**TABLE 1b.**
**AMERICAN CLEANERS SITE**
**PRE-DESIGN INVESTIGATION**
**WASTE CHARACTERIZATION SAMPLE RESULTS - JULY 2004**
**TOXICITY CHARACTERISTIC LEACHING PROCEDURE**
**SEMIVOLATILE ORGANIC COMPOUNDS**

| Sample Identification | CS-1 | CS-2 | CS-3 | Contract Required Detection Limit | TCLP Regulatory Level* |
|---|---|---|---|---|---|
| Date of Collection | 07/19/04 | 07/19/04 | 07/19/04 | | |
| Dilution Factor | 1.0 | 1.0 | 1.0 | | |
| Units | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| 1,4-Dichlorobenzene | U | U | U | 33 | 7,500 |
| 2-Methylphenol | U | U | U | 33 | 200,000 |
| 4-Methylphenol | U | U | U | 33 | 200,000 |
| Hexachloroethane | U | U | U | 33 | 3,000 |
| Nitrobenzene | U | U | U | 33 | 2,000 |
| Hexachlorobutadiene | U | U | U | 33 | 500 |
| 2,4,6-Trichlorophenol | U | U | U | 33 | 2,000 |
| 2,4,5-Trichlorophenol | U | U | U | 67 | 400,000 |
| 2,4-Dinitrotoluene | U | U | U | 33 | 130 |
| Hexachlorobenzene | U | U | U | 33 | 130 |
| Pentachlorophenol | U | U | U | 67 | 100,000 |
| Pyridine | U | U | U | 33 | 5,000 |
| **Total SVOCs** | 0 | 0 | 0 | | |

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated

NOTES:
*: **40 CFR** Part 261
[ ] Indicates value exceeds regulatory level.

**TABLE 1c.**
**AMERICAN CLEANERS SITE**
**PRE-DESIGN INVESTIGATION**
**WASTE CHARACTERIZATION SAMPLE RESULTS - JULY 2004**
**TOXICITY CHARACTERISTIC LEACHING PROCEDURE**
**PESTICIDES/HERBICIDES**

| Sample Identification | CS-1 | CS-2 | CS-3 | Contract Required Detection Limit | TCLP Regulatory Level* |
|---|---|---|---|---|---|
| Date of Collection | 07/19/04 | 07/19/04 | 07/19/04 | | |
| Dilution Factor | 1.0 | 1.0 | 1.0 | | |
| Units | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| gamma-BHC (Lindane) | U | | | 0.17 | 400 |
| Heptachlor | U | U | U | 0.17 | 8 |
| Heptachlor epoxide | U | U | U | 0.17 | 8 |
| Endrin | U | U | U | 0.33 | 20 |
| Methoxychlor | U | U | U | 1.7 | 10,000 |
| Toxaphene | U | U | U | 17 | 500 |
| Chlordane | U | U | U | 8.3 | 30 |
| 2,4-D | U | U | U | 3.3 | 10,000 |
| 2,4,5-TP (Silvex) | U | U | U | 0.33 | 1,000 |
| **Total Pesticides** | 0 | 0 | 0 | | |

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample
J: Compound found at a concentration below the CRDL, value estimated

NOTES:
*: **40 CFR** Part 261
Indicates value exceeds regulatory level.

**TABLE 1d.**
**AMERICAN CLEANERS SITE**
**PRE-DESIGN INVESTIGATION**
**WASTE CHARACTERIZATION SAMPLE RESULTS - JULY 2004**
**TOXICITY CHARACTERISTIC LEACHING PROCEDURE**
**INORGANIC PARAMETERS**

| Sample Identification | CS-1 | CS-2 | CS-3 | Instrument Detection Limit | TCLP Regulatory Level* |
|---|---|---|---|---|---|
| Date of Collection | 07/19/04 | 07/19/04 | 07/19/04 | | |
| Dilution Factor | 1.0 | 1.0 | 1.0 | | |
| Units | (ug/l) | (ug/l) | (ug/l) | (ug/l) | (ug/l) |
| Arsenic | 7.3 B | 8.9 B | 7.6 B | 3 | 5,000 |
| Barium | 298 | 561 | 508 | 1 | 100,000 |
| Cadmium | 1.0 B | 2.3 B | 2.6 B | 1 | 1,000 |
| Chromium | 1.2 B | U | 3.2 B | 1 | 5,000 |
| Lead | 10.2 | 131 | 144 | 2 | 5,000 |
| Mercury | U | U | U | 0.2 | 200 |
| Selenium | 1.1 B | U | U | 4 | 1,000 |
| Silver | 4.5 B | 69.6 | 62.6 | 1 | 5,000 |

QUALIFIERS:
U: Compound analyzed for but not detected
B: Compound concentration is less than the CRDL but greater than the IDL.

NOTES:
*: 40 CFR Part 261
Indicates value exceeds regulatory level.

**TABLE 1e.**
**AMERICAN CLEANERS SITE**
**PRE-DESIGN INVESTIGATION**
**WASTE CHARACTERIZATION SAMPLE RESULTS - JULY 2004**
**PCBs**

| Sample Identification | CS-1 | CS-2 | CS-3 | Contract Required Detection Limit | Regulatory Level* |
|---|---|---|---|---|---|
| Date of Collection | 07/19/04 | 07/19/04 | 07/19/04 | | |
| Dilution Factor | 1.0 | 1.0 | 1.0 | | |
| Percent Moisture | 30 | 30 | 30 | | |
| Units | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| Aroclor-1016 | U | U | U | 1.0 | 50,000 |
| Aroclor-1221 | U | U | U | 2.0 | 50,000 |
| Aroclor-1232 | U | U | U | 1.0 | 50,000 |
| Aroclor-1242 | U | U | U | 1.0 | 50,000 |
| Aroclor-1248 | U | U | U | 1.0 | 50,000 |
| Aroclor-1254 | U | U | 210 P | 1.0 | 50,000 |
| Aroclor-1260 | U | U | U | 1.0 | 50,000 |
| **Total PCBs** | 0 | 0 | 210 | | 50,000 |

QUALIFIERS:
U: Compound analyzed for but not detected
J: Compound found at a concentration below the CRDL, value estimated
P: Greater than 25% difference for detected concentrations between the two GC columns

NOTES:
*: 6 NYCRR Part 371
Indicates value exceeds regulatory level.

**TABLE 1f.**
**AMERICAN CLEANERS SITE**
**PRE-DESIGN INVESTIGATION**
**WASTE CHARACTERIZATION SAMPLE RESULTS - JULY 2004**
**IGNITABILITY/REACTIVITY/PH/PAINT FILTER**

| Sample Identification | CS-1 | CS-2 | CS-3 | Instrument Detection Limit | Regulatory Level* |
|---|---|---|---|---|---|
| Date of Collection | 07/19/04 | 07/19/04 | 07/19/04 | | |
| Cyanide, reactive (mg/kg) | U | U | U | 3.5 | |
| Flashpoint (deg F) | U | U | U | 200 | <140 F |
| Sulfides, reactive (mg/kg) | U | U | U | 3.5 | |
| Free liquid (ml/100g) | U | U | U | 1 | |

QUALIFIERS:
U: Compound analyzed for but not detected

NOTES:
*: 40 CFR Part 261
Indicates value exceeds regulatory level.

**TABLE 2a.**
**AMERICAN CLEANERS SITE**
**PRE-DESIGN INVESTIGATION**
**SOIL VAPOR SAMPLE RESULTS - SEPTEMBER 2004**
**VOLATILE ORGANIC COMPOUNDS**

| Sample Location | 36 Seminary | 52 Walnut |
|---|---|---|
| Sample Identification | A1 | A2 |
| Sample Type | subslab | subslab |
| Date Collected | 9/14/04 | 9/14/04 |
| Units | $\mu g/m^3$ | $\mu g/m^3$ |
| Vinyl chloride | U | U |
| 1,1-Dichloroethene | U | U |
| 1,1-Dichloroethane | U | U |
| cis-1,2-Dichloroethene | U | U |
| 1,1,1-Trichloroethane | U | 0.42 |
| Benzene | U | 0.76 |
| 1,2-Dichloroethane | U | U |
| Trichloroethene | 150 | U |
| Toluene | 5.2 | 1.5 |
| 1,1,2-Trichloroethane | U | U |
| Tetrachloroethylene | 4600 | 18 |
| Ethylbenzene | U | 0.18 |
| m,p-Xylene | U | 0.77 |
| o-Xylene | U | 0.24 |
| 1,1,2,2-Tetrachloroethane | U | U |
| trans-1,2-Dichloroethene | U | U |
| Methyl tert-butyl ether | U | U |

QUALIFIERS:
U: Compound analyzed for but not detected
J*: Result qualified as estimated, possibly biased high based on ambient conditions
D: Result taken from reanalysis at a secondary dilution

# TABLE 3
# AMERICAN CLEANERS SITE
# PRE-DESIGN INVESTIGATION
# WATER LEVEL MEASUREMENT SUMMARY

| WELL | GROUND ELEVATION (ft MSL) | REFERENCE ELEVATION (ft MSL) | TOP OF SCREEN (ft BG) | BOTTOM SCREEN (ft BG) | DATE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 11/27/00 | | 1/31/01 | | 2/15/01 | | 7/19/04 | | 8/27/04 | | 9/14/04 | |
| | | | | | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV | DTW | ELEV |
| MW-1 | 869.3 | 868.77 | 10.0 | 15.0 | 16.89 | 851.88 | 16.67 | 852.10 | 16.30 | 852.47 | 16.41 | 852.36 | 15.78 | 852.99 | 16.06 | 852.71 |
| MW-2 | 867.1 | 866.69 | 11.1 | 21.1 | 12.04 | 854.65 | 11.64 | 855.05 | 11.21 | 855.48 | 9.33 | 857.36 | 9.31 | 857.38 | 9.89 | 856.80 |
| MW-3 | 868.8 | 867.92 | 12.2 | 27.2 | 17.28 | 850.64 | 17.03 | 850.89 | 16.51 | 851.41 | 16.52 | 851.40 | 15.73 | 852.19 | 15.98 | 851.94 |
| MW-4 | 868.1 | 867.57 | 16.0 | 26.0 | NI | NI | NI | NI | 15.53 | 852.04 | 14.58 | 852.99 | 13.45 | 854.12 | 13.97 | 853.60 |
| MW-5 | 870.1 | 869.79 | 18.0 | 28.0 | NI | NI | NI | NI | 16.98 | 852.81 | 17.21 | 852.58 | 16.06 | 853.73 | 16.31 | 853.48 |
| PZ-1 | 860.2 | 860.92 | 0.0 | 4.0 | NI | NI | NI | NI | NI | NI | 3.52 | 857.40 | 3.30 | 857.62 | 3.40 | 857.52 |
| PZ-2 | 860.4 | 861.07 | 0.0 | 3.0 | NI | NI | NI | NI | NI | NI | 3.53 | 857.54 | 3.47 | 857.60 | 3.71 | 857.36 |
| PZ-3 | 860.5 | 861.48 | 0.0 | 2.0 | NI | NI | NI | NI | NI | NI | 2.46 | 859.02 | 1.87 | 859.61 | 1.82 | 859.66 |
| PZ-4 | 860.5 | 861.24 | 0.0 | 1.5 | NI | NI | NI | NI | NI | NI | 1.85 | 859.39 | 1.57 | 859.67 | 1.49 | 859.75 |
| PZ-5 | 860.5 | 861.35 | 0.0 | 1.5 | NI | NI | NI | NI | NI | NI | 1.86 | 859.49 | 1.67 | 859.68 | 1.62 | 859.73 |

**NOTES:**

ft MSL - feet above mean sea level.

ft BG - feet below ground.

DTW - depth to water in feet relative to top of well casing.

ELEV - groundwater elevation in feet above mean sea level.

NI - not installed.

*ATTACHMENT C*
*SURVEY MAP*

*ATTACHMENT D*
*ASBESTOS AND LEAD-BASED PAINT SURVEY*

YEC, INC./YEC ENGINEERING, P.C.
Clarkstown Executive Park
612 Corporate Way, Suite 4M
Valley Cottage, NY 10989
Tel: (845) 268-3203 Fax: (845) 268-5313

November 10, 2004

David Glass
Dvirka & Bartilucci Consulting Engineers
3000 Hadley Road, 3rd Floor
South Plainfield, NJ 07080

Re: Final Report – Asbestos/Lead Inspection – American Cleaners Site

Dear Mr. Glass:

As requested, we are enclosing a final bound copy of the above-referenced report. Please feel free to contact me if you require anything further.

Very truly yours

Y.S. Ed Chen, Ph.D., P.E.
President, YEC, Inc.

cc: Sean Pepling, Dvirka & Bartilucci (unbound copy)

# INSPECTION FOR ASBESTOS CONTAINING MATERIALS AND LEAD-BASED PAINT

Performed at:

**American Cleaners**
**48-50 Walnut Street**
**Binghamton, NY**

Performed for:

**Dvirka & Bartilucci Consulting Engineers**
**P.O. Box 56**
**5879 Fisher Road**
**E. Syracuse, NY 13057-0056**

Prepared by:

**YEC, Inc.**
**612 Corporate Way, Suite 4M**
**Valley Cottage, New York 10989**

**Project # D003600**

**November 2004**

# Executive Summary

YEC, Inc. was hired by D&B Engineering Consultants under NYS Superfund Standby Contract # D003600 to conduct an Asbestos and Lead-based Paint (LBP) and Asbestos inspection on the three structures located on the American Cleaners Site, Binghamton, NY. The structures, a two-story wood frame house, a one story concrete building, and a concrete garage, were to be demolished as part of a remedial design project

YEC field personnel collected twenty-one (21) suspect asbestos-containing materials (SACM) to be analyzed for asbestos content and visually inspected materials homogeneous with the samples collected. Asbestos is any material or product, which contains more than 1% asbestos. Eight samples analyzed contained more than 1% asbestos. All other structural materials were not SACM. Based on the asbestos investigation, 2,297 sq. ft. and 82 linear feet of asbestos were found on site. Detailed descriptions of confirmed ACM and homogeneous areas are noted in Table 2-1 and Appendix B.

YEC field personnel collected thirty-one (31) paint chip samples to be analyzed for LBP and visually inspected all the painted surfaces to note their equivalence to the samples taken. LBP is defined as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or more than 0.5 percent by weight. Ten samples analyzed contained more than 0.5 percent lead by weight. Detailed descriptions of confirmed LBP and paint equivalents are noted in Table 3-1 and Appendix D.

SACM samples were submitted to AmeriSci New York (NYSDOH ELAP Lab Certification # 10984) following ELAP 198.1 PLM and 198.4 TEM methods of analysis. Paint chip samples collected by YEC field personnel were removed from substrate materials using field-decontaminated scrapers. Paint chip samples were sent to AmeriSci Boston (NYSDOH ELAP Lab Certification # 10982) and were analyzed using the 7420, SW-846 method. SACM samples were watered down to minimize fiber release and were removed using field-decontaminated hand tools.

Removal of asbestos will be required in accordance with applicable NYS regulations prior to the demolition of the building. The LBP coated materials can be disposed of in a construction and demolition landfill per EPA Final Rule - Federal Register: June 18, 2003 (Volume 68, Number 117) and NYSDEC TAGM SW-89-2002 so long as the paint is not removed from its substrate.

# Table of Contents



## Tables



## Figures



## Appendices

## 1.0 INTRODUCTION

YEC, Inc. was hired by D&B Engineering Consultants under NYS Superfund Standby Contract # D003600 to conduct an Asbestos and Lead-based Paint (LBP) investigation on the American Cleaners Site. The Site contains structures that are to be demolished as part of a remedial design project.

The American Cleaners Site is located in a residential neighborhood at 48-50 Walnut Street, Binghamton, New York. There are three structures located on the site: a two-story wood frame house attached to a one story concrete building and a concrete garage. The two-story house with a pitched roof was constructed in the 1930's/1940's. A one-story concrete block building with a flat roof, parapet wall, and windowed roof protrusions was added to the wood frame house later to facilitate dry cleaning. Basements were associated with both structures and were connected at the time of the investigation. A concrete garage with a flat roof and a parapet wall was also constructed on the property during or after the concrete block building was built. The approximate square footage of each floor of the wooden frame house was (800 sq.ft.), concrete block building was (1900 sq.ft.), concrete garage was (360 sq.ft.), combined basement was (2700 sq.ft.). The entire structure was abandoned and boarded up. No utility service existed at the time of the investigation.

YEC conducted the Asbestos and Lead-based Paint investigation on July 19-20, 2004.

## 2.0 Asbestos Inspection

YEC, Inc. conducted an asbestos inspection for the presence of Asbestos Containing Materials (ACM) on the three structures located at the American Cleaners Site, Binghamton, NY on July 19-20, 2004. The inspector responsible for this project was John LoMonaco, NYS Inspector #98-19479. A copy of his certification and YEC's Asbestos Handling License is located in Appendix A.

The inspection was characterized by a close visual inspection of all accessible areas of the structures located on the site to identify any structural building materials considered asbestos-containing materials. Suspect materials found were sampled and inventoried for color, quantity, condition, and material type. See Figures 1-4, pages 16-19 for location of samples and Appendix B for a summary of field notes taken during inspection. YEC field personnel collected twenty-one (21) suspect asbestos-containing materials (SACM) to be analyzed for asbestos content and visually inspected materials homogeneous with the samples collected. SACM samples were watered down to minimize fiber release and were removed using field-decontaminated field tools. Materials suspected to contain asbestos included:

Roofs – roof tar, tar paper, tar patching, hair-like, insulation, roof shingles

Exterior – window glaze, siding shingles, chimney stack insulation, chimney mortar

1st Floor – floor tile and mastic, gypsum board, wiring associated with metal switch boxes, outlets and heat control panels, interior window glaze, decorative floor paper, pipe insulation, cloth wire insulation

2nd Floor – gypsum board, wiring associated with metal switch boxes, outlets and heat control panels

Basement of concrete building – cloth wire insulation

Basement of house (includes boiler room and storage room) – pipe insulation, cloth wire insulation, cementitious plaster, chimney mortar

Samples were placed in ziplock bags and shipped via Federal Express to AmeriSci New York (NYSDOH ELAP Lab Certification # 10984 – see Appendix A for a copy of laboratory certification) for analysis. Analysis was performed following ELAP 198.1 PLM and 198.4 TEM methods. Any material or product, which contained more than 1% asbestos was considered to be asbestos containing. Eight samples analyzed contained more than 1% asbestos. The following areas were found to contain asbestos:

Roof

Grey tar patching material – located on flat roof of concrete building (215 sq.ft.) (Sample AC-04)