Appendix G **Environmental**

[**Please Note**: Full Phase 1 and Phase 2 Environmental Site Assessment reports are too large to include here but are available for separate review.]

- Phase II Introduction, Scope of Work, Nature & Extent of Contamination Summary/Conclusions and Recommendations.
- Analysis of liquid samples, November 2007, removed from shop room tanks/pits.
- Underground Storage Tank Removal-Closure Assessment, June 2, 2008

Kennebec Valley Council of Governments

Phase II Environmental Site Assessment

For the
Flatiron Building
Cony High School
104 Cony Street
Augusta, Maine

April 2008

Weston & Sampson
ENGINEERS, INC.

Report

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1.0 INTRODUCTION

Weston & Sampson was contracted by the Kennebec Valley Regional Council of Governments (KVCOG) to perform a Brownfield Phase II Environmental Site Assessment (Phase II ESA) at the Flatiron Building (Cony High School) Property located at 104 Cony Street in Augusta, Maine (Site; see Figure 1 – Site Locus Map and Figure 2 – Site Orthophoto). Weston & Sampson teamed with MAI Environmental, Inc (MAI) to perform this Phase II. The following scope of services was performed to satisfy the items presented in accordance with our Brownfields Quality Assurance Project Plan (QAPP) dated November 2007. This report is prepared to summarize the work performed and present our findings with conclusions and recommendations.

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2.0 SCOPE OF WORK

The Phase II ESA was initiated following Weston & Sampson/MAI's completion of a Phase I ESA (May 2007) and a Quality Assurance Project Plan (QAPP; November 2007). The Phase I ESA identified several Recognized Environmental Conditions (RECs) that are described in the following sections in this report and can be referred to on the Site Plan (Figure 2) and Site Photographs (Appendix A). Weston & Sampson or its subconsultants performed the following scope of services during this investigation:

1. Prepare a Site-specific Health and Safety Plan (HASP)
2. Utility Clearance
3. Assess the floor drain, floor trenches, and oil/water separator (OWS) in the automotive repair shop/metals room.
4. Evaluate the terminus location of the drains and OWS and assess their integrity by using dye testing methods.
5. Complete up to seven (7) direct-push Geoprobe soil borings and install up to four (4) monitoring wells at the Site.
6. Collect soil samples for laboratory analysis.
7. Perform an elevation survey of the monitoring wells.
8. Sample monitoring wells, collect groundwater samples and submit for analysis.
9. Gauge existing monitoring well to evaluate viability for sampling.
10. Prepare ASTM Phase II report.

The work approved under the QAPP was completed during December 2007- January 2008. This report was drafted during February 2008 and finalized during March 2008.

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9.0 NATURE AND EXTENT OF CONTAMINATION

The Phase II field investigation was developed to assess potential source areas associated with the use of the site as a high school containing a former automotive/metals shop. The main chemicals of concern include petroleum-based contaminants from the former automotive shop, current and historical underground storage tanks and potential residual polyaromatic hydrocarbon contamination around the area where coal was historically stockpiled for use as fuel. In general, a majority of the chemicals of concern are included in the following test analyses: Volatile Organic Compounds (VOCs), RCRA-8 metals, Diesel Range Organics (DRO), Semi-Volatile Organic Compounds (SVOCs) and Polychlorinated Biphenyls (PCBs).

9.1 Source Areas

Several potential source areas were identified as part of the Phase I and are described as RECs in Section 3.3.1. The Phase II investigation/scope of work was developed to evaluate the potential source areas. Predominantly, the potential source areas included the area of the former automotive shop, areas adjacent to current or former USTs and an area that historically housed a coal pile. Asbestos and lead- building materials from inside the building were also noted in the Phase I as possible contaminant sources. However, testing of suspect materials was conducted by the school as part of compliance with AHERA. No lead paint samples or potential asbestos containing materials were collected during this Phase II assessment.

Former Automotive Shop Area

The Phase II investigation included advancement/installation of three soil borings and monitoring wells in the area of the former automotive/metals shop to test for petroleum-related contamination as well as PCBs, which may have been present in waste oil. Contaminants evaluated and potentially associated with this source included RCRA-8 metals, DROs, VOCs and PCBs. The subsurface piping system in the area of the trenches was also investigated.

UST Area

The UST on-site has been registered with the State of Maine and is considered inactive. The Phase II investigation included advancement/installation of four soil borings around the area of the UST. Contaminants evaluated and potentially associated with this area included RCRA-8 metals, DROs and VOCs.

Building Materials

During the Phase I Site walk, potential asbestos and lead paint containing materials were identified. Building materials were not assessed as part of the current investigation as discussed above.

Former Coal Pile Area

The Phase I identified an area east of the main high school building as a historical storage area for coal. Because coal and/or its combustion is known to produce or contain polyaromatic hydrocarbons (PAHs) and semi-volatile organic compounds (SVOCs), a soil boring was advanced in this area to assess possible contamination from the storage of coal.

9.2 Type of Contamination

Contaminants detected at the site at or above applicable standards included petroleum related compounds identified as Diesel Range Organics (GRO) (detected in groundwater and soil). Petroleum-related contamination detected in/around the automotive/metals shop (DRO) is consistent with automotive repair or metalworking. Contaminants detected around the area of the coal pile (SVOCs) are consistent with coal-based contamination. The location of contaminants detected around the area of the active UST (cross- or up-gradient from the UST) suggest that this contamination is not from the active UST, and may be related to sources upgradient of the Site.

9.3 Extent of Contamination

Based on the data collected to date, the general extent soil and groundwater contamination is discussed below.

Soil

Samples from all soil boring locations except SB-7 and DUP-7 were analyzed for RCRA-8 metals. None of the metals analyzed were detected above the RAG standard. Arsenic, Barium, Chromium, Lead and Mercury were detected in select samples analyzed for metals at concentrations above laboratory detection limits but below RAG standards. Selenium and Silver were not detected in any sample.

Low levels of RCRA-8 metals were observed across the Site. Phase I research indicates that:

- The property has been used as the site for a high school since 1889 (first Sanborn map available for the Site).
- The Site itself is not listed in researched databases as a location of a spill or other known environmental contamination.

The presence of low concentrations of metals in soils observed across the Site is not likely to constitute a threat to human use or the environment; metals are not observed at elevated levels and some concentrations may be characteristic of background concentrations. In addition, the presence of low concentrations of metals may be due in part to fill material at the Site.

A sample from each boring except SB-7 and the SB-7 duplicate were analyzed for diesel range organics (DRO). DRO was detected at Baseline-2 (BL-2) standards (50-100 mg/kg) in samples from SB-5 (83 mg/kg) and SB-9 (77 mg/kg). DRO was detected above laboratory detection limits but below BL-2 standards in SB-2, SB-4, SB-8 and SB-8 Duplicate.

Detection of DRO in the three soil borings near the area of the car lift trench (SB-8, SB-9 and SB-4) may be related to releases of petroleum related compounds in the area of the trench. Although the piping inspection did not indicate the presence of an outlet pipe from the trench, it is possible that cracks or seams in the walls or base of the trench has allowed oil to seep into the surrounding soils. It appears that oil has moved into soil in the vicinity of SB-8 and SB-9, possibly along veins of sandy material as noted on the well log in close proximity to the section sampled for analytical testing.

Four borings (SB-1, SB-2, SB-5 and SB-6) were located around the registered, inactive underground storage tank (UST). DRO was detected in samples from SB-2 and SB-5. SB-2 is located upgradient of the UST, while SB-5 is located cross-gradient of the UST.

Because the samples from SB-2, SB-5, SB-8 and SB-8 duplicate contained material beyond the range of DRO (C_{10} to C_{28}), a TPH analysis was also requested. TPH was detected at concentrations ranging from 14 mg/kg (SB-8) to 200 mg/kg (SB-5). No standards (RAG/PRG) have been established for TPH. The locations at which TPH was detected (upgradient of the UST) suggest contamination from off-site sources or sources unrelated to the UST (e.g., surface water runoff from the parking lot). Fingerprinting of the compounds detected in SB-8 display a pattern that elutes near the end of the motor oil range. Fingerprints of the compounds detected in the samples from SB-2 and SB-5 display a pattern that elutes near the end of both the motor oil and #2 fuel oil range. However, the close proximity of SB-2 and SB-5 to the UST and the potential pattern related to the #2 fuel oil may indicate a release has occurred associated with the UST.

Low levels of three VOCs were detected: methylene chloride (SB-4 and SB-9), acetone (SB-1, SB-1 Duplicate, SB-2 and SB-6) and 2-Butanone (SB-2). These VOCs were reported above laboratory detection limits but well below applicable RAG standards. Methylene chloride is widely used as a solvent and degreaser, which may explain its occurrence in the area of the former auto repair shop. It is unlikely, however, that these contaminants would be found in the vicinity of a UST. Each of the identified VOCs are frequently used in laboratory analysis; it seems more likely that the detection of these VOCs is related to potential laboratory contamination.

Samples from SB-7, SB-8, SB-8 Duplicate and SB-9 were analyzed for SVOCs. Phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene were identified in the sample collected from SB-7 and SB-7 duplicate, in the area of the former coal pile. These contaminants are known to be related to the occurrence of coal and are likely to be related to the coal pile that was located in the vicinity of the SB-7 boring. None of the contaminants were identified above applicable RAG standards. SVOCs were not detected in the samples from SB-8, SB-8 Duplicate and SB-9.

PCBs were not detected at any of the sampled locations.

Groundwater

Samples from MW-1, MW-1 duplicate, MW-2, MW-3, MW-4, MW-8 and MW-9 were analyzed for VOCs. VOCs were detected in MW-1, MW-1 duplicate, MW-2, MW-3, MW-8 and MW-8 duplicate. 4-Chlorotoluene and Methylene Chloride were detected above laboratory detection limits in the method blank; however, these components were not detected in the analyzed samples. VOCs were not detected above MEG standards.

The samples from MW-1, MW-1 duplicate and MW-2 were noted to have the largest number of VOC detections. Based on the hydraulically cross- and up-gradient location of these monitoring wells (Figure 3), the presence of VOCs related the existing underground storage tank is suspect.

No VOCs (e.g., xylene) was detected in the downgradient well, MW-3. The presence of xylene may be due in part to potential surface water runoff (.e.g., from the pavement). The detection of Acetone in many of the samples is likely related to laboratory contamination.

SVOCs and PCBs were not detected in any of the sampled locations.

Samples from all seven locations were analyzed for DRO. DRO was detected in the sample from MW-1 (180 ug/L), MW-1 duplicate (160 ug/L), MW-2 (120 ug/L), MW-3 (83 ug/L) and MW-9 (940 ug/L) at or above Baseline-2 (BL-2) standards (50 ug/L) (Table 2). DRO was not detected in the samples from MW-4, MW-8, MW-8 duplicate and MW-9.

DRO detected in MW-9 may be related to the residual waste oil sludge in the hydraulic lift trench located in the former car repair area. Residual waste oil material may have entered groundwater via cracks or seams in the walls or base of the trench.

DRO was also detected in the sample from MW-3. MW-3 is downgradient from the existing UST. Therefore, DRO detected in the sample from MW-3 could be related to a release from the UST. DRO was not detected in MW-Unk, or in the soil sample from SB-6, which is immediately adjacent to the UST.

Weston & Sampson requested the chromatographs from Katahdhin Analytical to assess the location of the carbon peak recorded during the DRO analysis of the samples. The chromatogram pattern of MW-3 resembles the pattern of the chromatogram of the standard motor oil. The chromatogram patterns of samples MW-1, MW-2 and MW-1 duplicate do not match any of the standards but do elute within the retention time window of standard JP-8.

The low concentration of metals across the Site (below MEG standards) is not likely to constitute a threat to human use or the environment. Metals concentrations observed in these samples may reflect background concentrations in soil, since many of the samples collected were turbid due to movement of fines (clay/silt) through the well screen.

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10.0 SUMMARY AND CONCLUSIONS

The scope of work for this project followed the approved QAPP prepared to evaluate a variety of RECs that were presented from the Phase I ESA conducted in May 2007. The characterization efforts were performed during several days of environmental sampling, including direct-push sub-surface soil borings, groundwater sampling and visual review. The sampling was conducted during the winter of 2007-08 and included work identified in the approved QAPP.

According to information provided by Robert Labreck of the City of Augusta Facilities Management Bureau, the Flatiron Building was constructed in 1926 and utilized as a high school for area residents (Cony High School). In 1984 the original building underwent extensive interior renovations; however, the basic structure/footprint of the original building was not modified. In 2006, when the new Cony High School was constructed, the building on the subject property was vacated with the exception of some surplus school-related supplies and materials

Historical use of the site as a high school with auto repair/metals shop, coal storage area and underground storage tank has resulted in low-level impacts to groundwater (metals, DRO, VOC) and soil (DRO, metals, SVOCs).

MEDEP has established three "action levels" for petroleum sites to guide cleanup of contaminated sites in Maine: Stringent, Intermediate, Baseline. Action levels are assigned to petroleum contaminated sites based on proximity to drinking water sources or aquifers and the risk of production of petroleum vapors in buildings and utility conduits. MEDEP has developed a decision tree to assist Site owners, consultants and other interested parties in determining an appropriate cleanup category for Sites with petroleum contamination related to gasoline, diesel, kerosene and number 2 fuel oil. Once a category is established, numerical cleanup standards can be applied to the field and laboratory results from the Site. Weston & Sampson applied the MEDEP petroleum decision tree to the Flatiron Site. Because the Site is connected to public water supply and is not located on a sand and gravel aquifer, baseline-level standards have been applied to petroleum analytical results from the Site.

This report summarizes work related to the assessment of a variety of environmental conditions throughout the Site as they relate to potential releases from the identified RECs. Samples were collected from soils and groundwater.

The Site characterization activities included field techniques to evaluate total volatiles in soil using a PID. Laboratory testing of soils included methods for VOCs, SVOCs, metals, PCBs and DRO. Laboratory testing of groundwater included methods for VOCs, SVOCs, metals, PCBs, DROs.

Six groundwater monitoring wells were installed. The Site also contained one existing monitoring well that was also included in fieldwork activities. Depth to groundwater from the ground surface was found to range from 3.53' to 4.27'. Groundwater contours illustrate a westerly groundwater gradient.

VOCs were not detected at levels above applicable standards in any of the sampled media at the site, which included soils and groundwater.

Metals were not detected in exceedance of applicable standards in groundwater or soil.

DRO was detected in soil samples at or above Baseline-2 standards. Some of the contamination may be associated with seepage (e.g., through cracks or seams) into soil and groundwater from the former auto repair/metals shop subsurface structures (e.g., trenches). DRO detected in the area of the UST is suspect as the location immediately downgradient (SB-6) did not contain petroleum related compounds above the laboratory method detection limit. However, DRO was detected in two of the borings (SB-2 and SB-5) in close proximity to the UST. The low level petroleum impacts to soil and groundwater in the area of the UST could be from off-site (up gradient) migration, or fill materials used in the area of the UST. Although the location of the old No. 6 fuel oil UST, which existed on-site between 1964 and 1991, is not known, it is possible that the heavy end petroleum impacts inconsistently detected in soil and groundwater near the existing UST could be from historical releases.

SVOCs were identified in the samples from SB-7, which was located in the area of the former coal pile. SVOCs detected in these samples are below applicable standards.

PCBs were not detected in samples collected at the Site.

Several contaminants were found to have exceeded regulatory standards that were described in Section 6.0 (Risk Characterization). Recommendations are offered in the following section to address the risk identified at the Site.

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11.0 RECOMMENDATIONS

Based on the data obtained from this investigation, Weston & Sampson/MAI offers the following recommendations for consideration. These recommendations will serve as the basis for discussion between the interested parties for this Brownfield project.

11.1 DRO in Groundwater and Soil

DRO (petroleum) impacts were identified in several areas at the site. The highest concentrations are located in the vicinity of the former auto repair shop trenches and cross- and up-gradient of the UST area. Based on the concentrations detected, however, Weston & Sampson does not recommend remediation of soil and/or groundwater for DRO, pending additional monitoring at the Site. Prior to additional monitoring, a thorough cleanup of oil storage areas in the former auto repair shop to remove any remaining liquids or solids is recommended to ensure no additional contribution of oil/petroleum materials to soil or groundwater.

11.2 VOCs in Groundwater

VOC contamination was not widespread across the Site. VOCs were primarily detected in samples from MW-1 and MW-2 (wells located cross- and up-gradient of the UST), below MEG standards. Weston & Sampson does not recommend remediation of groundwater for VOCs, pending additional monitoring at the Site. The location of MW-1 and MW-2 suggest that contamination may be entering groundwater from off-Site, since these wells are cross- or up-gradient from the UST and in close proximity to the Site boundary.

11.3 Investigation of Adjacent Building

Both petroleum-based (DRO) and volatile (VOC) contamination was detected in hydraulically cross- and up-gradient boring and well locations, including MW-1, MW/SB-2 and SB-5, while petroleum related compounds were not detected SB-6, which is downgradient of the UST. The potential for contaminant impacts from the abutting property, the building directly adjacent and upgradient of the Site (Cony High School annex), should also be considered. In addition, we recommend an additional round of groundwater sampling be conducted for VOCs and DRO from all wells to assess potential seasonal impacts as well as potential impacts from surface parking precipitation (e.g., snow)

11.4 Removal of Underground Storage Tank

Based on the low levels of DRO in the area of the UST, Weston & Sampson recommends removal of the UST in accordance with MEDEP Chapter 691, Section 11, "*Rules for Underground Oil Storage Facilities: Regulations for Closure of Underground Oil Storage Facilities*" to prevent future environmental impacts to soil and groundwater.

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CLIENT

analytics environmental laboratory LLC

195 Commerce Way Suite E
Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906
www.analyticslab.com

Mr. Herb Kodis
Maine Environmental Laboratory, Inc.
PO Box 1107
Yarmouth, ME 04096-1107

Report Number: 60076

Revision: Rev. 0

Re: EMP 145-07

Enclosed are the results of the analyses on your sample(s). Samples were received on 31 October 2007 and analyzed for the tests listed below. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

Lab Number	Sample Date	Station Location	Analysis	Comments
60076-1	10/26/07	S-1	EPA 8082 (PCB's only)	
60076-2	10/26/07	S-2 Lift	EPA 8082 (PCB's only)	

nple Receipt Exceptions: None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New York, Virginia, Pennsylvania, and is validated by the U.S. Navy (NFESC). A list of actual certified parameters is available upon request.

If you have any further question on the analytical methods or these results, do not hesitate to call.

Authorized signature _____
Stephen L. Knollmeyer Lab. Director

Date 11/9/2007

analytics environmental laboratory LLC

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Portsmouth, New Hampshire 03801
603-436-5111 Fax 603-430-2151
800-929-9906

Mr. Herb Kodis
Maine Environmental Laboratory, Inc.
PO Box 1107
Yarmouth, ME 04096-1107

November 8, 2007

CLIENT SAMPLE ID

Project Name: EMP 145-07

Project Number:

Field Sample ID: S-1

SAMPLE DATA

Lab Sample ID: 60076-1
Matrix: Oil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 10/26/07
Lab Receipt Date: 10/31/07
Extraction Date: 11/01/07
Analysis Date: 11/03/07

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	2000	U
PCB-1221	2000	U
PCB-1232	2000	U
PCB-1242	2000	U
PCB-1248	2000	U
PCB-1254	2000	U
PCB-1260	2000	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	115	%
Decachlorobiphenyl	110	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample not amenable to percent solids determination. Results are expressed on an as received basis.

PCB Report

Authorized signature

analytics environmental laboratory LLC
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Portsmouth, New Hampshire 03801
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800-929-9906

Mr. Herb Kodis
Maine Environmental Laboratory, Inc.
PO Box 1107
Yarmouth, ME 04096-1107

November 8, 2007

CLIENT SAMPLE ID

Project Name: EMP 145-07

Project Number:

Field Sample ID: S-2 Lift

SAMPLE DATA

Lab Sample ID: 60076-2
Matrix: Oil
Percent Solid: N/A
Dilution Factor: 1.0
Collection Date: 10/26/07
Lab Receipt Date: 10/31/07
Extraction Date: 11/01/07
Analysis Date: 11/03/07

PCB ANALYTICAL RESULTS

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	2000	U
PCB-1221	2000	U
PCB-1232	2000	U
PCB-1242	2000	U
PCB-1248	2000	U
PCB-1254	2000	U
PCB-1260	2000	U

Surrogate Standard Recovery

2,4,5,6-Tetrachloro-m-xylene	97	%
Decachlorobiphenyl	60	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in Blank

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS: Sample not amenable to percent solids determination. Results are expressed on an as received basis.

PCB Report

Authorized signature

MAINE ENVIRONMENTAL LABORATORY- Chain of Custody

One Main Street Yarmouth, Maine 04096-6716 (207) 846-6569 fax: (207) 846-9066
e-mail: melab@maine.rr.com

OJECT MANAGER: J. Spearin
TELEPHONE
FAX # / E-MAIL
MPANY
PURCHASE ORDER # / BILL TO
DRESS
OJECT NAME: EMP145-07
SAMPLER NAME: J. Spearin

ANALYSES: PCB

LABORATORY REPORT #
Delivered by

TURNAROUND REQUEST
☒ Standard 11/12
☐ Priority (SURCHARGE)
ME23120101-35
Quote #

SAMPLE IDENTIFICATION	# CONTAINERS	TYPE OF CONTAINERS	FIELD FILTRATION YES	FIELD FILTRATION NO	SAMPLE MATRIX	GRAB	COMP.	METHOD PRESERVED	SAMPLING DATE	SAMPLING TIME	LABORATORY IDENTIFICATION/ SUBCONTRACTOR
S-1	1	P		X	Liquid (oil)		X	≤6 °C	10/26/04		CAM716-1

MAINE ENVIRONMENTAL LABORATORY- Chain of Custody

One Main Street Yarmouth, Maine 04096-6716 (207) 846-6569 fax: (207) 846-9066
e-mail: melab@maine.rr.com

LABORATORY REPORT # EMP145-04

PROJECT MANAGER: Jeff Spearin
TELEPHONE: 207-786-7390
FAX # / E-MAIL: 207-786-7396
COMPANY: EPT
PURCHASE ORDER # / BILL TO: EP-4334
ADDRESS: PO Box 417 Auburn, ME 04211
PROJECT NAME: City of Augusta / Cony H.S
SAMPLER NAME: Jeff Spearin

Delivered by: Jim Barron

TURNAROUND REQUEST
☒ Standard
☐ Priority (SURCHARGE)
Quote #

SAMPLE IDENTIFICATION	# CONTAINERS	TYPE OF CONTAINERS	FIELD FILTRATION YES	FIELD FILTRATION NO	SAMPLE MATRIX	GRAB	COMP.	METHOD PRESERVED	SAMPLING DATE	SAMPLING TIME	ANALYSES: PCB in oil	LABORATORY IDENTIFICATION/ SUBCONTRACTOR
S-1	1	Plastic Jar		X	Liquid		X		10/26	1200	X	ATL
S-2 Lift	1	Plastic Jar		X	Liquid		X		10/26	1200	X	ATL

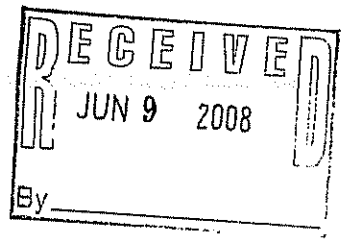
Received within hold time: ☒ yes ☐ no ☐ N/A
Received in good condition: ☒ yes ☐ no ☐ N/A
Temp. Blank °C _____ /Frozen Ice packs: noice ☐ N/A
Samples received preserved: ☒ yes ☐ no ☐ N/A
Custody seal present: ☐ yes ☐ no
Custody seal in plastic.
Analyze as per Jim

COMMENTS

	DATE	TIME	
RELINQUISHED BY SAMPLER:	10/26	1200	RECEIVED BY:
RELINQUISHED BY:	10-30	3:15	RECEIVED BY:
			RECEIVED BY LABORATORY:

UNDERGROUND STORAGE TANK REMOVAL
CLOSURE ASSESSMENT

Cony High School
104 Cony Street
Augusta, Maine



Owner & Operator: **City of Augusta**
16 Cony Street
Augusta, Maine 04333

DEP Registration #: **8709**

Latitude: **44°18'57N**
Longitude: **69°46'00W**

Licensed Remover: **Chris Wilson**
Les Wilson & Sons

Removal Date: **May 12, 2008**

Petroleum Contamination: **No**

Report by:

Michael J. White, C.G.
June 2, 2008

Michael J. White, C.G.
7 Webster Road
New Sharon, Maine 04955
Phone & Fax: (207) 778-6180

June 2, 2008

Chris Wilson
Les Wilson & Sons
P.O. Box 1028
Westbrook, Maine 04088

Underground Storage Tank Removal Closure Assessment

Dear Chris:

This letter serves as a summary for the underground storage tank removal (UST) closure assessment performed at the old Cony High School located at 104 Cony Street in Augusta, Maine.

1. The city of Augusta is owner of the property. The 15,000-gallon UST system closed during this assessment was installed 1991 replacing a #6 fuel oil tank installed in 1964. In 2000 the 15,000-gallon UST system was converted from #6 fuel oil to #2 fuel oil.

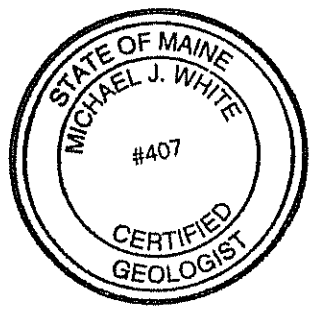
2. The UST facility consisted of a single-wall fiberglass tank with associated multi-containment copper return and feed lines located within a concrete containment vault. The tank and associated pipes appeared to be in excellent condition with no cracks or holes observed.

3. No olfactory or visual evidence of petroleum contaminated soil or groundwater was observed at the site. No PID concentrations exceeded the State notification level of 100 ppm. The UST facility investigated during this closure assessment appears to have been properly installed. We recommend no further assessment of the UST facility removed during this investigation necessary.

If you have any questions, please feel free to call.

Sincerely,

Michael J. White
Maine Certified Geologist #407



Cc: UST Program Administrator

INTRODUCTION

The old Cony High School is located on the east side of the traffic rotary between the junction of Routes 9 and 15 in Augusta, Maine (Figure 1). The site is owned by the City of Augusta. The 6.67 acre property is located in a commercial/residential area and is identified as Lot #117 on Augusta Tax Map #38. The site and surrounding area are supplied by municipal water and serviced by municipal sewer.

The site is developed with two school buildings connected by a raised walkway and a baseball field (Figure 2). The underground storage tank (UST) system removed during this investigation consisted of a 15,000-gallon tank containing #2 fuel oil which supplied product to the boiler system located in the building to the east.

The Maine Department of Environmental Protection (MDEP) Registered UST list (attached) indicates the tank was installed at the location in 1991 replacing a 20,000-gallon #6 fuel oil tank which had been installed in 1964. Michael Lewis of Petroleum Maintenance Systems, Inc. of Poland Spring indicated the 15,000-gallon UST system was converted from #6 fuel oil to #2 fuel oil in 2000. Robert Labreck, City of Augusta Facilities Manager, indicated the tank was removed from service in October 2007.

A new Cony High School has opened at 60 Pierce Drive. At the time of this investigation the east school building (built in the mid 1960's) was in the process of being demolished for construction of a new Hannaford's Supermarket. The town will retain the west school building constructed in the 1940's.

METHODS

The following methods/techniques were used during this investigation.

Tank & Pipe Removal

The tank and pipe removal was performed on May 12, 2008 by Les Wilson & Sons of Westbrook, Maine. Chris Wilson was the licensed tank installer whom oversaw the removal.

Soil Gas Monitoring

A MSA Passport II Photoionization Detector (PID) with 10.6 electronVolt lamp was used to monitor soil gas concentrations at the site. The PID was calibrated prior to use with isobutylene span gas at a concentration of 100 parts per million (ppm) with a response factor of 1. Soil gas measurements are reported according to MDEP set points for the instrument ($Conc._{Set\ Point} = Conc._{Isobutylene} \times 2.8$).

Soil samples were collected and placed quickly into ziplock bags, and allowed to equilibrate. The bags were then shaken, the tip of the PID inserted in the bag, and the peak measurement recorded.

FINDINGS

The old Cony High School is located along the west sloping hillside between 100 and 130 feet elevation (mean sea level)(Figure 1). According to the surficial geology map of the Augusta area, the site is underlain by glacial marine silt, clay, and sand of the Presumpscot Formation (Thompson). The site is not located in a mapped sand and gravel aquifer (Neil).

The USTs and associated pipes were removed on May 12, 2008. Backfill material around the tank and underground pipe vault consisted of tan colored sand. Native soil exposed beyond backfill material consists of grayish colored silt and clay.

The single-wall fiberglass Elutron tank was discovered to be in excellent condition, structurally sound with no cracks or holes observed. Underground product pipes (feed and return lines) were single wall copper constructed with plastic flex secondary containment located within 2-inch diameter galvanized steel pipe (3rd containment) and extended from the building to the UST within a concrete containment vault (Figure 3). The primary copper pipes were in excellent condition with no evidence of corrosion, cracks, or holes observed. There was no evidence of leaks within the multiple layers of pipe containment or the cement containment vault.

Table 1 summarizes PID measurements of soil samples collected during removal of the UST system. Selected soil sample locations and PID concentrations are shown on Figure 3. There was no visual or olfactory evidence of petroleum contaminated soil in the vicinity of the tank and associated pipes. No petroleum contaminated soil with PID concentrations exceeding the State notification level of 100 ppm was detected.

Groundwater was encountered initially 7 feet below grade in the UST excavation. As excavation work progressed the water level dropped. No petroleum sheen or free floating product was observed on the water surface.

DISCUSSION

Research of MDEP Bureau of Remediation & Waste Management Hazardous & Oil Spill System On-line Report Service lists two references to the site. Report #A-374-1991 (attached) indicates MDEP staff visited the site during removal of the 20,000-gallon #6 fuel oil and 275-gallon waste oil USTs in August 1991. The report indicates evidence of waste oil contamination as a result of tank corrosion. There was no indication remedial action was performed, however, no further response action was expected.

Report #A-546-1996 (attached) indicates MDEP received a call regarding a tank alarm. Water, but no oil, was discovered in the tank top sump. A new cover gasket was installed and alarm reset. No further work was necessary.

Monitoring wells were observed in the vicinity of the UST and down-gradient. Robert Labreck indicated the wells were sampled and found to be clean during a recent environmental investigation concerning the division and sale of the property for construction of the supermarket.

The UST system closed during this assessment appears to have been a proper, tight, installation. No new tanks were planned for installation at facility closure.

CONCLUSIONS

There is no evidence to indicate the UST and associated underground pipes removed during this closure assessment leaked. We recommend no further assessment of the tank and associated pipes removed during this investigation necessary.

BIBLIOGRAPHY

Thompson, W.B., 2004, Surficial Geology, Augusta Quadrangle, Maine: Maine Geological Survey, Open-File No. 04-31.

Neil, C.D., Locke, D.B., 1999, Significant Sand and Gravel Aquifers, Augusta Quadrangle, Maine: Maine Geological Survey, Open-File No. 99-33.

LIMITATIONS

The findings provided in this report are based solely on the information contained and referenced herein, which we believe to be a fair representation of site conditions. Additional quantitative information regarding the site, which was not available, may result in modification of the stated findings. No other warranty, expressed or implied, is made.

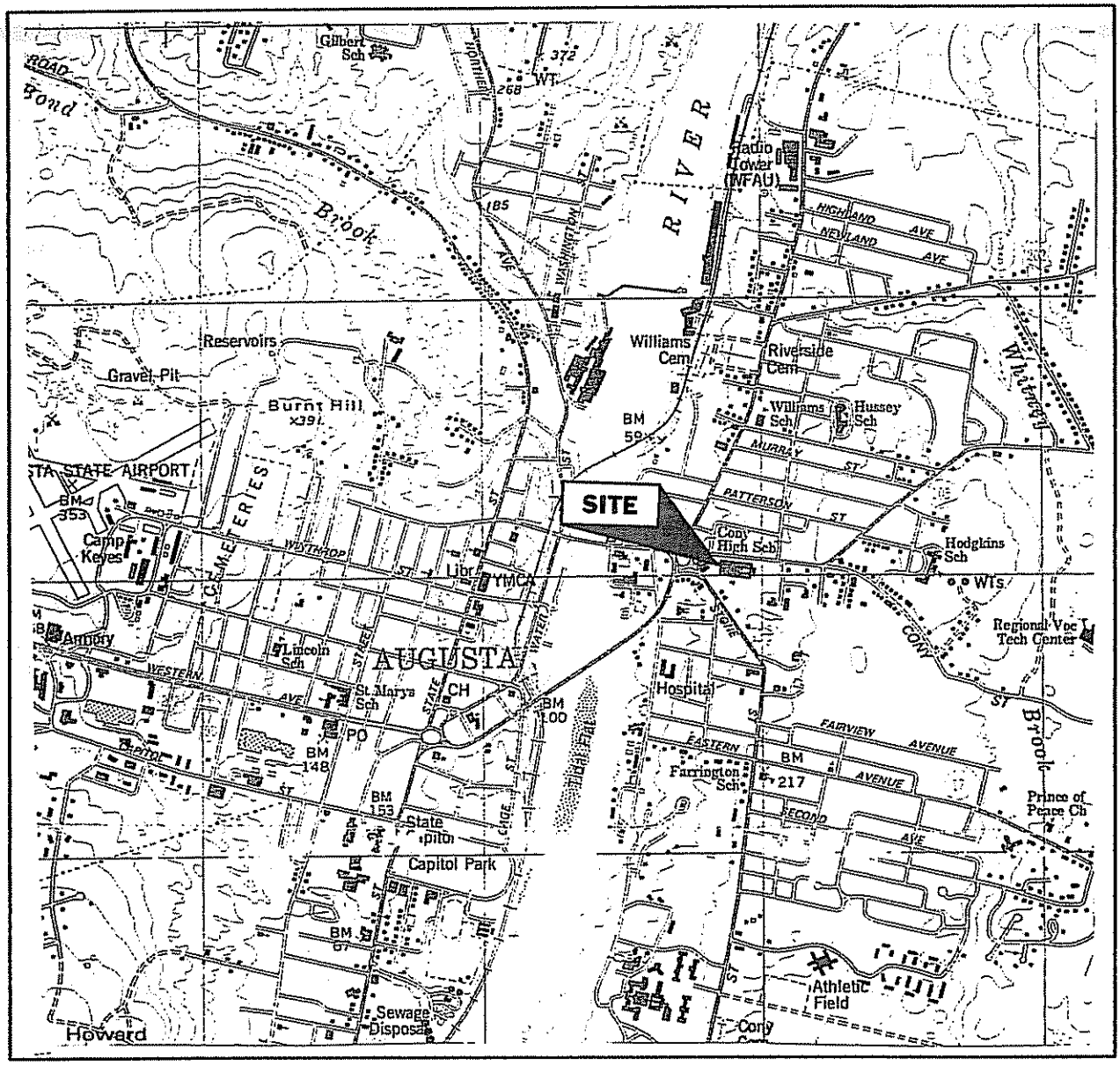


Figure 1. Site Location Map
Cony High School
104 Cony Street
Augusta, Maine

Source: USGS Topographic Map
Augusta, Maine
7.5' Quadrangle
1980
Revised 1991

Michael J. White, C.G.
New Sharon, Maine

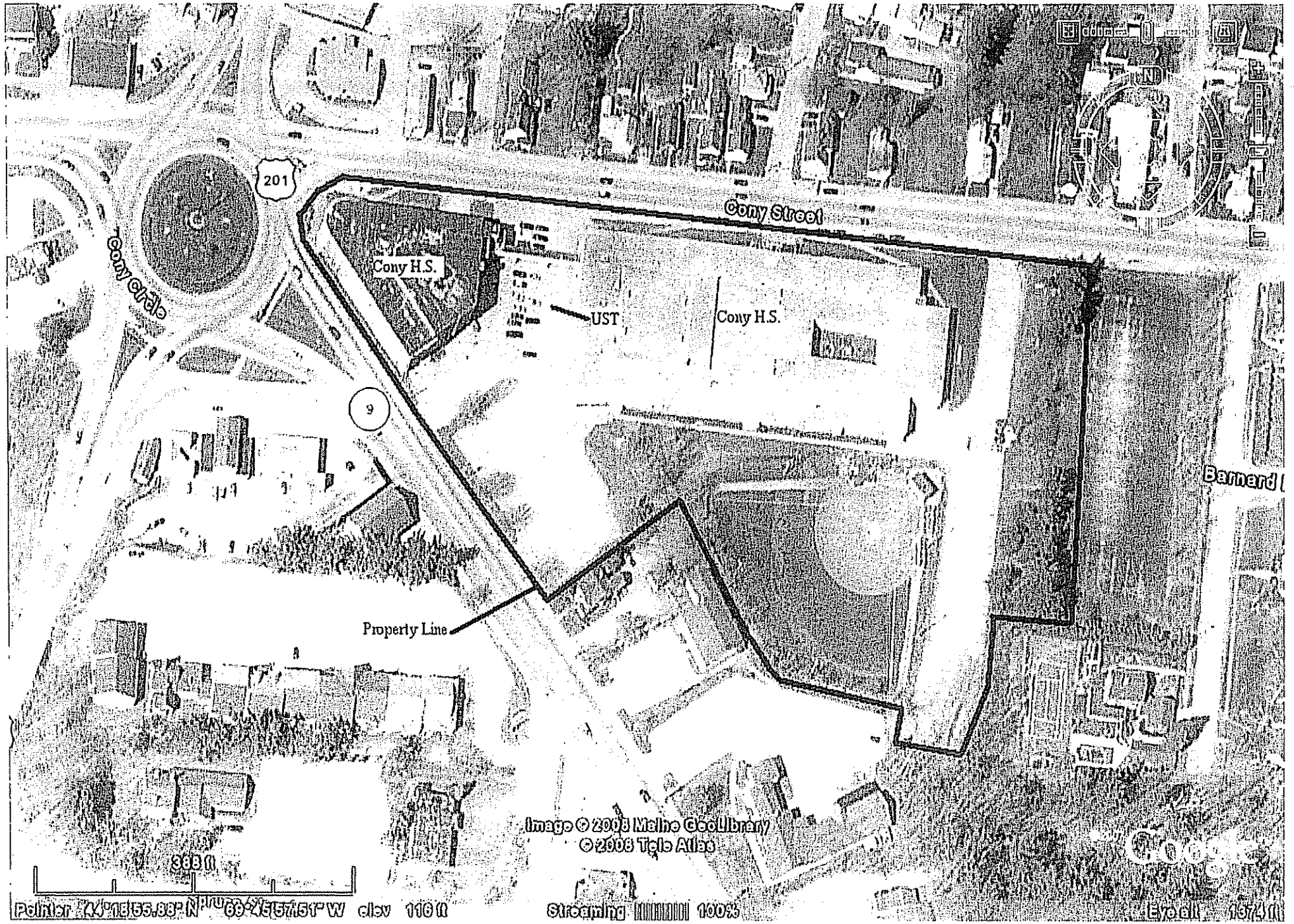


Figure 2. Site Map
Cony High School
104 Cony Street
Augusta, Maine

source: Google Earth
Image c 2008 Maine GeoLibrary

Michael J. White, C.G.
New Sharon, Maine

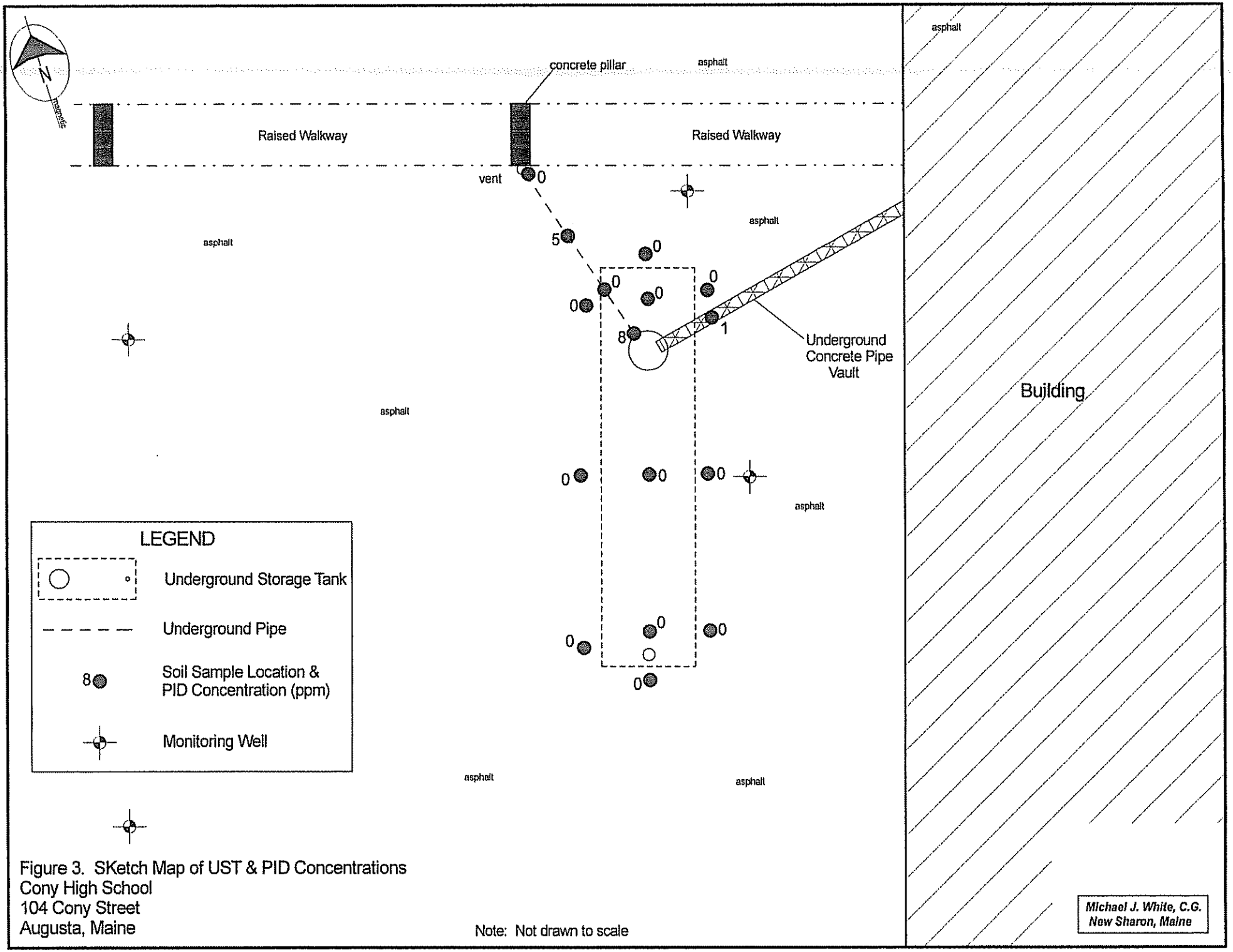


Figure 3. SKetch Map of UST & PID Concentrations
Cony High School
104 Cony Street
Augusta, Maine

Note: Not drawn to scale

Michael J. White, C.G.
New Sharon, Maine

Table 1. PID Soil Gas Measurements
Cony High School
104 Cony Street
Augusta, Maine

N	North	**UST**	Underground Storage Tank
S	South	**FP**	Fill Pipe
E	East		
W	West		

Refer to Figures 3 for selected sample locations.

Date	Sample #	Depth (feet)	PID Conc. (DEP set point)	Location
5/12/08	1	2-2.5	8	Vent pipe/Tank top sump connect
	2	7	0	W side tank top sump
	3	2-2.5	0	Under vent pipe, 8' NNW of tank top sump
	4	10	0	W side tank top sump, Wet
	5	8-9	0	W side UST, N end, Wet
	6	2-2.5	5	Under vent pipe, 8' SW of support pillar
	7	9-10	0	W side UST, N end, Wet
	8	6-7	0	W side UST, 6-7' S of tank top sump
	9	8-9	1	W side UST, 6-7' S of tank top sump
	10	8-9	0	W side UST, Halfway between tank top sump and FP
	11	7	0	W side UST, Even with FP
	12	3	1	FP, S portion of UST
	13	6	0	Native silt & clay, W side UST, S portion
	14	9-10	0	W side UST, Even with FP
	15	7	0	S end UST
	16	7	0	E side UST, S portion
	17	7	0	E side UST, Middle
	18	7	0	E side UST, N end
	19	7	0	N end UST
	20	12-13	0	Below base of UST, S end
	21	12-13	0	Below base of UST, Middle
	22	12-13	0	Below base of UST, N end
	23	3.5	1	Under concrete pipe vault, E side, N end UST
	24	10	0	Under vent pipe vertical, Adjacent Pillar

Maine DEP
Registered Underground Oil Storage Tanks

Reg #	Tank-Chamber	Facility Name	Street Address	Town (MCD)	Facility Use	Date Installed	Volume	Product	Status	Status Date
596	1 - 1	COLEMAN, ROBERT M	27 SEWALL ST	AUGUSTA	Multiple Residence	10/1/1969	500	#2 Fuel Oil	abandoned in place	10/1/1985
596	2 - 1	COLEMAN, ROBERT M	27 SEWALL ST	AUGUSTA	Multiple Residence	10/1/1969	550	#2 Fuel Oil	Removed	12/12/199
21398	1 - 1	COMPASS AUGUSTA RETAIL LLC	2 STONE ST	AUGUSTA	Retail Oil	10/1/1969	1000	#2 Fuel Oil	Removed	10/1/1965
10397	1 - 1	CONDON, RICHARD	RT 9 CHELSEA	AUGUSTA	Industrial	1/1/1980	2500	Diesel	Removed	10/1/1987
8176	1 - 1	CONSOLIDATED MOTOR VEHICLE	HOSPITAL ST & PIGGERY RD	AUGUSTA	State Facility	12/1/1991	2500	#2 Fuel Oil	Active	5/24/1993
8709	1 - 1	CONY HIGH SCHOOL	CONY ST	AUGUSTA	Town "&" School	7/1/1964	20000	#6 Fuel Oil	Removed	8/1/1991
8709	2 - 1	CONY HIGH SCHOOL	CONY ST	AUGUSTA	Town "&" School	7/1/1964	275	Waste Oil/ Used Motor Oil	Removed	9/1/1991
8709	3 - 1	CONY HIGH SCHOOL	CONY ST	AUGUSTA	Town "&" School	8/1/1991	15000	#2 Fuel Oil	Out of Service	10/12/200
6813	1 - 1	CONY REALTY	83 WEST AVE	AUGUSTA	Single Residence	10/1/1969	500	#2 Fuel Oil	Removed	5/1/1994
18170	1 - 1	CORMIER, CARL E JR	R3 B 141 WEST RIVER RD	AUGUSTA	Single Residence	1/1/1971	1000	#2 Fuel Oil	abandoned in place	6/2/1992
2139	1 - 1	CORNER STORE BLOCK	90-98 STATE ST	AUGUSTA	Multiple Residence	1/1/1940	10000	#2 Fuel Oil	Removed	8/28/1990
9491	1 - 1	COTES EFFICIENCY APTS	15 GROVE ST	AUGUSTA	Multiple Residence	10/1/1969	250	#2 Fuel Oil	Removed	5/1/1989
20306	1 - 1	COUGHLIN, FRANCIS	56 ARSENAL ST	AUGUSTA	Single Residence	3/1/1964	500	#2 Fuel Oil	Removed	11/23/199
14315	1 - 1	CSMS BUILDING 37	CAMP KEYES	AUGUSTA	State Facility	1/1/1959	6700	#2 Fuel Oil	Removed	3/1/1992
14315	2 - 1	CSMS BUILDING 37	CAMP KEYES	AUGUSTA	State Facility	1/1/1959	4000	Unleaded Gasoline	Removed	9/14/1994
14315	3 - 1	CSMS BUILDING 37	CAMP KEYES	AUGUSTA	State Facility	1/1/1959	2000	Diesel	Removed	9/14/1994
14315	4 - 1	CSMS BUILDING 37	CAMP KEYES	AUGUSTA	State Facility	1/1/1959	1000	Waste Oil/ Used Motor Oil	Removed	9/1/1990
14315	5 - 1	CSMS BUILDING 37	CAMP KEYES	AUGUSTA	State Facility	6/1/1986	6000	#2 Fuel Oil	Active	6/1/1986
14315	6 - 1	CSMS BUILDING 37	CAMP KEYES	AUGUSTA	State Facility	1/1/1986	8000	Jet Fuel	Active	1/1/1986
9078	1 - 1	CUMBERLAND FARMS INC 1829	5 MOUNT VERNON AVE	AUGUSTA	Retail Oil	7/2/1983	8000	Unleaded Gasoline	Active	7/2/1983
9078	2 - 1	CUMBERLAND FARMS INC 1829	5 MOUNT VERNON AVE	AUGUSTA	Retail Oil	7/2/1983	8000	Unleaded Gasoline	Active	7/2/1983
9078	3 - 3	CUMBERLAND FARMS INC 1829	5 MOUNT VERNON AVE	AUGUSTA	Retail Oil	7/2/1983	8000	Unleaded Gasoline	Active	7/2/1983

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Remediation & Waste Management

Hazardous & Oil Spill System
ONLINE REPORT SERVICE

SEARCH: Results: Full Report

Selected Report: **A-374-1991**

Spill Report Information

Spill Number:	A-374-1991
Report Status:	Final Report
MCD Town:	AUGUSTA
Local Name:	
Primary Responder:	PERRY COGBURN
Primary Product:	
Subject/Owner:	CONY HIGH SCHOOL - -

I. EVENT

Spill Info

Type:	Non-Oil, Non-Hazardous Incident
Source:	
Cause:	Corrosion - Tank

Spill Date/Time

Spill Date/Time:	Date and Time Unknown

Reporter Type/Detection Method

Type:	Contractor/Consultant {6}
Method:	Tank and/or Piping Removal

Reported Date/Time

Reported Date/Time:	08/07/1991 00:00

Subject/Owner

Contact:	CONY HIGH SCHOOL CONY STREET AUGUSTA ME 04330
Comment:	

Primary Responder and Other Employees

Contact(s):	PERRY COGBURN (Primary Responder)
Comment:	No Further Response Action Expected

II. SITE

Location

Location Type:	Government, Municipal or Religious Facility {NA}
Name:	
Street Address:	
MCD Town:	AUGUSTA
Local Name:	
State/Province:	
Spill Point	
Spill Point:	
Wells and Media Affected	
Wells Affected:	0 Wells Impacted/ 0 Wells At Risk
Media Affected:	Land {L}
Tanks Involved	
Tanks Involved:	Underground Tank(s) Involved-8709 1 Underground Tank(s) Involved-8709 2

III. CLEANUP

Product Reported:	
Products Found/Amount Spilled:	Waste Oil/Used Motor Oil {81} - 0.00
Material Recovered:	NONE
Recovery/Treatment Method:	NONE
Cleanup DTREE:	
Disposal Information:	

IV. NARRATIVE

V.ATTACHMENTS

None

New Search

Questions about this Service? Contact the Bureau at: (207) 287-2651 or Email: deprwm@maine.gov

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Remediation & Waste Management

Hazardous & Oil Spill System
ONLINE REPORT SERVICE

SEARCH: Results: Full Report

Selected Report: **A-546-1996**

Spill Report Information

Spill Number:	A-546-1996
Report Status:	Final Report
MCD Town:	AUGUSTA
Local Name:	
Primary Responder:	FRANCIS GEHRLING
Primary Product:	
Subject/Owner:	CONY HIGH SCHOOL - -

I. EVENT

Spill Info

Type:	Non-Oil, Non-Hazardous Incident
Source:	
Cause:	Other - No Cause

Spill Date/Time

Spill Date/Time:	12/05/1996

Reporter Type/Detection Method

Type:	Contractor/Consultant {6}
Method:	Monitoring Well

Reported Date/Time

Reported Date/Time:	12/05/1996 00:00

Subject/Owner

Contact:	CONY HIGH SCHOOL AUGUSTA ME 04330
Comment:	

Primary Responder and Other Employees

Contact(s):	FRANCIS GEHRLING (Primary Responder)
Comment:	No Further Response Action Expected

II. SITE

Location

Location Type:	Government - Local {LC}

Name:	CONY HIGH SCHOOL
Street Address:	
MCD Town:	AUGUSTA
Local Name:	
State/Province:	
Spill Point	
Spill Point:	
Wells and Media Affected	
Wells Affected:	0 Wells Impacted/ 0 Wells At Risk
Media Affected:	None {N}
Tanks Involved	
Tanks Involved:	Underground Tank(s) Involved-8709 0

III. CLEANUP

Product Reported:	
Products Found/Amount Spilled:	None {00} - 0.00 ACTUAL
Material Recovered:	Mixed Liquid Media {MM} - 0.00 gals. ACTUAL
Recovery/Treatment Method:	None {K}
Cleanup DTREE:	
Disposal Information:	

IV. NARRATIVE

Received a call from Ted Haskell about a tank alarm at Cony High School. The pipe sump alarm had sounded. He investigated and found water in the sump. No oil was found. He put a new cover gasget on and reset the alarm. No further work is necessary and no site visit was made.

V.ATTACHMENTS

None

New Search

Questions about this Service? Contact the Bureau at: (207) 287-2651 or Email: deprwm@maine.gov

Petroleum Maintenance Systems, Inc.

397 Maine Street, Poland Spring, ME 04274

(207) 998-3092
(800) 950-PMSI
Fax (207) 998-3082

May 13, 2008

Bob LaBreck
City Services
16 Cony Street
Augusta, ME 04330

Re: Documentation for tank removal at Cony High School.

5/12/08 – Weather is sunny, 53°. Les Wilson & Sons on site at 8:45am with three men, one excavator, one tri-axel truck and one service truck. Mike White, Registered Site Assessor, on site at 9:00am. MeDEP removal paperwork sent to Jon Dunlap, MeDEP (Received). Spoken to Peter Blanchard, MeDEP Response; he issued a waiver from 30-day wait period to this day.

Fuel tank installed as #6 oil tank, then in 2001 was converted to store #2 oil. For this reason, a sight assessment is required.

Commenced removal of concrete mat and overburden on tank. Pumped tank bottom into contractors drum: approx. 65 gallons. Pulled copper primary and steel secondary piping from concrete piping vault. Contractor hauled in six (6) 14 yard loads, approximately 84 yards of stone dust for backfilling excavation to top of existing pavement. Tank loaded on flat bed for transport to Clean Harbors in South Portland for disposal. No evidence of any discharge at tank or piping locations.

Mike White off site at 1:30pm. Continued backfilling excavation to top of pavement. Job complete. Contractor to return in early morning to haul off excavator. Les Wilson & Sons off site at 3:03pm. Petroleum Maintenance Systems off site at 3:15pm.

Michael Lewis
General Manager
Petroleum Maintenance Systems, Inc.

PretiFlaherty

STEPHEN E.F. LANGSDORF
slangsdorf@preti.com

October 17, 2008

Mark O'Brien, Chairman
Flatiron Reuse Committee
City Center
16 Cony Street
Augusta, ME 04330

RE: Flatiron Building

Dear Mark:

You have asked that I provide information to you regarding the legal status of the real estate owned by the City of Augusta upon which the flatiron building is situated. As you are aware, a portion of the flatiron parcel was encumbered by the restrictions of the Cony trust which required it to be used for educational purposes. The majority of the parcel was never subject to the trust.

Justice Marden in his March 2007 order, as upheld by the Maine Supreme Judicial Court, lifted all restrictions pertaining to the real estate where Cony High School formerly was located and allowed the sale of the property to the Boulos Company. Justice Marden's decision was incomplete in that it did not fully reference all of the deeds for the property.

We are in the process of preparing a final judgment in the case which will substitute real estate of equivalent value for educational purposes in the trust for the former property. As part of that order, we will ask Justice Marden to explicitly state that there are no further restrictions on the property owned by the City, particularly where the flatiron building is located.

If you have any questions or require any additional information, please let me know.

Very truly yours,

Stephen E.F. Langsdorf

SEFL:lpw

1384641.1