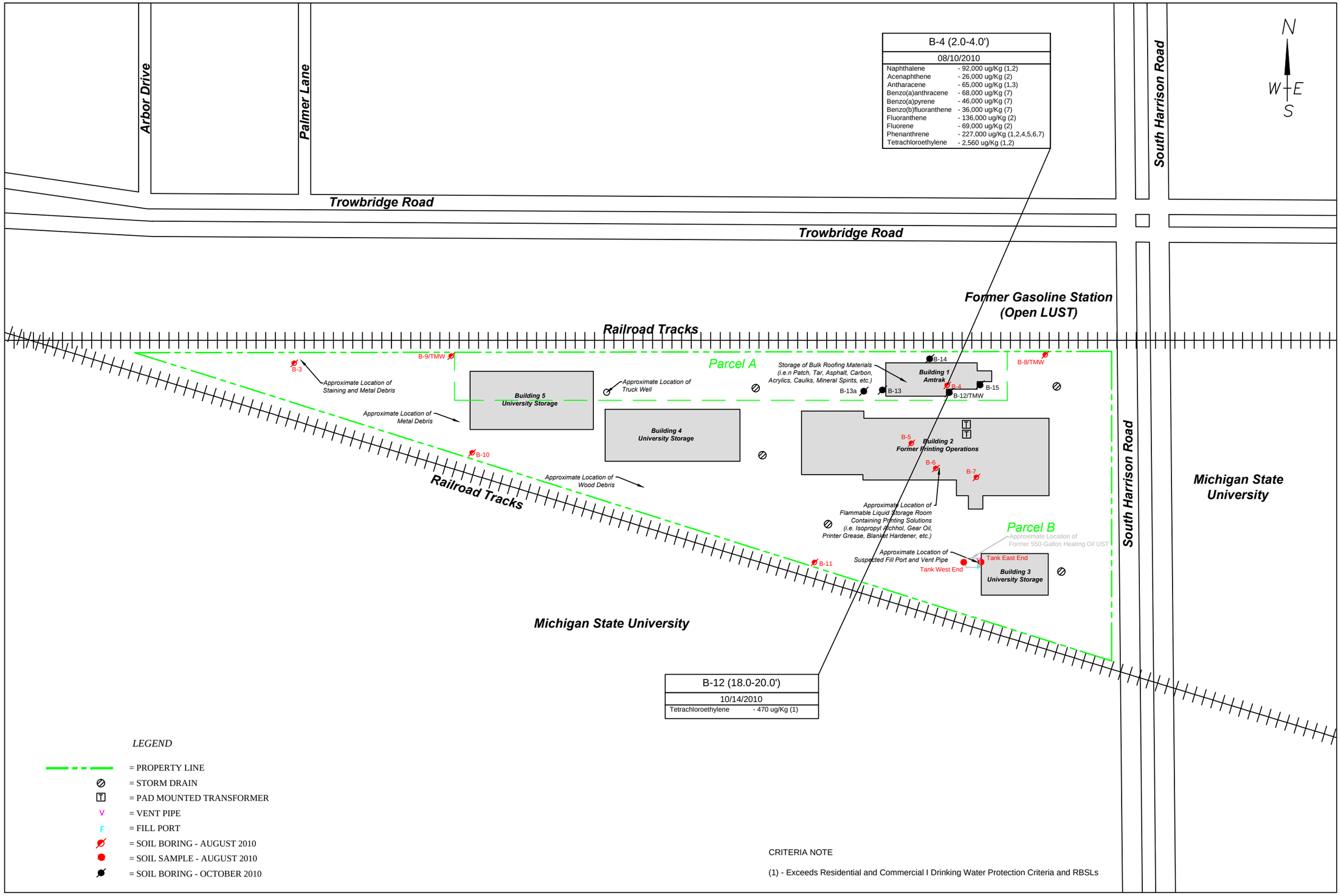

B-4 (2.0-4.0')	
08/10/2010	
Naphthalene	- 92,000 ug/Kg (1,2)
Acenaphthene	- 26,000 ug/Kg (2)
Antharacene	- 65,000 ug/Kg (1,3)
Benzo(a)anthracene	- 68,000 ug/Kg (7)
Benzo(a)pyrene	- 46,000 ug/Kg (7)
Benzo(b)fluoranthene	- 36,000 ug/Kg (7)
Fluoranthene	- 136,000 ug/Kg (2)
Fluorene	- 69,000 ug/Kg (2)
Phenanthrene	- 227,000 ug/Kg (1,2,4,5,6,7)
Tetrachloroethylene	- 2,560 ug/Kg (1,2)

B-12 (18.0-20.0')	
10/14/2010	
Tetrachloroethylene	- 470 ug/Kg (1)

LEGEND

- = PROPERTY LINE
- = STORM DRAIN
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- V = VENT PIPE
- F = FILL PORT
- = SOIL BORING - AUGUST 2010
- = SOIL SAMPLE - AUGUST 2010
- = SOIL BORING - OCTOBER 2010

CRITERIA NOTE

(1) - Exceeds Residential and Commercial I Drinking Water Protection Criteria and RBSLs

DRAWN BY: OGO
DATE: 9-29-10

0 75 150
SCALE: 1" = 150'±

FIGURE 3

SITE MAP WITH SOIL ANALYTICAL RESULTS EXCEEDING MDNRE GCC

AMTRAK STATION
1240 SOUTH HARRISON ROAD
EAST LANSING, MICHIGAN
PROJECT NUMBER : 6643s-4-20

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TABLES

Table 1, Summary of Soil Analytical Results
Phase II ESA - October 2010
Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
AKT Peerless Project No. 6643S

Guidesheet Number	→	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20												
Parameters*	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential and Commercial I Drinking Water Protection Criteria and RBSLs**	**Groundwater Surface Water Interface Protection Criteria and RBSLs**	**Groundwater Contact Protection Criteria and RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs**	**Finite VSIC for 5 Meter Source Thickness**	**Finite VSIC for 2 Meter Source Thickness**	**Particulate Soil Inhalation Criteria and RBSLs**	**Direct Contact Criteria and RBSLs**	**Soil Saturation Concentration Screening Levels**	Sample Location	B-12 (2-4)	B-12 (4-6)	B-12 (18-20)	B-13 (2-4)	B-13a (2-4)	B-13a (4-6)	B-14 (2-4)	B-14 (5-7)	B-15 (2-4)	B-15 (4-6)	FDS [B-14 (5-7)]
**(Refer to detailed laboratory report for method reference data)*													Collection Date	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010	10/14/2010
													Depth	2-4 feet	4-6 feet	18-20 feet	2-4 feet	2-4 feet	4-6 feet	2-4 feet	5-7 feet	2-4 feet	4-6 feet	5-7 feet
Semivolatiles, BNAs ug/Kg																								
Naphthalene	91-20-3	NA	35,000	870	2.1E+6	2.5E+5	3.0E+5	3.0E+5	3.0E+5	2.0E+8	1.6E+7	NA		<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Semivolatiles, PNAs ug/Kg																								
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	20,000	NA		<300	<300	<300	<300	**700**	<300	<300	<300	<300	<300	<300
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	1.5E+6	2,000	NA		<300	<300	<300	<300	**800**	<300	<300	<300	<300	<300	<300
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	20,000	NA		<300	<300	<300	**500**	**900**	<300	<300	<300	<300	<300	<300
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	NLV	NLV	ID	2.0E+5	NA		<300	<300	<300	**500**	**800**	<300	<300	<300	<300	<300	<300
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	ID	ID	ID	2.0E+6	NA		<300	<300	<300	<300	**800**	<300	<300	<300	<300	<300	<300
Fluoranthene	206-44-0	NA	7.3E+5	5,500	7.3E+5	1.0E+9 (D)	7.4E+8	7.4E+8	7.4E+8	9.3E+9	4.6E+7	NA		<300	<300	<300	<300	**1,100**	<300	<300	<300	<300	<300	<300
Phenanthrene	85-01-8	NA	56,000	5,300	1.1E+6	2.8E+6	1.6E+5	1.6E+5	1.6E+5	6.7E+6	1.6E+6	NA		<300	<300	<300	<300	**500**	<300	300	<300	<300	<300	<300
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.5E+8	6.5E+8	6.7E+9	2.9E+7	NA		<300	<300	<300	**300**	**1,200**	<300	<300	<300	<300	<300	<300
Remaining PNAs	Varies	-	-	-	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Volatiles, VOCs ug/Kg																								
Ethylbenzene (I)	100-41-4	NA	1,500	360	1.4E+5 (C)	87,000	7.2E+5	1.0E+6	2.2E+6	1.0E+10	1.4E+5 (C)	1.4E+5		<60	<60	<50	<60	<60	<90	**70**	<100	<60	<60	<60
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	ID	ID	8.1E+6	NA		<400	<400	<300	<400	<400	<600	**400**	<700	<400	<400	<400
Tetrachloroethylene	127-18-4	NA	**100**	900 (X)	88,000 (C)	11,000	1.8E+5	4.8E+5	1.1E+6	5.4E+9	88,000 (C)	88,000		<60	<60	**470**	<60	<60	<90	<60	<100	<60	<60	<60
Toluene (I)	108-88-3	NA	16,000	2,800	2.5E+5 (C)	2.5E+5 (C)	2.8E+6	5.1E+6	1.2E+7	2.7E+10	2.5E+5 (C)	2.5E+5		<100	<100	<100	<100	<100	<200	**200**	<200	<100	<100	<100
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.1E+7	5.0E+8	5.0E+8	8.2E+10	1.1E+5 (C)	1.1E+5		<100	<100	<100	<100	<100	<200	**100**	<200	<100	<100	<100
Xylenes (I)	1330-20-7	NA	5,600	700	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	6.1E+7	1.3E+8	2.9E+11	1.5E+5 (C)	1.5E+5		<160	<160	<150	**220**	**70**	<290	**540**	<300	<160	<160	<160
Remaining VOCs	Varies	-	-	-	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

FOOTNOTES

FOR THE PART 201 CRITERIA/PART 213 RISK-BASED SCREENING LEVELS
RRD OPERATIONAL MEMORANDUM No. 1

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 pa 399, mcl 325.1005.

(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

(C) Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}. Concentrations greater than C_{sat} are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.

(D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria.

(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules.

(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

(K) Hazardous substance may be flammable or explosive, or both.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

(O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release o hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West allegan Street, lansing, michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the superintendent of documents, government printing office, washington, dc 20401 (stock number 869-044-00155-1), or from the dEQ, RRD, 525 West Allegan Street, Lansing Michigan 48933, at cost.

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, subpart d and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart d and subpart g of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the superintendent of documents, Government Printing Office, Washington, dc 20401, or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the tsca standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, dc 20401 (stock number 869-044-00155-1), or from the dEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. see formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

(Y) Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre.

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(AA) Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

(BB) The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polariz light microscopy.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH3 in the surface water. This percent NH3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

(DD) Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.

(EE) The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

(FF) The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m3.

ID Insufficient data to develop criterion.

NA A criterion or value is not available or, in the case of background and CAS numbers, not applicable.

NLL Hazardous substance is not likely to leach under most soil conditions.

NLV Hazardous substance is not likely to volatilize under most conditions.

ug/Kg Micrograms per kilogram

ug/L Micorgrams per liter

NS Not sampled

BDL Below Laboratory Method Detection Limits

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APPENDIX A

SOIL BORING LOGS

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BORING LOG

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S

B-12

Drawn By: Janet Michaluk
Date: 10.27.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	20 feet bgs
DATE DRILLED:	10.14.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERV	% RECOVERY	PID VALUE	USCS SOIL CLAS	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Gray	**Concrete**	D	
			0	CL	Brown	**Clay:** stiff, trace gravel	D	
			0					
2		90	0					
			0					
			0					
4			0					
			0					
			0					
6		100	0					
			0					
			0					
8			0					
			0					
			0					
10		100	0					
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
12			0					
			0					
14		100	1.1					
			1.2					
16			1.1					
			0.6					
18		100	1.4					
			0.7					
20						End of boring at 20 feet bgs		

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BORING LOG

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S

B-13

Drawn By: Janet Michaluk
Date: 10.27.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	4 feet bgs
DATE DRILLED:	10.14.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERV	% RECOVERY	PID VALUE	USCS SOIL CLAS	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Black	**Asphalt**	D	
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel (potential fill)	D	
2		90	0.1					
4			0			2 inch seam of black organic material		
						End of boring at 4 feet bgs		
6								
8								
10								
12								
14								
16								
18								
20								

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BORING LOG

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S

B-13a

Drawn By: Janet Michaluk
Date: 10.27.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	20 feet bgs
DATE DRILLED:	10.14.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERV	% RECOVERY	PID VALUE	USCS SOIL CLAS	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Black	**Asphalt**	D	
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel (potential fill)	D	
2		90	0					
			0			2 inch seam of black organic material		
4			0	CL	Brown	**Clay:** soft to medium stiff, trace gravel and silt	M	
			0					
6		80	0					
			0					
8			0					
			0					
10		80	0					
			0					
12			0					
			0					
14		90	0	SW	Brown	**Sand:** fine grained, trace gravel	D	
			0					
16			0					
			0					
18		100	0					
			0					
20						End of boring at 20 feet bgs		

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BORING LOG

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S

B-14

Drawn By: Janet Michaluk
Date: 10.27.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	20 feet bgs
DATE DRILLED:	10.14.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERV	% RECOVERY	PID VALUE	USCS SOIL CLAS	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Gray	**Fill Stone**	D	
			0					
2		100						
			0.1		Brown	**Fill Sand:** steel, slag-like material staining 2 to 3.5 feet bgs	D	
			0.2					
4				SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
			0	CL	Brown	**Clay:** medium stiff to stiff, trace gravel	D	
			0					
6		100						
			0					
			0					
8								
			0					
			0					
10		100						
			0					
			0					
12								
			0					
			0					
14		100						
			0					
			0					
16								
			0					
			0					
18		100						
			0					
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
20						End of boring at 20 feet bgs		

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BORING LOG

Amtrak Property
1240 South Harrison Road
East Lansing, Michigan
PROJECT NUMBER: 6643S

B-15

Drawn By: Janet Michaluk
Date: 10.27.10

DRILLING COMPANY:	AKT Peerless	WEATHER:	65 F Sunny
TECHNICIAN:	Pat Hall	BORING DEPTH:	20 feet bgs
DATE DRILLED:	10.14.10	DEPTH TO GW:	NA
DRILLING METHOD:	Geoprobe	SCREEN INTERVAL:	NA
FIELD GEOLOGIST:	Janet Michaluk	SCREEN MATERIAL:	NA

DEPTH FEET	SAMPLE INTERV	% RECOVERY	PID VALUE	USCS SOIL CLAS	COLOR	GEOLOGIC DESCRIPTION	MOISTURE	TEMPORARY WELL DIAGRAM
			0		Black	**Asphalt**	D	
			0	SW	Brown	**Sand:** medium to coarse grained, trace gravel	M	
2		70	0	CL	Brown	**Clay:** soft, silty	M	
4			0					
6		90	0					
8			0					
			0	SW	Brown	**Sand:** fine to medium grained, trace gravel	D	
10		70	0					
12			0					
14		60	0					
16			0					
18		100	0					
20						End of boring at 20 feet bgs		

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APPENDIX B

ANALYTICAL REPORT AND CHAIN OF CUSTODY DOCUMENTATION

Analytical Laboratory Report

Report ID: S46209.01(01)
Generated on 10/21/2010

Report to

Attention: Janet Michaluk
AKT Peerless Environmental
22725 Orchard Lake Rd.
Farmington, MI 48336

Phone: 248-615-1333 FAX:
Email: michalukj@aktpeerless.com

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S46209.01-S46209.16
Project: 6643S-4-20
Collected Date: 10/14/2010
Submitted Date/Time: 10/14/2010 13:30
Sampled by: Unknown
P.O. #:

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (16 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S46209.01	B-12 (2-4)	Soil	10/14/2010
S46209.02	B-12 (4-6)	Soil	10/14/2010
S46209.03	B-12 (18-20)	Soil	10/14/2010
S46209.04	B-13 (2-4)	Soil	10/14/2010
S46209.05	B-13a (2-4)	Soil	10/14/2010
S46209.06	B-13a (4-6)	Soil	10/14/2010
S46209.07	B-14 (2-4)	Soil	10/14/2010
S46209.08	B-14 (5-7)	Soil	10/14/2010
S46209.09	B-15 (2-4)	Soil	10/14/2010
S46209.10	B-15 (4-6)	Soil	10/14/2010
S46209.11	FDS	Soil	10/14/2010
S46209.12	B-14 (2-4) MS	Soil	10/14/2010
S46209.13	B-14 (2-4) MSD	Soil	10/14/2010
S46209.14	TB	Liquid	10/14/2010
S46209.15	MB	Methanol	10/14/2010
S46209.16	FEB	Liquid	10/14/2010

Analytical Laboratory Report

Lab Sample ID: S46209.01
Sample Tag: B-12 (2-4)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:12	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 14:45	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 14:45	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 14:45	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	10/20/10 14:45	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 14:45	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	75-35-4	

Lab Sample ID: S46209.01 (continued)
Sample Tag: B-12 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 14:45	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 14:45	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 14:45	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 14:45	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 14:45	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 14:45	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 14:45	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.01 (continued)
Sample Tag: B-12 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 14:45	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 14:45	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 14:45	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 14:45	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 14:45	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.02
Sample Tag: B-12 (4-6)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:36	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 15:25	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 15:25	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 15:25	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	10/20/10 15:25	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 15:25	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	75-35-4	

Lab Sample ID: S46209.02 (continued)
Sample Tag: B-12 (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 15:25	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 15:25	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 15:25	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 15:25	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 15:25	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 15:25	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 15:25	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.02 (continued)
Sample Tag: B-12 (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 15:25	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 15:25	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 15:25	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 15:25	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 15:25	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.03
Sample Tag: B-12 (18-20)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	95	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 19:59	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 16:04	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 16:04	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 16:04	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	10/20/10 16:04	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 16:04	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	75-35-4	

Lab Sample ID: S46209.03 (continued)
Sample Tag: B-12 (18-20)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 16:04	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 16:04	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 16:04	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	79-00-5	
Tetrachloroethene	470	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 16:04	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:04	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 16:04	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.03 (continued)
Sample Tag: B-12 (18-20)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:04	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.04
Sample Tag: B-13 (2-4)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	50-32-8	
Benzo(b)fluoranthene	500	ug/kg	300	8270C	10/20/10 23:07	PL	205-99-2	
Benzo(k)fluoranthene	500	ug/kg	300	8270C	10/20/10 23:07	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	85-01-8	
Pyrene	300	ug/kg	300	8270C	10/20/10 23:07	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 23:07	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 16:23	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 16:23	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 16:23	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	10/20/10 16:23	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 16:23	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	75-35-4	

Lab Sample ID: S46209.04 (continued)
Sample Tag: B-13 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 16:23	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 16:23	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 16:23	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 16:23	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	100-41-4	
p,m-Xylene	100	ug/kg	100	8260B/5035	10/20/10 16:23	JGH		
o-Xylene	120	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:23	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:23	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 16:23	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.04 (continued)
Sample Tag: B-13 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:23	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:23	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:23	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:23	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:23	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.05
Sample Tag: B-13a (2-4)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	83-32-9	I
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	208-96-8	I
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	120-12-7	I
Benzo(a)anthracene	700	ug/kg	300	8270C	10/20/10 23:30	PL	56-55-3	I
Benzo(a)pyrene	800	ug/kg	300	8270C	10/20/10 23:30	PL	50-32-8	I
Benzo(b)fluoranthene	900	ug/kg	300	8270C	10/20/10 23:30	PL	205-99-2	I
Benzo(k)fluoranthene	800	ug/kg	300	8270C	10/20/10 23:30	PL	207-08-9	I
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	191-24-2	I
Chrysene	800	ug/kg	300	8270C	10/20/10 23:30	PL	218-01-9	I
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	53-70-3	I
Fluoranthene	1,100	ug/kg	300	8270C	10/20/10 23:30	PL	206-44-0	I
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	86-73-7	I
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	193-39-5	I
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	91-20-3	I
Phenanthrene	500	ug/kg	300	8270C	10/20/10 23:30	PL	85-01-8	I
Pyrene	1,200	ug/kg	300	8270C	10/20/10 23:30	PL	129-00-0	I
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	91-57-6	I
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 23:30	PL	90-12-0	I
Polynuclear Aromatics (Replicate 01)								
Acenaphthene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	120-12-7	
Benzo(a)anthracene	800	ug/kg	300	8270C	10/21/10 12:27	PL	56-55-3	
Benzo(a)pyrene	700	ug/kg	300	8270C	10/21/10 12:27	PL	50-32-8	
Benzo(b)fluoranthene	700	ug/kg	300	8270C	10/21/10 12:27	PL	205-99-2	
Benzo(k)fluoranthene	800	ug/kg	300	8270C	10/21/10 12:27	PL	207-08-9	
Benzo(ghi)perylene	400	ug/kg	300	8270C	10/21/10 12:27	PL	191-24-2	
Chrysene	900	ug/kg	300	8270C	10/21/10 12:27	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	53-70-3	
Fluoranthene	1,300	ug/kg	300	8270C	10/21/10 12:27	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	400	ug/kg	300	8270C	10/21/10 12:27	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	91-20-3	

I-Matrix interference with internal standard

Lab Sample ID: S46209.05 (continued)
Sample Tag: B-13a (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
Polynuclear Aromatics (Replicate 01) (continued)								
Phenanthrene	500	ug/kg	300	8270C	10/21/10 12:27	PL	85-01-8	
Pyrene	1,100	ug/kg	300	8270C	10/21/10 12:27	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/21/10 12:27	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 16:43	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 16:43	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 16:43	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	10/20/10 16:43	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 16:43	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 16:43	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 16:43	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 16:43	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 16:43	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.05 (continued)
Sample Tag: B-13a (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH		
o-Xylene	70	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 16:43	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 16:43	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 16:43	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 16:43	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:43	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:43	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:43	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 16:43	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.06
Sample Tag: B-13a (4-6)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	72	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 22:43	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	10/20/10 17:03	JGH	60-29-7	
Acetone	Not detected	ug/kg	2,000	8260B/5035	10/20/10 17:03	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	10/20/10 17:03	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,000	8260B/5035	10/20/10 17:03	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:03	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	75-35-4	

Lab Sample ID: S46209.06 (continued)
Sample Tag: B-13a (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	2,000	8260B/5035	10/20/10 17:03	JGH	109-99-9	
Chloroform	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	8260B/5035	10/20/10 17:03	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	4,000	8260B/5035	10/20/10 17:03	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	56-23-5	
Benzene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	10061-01-5	
Toluene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	10/20/10 17:03	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH		
o-Xylene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	95-47-6	
Styrene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	98-82-8	
Bromoform	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:03	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	90	8260B/5035	10/20/10 17:03	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	500	8260B/5035	10/20/10 17:03	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.06 (continued)
Sample Tag: B-13a (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	8260B/5035	10/20/10 17:03	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	600	8260B/5035	10/20/10 17:03	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	600	8260B/5035	10/20/10 17:03	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	600	8260B/5035	10/20/10 17:03	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	600	8260B/5035	10/20/10 17:03	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.07
Sample Tag: B-14 (2-4)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	91	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	91-20-3	
Phenanthrene	300	ug/kg	300	8270C	10/20/10 22:20	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 22:20	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 17:22	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 17:22	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 17:22	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	10/20/10 17:22	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:22	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	75-35-4	

Lab Sample ID: S46209.07 (continued)
Sample Tag: B-14 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 17:22	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 17:22	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 17:22	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	10061-01-5	
Toluene	200	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 17:22	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	630-20-6	
Ethylbenzene	70	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	100-41-4	
p,m-Xylene	300	ug/kg	100	8260B/5035	10/20/10 17:22	JGH		
o-Xylene	240	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	98-06-6	
1,2,4-Trimethylbenzene	100	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:22	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 17:22	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.07 (continued)
Sample Tag: B-14 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 17:22	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 17:22	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 17:22	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 17:22	JGH	91-20-3	
2-Methylnaphthalene	400	ug/kg	400	8260B/5035	10/20/10 17:22	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.08
Sample Tag: B-14 (5-7)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 20:23	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	400	8260B/5035	10/20/10 17:42	JGH	60-29-7	
Acetone	Not detected	ug/kg	2,000	8260B/5035	10/20/10 17:42	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	400	8260B/5035	10/20/10 17:42	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	2,000	8260B/5035	10/20/10 17:42	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	400	8260B/5035	10/20/10 17:42	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	75-35-4	

Lab Sample ID: S46209.08 (continued)
Sample Tag: B-14 (5-7)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	2,000	8260B/5035	10/20/10 17:42	JGH	109-99-9	
Chloroform	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	6,000	8260B/5035	10/20/10 17:42	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	6,000	8260B/5035	10/20/10 17:42	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	56-23-5	
Benzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	10061-01-5	
Toluene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	40	8260B/5035	10/20/10 17:42	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH		
o-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	95-47-6	
Styrene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	98-82-8	
Bromoform	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	200	8260B/5035	10/20/10 17:42	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 17:42	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	700	8260B/5035	10/20/10 17:42	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.08 (continued)
Sample Tag: B-14 (5-7)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	600	8260B/5035	10/20/10 17:42	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	700	8260B/5035	10/20/10 17:42	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	700	8260B/5035	10/20/10 17:42	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	700	8260B/5035	10/20/10 17:42	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	700	8260B/5035	10/20/10 17:42	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.09
Sample Tag: B-15 (2-4)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 21:33	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:01	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:01	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	75-35-4	

Lab Sample ID: S46209.09 (continued)
Sample Tag: B-15 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:01	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 18:01	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 18:01	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	10/20/10 18:01	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:01	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:01	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 18:01	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.09 (continued)
Sample Tag: B-15 (2-4)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:01	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:01	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:01	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:01	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:01	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.10
Sample Tag: B-15 (4-6)
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 21:56	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:21	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:21	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	75-35-4	

Lab Sample ID: S46209.10 (continued)
Sample Tag: B-15 (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:21	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 18:21	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 18:21	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	30	8260B/5035	10/20/10 18:21	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:21	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:21	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 18:21	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.10 (continued)
Sample Tag: B-15 (4-6)

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:21	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:21	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:21	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:21	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:21	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.11
Sample Tag: FDS
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	208-96-8	
Anthracene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	191-24-2	
Chrysene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	53-70-3	
Fluoranthene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	206-44-0	
Fluorene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	193-39-5	
Naphthalene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	91-20-3	
Phenanthrene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	85-01-8	
Pyrene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/kg	300	8270C	10/20/10 20:46	PL	90-12-0	
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 18:40	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:40	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 18:40	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	900	8260B/5035	10/20/10 18:40	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 18:40	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	75-35-4	

Lab Sample ID: S46209.11 (continued)
Sample Tag: FDS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 18:40	JGH	109-99-9	
Chloroform	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 18:40	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 18:40	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	56-23-5	
Benzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 18:40	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	630-20-6	
Ethylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH		
o-Xylene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	95-47-6	
Styrene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 18:40	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	60	8260B/5035	10/20/10 18:40	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	400	8260B/5035	10/20/10 18:40	JGH	67-72-1	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.11 (continued)
Sample Tag: FDS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 18:40	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:40	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:40	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:40	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	400	8260B/5035	10/20/10 18:40	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.12
Sample Tag: B-14 (2-4) MS
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,200	ug/kg	300	8270C	10/20/10 23:53	PL	83-32-9	I1
Acenaphthylene	1,300	ug/kg	300	8270C	10/20/10 23:53	PL	208-96-8	I1
Anthracene	1,000	ug/kg	300	8270C	10/20/10 23:53	PL	120-12-7	I1
Benzo(a)anthracene	2,200	ug/kg	300	8270C	10/20/10 23:53	PL	56-55-3	I1
Benzo(a)pyrene	2,200	ug/kg	300	8270C	10/20/10 23:53	PL	50-32-8	I1
Benzo(b)fluoranthene	2,600	ug/kg	300	8270C	10/20/10 23:53	PL	205-99-2	I1
Benzo(k)fluoranthene	2,500	ug/kg	300	8270C	10/20/10 23:53	PL	207-08-9	I1
Benzo(ghi)perylene	700	ug/kg	300	8270C	10/20/10 23:53	PL	191-24-2	I1
Chrysene	2,200	ug/kg	300	8270C	10/20/10 23:53	PL	218-01-9	I1
Dibenzo(ah)anthracene	800	ug/kg	300	8270C	10/20/10 23:53	PL	53-70-3	I1
Fluoranthene	2,500	ug/kg	300	8270C	10/20/10 23:53	PL	206-44-0	I1
Fluorene	1,100	ug/kg	300	8270C	10/20/10 23:53	PL	86-73-7	I1
Indeno(1,2,3-cd)pyrene	900	ug/kg	300	8270C	10/20/10 23:53	PL	193-39-5	I1
Naphthalene	1,300	ug/kg	300	8270C	10/20/10 23:53	PL	91-20-3	I1
Phenanthrene	1,300	ug/kg	300	8270C	10/20/10 23:53	PL	85-01-8	I1
Pyrene	2,600	ug/kg	300	8270C	10/20/10 23:53	PL	129-00-0	I1
2-Methylnaphthalene	1,200	ug/kg	300	8270C	10/20/10 23:53	PL	91-57-6	I1
1-Methylnaphthalene	1,000	ug/kg	300	8270C	10/20/10 23:53	PL	90-12-0	I1
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	2,900	ug/kg	200	8260B/5035	10/20/10 19:58	JGH	60-29-7	2
Acetone	2,000	ug/kg	1,000	8260B/5035	10/20/10 19:58	JGH	67-64-1	2
Methyl iodide	2,800	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	74-88-4	2
Carbon disulfide	2,700	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	75-15-0	2
tert-Methyl butyl ether (MTBE)	3,200	ug/kg	200	8260B/5035	10/20/10 19:58	JGH	1634-04-4	2
Acrylonitrile	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	107-13-1	2
2-Butanone (MEK)	2,800	ug/kg	900	8260B/5035	10/20/10 19:58	JGH	78-93-3	2
Dichlorodifluoromethane	1,300	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	75-71-8	2
Chloromethane	2,100	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	74-87-3	2
Vinyl chloride	2,380	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	75-01-4	2
Bromomethane	1,700	ug/kg	200	8260B/5035	10/20/10 19:58	JGH	74-83-9	2
Chloroethane	1,100	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	75-00-3	2

I-Matrix interference with internal standard 1-Dry Weight Spike: 1.9 mg/kg
2-Spiked at 2.5 mg/kg

Lab Sample ID: S46209.12 (continued)
Sample Tag: B-14 (2-4) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Trichlorofluoromethane	2,500	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	75-69-4	1
1,1-Dichloroethene	3,000	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	75-35-4	1
Methylene chloride	3,100	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	75-09-2	1
trans-1,2-Dichloroethene	3,130	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	156-60-5	1
1,1-Dichloroethane	3,150	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	75-34-3	1
cis-1,2-Dichloroethene	3,220	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	156-59-2	1
Tetrahydrofuran	3,000	ug/kg	1,000	8260B/5035	10/20/10 19:58	JGH	109-99-9	1
Chloroform	3,330	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	67-66-3	1
Bromochloromethane	3,300	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	74-97-5	1
1,1,1-Trichloroethane	3,280	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	71-55-6	1
4-Methyl-2-pentanone (MIBK)	3,000	ug/kg	3,000	8260B/5035	10/20/10 19:58	JGH	108-10-1	1
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 19:58	JGH	591-78-6	1
Carbon tetrachloride	2,910	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	56-23-5	1
Benzene	3,180	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	71-43-2	1
1,2-Dichloroethane	3,240	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	107-06-2	1
Trichloroethene	3,100	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	79-01-6	1
1,2-Dichloropropane	3,300	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	78-87-5	1
Bromodichloromethane	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	75-27-4	1
Dibromomethane	3,200	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	74-95-3	1
cis-1,3-Dichloropropene	3,240	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	10061-01-5	1
Toluene	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	108-88-3	1
trans-1,3-Dichloropropene	3,290	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	10061-02-6	1
1,1,2-Trichloroethane	3,300	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	79-00-5	1
Tetrachloroethene	3,120	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	127-18-4	1
trans-1,4-Dichloro-2-butene	3,170	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	110-57-6	1
Dibromochloromethane	3,000	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	124-48-1	1
1,2-Dibromoethane	3,120	ug/kg	20	8260B/5035	10/20/10 19:58	JGH	106-93-4	M1
Chlorobenzene	3,100	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	108-90-7	1
1,1,1,2-Tetrachloroethane	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	630-20-6	1
Ethylbenzene	3,220	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	100-41-4	1
p,m-Xylene	6,500	ug/kg	100	8260B/5035	10/20/10 19:58	JGH		1
o-Xylene	3,320	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	95-47-6	1
Styrene	3,050	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	100-42-5	1
Isopropylbenzene	3,000	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	98-82-8	1
Bromoform	2,500	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	75-25-2	1
1,1,2,2-Tetrachloroethane	3,220	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	79-34-5	1
1,2,3-Trichloropropane	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	96-18-4	1
n-Propylbenzene	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	103-65-1	1
Bromobenzene	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	108-86-1	1
1,3,5-Trimethylbenzene	3,300	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	108-67-8	1
tert-Butylbenzene	3,300	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	98-06-6	1
1,2,4-Trimethylbenzene	3,300	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	95-63-6	1
sec-Butylbenzene	3,260	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	135-98-8	1
p-Isopropyltoluene	3,400	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	99-87-6	1
1,3-Dichlorobenzene	3,300	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	541-73-1	1
1,4-Dichlorobenzene	3,200	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	106-46-7	1
1,2-Dichlorobenzene	3,300	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	95-50-1	1

1-Spiked at 2.5 mg/kg
M-Result reported to MDL not RDL

Lab Sample ID: S46209.12 (continued)
Sample Tag: B-14 (2-4) MS

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2,3-Trimethylbenzene	3,300	ug/kg	100	8260B/5035	10/20/10 19:58	JGH	526-73-8	1
n-Butylbenzene	3,270	ug/kg	60	8260B/5035	10/20/10 19:58	JGH	104-51-8	1
Hexachloroethane	2,800	ug/kg	400	8260B/5035	10/20/10 19:58	JGH	67-72-1	1
1,2-Dibromo-3-chloropropane	2,800	ug/kg	300	8260B/5035	10/20/10 19:58	JGH	96-12-8	1
1,2,4-Trichlorobenzene	3,200	ug/kg	400	8260B/5035	10/20/10 19:58	JGH	120-82-1	1
1,2,3-Trichlorobenzene	3,400	ug/kg	400	8260B/5035	10/20/10 19:58	JGH	87-61-6	1
Naphthalene	3,400	ug/kg	400	8260B/5035	10/20/10 19:58	JGH	91-20-3	1
2-Methylnaphthalene	3,300	ug/kg	400	8260B/5035	10/20/10 19:58	JGH	91-57-6	1

1-Spiked at 2.5 mg/kg

Analytical Laboratory Report

Lab Sample ID: S46209.13
Sample Tag: B-14 (2-4) MSD
Collected Date/Time: 10/14/2010
Matrix: Soil
COC Reference: 52220

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.5	IR
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3550B	10/19/10 23:04	EMR		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	10/15/10 12:30	DJS		
Organics - Semi-Volatiles								
Polynuclear Aromatics								
Acenaphthene	1,400	ug/kg	300	8270C	10/21/10 00:17	PL	83-32-9	1
Acenaphthylene	1,400	ug/kg	300	8270C	10/21/10 00:17	PL	208-96-8	1
Anthracene	1,200	ug/kg	300	8270C	10/21/10 00:17	PL	120-12-7	1
Benzo(a)anthracene	1,800	ug/kg	300	8270C	10/21/10 00:17	PL	56-55-3	1
Benzo(a)pyrene	1,700	ug/kg	300	8270C	10/21/10 00:17	PL	50-32-8	1
Benzo(b)fluoranthene	2,100	ug/kg	300	8270C	10/21/10 00:17	PL	205-99-2	1
Benzo(k)fluoranthene	1,600	ug/kg	300	8270C	10/21/10 00:17	PL	207-08-9	1
Benzo(ghi)perylene	700	ug/kg	300	8270C	10/21/10 00:17	PL	191-24-2	1
Chrysene	1,700	ug/kg	300	8270C	10/21/10 00:17	PL	218-01-9	1
Dibenzo(ah)anthracene	800	ug/kg	300	8270C	10/21/10 00:17	PL	53-70-3	1
Fluoranthene	1,700	ug/kg	300	8270C	10/21/10 00:17	PL	206-44-0	1
Fluorene	1,400	ug/kg	300	8270C	10/21/10 00:17	PL	86-73-7	1
Indeno(1,2,3-cd)pyrene	800	ug/kg	300	8270C	10/21/10 00:17	PL	193-39-5	1
Naphthalene	1,300	ug/kg	300	8270C	10/21/10 00:17	PL	91-20-3	1
Phenanthrene	1,300	ug/kg	300	8270C	10/21/10 00:17	PL	85-01-8	1
Pyrene	2,000	ug/kg	300	8270C	10/21/10 00:17	PL	129-00-0	1
2-Methylnaphthalene	1,200	ug/kg	300	8270C	10/21/10 00:17	PL	91-57-6	1
1-Methylnaphthalene	1,100	ug/kg	300	8270C	10/21/10 00:17	PL	90-12-0	1
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	3,300	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	60-29-7	2
Acetone	2,000	ug/kg	1,000	8260B/5035	10/20/10 20:18	JGH	67-64-1	2
Methyl iodide	3,200	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	74-88-4	2
Carbon disulfide	2,900	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	75-15-0	2
tert-Methyl butyl ether (MTBE)	3,600	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	1634-04-4	2
Acrylonitrile	3,500	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	107-13-1	2
2-Butanone (MEK)	3,100	ug/kg	1,000	8260B/5035	10/20/10 20:18	JGH	78-93-3	2
Dichlorodifluoromethane	1,400	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	75-71-8	2
Chloromethane	2,200	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	74-87-3	2
Vinyl chloride	2,560	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	75-01-4	2
Bromomethane	1,900	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	74-83-9	2
Chloroethane	1,300	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	75-00-3	2

1-Dry Weight Spike: 1.9 mg/kg
2-Spiked at 2.5 mg/kg

Lab Sample ID: S46209.13 (continued)
Sample Tag: B-14 (2-4) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Trichlorofluoromethane	2,700	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	75-69-4	1
1,1-Dichloroethene	3,310	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	75-35-4	1
Methylene chloride	3,400	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	75-09-2	1
trans-1,2-Dichloroethene	3,470	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	156-60-5	1
1,1-Dichloroethane	3,530	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	75-34-3	1
cis-1,2-Dichloroethene	3,630	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	156-59-2	1
Tetrahydrofuran	3,000	ug/kg	1,000	8260B/5035	10/20/10 20:18	JGH	109-99-9	1
Chloroform	3,750	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	67-66-3	1
Bromochloromethane	3,700	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	74-97-5	1
1,1,1-Trichloroethane	3,690	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	71-55-6	1
4-Methyl-2-pentanone (MIBK)	3,000	ug/kg	3,000	8260B/5035	10/20/10 20:18	JGH	108-10-1	1
2-Hexanone	3,000	ug/kg	3,000	8260B/5035	10/20/10 20:18	JGH	591-78-6	1
Carbon tetrachloride	3,280	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	56-23-5	1
Benzene	3,540	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	71-43-2	1
1,2-Dichloroethane	3,620	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	107-06-2	1
Trichloroethene	3,440	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	79-01-6	1
1,2-Dichloropropane	3,690	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	78-87-5	1
Bromodichloromethane	3,600	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	75-27-4	1
Dibromomethane	3,500	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	74-95-3	1
cis-1,3-Dichloropropene	3,640	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	10061-01-5	1
Toluene	3,600	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	108-88-3	1
trans-1,3-Dichloropropene	3,670	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	10061-02-6	1
1,1,2-Trichloroethane	3,640	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	79-00-5	1
Tetrachloroethene	3,400	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	127-18-4	1
trans-1,4-Dichloro-2-butene	3,630	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	110-57-6	1
Dibromochloromethane	3,400	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	124-48-1	1
1,2-Dibromoethane	3,480	ug/kg	30	8260B/5035	10/20/10 20:18	JGH	106-93-4	M1
Chlorobenzene	3,420	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	108-90-7	1
1,1,1,2-Tetrachloroethane	3,700	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	630-20-6	1
Ethylbenzene	3,600	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	100-41-4	1
p,m-Xylene	7,300	ug/kg	100	8260B/5035	10/20/10 20:18	JGH		1
o-Xylene	3,840	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	95-47-6	1
Styrene	3,380	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	100-42-5	1
Isopropylbenzene	3,300	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	98-82-8	1
Bromoform	2,900	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	75-25-2	1
1,1,2,2-Tetrachloroethane	3,640	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	79-34-5	1
1,2,3-Trichloropropane	3,600	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	96-18-4	1
n-Propylbenzene	3,600	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	103-65-1	1
Bromobenzene	3,600	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	108-86-1	1
1,3,5-Trimethylbenzene	3,700	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	108-67-8	1
tert-Butylbenzene	3,680	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	98-06-6	1
1,2,4-Trimethylbenzene	3,900	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	95-63-6	1
sec-Butylbenzene	3,650	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	135-98-8	1
p-Isopropyltoluene	3,800	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	99-87-6	1
1,3-Dichlorobenzene	3,600	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	541-73-1	1
1,4-Dichlorobenzene	3,500	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	106-46-7	1
1,2-Dichlorobenzene	3,700	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	95-50-1	1

1-Spiked at 2.5 mg/kg
M-Result reported to MDL not RDL

Lab Sample ID: S46209.13 (continued)
Sample Tag: B-14 (2-4) MSD

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,2,3-Trimethylbenzene	3,700	ug/kg	100	8260B/5035	10/20/10 20:18	JGH	526-73-8	1
n-Butylbenzene	3,640	ug/kg	60	8260B/5035	10/20/10 20:18	JGH	104-51-8	1
Hexachloroethane	3,200	ug/kg	400	8260B/5035	10/20/10 20:18	JGH	67-72-1	1
1,2-Dibromo-3-chloropropane	3,100	ug/kg	300	8260B/5035	10/20/10 20:18	JGH	96-12-8	1
1,2,4-Trichlorobenzene	3,500	ug/kg	400	8260B/5035	10/20/10 20:18	JGH	120-82-1	1
1,2,3-Trichlorobenzene	3,600	ug/kg	400	8260B/5035	10/20/10 20:18	JGH	87-61-6	1
Naphthalene	4,400	ug/kg	400	8260B/5035	10/20/10 20:18	JGH	91-20-3	1
2-Methylnaphthalene	3,900	ug/kg	400	8260B/5035	10/20/10 20:18	JGH	91-57-6	1

1-Spiked at 2.5 mg/kg

Analytical Laboratory Report

Lab Sample ID: S46209.14
Sample Tag: TB
Collected Date/Time: 10/14/2010
Matrix: Liquid
COC Reference: 59219

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	HCL	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	8260B	10/18/10 15:45	JGH	60-29-7	
Acetone	Not detected	ug/L	50	8260B	10/18/10 15:45	JGH	67-64-1	
Methyl iodide	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	74-88-4	
Carbon disulfide	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/L	2	8260B	10/18/10 15:45	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	10/18/10 15:45	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	75-71-8	
Chloromethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	74-87-3	
Vinyl chloride	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	75-01-4	
Bromomethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	74-83-9	
Chloroethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	75-35-4	
Methylene chloride	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/L	90	8260B	10/18/10 15:45	JGH	109-99-9	
Chloroform	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	67-66-3	
Bromochloromethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	10/18/10 15:45	JGH	108-10-1	
2-Hexanone	Not detected	ug/L	50	8260B	10/18/10 15:45	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	56-23-5	
Benzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	107-06-2	
Trichloroethene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	75-27-4	
Dibromomethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	10061-01-5	
Toluene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	106-93-4	
Chlorobenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	630-20-6	
Ethylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	100-41-4	

Lab Sample ID: S46209.14 (continued)
Sample Tag: TB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
p,m-Xylene	Not detected	ug/L	2	8260B	10/18/10 15:45	JGH		
o-Xylene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	95-47-6	
Styrene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	98-82-8	
Bromoform	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	103-65-1	
Bromobenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/L	1	8260B	10/18/10 15:45	JGH	104-51-8	
Hexachloroethane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	87-61-6	
Naphthalene	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/L	5	8260B	10/18/10 15:45	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.15
Sample Tag: MB
Collected Date/Time: 10/14/2010
Matrix: Methanol
COC Reference: 59219

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	8260B/5035	10/20/10 19:00	JGH	60-29-7	
Acetone	Not detected	ug/kg	1,000	8260B/5035	10/20/10 19:00	JGH	67-64-1	
Methyl iodide	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	74-88-4	
Carbon disulfide	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	8260B/5035	10/20/10 19:00	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/kg	800	8260B/5035	10/20/10 19:00	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	75-71-8	
Chloromethane	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	74-87-3	
Vinyl chloride	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	75-01-4	
Bromomethane	Not detected	ug/kg	200	8260B/5035	10/20/10 19:00	JGH	74-83-9	
Chloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	75-35-4	
Methylene chloride	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/kg	1,000	8260B/5035	10/20/10 19:00	JGH	109-99-9	
Chloroform	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	67-66-3	
Bromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	8260B/5035	10/20/10 19:00	JGH	108-10-1	
2-Hexanone	Not detected	ug/kg	3,000	8260B/5035	10/20/10 19:00	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	56-23-5	
Benzene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	107-06-2	
Trichloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	75-27-4	
Dibromomethane	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	10061-01-5	
Toluene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	20	8260B/5035	10/20/10 19:00	JGH	106-93-4	M
Chlorobenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	630-20-6	

M-Result reported to MDL not RDL

Lab Sample ID: S46209.15 (continued)
Sample Tag: MB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Ethylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH		
o-Xylene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	95-47-6	
Styrene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	98-82-8	
Bromoform	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	103-65-1	
Bromobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	8260B/5035	10/20/10 19:00	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/kg	50	8260B/5035	10/20/10 19:00	JGH	104-51-8	
Hexachloroethane	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	87-61-6	
Naphthalene	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	91-20-3	
2-Methylnaphthalene	Not detected	ug/kg	300	8260B/5035	10/20/10 19:00	JGH	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S46209.16
Sample Tag: FEB
Collected Date/Time: 10/14/2010
Matrix: Liquid
COC Reference: 59219

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	HCL	Yes	4.5	IR
2	1L Amber	None	Yes	4.5	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
PNA Extraction	Completed			3510C	10/19/10 23:43	EMR		
Organics - Semi-Volatiles								
Polynuclear Aromatic Hydrocarbon								
Acenaphthene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	83-32-9	
Acenaphthylene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	208-96-8	
Anthracene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	191-24-2	
Chrysene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	218-01-9	
Dibenzo(ah)anthracene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	53-70-3	
Fluoranthene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	206-44-0	
Fluorene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	193-39-5	
Naphthalene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	91-20-3	
Phenanthrene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	85-01-8	
Pyrene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	129-00-0	
2-Methylnaphthalene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	91-57-6	
1-Methylnaphthalene	Not detected	ug/L	5	8270C	10/20/10 16:28	PL	90-12-0	
Organics - Volatiles								
Volatile Organics - DEQ List								
Diethyl ether	Not detected	ug/L	10	8260B	10/18/10 16:03	JGH	60-29-7	
Acetone	Not detected	ug/L	50	8260B	10/18/10 16:03	JGH	67-64-1	
Methyl iodide	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	74-88-4	
Carbon disulfide	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	1634-04-4	
Acrylonitrile	Not detected	ug/L	2	8260B	10/18/10 16:03	JGH	107-13-1	
2-Butanone (MEK)	Not detected	ug/L	30	8260B	10/18/10 16:03	JGH	78-93-3	
Dichlorodifluoromethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	75-71-8	
Chloromethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	74-87-3	
Vinyl chloride	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	75-01-4	
Bromomethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	74-83-9	
Chloroethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	75-00-3	
Trichlorofluoromethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	75-69-4	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	75-35-4	
Methylene chloride	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	156-60-5	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	75-34-3	

Lab Sample ID: S46209.16 (continued)
Sample Tag: FEB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	156-59-2	
Tetrahydrofuran	Not detected	ug/L	90	8260B	10/18/10 16:03	JGH	109-99-9	
Chloroform	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	67-66-3	
Bromochloromethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	74-97-5	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	10/18/10 16:03	JGH	108-10-1	
2-Hexanone	Not detected	ug/L	50	8260B	10/18/10 16:03	JGH	591-78-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	56-23-5	
Benzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	71-43-2	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	107-06-2	
Trichloroethene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	79-01-6	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	78-87-5	
Bromodichloromethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	75-27-4	
Dibromomethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	74-95-3	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	10061-01-5	
Toluene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	79-00-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	110-57-6	
Dibromochloromethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	124-48-1	
1,2-Dibromoethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	106-93-4	
Chlorobenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	630-20-6	
Ethylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	100-41-4	
p,m-Xylene	Not detected	ug/L	2	8260B	10/18/10 16:03	JGH		
o-Xylene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	95-47-6	
Styrene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	100-42-5	
Isopropylbenzene	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	98-82-8	
Bromoform	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	79-34-5	
1,2,3-Trichloropropane	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	96-18-4	
n-Propylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	103-65-1	
Bromobenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	108-86-1	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	108-67-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	98-06-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	95-63-6	
sec-Butylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	135-98-8	
p-Isopropyltoluene	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	99-87-6	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	95-50-1	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	526-73-8	
n-Butylbenzene	Not detected	ug/L	1	8260B	10/18/10 16:03	JGH	104-51-8	
Hexachloroethane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	120-82-1	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	87-61-6	
Naphthalene	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	91-20-3	

Lab Sample ID: S46209.16 (continued)
Sample Tag: FEB

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
2-Methylnaphthalene	Not detected	ug/L	5	8260B	10/18/10 16:03	JGH	91-57-6	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 1 OF 2

52220

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Janet Michalak
COMPANY: AKT Peerless
ADDRESS: 22725 Orchard Lake
CITY: Farmington STATE: MI ZIP CODE: 4
PHONE NO.: 248.615.1333 FAX NO.: 248.615.1334 P.O. NO.:
E-MAIL ADDRESS: michalakj@aktpeerless.com QUOTE NO.:

INVOICE TO

CONTACT NAME: Holly Spike ☐ SAME
COMPANY: ~~214 Janes Ave~~ AKT Peerless
ADDRESS: 214 Janes Ave
CITY: Saginaw STATE: MI ZIP CODE:
PHONE NO.: 989.754.9896 FAX NO.: 989.754.3804 P.O. NO.:

PROJECT NO./NAME: 66435-4-20
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☐ STANDARD ☒ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER SL=SLUDGE WW=WASTEWATER O=OIL S=SOIL A=AIR L=LIQUID W=WASTE SD=SOLID M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED)

MERIT LAB NO.	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	SPECIAL INSTRUCTIONS/NOTES
46209.01	10/14/10		B-12 (2-4)	S	2	1					1		X	X	
.02			B-12 (4-6)	S	2	1					1		X	X	
.03			B-12 (18-20)	S	2	1					1		X	X	
.04			B-13 (2-4)	S	2	1					1		X	X	
.05			B-13a (2-4)	S	2	1					1		X	X	
.06			B-13a (4-6)	S	2	1					1		X	X	
.07			B-14 (2-4)	S	2	1					1		X	X	
.08			B-14 (5-7)	S	2	1					1		X	X	
.09			B-15 (2-4)	S	2	1					1		X	X	
.10			B-15 (4-6)	S	2	1					1		X	X	
.11			FDS	S	2	1					1		X	X	
.12,13			B-14 (2-4) MS/MSD	S	4	1					1		X	X	

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
Janet Michalak	10/14/10	
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
	10-14-10	1330

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL _____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333
www.meritlabs.com

C.O.C. PAGE # 2 OF 2

59219

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Same as page 1
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:
E-MAIL ADDRESS: QUOTE NO.:

INVOICE TO

CONTACT NAME: Same as page 1 ☐ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: FAX NO.: P.O. NO.:

PROJECT NO./NAME: 66435-2-20
SAMPLER(S) - PLEASE PRINT/SIGN NAME:

TURNAROUND TIME REQUIRED: ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED: ☐ STANDARD ☒ LEVEL II ☐ LEVEL III ☐ OTHER

MATRIX CODE: GW=GROUNDWATER, SL=SLUDGE, WW=WASTEWATER, O=OIL, S=SOIL, A=AIR, L=LIQUID, W=WASTE, SD=SOLID, M=MISC

ANALYSIS (ATTACH LIST IF MORE SPACE REQUIRED): VOCS, PNAS

SPECIAL INSTRUCTIONS/NOTES

MERIT LAB NO.	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCL	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCS	PNAS
46209.14	10/14/10		TB	W	1		1						X	
.15	↓		MB	S	1						1		X	
.16	✓		FEB	W	4	2	2						X	X

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RECEIVED BY: SIGNATURE/ORGANIZATION	DATE 10-14-10	TIME 1330

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS

NOTES: TEMP. ON ARRIVAL _____

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

AKTPEERLESS
environmental & energy services

APPENDIX F

RESUMES OF ENVIRONMENTAL PROFESSIONALS

AKTPEERLESS
environmental & energy services

Professional Environmental Services

PROFESSIONAL PROFILE

DAVID A. VAN HAAREN

Director of Lansing Operations
Environmental Compliance and Assessment Services

EDUCATION

Bachelor of Science: Industrial and Environmental Health Management/ Hazardous Waste Management, 1994
Ferris State University, Big Rapids, Michigan

PROFESSIONAL EXPERIENCE

Regional Manager-Mid Michigan/Senior Associate
AKT Peerless Environmental Services

Vice President of Operations
Peerless Environmental Services, Inc.

AREA OF EXPERTISE

(1) Brownfield redevelopment

(2) Management of federal and state environmental grant programs

(3) Coordination and technical oversight of environmental assessments/investigations

(4) Design and implementation of “due care” strategies for a brownfield sites

(5) Cost estimating and proposal preparation

(6) Liaison with regulatory agencies

Mr. Van Haaren has fourteen (14) years experience in environmental assessments, brownfield redevelopment project management, federal and state environmental grant program implementation, management and implementation of brownfield financial incentives, environmental response activities, corrective action and regulatory compliance management.

Mr. Van Haaren has managed hundreds of investigations at commercial and industrial properties to evaluate the presence and extent of environmental impact. Information obtained during these investigations is typically used to evaluate environmental risk and determine appropriate response activities necessary to allow for the intended use of a property in a manner that protects public health and safety.

SUMMARY OF SELECTED PROJECTS

(1) Technical advisor for a Brownfield Redevelopment Authority under a U.S. EPA Brownfields Cleanup Revolving Loan Fund (BCRLF). The BCRLF was designed to test loan fund models and facilitate coordinated public and private cleanup efforts on brownfield properties.

(2) Acted as senior project manager and technical advisor for several communities with U.S. EPA brownfield assessment grants. The primary objective of each brownfield grant was to perform brownfield inventories, conduct Phase I and Phase II environmental site assessments (ESAs), baseline environmental site assessments (BEAs) and EPA quality assurance project plans (QAPPs). Responsibilities also included acting as a liaison between brownfield communities, U.S. EPA project managers, and stakeholders, project budget tracking, quarterly reporting and participation in environmental subcommittees.

(3) Senior project manager for the investigation, cleanup and redevelopment of a 25-acre former industrial site. Responsibilities included management and oversight of a comprehensive hydrogeological investigation, soil remediation and the development/implementation of brownfield incentives, including $2.2 million in brownfield tax increment financing and the use of a tax revenue bond. Redevelopment included 180 owner-occupied, single-family housing and condominium units.

(4) Senior project manager for the investigation, cleanup and redevelopment of a 37-acre former dumpsite. Investigation activities included a geophysical survey, soil borings and excavation of test pits, soil and groundwater assessment, waste characterization, and an assessment of fill depths and methane. Responsibilities also included the development and implementation of brownfield incentives, including $1.2 million in brownfield tax increment financing.

(5) Project manager and environmental consultant for the investigation, cleanup and redevelopment of a 22-acre former industrial site located along the Saginaw River in Bay City, Michigan. Responsibilities included management and oversight of a comprehensive hydrogeological investigation, BEA activities and cleanup of an abandoned underground storage tank and several areas of environmental impact. Responsibilities also included serving as technical advisor to a local environmental subcommittee for the project and liaison to the City, MDEQ, MDNR, and the developer. Redevelopment included 66 residential condominiums and a riverfront riparian park.

(6) Performed project management and technical oversight of Phase I, Phase II and BEA activities at a 100-year old, seven-city block former manufacturing facility located in the City of Saginaw. The site had previously housed over 30 businesses ranging from a chemical manufacturer to a dry cleaning firm. Contaminants discovered during site investigation activities included PCBs, extensive petroleum contamination and metals. Project activities included utilizing MDEQ grant money to conduct site investigations. Also assisted in the development plans to allow for the placement of new manufacturing plant on the impacted site and qualify the new owner for an exemption from liability for pre-existing contamination.

CERTIFICATIONS AND SPECIALIZED TRAINING

ASTM International Risk-Based Corrective Action Training, October 2003

OSHA 29 CFR 1910.120 – Forty and Eight Hour Refresher HAZWOPER Training

OSHA 29 CFR 1910.120 – Eight Hour HAZWOPER Site Supervisor Training

Title V, Michigan Renewable Operating Permit Training for Consultants – MDEQ

Asbestos Awareness Training

Cardiopulmonary Resuscitation (CPR) and Standard First Aid Training Certification

PROFESSIONAL AFFILIATIONS

Member
Lansing Regional Chamber of Commerce

Member
Regional Economic Development (RED) Team

Member
National Association of Environmental Professionals

Member
ASTM Committee E50 on Environmental Assessment

JANET J. MICHALUK

Environmental Consultant
Environmental Compliance and Assessment Services

EDUCATION

Master's Degree: Project Management, 2009
Keller Graduate School of Management, Naperville, Illinois

Bachelor of Science: Environmental Studies & Applications in Resource Development, 2002
Michigan State University, East Lansing, Michigan

PROFESSIONAL EXPERIENCE

Environmental Consultant
AKT Peerless Environmental Services

Radon Gas Measurement Technician
Air Quality Control Agency

AREA OF EXPERTISE

(1) Conducting Phase I environmental site assessments (ESAs)

(2) Conducting field operations such as soil, surface water, and groundwater sampling

(3) Oversight of field operations such as monitoring well installation, and contaminant delineation, contaminant excavation, and UST removal

(4) Conducting geophysical surveys

(5) Preparing Phase I Reports

(6) Preparing Phase II Subsurface Investigation Reports

(7) Preparing Baseline Environmental Assessment Reports

(8) Preparing Section 20107a Compliance Evaluations

(9) Preparing Closure Reports

(10) Creating maps, diagrams, and drawings using AutoCAD and GIS software

(11) Experience in building and property inspections related to identifying Recognized Environmental Conditions.

AREA OF EXPERTISE (continued)

Ms. Michaluk has experience in investigative activities regarding hazardous materials, substances or contaminants; including environmental site assessment and long-term monitoring and removal activities. Ms. Michaluk has conducted subsurface investigations to evaluate the presence and/or extent of soil and groundwater contamination.

SUMMARY OF SELECTED PROJECTS

(1) Performed Phase I ESAs (including project management, site reconnaissance, regulatory and historical records investigations, and report completion) for financial institutions, manufacturing facilities, real estate developers, property managers, and insurance companies. Properties included industrial, commercial, and residential sites. Properties assessed were located in Michigan.

(2) Supervised drilling and mobile lab operations. Activities included: selecting boring locations, collecting soil samples, field screening soil samples, installing monitoring wells, and selecting samples for laboratory analysis.

(3) Conducted vertical profiling and discrete sampling of groundwater at specific depths to determine the vertical extent of contamination. Conducted delineation procedures to determine the exact location and extent of soil contamination.

(4) Conducted long term monitoring including well development and well sampling procedures.

(5) Conducted geophysical surveys using an EM-61MK2 metal detector, and prepared scaled, contoured site maps depicting anomalous areas.

CERTIFICATIONS

Occupational Safety and Health Administration (OSHA) 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER)

OSHA 8-Hour refresher courses

CPR and First Aid

AHERA Asbestos Inspector Course