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April 5, 2012

Ms. Marion Ortis Loden
United States Environmental
Protection Agency
Region 4
Office of Environmental Accountability, 13th Floor
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

RE: Request for Information for the Black Leaf Chemical Superfund Site
located at 1391 Dixie Highway, Louisville, Kentucky (the Site) to
Louisville Hardwoods, Inc.

Dear Ms. Loden:

Please find enclosed the Estate of Samuel M. Dunaway's response to the request
for information on the property at 1391 Dixie Highway, Louisville, Kentucky.

We have done considerable investigation and employed an environmental
consultant to assist us. However, because of the age and the fact that key individuals
have long been deceased, it has been difficult for us to accumulate all of the information
that you requested.

We are currently continuing our investigation and this response will be modified
as we develop further information. Please direct any inquiries to the undersigned.

Sincerely,

Charles G. Middleton, III
Attorneys for Estate of Samuel M. Dunaway

CGMIII:bjs

cc: Karen Coleman, Enforcement Projects Manager
John Bickel, Esq.



10844974

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

RE: Request for Information for the Blackleaf Chemical Superfund Site
Located at 1391 Dixie Highway, Louisville, Kentucky

Respondent, Estate of Samuel M. Dunaway, on behalf of Louisville Hardwoods, Inc.

Preliminary Information

The Estate of Samuel M. Dunaway ("Respondent"), through its counsel, submits this response to the Request for Information of USEPA dated February 1, 2012. Samuel M. Dunaway, deceased, was the owner of Louisville Hardwoods, Inc., which ceased doing business at the Site in 1993. Louisville Hardwoods, Inc. was administratively dissolved by the Kentucky Secretary of State on November 1, 2001.

1. Q. Identification of Company.
 - a. Legal Name: Louisville Hardwoods, Inc. (the "Company")
 - b. Date of Incorporation: July 3, 1986.
State of Incorporation – Kentucky
 - c. At the time of operation, the mailing and physical address of the central office was on St. Louis Ave., Louisville, Kentucky; the number of the street address is unknown.
 - d. Registered Agent: None
 - e. Articles of Incorporation (see Answer to Question 10 below); no By-Laws could be found
 - f. During operations on St. Louis Ave., Samuel M. Dunaway, deceased, was President. Dunaway was always the sole shareholder of the Company. The on-site Manager was J. R. Simmons.

2. Q. Primary person to contact:

A. Charles G. Middleton, III, Esq., counsel for the Estate of Samuel M. Dunaway, 401 South Fourth Street, Suite 2600, Louisville, Kentucky 40202. Phone: 502 584-1135. Email: cmiddleton@middletonlaw.com.

3. Q. Persons consulted for answers:

A. George Thacker, Co-Executor of the Samuel M. Dunaway Estate, 209 W. Fourth Street, Owensboro, Kentucky 42303. Phone: (270) 926-4500. Counsel Thacker is answering the Questions and has consulted with G.T. Henry Christ in preparation of the Answers.

B. Patrick Seegers, President and CEO of NSS Environmental, Inc., 827 South 8th Street, Louisville, Kentucky 40203. Phone: (502) 423-7662.

C. Henry Christ, former employee and past president of Louisville Hardwoods, Inc.

D. Respondent additionally has done investigation and review through NSS Environmental, Inc., 827 South 8th Street, Louisville, Kentucky 40202, and has reviewed the following materials:

a. Site inspection prepared for Donna Settlor, U.S. Environmental Protection Agency dated September 2011, Rev. 1 (**Exhibit 1**).

b. Phase I Environmental Site Assessment Down River Forest Products, St. Louis at 18th Street, Louisville, Kentucky dated July 6, 1999, prepared by ATC Associates for Louisville Industrial Park, LLC (**Exhibit 2**).

c. Reviewed records of the Kentucky Natural Resources and Environmental Petroleum Cabinet (UST Branch).

d. Jefferson County, Kentucky Property Records.

4. Q: Is Respondent the current owner or previous owner of any interest in any parcel of the Site Property?

A. Respondent is not a current owner. According to recorded deeds the Company owned the Site Property from July 19, 1983 to August 4, 1999, when the Company sold the property to U.S. Wood Products, Inc. Deed Book 07295, Page 0711 (**Exhibit 3**).

5. Q: Describe what Respondent knew about the Site Property prior to Louisville Hardwood Inc.'s acquisition of the Site Property and list Respondent's sources of information.

A. Respondent has been unable to locate business records or other materials of Louisville Hardwoods, Inc. and cannot formulate a full response at this time. It is unknown to Respondent whether or not the Phase I Environmental Investigation or other environmental investigations were done by Louisville Hardwoods, Inc. prior to its purchase of the property in 1987.

6. Q. Describe any and all investigations relating to the Site Property that Respondent or its lender undertook prior to acquiring the Site Property and all facts on which Respondent bases the answer to the preceding question.

A. The Respondent has no knowledge and no source of information to provide the knowledge of what investigations were undertaken before its acquisition by Louisville Hardwoods, Inc. The Respondent bases its answer to the preceding question on the recollection of Henry Christ.

7. Q. Provide the dates of operations of your Company.

A. Upon information it is believed Louisville Hardwoods, Inc. operated the site from the time it became a current owner in 1987 until it ceased doing business in 1993.

8. Q. List the current and/or previous officers and directors of your company.

A. There are no current officers and directors. During the period of its operation on the Site Property, Samuel M. Dunaway was President and sole Director. After cessation of operations at the Site Property, Mr. Dunaway named Henry Christ as President. From moving to the Site Property in approximately 1993 until the Company ceased to do business, Samuel M. Dunaway, Jr., M. T. Brown and Louise Hatfield served as Directors and Henry Christ served as President. Since the Company ceased doing business in 1993, there have been no corporate officers or directors and the Company was administratively dissolved November 1, 2001.

9. Q. Describe the current corporate status of your company.

A. Louisville Hardwoods, Inc. ceased business in 1993. The Company was administratively dissolved by the Kentucky Secretary of State on November 1, 2001. (**Exhibit 3F**).

10. Q. Describe the current and/or past nature of your business activities and operations conducted at the Site but not limited to Louisville Hardwoods, Inc., Lanham Lumber & Dry Kiln, Inc., and Louisville Hardwood Flooring, Inc.

A. (i) Louisville Hardwoods, Inc. ceased doing business in 1993. It leased the property to Down River International, Inc. by lease dated September 1, 1993 (*see Exhibit 3A*) and Memorandum of Lease and Lease Extension, with attachments (**Exhibit 3B**).

The Respondent has no information on the activities of Lanham Lumber & Dry Kiln, Inc. and Louisville Hardwood Flooring, Inc. and the business they may have conducted at the Site. Lanham Lumber & Dry Kiln Co., Inc. merged on June 1, 1987. (See Exhibit 3C Articles of Merger.) It appears that Lanham Lumber was formerly known as Louisville Hardwood Flooring, Inc. (See Power of Attorney to Down River International Exhibit 3D.)

Respondent believes that based on the property records it could locate in Jefferson County, Kentucky, there was a Memorandum of Lease by Lanham Lumber to Down River International, Inc. dated March 1, 1985 (See Memorandum of Lease, Exhibit 3E). We have not been able to determine what portion of the property was leased to Down River precisely, but it is believed that Lanham Lumber & Dry Kiln and Louisville Hardwoods only used the western portion of the Site. Down River International and its successors used and operated on the eastern portion of the Site. Respondent is uncertain of where the leased portion of Down River was. (*See Exhibit 10*).

(ii) The Respondent has no knowledge regarding the entities named other than Louisville Hardwoods, Inc., except what is stated herein. The Company had no relationship through common ownership or any other affiliation with the above-named companies.

(iii) The Company operated a custom wood drying business which involved the following:

a. General Description. Green lumber was set on wooden strips inside a kiln. Heat generated by boilers produced pressurized steam which circulated through pipes in the kiln. The heat from the pipes produced hot air which was circulated through the kiln by fans blowing air back and forth to remove moisture from the wood. The boilers that produced the steam were fueled solely by wood shavings and sawdust produced by planing and cutting the processed lumber.

b. Identify any hazardous substances. There were no hazardous substances utilized in the wood drying process. There were no chemicals, pollutants, contaminants or material waste streams generated by the process. However the Phase I dated 1999 lists several drums of materials on-site by Down Rivers. (See **Exhibit 2**).

c. Raw materials used. Hardwoods such as oak.

d. Waste Stream. There was no waste stream. The only "waste" that was generated in the process was wood waste from preparing the lumber before or processing it after it was dried, but all such shavings and sawdust were used to fuel the boiler. As a result, there was no waste residue generated during the production process.

e. UST. The Company did use an underground 1,000 gallon storage tank for gasoline. This tank leaked and was subsequently cleaned up after the sale of the property by Louisville Hardwoods. The Commonwealth of Kentucky issued a Closure Letter on March 1, 1995. (See **Exhibits 4, 5, 6, 7, 8 and 9**).

11. Q. Identify if any of the companies listed above has ever used either chromated copper arsenate, pentachlorophenol, or creosote as preservatives in their process for treatment of wood products at the Site.

A. The Company never used chromate copper arsenate, pentachlorophenol, or creosote, or any other wood preservative. Such chemicals were never used because the Company did not use any process other than wood drying as described in the answer to #10 above.

12. Q. For each company provided above, if your company is no longer doing business, provide:

- a. Date ceased doing business: some time in 1993.
- b. The corporation was administratively dissolved November 1, 2001.
- c. Attached as **Exhibit 3F** is the Secretary of State's Order dissolving the corporation.

- d. The equipment and the operations moved to another location at some time in the 1990s. In the mid-1990s after it totally ceased operations the equipment was sold piece mill to different parties. The real estate at the New Albany location was sold in 1998. The St. Louis Ave. property in Louisville, Kentucky was sold in 1997. (See **Exhibit 3**.)
- e. Bankruptcy filing – not applicable.
- f. List of all names under which your company operated: Louisville Hardwoods, Inc.

13. Q. Is Respondent aware of any leaks, spills or releases or threats of releases of any kind into the environment of hazardous substances, pollutants, contaminants, or materials, including but not limited to pesticides that have occurred or may occur at or from the Site?

A. The only leaks, spills or releases or threats of releases Respondent is aware of are in connection with a 1,000 UST gasoline tank.

This tank was removed in September 1992 and closure issued by the Commonwealth of Kentucky on March 1, 1995. For further details see:

- Exhibit 4.** Environmental Response Incident Report
- Exhibit 5.** ATEC Associates, Inc. Investigation Report of September 4, 1992
- Exhibit 6.** Letter from Kentucky NREPC dated August 11, 1993
- Exhibit 7.** Corrective Action Plan prepared by ATEC dated July 16, 1993
- Exhibit 8.** Phase II Soil and Groundwater Investigation of ATEC dated January 26, 1995
- Exhibit 9.** Closure Letter from KNREPC dated March 1, 1995.

Jefferson County Air Pollution Control District Permits show Louisville Hardwoods, Inc. applied for various air permits in 1989 (**Exhibit 11**) and in 1992 (**Exhibits 12 and 13**). Louisville Hardwoods, Inc. was issued a citation for fugitive dust in March of 1993. (See **Exhibit 14**).

[Down River Forest Products received a number of operating permits from the Air Pollution Control District of Jefferson County. (See **Exhibits 15, 16, 17, 18, 19, 20, 21 and 22**).

Subsequent to 1994 there were a number of air pollution complaints issued regarding the property, also which were addressed to Down River Forest Products. (See **Exhibits 23, 24, 25 and 26**).

An Asbestos Removal Permit was issued to Louisville Industrial Park for the Site dated September 30, 1999. (See **Exhibit 27**).

Respondent has also contacted Jefferson County Metro Sewer District ("MSD") in regard to Hazardous Material Permits and was informed that MSD has no HMPC on file.

14. Q. Identify all persons (i.e. respondent, respondent's current or previous employees, agents, lease(s) and their associated employees, contractors, broker, middleman, consultants and/or agents), with knowledge, documentation, or other information about the Site operations and waste disposal activities, or the leaks, spills, or releases identified in response to Question #13, provide the following information:

- a. Individual name: Henry Christ.
- b. Contact person working for Company – None
- c. Daytime telephone number: (270) 929-2820
- d. Mailing and physical address: 7935 Highway 1389, Maceo, KY 42355

15. Q. Provide a list of all the company's property and casualty insurance policies and automobile liability policies taken out during its years of operations.

A. On information and belief, the Respondent knows of no such insurance coverage and there are no corporate records indicating whether there is or was insurance coverage.

16. Q. Provide any additional information and/or documents (see definition of documents) you may have that reflect, show, or evidence the use, purchase, giving, sale, transfer, acceptance, transportation, delivery, treatment, storage, disposal, or otherwise handling of hazardous substances, pollutants, contaminants or materials at the Site.

A. Except for petroleum products stored at the Site and the UST as set forth in **Exhibits 4-9**, Respondent is unaware of any handling of hazardous substances, pollutants, contaminants.

According to the ATC Associates, Inc. Phase I Environmental Assessment dated 1999, there appears to be a portion of the East End of Site that displayed possible usages as a staging ground for equipment, scrap metal, drums, railroad ties, gravel and general refuse. It is believed that area is outside the area operated by Louisville Hardwoods, Inc. (See **Exhibit 10**).

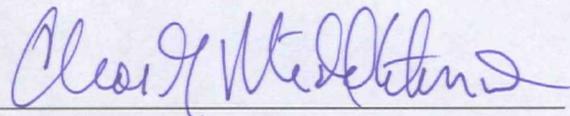
Environmental reports of **Exhibits 1 and 2** do indicate other contaminants are at the full Site. However, on information and belief, Respondent is unaware of the sources for such and believes that the only buildings and areas occupied by Louisville Hardwoods, Inc. are as set forth on **Exhibit 10**.

17. Q. If any of the documents requested are not in your possession, custody or control, or easily attainable, identify the persons from whom such information or documents may be obtained, and/or identify where such records would be physically located. Please include a narrative description, along with a physical address. If the records were destroyed, provide the following:

- a. Company's document retention policy: Unknown. The only person with knowledge of such documents and/or their retention was Samuel M. Dunaway, deceased.
- b. Description of how the records were destroyed: Unknown.
- c. Description of the type of information contained in the documents: Unknown.
- d. The name, job title and address of the person who produced the documents, responsible for the document retention, and the person responsible for the destruction of the documents and the person who had or still may have had the original or copies of the documents: The only such person with any knowledge or information regarding such documents would have been Samuel M. Dunaway, deceased.

18. Q. If Respondent of any other persons other than those you have already identified, who may be able to provide a more detailed or complete response to any Question contained herein or who may be able to provide additional responsible documents, identify such persons by providing those persons' names, current mailing addresses, current telephone numbers, and the additional information or documents that they may have.

A. None.



Charles G. Middleton, III
Counsel for the Estate of
Samuel M. Dunaway
George Thacker and Mike Wurth,
Co-Executors

EXHIBIT 1

Site Inspection

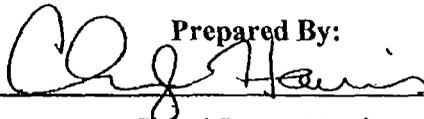
Former Black Leaf Chemical
1391 Dixie Highway
Louisville (Jefferson County), Kentucky

AI # 52202
KYD980559520

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September 2011, Revision 1

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Appendix A: Maps

- Figure 1: Location Map and Drinking Water Wells Map
- Figure 2: Site Boundaries Map
- Figures 3a-3c: Sanborn Fire Insurance Maps
- Figure 4: Sample Locations Map
- Figure 5: Pesticide Results Map-Manufacturing Building Area
- Figure 6: Pesticide Results Map-Areas other than Manufacturing Building
- Figure 7: Area of Contamination Map

Appendix B: Tables

- Table 2: Proposed Sample Locations Table
- Table 3: Sample Location Table--Final
- Table 4: Summary of Analytical Results

Appendix C: Black Leaf SAP/QAPP Rev 2

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Appendix E: EPA Contractor Sampling Documents: Soil Logs, Photo Log, Field Notes

1.0 Introduction

Under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Kentucky Department for Environmental Protection (KDEP), Division of Waste Management (KDWM), Superfund Branch presents this Site Inspection (SI) for the former Black Leaf Chemical Company (hereinafter referred to as the "site"), located in Louisville, Jefferson County, Kentucky, using the *Hazard Ranking System* (HRS) as the evaluating tool, as well as the document titled *Guidance for Performing Site Inspections Under CERCLA*, United States Environmental Protection Agency (EPA), September 1992, as guides for this Site Inspection (Refs. 1, 2).

2.0 Site Description

2.1 Site Location

The site is located in northwestern Jefferson County at 1391 Dixie Highway, Louisville, Kentucky, approximately 2.5 miles south of I-64 and 2.2 miles east of the Shawnee Expressway. The site is located on a portion of a 29-acre parcel of land currently owned by Louisville Industrial Park, LLC. This address is the official address of Louisville Industrial Park (Ref. 3). Locally, the site can be accessed by vehicle from Dixie Highway or from 17th Street. The address listed in CERCLIS is 1350 N 17th Street, however, this is incorrect (Ref. 19). The 1987 Preliminary Assessment (PA) lists the address as 1340 South 17th Street (Ref. 20). City Directories indicate that the correct address was 1350 S. 17th Street (Ref. 31).

GPS coordinates at the 17th Street entrance are Latitude 38.232967° North and Longitude 85.782500° West (Ref. 8). The site is situated in an inner city area known as the Park Hill neighborhood. The site is bordered by a residential area to the north, a large rail yard to the south, and industry/commercial areas to the east and west. Dixie Highway borders the site to the west and an alley behind residences on Wilson Street borders the site to the north. 16th and 17th Streets run into the site along the northern part of the property. St. Louis Avenue runs into the site from the west. An alley running parallel to 15th Street borders the site to the east. At present, the site is abandoned.

2.2 Site Description

The site operated on a parcel of land that is now part of a larger parcel owned by Louisville Industrial Park, LLC. The Jefferson County Property Valuation Administration identifies this property as Parcel 039H00260000 (Ref. 3). The Louisville Industrial Park property has several buildings/areas that are presently identified by numerical designations 1-20. Historical information indicates that Buildings 16-20 were

part of the property owned and operated by Black Leaf Chemical (Ref. 4). Exact historical usage of these building is unknown, however, labels on Sanborn Fire Insurance Maps and records from the Louisville Fire Department identify possible usages. Buildings 16-18 are currently empty while Buildings 19 and 20 have debris dumped in them. Building 20 also has a recreational boat stored inside (Refs. 6, 15, 29).

Building 20 is approximately 250 feet by 65 feet and is identified on Sanborn Fire Insurance Maps as an insecticide manufacturing building during the time Black Leaf operated at the site. This building was used to store old staves for whiskey barrels while Schenley Distillers operated at the site. The current owners have used this building as office space and a personal workspace, possibly for the restoration of a small boat. Building 19 is approximately 175 feet by 60 feet and only has two walls and a roof. A rail spur runs into this structure. Historical usage is unknown, however, it may have been used to unload rail cars in the past. Building 18 is approximately 310 feet by 70 feet and is identified on Sanborn Fire Insurance Maps as housing a laboratory and extraction room while Black Leaf operated at the site. While Schenley operated, this building was used as employee offices, a lunch room, and for storage of old barrels and staves. It may have been used as warehouse space by the current owners. Building 17 is approximately 310 feet by 70 feet and is identified on Sanborn Fire Insurance Maps as being a storage area and mill building while Black Leaf operated at the site. Schenley used this building as a maintenance shop and for old barrel reconditioning. It may have been used as warehouse space by the current owners. Building 16 is approximately 200 feet by 70 feet and is identified on Sanborn Fire Insurance Maps as warehouse storage for finished product while Black Leaf operated at the site. Schenley used this building to store old staves for whiskey barrels. It may have been used as warehouse space by the current owners (Refs. 6, 8, 15, 29).

For the purposes of this assessment, KDWM has divided the Louisville Industrial Park, LLC, property into two sections (Appendix A, Figure 2). Black Leaf Chemical did not own or reportedly operate on the entire 29 acre parcel. The eastern section contains the Black Leaf Chemical site and was included in Site Inspection activities. The western section has been designated as the former Schenley Distillers site for site assessment purposes, however, records indicate that they owned and operated on the entire 29 acre site. Louisville Cooperage, a division of Schenley Distillers, manufactured whiskey barrels at the site from the 1950s-1980s. A Pre-CERCLIS Screening Assessment has been conducted on the western section of the property under the name Schenley Distillers for EPA. KDWM estimates the Black Leaf Chemical portion of the property to be approximately 16 acres while the western portion of the property is approximately 13 acres. It should be noted that KDWM did not have information indicating that Schenley Distillers operated on the entire 29 acre parcel at the time it designated only the western section as Schenley Distillers (Ref. 29).

The site is located in the northwestern portion of Jefferson County, Kentucky (Appendix A, Figure 1). The topography in this area is mostly flat to gently sloping. The elevation in the vicinity of the site is 462 feet. Soils at the site consist of Urban Land (Ua), Urban

land-Alfic Udarents complex, loamy substratum, 0 to 12 percent slopes (Ubc), and Urban land-Udorthents complex, 0 to 12 percent slopes (UahC) (Ref. 18). Fill material and gravel have been observed covering the majority of the eastern half of the Black Leaf site. Geologic deposits underlying the site consist of Glacial Outwash (Wisconsinan). Groundwater is contained in Glacial Outwash and is typically found approximately 25-30 feet below ground surface in the vicinity of the site (Ref. 7).

The average annual temperature in the Louisville, Kentucky area is 56.1° Fahrenheit. Average temperatures in January are 31.7° Fahrenheit and temperatures in August average 75.8° Fahrenheit. The average annual precipitation in the Louisville area is reported to be 44.4 inches (Ref. 12).

2.3 Operational History and Waste Characteristics

EPA first became aware of the site in 1981 upon receipt of a Notification of Hazardous Waste Site form. The Notification form indicated that Diamond Shamrock Corporation handled pesticides at the site from 1955-1970 (Ref. 20). A PA was performed by KDWM in 1987, however, no samples were taken and no substantial information relating to the site's operations was included.

Information relating to site history was presented in a Phase I Environmental Site Assessment completed by ATC Associates in 1999 (Ref. 4). According to that report, the chain-of-ownership for the portion of the property where the site is located is as follows:

1910-1928	Tobacco Bi-Products (and Chemical)
1928-1933	Diamond Black Leaf
1933-1959	Diamond Alkali Corp
1959-1982	Schenley Distillers/Louisville Cooperage
1982-1987	Lanham Lumber & Dry Kiln Company
1987-1993	Dunaway/Louisville Hardwoods Inc.
1993-2001	Down River Forest Products
2001-present	Louisville Industrial Park, LLC

Sanborn Fire Insurance Maps (Louisville 1928-Feb 1951 Vol. 5 pages 504-505) show an insecticide manufacturing building (presently identified as Building 20) on the property (Appendix A, Figures 3a-3c) as well as a Laboratory and Extraction Room (Ref. 15). Little information is available regarding the type of operations that took place at the Louisville plant.

Diamond Black Leaf/Alkali manufactured pesticides, including DDT and benzene hexachloride at different plants around the United States. Diamond also manufactured and sold chlorinated products, cement-coke, chromium chemicals, electrochemicals, plastics, silicate, detergent, calcium, and soda products (Ref. 9). It is possible that some of these materials were used or manufactured at the site.

Little is known about what the lumber-related companies produced at the site. Equipment at the site appears to be consistent with wood treating/dry kiln operations. Chemicals that could have been associated with wood treatment operations at this site include creosote, chromium, arsenic, copper, and pentachlorophenol (Ref. 16). It should be noted that the Black Leaf Chemical side of the property may have only been used for storage as the kilns are present on Schenley Distillers side of the property.

The site has been used primarily as warehouse storage since 2001 and is currently abandoned. KDWM identified and removed leaking drums and other containers from the site in 2009. Paint related material, waste aerosols, and methyl ethyl ketone (MEK) were listed as some of the hazardous wastes removed at that time (Ref. 5).

KDWM had not collected samples at the site prior to this SI. Limited soil and waste removal occurred between 1999 and 2001 related to the purchase of the property by Louisville Industrial Park, however, only Toxicity Characteristic Leaching Procedure (TCLP) analysis of soils disposed of in the landfill was conducted. No confirmatory sampling was conducted on soils left at the site at that time (Ref. 4).

It should be noted that First Capital Bank of Kentucky, the mortgage holder on the property, contracted with Pettit Environmental, Inc. to conduct Phase II sampling at the site. The sampling was conducted in June 2010. Soil samples and groundwater samples were collected as part of that sampling event, however, samples were only analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) (Ref. 22).

2.4 Source Area

For the purposes of this SI, the source was considered to be contaminated soil. Based on sample results, the area of contamination was determined to be approximately 10.7 acres (466,433 square feet) (Appendix A, Figure 7). Contaminants identified during sampling can be found in Appendix B, Table 4 and are discussed in Section 5.3. Contaminants identified at levels above EPA Regional Screening Levels include arsenic, 4,4'-DDT (p,p'-DDT), 4,4'-DDD (p,p'-DDD), 4,4'-DDE (p,p'-DDE), Aldrin, Dieldrin, alpha-BHC, beta-BHC, gamma-BHC (Lindane), benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, ideno(1,2,3-d)pyrene, and naphthalene.

3.0 Groundwater Migration Pathway

Jefferson County lies within both the Ohio River Valley and the Bluegrass regions of North Central Kentucky on the west flank of the Cincinnati Arch within the Central Lowlands Physiographic Region (Ref. 17). The topography of the area ranges from nearly flat to fairly rugged. The majority of the county is drained by small tributaries of the Ohio River. The present valley of the Ohio River was cut into the shale and limestone bedrock during glacial times. The rock valley was filled with alluvium of

Quaternary age which underlies the Ohio River flood plain at a maximum depth of 130 feet (Ref. 17).

The alluvium of the Ohio River flood plain is the principal aquifer and is an important source of water in the area. The aquifer is comprised of outwash sand and gravel of Pleistocene age ranging from 0 to 100 feet in thickness, overlain by a blanket of silt and clay as much as 40 feet thick. Very thick deposits of clay and silt of recent age cover parts of the flood plain. The entire thickness of alluvium, known as the Ohio River Valley Series, is considered a single hydrologic unit. The alluvial aquifer is hydraulically connected with the Ohio River in this area. Infiltration from the Ohio River and flow through the limestone valley wall are major contributors of recharge to the aquifer (Ref. 11). Groundwater flows generally west toward the Ohio River (Ref. 7).

The Louisville Limestone of Silurian age and the Jeffersonville and Sellersburg Limestones of Devonian age underlie the alluvium. These formations are considered a single aquifer. Water in this aquifer is contained in and moves along interconnected cracks and solution channels. The limestone beneath the floodplain is hydraulically connected with the deposits of sand and gravel, from which a continuing source of recharge is available. In the Bluegrass Region, the limestone supplies small quantities of water to domestic wells, but beneath the Ohio River alluvium, it is capable of yielding large quantities of water, mostly for industrial use (Refs. 11, 17).

Geologic deposits underlying the site consist of Glacial Outwash (Wisconsinan). This outwash consists of sand, gravel, silt, and clay. The Outwash Formation is 0-130 feet thick (Ref. 30). Groundwater is contained in Glacial Outwash and is typically found at depths of 25-30 feet below ground surface in the vicinity of the site (Ref. 7).

3.1 Groundwater Targets

The drinking water intake for the City of Louisville Water Company is located to the northeast of the site and is not within a 4-mile radius (Refs. 8, 10, Appendix A, Figure 1). The majority of the area residences are on city water. According to the Kentucky Division of Water (KDOW), there are four (4) domestic wells (Appendix A, Figure 1) located within a 4-mile radius of the site (Ref. 8). The nearest domestic-single household well is AKGWA # 00018220 which is located 2.1 miles to the southwest of the site near the intersection of Ralph Avenue and Ramser (Ref. 8). This well is located at a depth of 54 feet below ground surface and appears to be within the Glacial Outwash Formation. Several industrial use wells are also located within a 4-mile radius of the site (Refs. 8, 10). Groundwater users within a 4-mile radius are presented in Table 1 below. Estimated population served is based on a county average of 2.2 persons per household (Ref. 23):

Table 1: Groundwater Water Wells within a 4-mile Radius

Radius/Distance	# of wells in radius	Estimated population served	Type of well
0 -1 mile	10	0	1 Industrial, 9 Decommissioned, 0 Domestic
1-2 mile	13	0	7 Industrial, 6 Decommissioned, 0 Domestic
2-3 mile	52	4.4	33 Industrial, 17 Decommissioned, 2 Domestic-Single Household
3-4 mile	36	4.4	23 Industrial, 10 Decommissioned, 1 Agricultural-Irrigation, 2 Domestic-Single Household

There are also four (4) springs located within a 4-mile radius of the site. The only active spring is known as CSO 151 Spring and is located in the 3-4 mile radius, however, this spring is not used as a domestic drinking water source. The CSO 151 Spring is located east of Beargrass Creek and is presently part of the Louisville Metropolitan Sewer Districts Combined Sewer Overflow (CSO) system (Ref. 24). Two (2) springs, Eleven Jones Spring and Cave Hill Spring, are located within the 3-4 mile, however, they are listed as inactive and are not used for domestic drinking water purposes. CSO 91 Spring located within the 2-3 mile radius and is also not used for domestic drinking water purposes (Ref. 8).

3.2 Groundwater Sampling

Due to the fact that there are only four (4) domestic drinking water wells within a 4-mile radius, groundwater was not sampled as part of the SI sampling event. The groundwater pathway is not a concern due to insufficient targets.

4.0 Surface Water Migration Pathway

The site is mostly flat and covered with grass and gravel. The average annual precipitation in the Louisville area is reported to be 44.4 inches (Ref. 12). The 2-year, 24-hour rainfall frequency for Jefferson County is 3.2 inches (Ref. 25). The site lies in the 500-year floodplain (Ref. 8).

4.1 Overland Flow Route

The Overland Flow Route is the migration route that run-off would follow from a particular on-site source to a perennial surface water body (Refs. 1, 2). Furthermore, any point at which site run-off enters a perennial surface water body is considered a Probable Point of Entry (PPE).

Elevation at the site is 462 feet. Elevation decreases from 470 feet just south of the site to 455 feet just north of the site (Ref. 30). Surface water flows from the south to the north of the property and whatever is not absorbed by the soil flows into the alley south of Wilson Ave. Water then flows through the alley into one of two drains on either side of 17th Street near the entrance to the site. From there, the water flows into the Louisville sewer system (Ref. 14).

As shown in a map provided by the Louisville Metropolitan Sewer District (Ref. 14), run-off from the site is directed into the City of Louisville Sewer System. According to the Louisville Metropolitan Sewer District, water from this site flows into a combined sewer and goes to the Morris Forman Treatment Plant (Ref. 14). The PPE would be the discharge point at the Morris Forman Treatment Plant. Water from the treatment plant is discharged to the Ohio River. The point of discharge/Probable Point of Entry (PPE) into the perennial stream (Ohio River) is located over 2 miles away from the site, therefore, the Surface Water Pathway is not of concern.

According to the HRS Rule, the Surface Water/Overland Flow Route Migration Pathway should not be considered if the PPE is not within 2 miles of the site. The PPE would be the discharge point at the Morris Forman Treatment Plant, which is greater than two (2) miles from the site. The Surface Water/Groundwater to Surface Water Migration Pathway should not be considered if a portion of the surface water is not within one (1) mile of one more sources at the site. The nearest perennial stream from the site is Beargrass Creek, however, this creek is not within a mile of the site. Surface waters from this site would not reach Beargrass Creek.

Untreated surface water does not come into contact with any wetlands or fisheries and does not impact endangered species (Ref. 8). This pathway is not of concern.

4.2 Target Distance Limit

The surface water Target Distance Limit (TDL) is the migration route that site generated run-off would follow from the point it enters a perennial surface water body (i.e., the PPE) to a point 15 miles downstream of the PPE (Refs. 1, 2). As stated above, since the PPE is located over two (2) miles away and there is no perennial stream within one (1) mile of the site, the Surface Water Migration Pathway is not of significance.

4.3 Surface Water Targets

There are no surface water targets impacted by the site. Untreated surface water does not come into contact with any wetlands or fisheries and does not impact endangered species. This pathway is not of concern.

4.4 Surface Water Sampling

No surface water sampling was performed as there are no targets.

5.0 Soil Exposure Pathway

Soils at the site consist of Urban Land (Ua), Urban land-Alfic Udarents complex, loamy substratum, 0 to 12 percent slopes (Ubc), and Urban land-Udorthents complex, 0 to 12 percent slopes (UahC) (Ref. 18). Structures, grassy areas and gravel have been observed covering the site. Due to the fact that this site is located in an urban area, soils have likely been disturbed at some point. Based on soil boring logs from October 2010, the upper two (2) feet of soils/material at the site are described as gravel, black foundry sand, black cinder-like material, or silt with brick fragments. Soils three (3) to ten (10) feet below ground surface are described as brown, silty or sandy clay with some fine to medium-grained sand near ten (10) feet. Most borings are described as brown sand, fine or medium-grained, in the ten (10) to twelve (12) feet interval. The exception was the northeastern portion of the property, where soil is described as being a hard, gray-brown mottled clay or brown silty clay from five (5) to twelve (12) feet below ground surface (Appendix E, Soil Logs). Groundwater at the site can be found at 25 feet below ground surface, so it is likely that the sandy soil extends beyond the twelve (12) foot mark (Ref. 7).

5.1 Soil Exposure Targets

The site is currently abandoned. There are no workers on site, however, the site is not adequately secured and what appeared to be homeless people have been observed at the site (Ref. 6). A chain link fence surrounding the site has large gaps and the 17th Street gate is no longer locked. The northern portion of the property is bordered by a low income, minority neighborhood (Ref. 21). Approximately 25 single family homes are presently located within 200 feet of the site. Based on a county average of 2.2 persons per household, approximately 55 people live within 200 feet of the site (Ref. 23).

The property owner, Louisville Industrial Park, had previously proposed to construct a low-income residential housing development on the site. Various proposals had been submitted, however, most proposals included construction of 76 single and multi-family residences on the site (Ref. 13). Those potential future residents were included as targets to justify the soil sampling for this SI, however, the proposal to develop a neighborhood has since been denied by the City of Louisville. The property owner still believes the site has the possibility of being developed for residential use (Ref. 13).

There are no known schools within 200 feet of the site. There is one (1) daycare licensed by the Kentucky Cabinet for Health and Family Services within 200 feet of the site. That

daycare is located at 1612 Wilson Avenue and is an in-home daycare known as A Grandma's Place. The capacity of that daycare is six (6) children. The daycare was not contacted (Ref. 26). For purposes of this report, it is assumed that six (6) children are present at the daycare at all times.

The 2000 Census indicates that there are 707 residents within ¼ mile of the site. The population within a 1 mile radius is 14,902 (Ref. 21).

5.2 Soil Sample Locations

Soil sampling was performed by the EPA's Superfund Technical Assessment and Response Team (START) contractor, Oneida Total Integrated Services (OTIE) from October 26-28, 2010. KDWM prepared the Sampling and Analysis Plan (SAP). Both KDWM and OTIE prepared Quality Assurance Project Plans (QAPPs) which were approved by EPA prior to the sampling event (Appendix C, SAP/QAPP). OTIE was responsible for ensuring that the SAP and QAPPs were followed with deviations noted in the field notes (Appendix E).

A total of 68 soil samples were collected as part of the SI sampling event. The background sample consisted of one (1) surface sample collected at the 0-1 foot interval and three (3) subsurface samples collected at intervals of 0-4, 4-8 and 8-12 feet. The background sample was collected at an off-site property west, northwest of the site. The property is a senior apartment complex known as Strothers School Apartments. On-site sampling consisted of 29 surface soil samples and 29 subsurface soil samples. As with the background sample, the on-site surface soil was collected at the 0-1 foot interval. Subsurface sample depth varied, but samples were generally collected within the 8-12 foot interval as close to twelve (12) feet as possible. The SAP/QAPP for the project dictated that the subsurface samples be collected at the point of the interval at which photo ionization detector (PID) readings were the highest, or, in the absence of PID readings, at twelve (12) feet. No borings exceeded twelve (12) feet in depth (Appendix C, SAP/QAPP, Appendix E, Soil Boring Logs). In addition, a total of six (6) duplicate samples were collected to comply with EPA's Science and Ecosystem Support Division (SESD) guidance. All soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), cyanide, total metals, total mercury, organochlorine pesticides, and PCB Aroclors. Appendix B, Table 2 provides detailed information regarding the rationale of the chosen sample locations. Appendix B, Table 3 provides GPS coordinates of the final sample locations.

5.3 Analytical Results

All analytical results were compared to EPA Region 3's Regional Screening Levels (RSLs) for Residential Soils. All on-site metals results were also compared to three times the background sample levels as required by EPA (Ref. 2). Analytical data can be found in tabular format in Appendix B, Table 4. Actual data and documentation from the laboratory can be found in Appendix D.

The background samples were designated as BLCBG-SS-01, BLCBG-SB-01, BLCBG-SB-02 and BLCBG-SB-03. All background samples contained Arsenic at levels above the RSL. Benzo(a)pyrene was detected at a level slightly above the RSL. No other constituents were detected above the RSLs in the background samples.

The on-site samples were designated as BLC-SS-01 through BLC-SS-30 for surface soil samples and BLC-SB-01 through BLC-SB-30 for subsurface soil samples. BLC-SS-12 and BLC-SB-12 were omitted from the sampling event because the sample location was in close proximity to an underground water line. Since the exact location of the water line was not known, this sample location was eliminated.

Duplicate samples were designated as BLC-SS-31 through BLC-SS-36. If results from a duplicate sample were elevated, but the original sample itself was not, then the duplicate result is used in place of the original sample.

Metals

As stated above, arsenic levels exceeded the RSL in all four (4) background samples. Arsenic levels also exceeded the RSL in all surface and subsurface soil samples on the Black Leaf property. For the purposes of the SI, only results in excess of three times background are considered to be elevated by EPA. Arsenic levels exceeded three times background in the following eight (8) surface samples: BLC-SS-19, BLC-SS-21, BLC-SS-24, BLC-SS-25, BLC-SS-26, BLC-SS-32 (duplicate of BLC-SS-19), BLC-SS-33 (duplicate of BLC-SS-20), and BLC-SS-34 (duplicate of BLC-SS-30).

Pesticides

Several pesticides were detected at levels exceeding RSLs. These include 4,4'-DDT (p,p'-DDT), 4,4'-DDD (p,p'-DDD), 4,4'-DDE (p,p'-DDE), Aldrin, Dieldrin, alpha-BHC, beta-BHC, and gamma-BHC (Lindane). Some pesticides were detected at significantly elevated levels. The most significant levels included samples containing alpha-BHC at levels 18,181 times the RSL, DDT at levels 217 times the RSL, and Dieldrin at levels 600 times the RSL. Levels of pesticides were most elevated around the former insecticide manufacturing building, as expected. Most of the elevated levels were only identified in surface soil samples.

4,4'-DDT (p,p'-DDT) and its breakdown products, 4,4'-DDD (p,p'-DDD) and 4,4'-DDE (p,p'-DDE) were detected at levels above RSLs at several locations. DDT was elevated at BLC-SS-01, BLC-SS-03 through BLC-SS-08, BLC-SS-11, BLC-SS-14 (and its duplicate, BLC-SS-36) and BLC-SS-16. As shown on the Sample Locations Map (Appendix A, Figure 4), the majority of these samples were collected just outside the insecticide manufacturing building. All sample locations with elevated DDT levels are located within approximately 200 feet of that building. 4,4'-DDD (p,p'-DDD) was detected at levels above the RSL at all the same locations as DDT with the exception of

BLC-SS-11 and BLC-SS-14. 4,4'-DDE (p,p'-DDE) was detected at levels above the RSL at all the sample locations as DDT with the exception of BLC-SS-06. In addition, DDE was also elevated at BLC-SS-02 and BLC-SS-27. BLC-SS-27 is located in the middle of an open field approximately 350 feet northeast of the insecticide manufacturing building.

Aldrin and Dieldrin are pesticides that are similar in structure. Aldrin readily changes to Dieldrin once it enters the environment (Ref. 27). Aldrin was detected at levels above the RSL in BLC-SS-07 and BLC-SS-08. It should be noted that the analytical data for Aldrin was given a 'J' flag by the laboratory, meaning the numerical result was an estimated value. Dieldrin was detected at levels above the RSL in BLC-SS-01 through BLC-SS-05, BLC-SS-07 through BLC-SS-09, BLC-SS-11, BLC-SS-14 (and its duplicate, BLC-SS-36), BLC-SS-16, BLC-SS-18, BLC-SS-19 (and its duplicate BLC-SS-32) and BLC-SS-34 (which is a duplicate of BLC-SS-30). It should be noted that Dieldrin levels were elevated in samples collected along both the northern (BLC-SS-18) and southern (BLC-SS-16 and BLC-SS-34/30) edges of the property. No off-site samples other than the background samples were collected, however, it is possible that Dieldrin has migrated off-site based on the locations where elevated levels were detected. It should also be noted that BLC-SS-18 is located within 200 feet of the property where a small daycare operates (located at 1612 Wilson Ave.).

Soil samples were analyzed for the four (4) commercially significant isomers of benzene hexachloride (BHC). Technical grade BHC is a synthetic mixture of several isomers, typically 60-70% alpha-BHC, 5-12% beta-BHC, 10-15% gamma-BHC, and 6-10% delta-BHC (Ref. 28). Alpha-BHC was detected at levels above the RSL in BLC-SS-01, BLC-SB-01, BLC-SS-03, BLC-SS-04, BLC-SS-07, and BLC-SS-08. Alpha-BHC was the only pesticide with elevated levels located in a subsurface sample. BLC-SB-01 was collected at eleven (11) feet below ground surface (Appendix E, Soil Logs). Beta-BHC was detected at levels above the RSL in the same areas as alpha-BHC except that it was not detected in BLC-SB-01 and was detected in BLC-SS-05 and BLC-SS-36 (duplicate of BLC-SS-14). Delta-BHC does not have a RSL, however, it was detected at some level in several samples. The highest detection was in BLC-SS-01. Gamma-BHC (commercially known as Lindane), was detected at levels above the RSL in BLC-SS-01 and BLC-SS-08.

VOCs

No volatile organic compounds (VOCs) were detected above RSLs.

SVOCs/PAHs

Several polycyclic aromatic hydrocarbons (PAHs) were detected at levels above RSLs. These include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, ideno(1,2,3-d)pyrene, and naphthalene. Most of the elevated

levels of PAHs were found in surface soils, however, some subsurface soils contained elevated levels as well.

Benzo(a)anthracene was detected at levels above the RSL in BLC-SS-01 through BLC-SS-04, BLC-SS-07, BLC-SS-08, BLC-SS-10, BLC-SS-11, BLC-SS-14, BLC-SS-16, BLC-SS-18 through BLC-SS-20 (and their duplicates, BLC-SS-35, BLC-SS-32, and BLC-SS-33), BLC-SS-22 through BLC-SS-24, BLC-SS-26 and one (1) subsurface location, BLC-SB-23. The subsurface sample was collected at eight (8) feet below ground surface.

Benzo(a)pyrene was detected at levels above the RSL in BLC-SS-01 through BLC-SS-11, BLC-SS-14, BLC-SS-16, BLC-SS-18 through BLC-SS-27, BLC-SS-29, BLC-SS-30, all of the duplicate samples, and two (2) subsurface samples, BLC-SB-15 and BLC-SB-23. The subsurface samples were collected at eleven (11) and eight (8) feet below ground surface, respectively. Benzo(a) pyrene was also the only constituent other than arsenic that was detected in the background samples above the RSL. It was identified in the surface soil sample, BLCBG-SS-01, at levels just above the RSL.

Benzo(b)fluoranthene was detected at levels above the RSL in BLC-SS-01 through BLC-SS-05, BLC-SS-07, BLC-SS-08, BLC-SS-10, BLC-SS-11, BLC-SS-14, BLC-SS-16, BLC-SS-18 through BLC-SS-20 (and their duplicates, BLC-SS-35, BLC-SS-32 and BLC-SS-33), BLC-SS-22 through BLC-SS-26, BLC-SS-34 (a duplicate of BLC-SS-30) and one (1) location, BLC-SB-23. The subsurface sample was collected at eight (8) feet below ground surface.

Dibenzo(a,h)anthracene was detected at levels above the RSL in BLC-SS-1 through BLC-SS-11, BLC-SS-14, BLC-SS-16, BLC-SS-18 through BLC-SS-20, BLC-SS-22 through BLC-SS-26, BLC-SS-30, all of the duplicate samples, and one (1) subsurface sample, BLC-SB-23. The subsurface sample was collected at eight (8) feet below ground surface.

Ideno(1,2,3-d)pyrene was detected at levels above the RSL in BLC-SS-01 through BLC-SS-03, BLC-SS-07, BLC-SS-08, BLC-SS-11, BLC-SS-16, BLC-SS-18 through BLC-SS-20 (and their duplicates, BLC-SS-35, BLC-SS-32, and BLC-SS-33), BLC-SS-23, BLC-SS-24, and BLC-SS-26. No subsurface samples contained elevated levels of ideno(1,2,3-d)pyrene.

Chrysene and naphthalene were also present above the RSL in a few samples. Chrysene was detected at levels above RSLs in BLC-SS-19. Naphthalene was detected at levels above the RSL in BLC-SS-07 and BLC-SS-19. No subsurface samples contained either of these constituents.

5.4 Conclusions

The site borders a residential neighborhood and is not well secured. A licensed daycare was identified within 200 feet of the site and within 200 feet of BLC-SS-18, which contained Dieldrin and several PAH constituents at levels equaling or exceeding RSLs.

Elevated pesticides and PAH constituents were detected primarily in surface samples in the area around the insecticide manufacturing building. Alpha-BHC was detected in a subsurface sample in the area around the insecticide building as well. While most pesticides were detected primarily within 200 feet of the insecticide manufacturing building, Dieldrin was elevated in a surface sample over 325 feet away from the insecticide building along the northern edge of the property bordering the neighborhood. Dieldrin was also identified over 625 feet away from the insecticide building near the southeastern edge of the property.

PAH constituents were detected above RSLs all over the property in surface soils. PAHs were detected in subsurface soil samples in BLC-SB-15, which is located along the northern edge of the property adjacent to the neighborhood, and BLC-SB-23, which is located in an open field in the northeastern portion of the property.

Only three (3) sample locations, BLC-13, BLC-17 and BLC-28, did not contain any constituents above RSLs.

6.0 Air Migration Pathway

This is an abandoned facility with no active air emissions. Very little exposed soil is present as much of the site is covered by grassy vegetation or gravel. Based on the above information, air samples will not be collected as part of the SI.

6.1 Air Sampling

Due to the lack of targets, no air sampling was performed as part of this SI.

7.0 Summary and Conclusions

This site has had several historical uses, but the primary activity of concern is an insecticide manufacturing facility that operated in the 1950s. There are no known surface water or air targets and minimal groundwater targets were identified. The pathway of primary concern is the soil exposure pathway. The site is located adjacent to a residential neighborhood. Approximately 25 single family homes and one daycare are located within 200 feet of the site. The site is not well secured and easily accessible on foot.

Soil samples at the site contained several different pesticides and PAH constituents as well as arsenic at levels above RSLs. The daycare is within 200 feet of the site and within 200 feet of BLC-SS-18, which contained Dieldrin and several PAH constituents at levels equaling or exceeding RSLs.

Elevated pesticides and PAH constituents were detected primarily in surface samples in the area around the insecticide manufacturing building. Alpha-BHC was detected in a subsurface sample in the area around the insecticide building as well. While most pesticides were detected primarily within 200 feet of the insecticide manufacturing building, Dieldrin was elevated in a surface sample over 325 feet away from the insecticide building along the northern edge of the property bordering the neighborhood. Dieldrin was also identified over 625 feet away from the insecticide building near the southeastern edge of the property. Since no off-site sampling was conducted (other than the background sample), it is not known if any contaminants have migrated off site.

PAH constituents were detected above RSLs throughout the property in surface soils. PAHs were detected in subsurface soil samples in BLC-SB-15, which is located along the northern edge of the property adjacent to the neighborhood, and BLC-SB-23, which is located in an open field in the northeastern portion of the property.

Since no off-site sampling was conducted (other than the background sample), it is not known if any contaminants have migrated off site. Due to the fact that elevated levels of pesticides and PAHs were detected close to the property boundaries, it is possible that contamination has migrated off-site and could potentially be impacting residential properties to the north of the site. Also, some samples near Building 20 contained pesticides at levels above EPA's emergency action levels.

KDWM recommends that EPA conduct an emergency removal at the site and additional sampling to determine if contamination has migrated off-site.

8.0 References

1. Federal Register, 40CFR Chapter 1 Subchapter J Part 300 Subpart L-Appendix A. Hazard Ranking System, Final Rule, December 14, 1990.
2. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Publication EPA/540/R-92/021, Titled: *Guidance for Performing Site Inspections Under CERCLA*, September 1992.
3. Property Valuation Administrator, Jefferson County, Kentucky. Online: <http://www.pvalouky.org>. Accessed: May 11, 2009.
4. ATC Associates. *Phase 1 Environmental Site Assessment, Down River Forest Products*. June, 1999.
5. Kentucky Division of Waste Management. Record of Communication dated August 13, 2009.
6. Kentucky Division of Waste Management. Site Investigation Report. May 1, 2009.
7. ATEC Associates Inc. *Corrective Action Plan, Louisville Hardwoods, Inc.* July 16, 1993.
8. Black Leaf Chemical Maps (computer map). Kentucky Geography Network, 2006. Published using ArcMap Version 9.3.1. Environmental Systems Research Institute, 1999-2009. Maps prepared by Brent Cary and Cheryl Harris.
9. Corporate Profile, *Journal of Agricultural Food Chemicals*, 1956 Volume 4, Issue 7, pg 652-653. Online: <http://pubs.acs.org/doi/abs/10.1021/jf60065a613>. Accessed: August 10, 2009.
10. Kentucky Geological Survey. Water Well and Spring Records Database. Online: <http://kgs.uky.edu/kgsweb/DataSearching/Water/WaterWellSearch.asp> Accessed: June 16, 2010.
11. Kentucky Geological Survey, et al. Groundwater Resources of Kentucky. Online: <http://www.uky.edu/KGS/water/library/gwatlas/Jefferson/Geology.htm> Accessed: April 19, 2010.
12. Louisville: Geography and Climate. Online: <http://www.city-data.com/us-cities/The-South/Louisville-Geography-and-Climate.html>. Accessed: May, 24, 2010.
13. Personal Communication. Tony Young, owner, Louisville Industrial Park. February 16, 2010, February 19, 2010, March 8, 2010 and October 13, 2010.

EXHIBIT 2

**Phase I
Environmental Site Assessment
Down River Forest Products
Saint Louis at 18th Street
Louisville, Kentucky
ATC Project No. 18632.9E01**

**ATC Associates Inc.
2815 Watterson Trail
Louisville, Kentucky 40299**

Prepared For:

**Louisville Industrial Park, LLC
1987 South Park Road.
Louisville, Kentucky 40219**

Attention: Mr. Tony Young



2815 Watterson Trail
Louisville, Kentucky 40299
502.267.8355
Fax 502.267.8528

July 6, 1999

Mr. Tony Young
Louisville Industrial Park, LLC
1987 South Park Road.
Louisville, Kentucky 40219

Re: Phase I Environmental Site Assessment
Down River Forest Products
Magnolia at 18th Street
Louisville, Kentucky
ATC Project No. 18632.9E01

Dear Mr. Young:

ATC Associates Inc. (ATC) has performed a Phase I Environmental Site Assessment of the above-referenced site. This assessment includes the results of our findings from visual reconnaissance, historical ownership and land use review, records and regulatory review and related sources.

Based on the results of our investigation, additional environmental assessment appears to be warranted at this time. Please refer to the executive summary for additional information of the site visit.

We appreciate the opportunity to be of service to you on this project. If you have any questions or comments regarding this report, or if we can be of any further service to you, please feel free to contact our office.

Sincerely,

ATC Associates Inc.

A handwritten signature in black ink, appearing to read "David A. Burry".

David A. Burry CHMM
Senior Project Manager

A handwritten signature in black ink, appearing to read "Timothy J. Quinn".

Timothy J. Quinn, PG
Environmental Division Manager

Copies Submitted: (2) Mr. Tony Young

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EXECUTIVE SUMMARY

On June 28th & 29th 1999, ATC Associates Inc. (ATC) performed a Phase I Environmental Site Assessment of the former Down River Forest Products Facility, in Louisville, Jefferson County, Kentucky referred to as the "Site." The primary purpose of this assessment was to identify current and potential environmental concerns for the subject site from on-site and off-site sources. This assessment included a physical inspection of the site, limited observations of adjacent properties, a review of historical ownership and land use, a review of available Federal, State, and Local database records, interviews, and related sources.

The Site consists of an approximately 29-acre irregular-shaped parcel composed of 17 separate structures, segregated into 20 different functioning work areas. Most of the structures are currently abandoned with the exception of various warehouses on the west perimeter, presently being utilized by Derby City Lumber for storage purposes. The site is bound on the north by a large area of single-family residences; to the west by Dixie Highway, followed by single-family residences, to the south by a large railroad yard facility encompassed by industrial facilities; and to the east by various industrial facilities. The entire parcel of land is outlined by a 8-foot barbed wire fence and 24 hour security is enforced.

Our assessment revealed evidence of former on-site underground storage tanks (USTs). One area of this facility near the Office/Administrative Building appeared to be the former site of a UST. Our database search indicated that a 1,000-gallon gasoline UST was removed from this location in September 1992. (See section 2.2.1 UST's) A visit was conducted to the Kentucky Department of Environmental Protection- (KDEP) UST Branch. During our research a letter dated March 1, 1995 from the KDEP to Louisville Hardwoods stated that all concentrations of hydrocarbons in the UST pit were within acceptable method detection limits with the exception of Xylene, which was below the most stringent clean-up goal established for an Alluvial Soil under 401 KAR 42:080E. The KDEP also stated that this satisfies the requirements of Kentucky Revised Statute 224. 60-105 and Kentucky Administrative Regulation 401 KAR 42: 070.

At the time of our visit, ATC noted a large portion of land on the eastern perimeter displaying signs of past utilization as a staging ground for equipment, scrap metal, drums, railroad ties, gravel, and general refuse. Several 55-gallon drums were noted in this area surrounded by heavy ground staining. Numerous areas contained a plastic/silicone substance, appearing to have been disposed of in a viscous state and has now hardened. Large mounds of gravel, soil, and sawdust were observed, coupled with large areas of stressed vegetation.

A large number of 55-gallon drums and smaller containers containing oils, corrosives and unknown contents were observed throughout the buildings of this facility. Several of these containers displayed surface staining in the immediate vicinities.

An outside area of this facility located between Building 15 and the Boiler/Processing Building displayed signs of discoloration within pools of water having accumulated at the time. This is possibly due to past storage of chemicals or raw materials.

A large number of building materials located throughout the facility were identified as potentially containing asbestos. (See Section 2.4 for locations). A laboratory analysis of these materials utilizing polarized light microscopy is the primary method to assure a proper assessment.

Several large transformers and various electrical equipment were observed within the boiler areas and adjacent rooms of Building 9. This area of the plant was constructed at the turn of the century. Due to this, it is quite possible these apparatus utilized PCB oils. Staining was observed beneath several sections of an electrical panel in the boiler room area. These areas house large hydraulic equipment to operate turbines, boilers, etc. This equipment would also be suspect for PCB content.

Several surrounding properties were identified in our database search as posing potential environmental concerns to the Site. These properties are listed in Section 4.3.1.

Based on the findings of our Phase I investigation, further evaluation of the site appears to be warranted. ATC Associates recommends a sub-surface investigation into the following individual areas located on the east perimeter of the Site;

- All 55-gallon drums displaying signs of leakage or ground staining.
- The areas surrounding the plastic/silicone substance to better assess its content.
- Any suspect equipment or scrap piles potentially leaking chemical substances.
- Any suspect areas of ground staining or stressed vegetation.

ATC also recommends the removal and proper disposal of all containers of oils, corrosives, or unknown substances throughout the facility. These drums constitute an environmental hazard, if persistent leaking due to corrosion or puncture occurs.

A sub-surface investigation is also recommended into the mud-ridden area between Building 15 and the Boiler Processing Building to better assess the discoloration of the water accumulations at the time of our survey.

Additional sampling of suspect asbestos-containing materials is recommended to better evaluate potential asbestos content.

1.0 INTRODUCTION

On June 23, 1999, ATC Associates Inc. (ATC) was authorized by Mr. Tony Young of Louisville Industrial Park LLC to perform a Phase I Environmental Site Assessment (ESA) of the Down River Forest Products facility, located at Saint Louis Street/18th Street in Louisville, Jefferson County, Kentucky, referred to as the "Site". The site can be found on the USGS 7.5 Minute Series Topographic Map of Louisville West. The site consists of approximately 29-acres of land containing seventeen physical structures segregated into twenty different work areas. The site is currently owned by Down River Forest Products and appeared to be abandoned at the time of our visit. A small portion of the facility is utilized by Derby City Lumber for storage purposes. This evaluation was conducted in accordance with ATC proposal no. PL-99271 dated June 22, 1999 and adheres to the intent of ASTM E 1527 guidelines for environmental site assessments of this nature.

The primary purpose of this assessment was to identify current and potential environmental concerns for the site from on-site or off-site sources.

In accordance with the above-referenced agreement, ATC performed walk-through observations of the site, noted use of adjacent properties, and conducted a search of readily available historical and regulatory database records. Specifically, the scope of services included the following:

- 1) Reviewed deeds to check previous property owners and lease holders (if recorded) with emphasis on detecting owners who may have used or stored potentially hazardous materials.
- 2) Reviewed local environmental agency records to check environmental concerns these agencies may have regarding the site.
- 3) Reviewed historical aerial photographs of the site and adjacent properties to check for previous land usage and evidence of dumping or excavations.
- 4) Physically checked accessible areas of the property to identify suspect asbestos-containing materials, and other hazardous or toxic chemicals or materials stored or used on the site.

- 5) Visually checked the site grounds for possible existing or potential sources of contamination, especially underground storage tanks, stained areas, areas of dead or stressed vegetation, obvious excavations, and other unusual surface characteristics.
- 6) Checked transformers or other related equipment on the subject site for evidence of possible PCB releases.
- 7) Contacted the appropriate State Environmental Regulatory Agencies to check the subject site for recorded environmental concerns. Obtained and reviewed a regulatory database report.
- 8) Interviewed current owners and neighbors, if available, to check current or previous uses of the subject site that may have involved hazardous materials.

2.0 SITE DESCRIPTION

The approximately 29-acre Site is located on Dixie Highway and Saint Louis Avenue in Louisville, Jefferson County, Kentucky. The Site consists of 17 separate structures, mostly warehouse and storage facilities with some smaller administrative buildings. A large processing/boiler facility is located in the center of the property but is currently non-functional. The entire property, excluding the warehouses on the west perimeter, appeared to have been abandoned for several years. The entire east end of the property appears to have been utilized in the past as a staging area for construction debris including scrap metal, rock, soil, gravel, drums, etc. A visual assessment of the structures revealed internal areas still containing defunct equipment, scrap metal and general refuse. An eight-foot high barbed wire fence surrounds the entire facility and 24-hour security is enforced. Mr. David A. Burry an ATC Senior Project Manager conducted a site visit, on June 28, & 29, 1999. At the time of the site visit the weather was cloudy and warm with good visibility. The site visit consisted of a walk-through of the property grounds. Adjacent properties were observed from the site (see Photographic Documentation, Appendix A).

In addition to the walk-through, readily available resources including geologic maps, soil surveys, USGS topographic maps, aerial photographs, and regulatory database records were reviewed. See Section 7.0 for a listing of referenced documents.

2.1 General Site Conditions

During a visual check of the site grounds, general site conditions were observed for potential sources of environmental impact. Surface and above-surface conditions were noted and subsurface literature was reviewed as part of the site characterization.

2.1.1 Surface and Above-Surface Conditions

The site consists of approximately 29 acres of land, currently abandoned, utilized in the past for heavy industry. The site is approximately 460 feet above mean sea level. The surface topography appears to be relatively flat with no obvious slope patterns. At the time of our visit, all surface drainage appeared to migrate to the north-northwest toward a residential community and Saint Louis Street respectively.

2.1.2 Subsurface Literature Review

According to the soil survey of Jefferson County, Kentucky, the site falls outside of the soil survey limits for Jefferson County.

According to the Geologic Map of West Louisville, Kentucky (United States Geological Survey), the subject site is underlain by Out-wash Formation of the Pleistocene Series. The Out-wash Formation is a very fine sand, gravel, silt and clay: sand very fine to coarse, gravel are light brownish gray to light reddish brown.

Based on local topography and surface drainage patterns, groundwater flow at the site appears to be toward the north-northwest. Previous groundwater assessment performed at the Site

indicated groundwater depths ranging from approximately 36 to 38 feet and flow direction generally to the west. Numerous flow patterns and basins were observed on the northern perimeter of the property. Site specific groundwater flow direction is often influenced by local factors such as surface topography, underground structures, development, and other features. Actual groundwater conditions, including the flow direction, can only be determined through the installation of groundwater monitoring wells. The installation of monitoring wells is beyond the scope of work for this assessment.

2.2 Storage Tanks

Storage tanks (both underground and aboveground) on a site or on nearby adjacent properties could be of environmental concern because of the high potential for soil and groundwater contamination resulting from past or present tank and/or associated piping leakage. It is especially important to document the presence or indications of the past presence of underground storage tanks on a property through observations made during the site visit and a review of available environmental regulatory records and local land use activities.

2.2.1 Underground Storage Tanks (USTs)

Visual evidence (i.e. pipes, vents, pumps, stains) indicating past or present USTs on site revealed one area near the Office/administrative Building that appeared to have potentially housed a UST at one time. A past Phase I of this site conducted in 1992 indicated this was the location of a 1,000-gallon gasoline tank. According to our database research, this UST was removed September 28, 1992. Hydrocarbon impacted soils were encountered during the tank removal. Following soil and groundwater assessment and remediation the tank area exhibited hydrocarbon levels within acceptable method detection limits, with the exception of Xylene which was below the most stringent clean-up goal established for alluvium soil under 401 KAR 42:080E. A letter from the KDEP dated March 1, 1995 stated this site had satisfied the requirements of Kentucky Revised Statute 224.60-105 and Kentucky Administrative Regulation 401 KAR 42:070. A copy of this letter is included in Appendix E. It should be

noted that no techniques were employed to detect the presence of underground tanks. ATC's inspection consisted of a visual surficial inspection only.

2.2.2 Aboveground Storage Tanks (ASTs)

A 1,000-gallon diesel AST was observed inside Building 12. The tank was used to fuel kiln related work within the structure. The tank appeared to be in good condition displaying no signs of leaking or corrosion. At the time of our visit the tank still contained diesel fuel. A 500-gallon fuel oil tank was observed in the Process/boiler Building. This tank was utilized in the past to fuel several machines within the boiler room. According to security on site, this tank has been empty and out of service for several years. Research into a 1992 Phase I of this site revealed three additional locations throughout the facility, previously housing ASTs. Former diesel tank areas were located on the northwest perimeter of the site near Building 8, the southeast corner of Building 9 and on the south perimeter of Building 18. No remnants of these tanks were observed during our visit. A small structure was observed east of Building 18, appearing to have housed an AST in the past. The structure was properly contained with a concrete floor & walls. Minor evidence of petroleum constituents was observed on the floor of the structure, but the product appeared to be properly contained.

2.3 Polychlorinated Biphenyls (PCBs)

Polychlorinated Biphenyls (PCBs) are toxic coolants or lubricating oils used in some electrical transformers, light ballasts, electrical panels or other similar equipment. The EPA has grouped PCB content in electrical transformers into three categories:

Less than 50 ppm	non-PCB
50 to 499 ppm	PCB-contaminated
500 ppm and greater	PCB transformer

Utility companies often own transformer equipment and typically assume the responsibility for repair or replacement of damaged or leaking units and for required cleanup or remediation

activities. Indications of damage or leakage should be immediately reported to the responsible utility company.

ATC noted pole-mounted transformers situated east of Building 18, south of Building 17 and east of Building 11. One pad-mounted transformer was observed west of Building 15 and on the north end of Building 9. The three pole-mounted transformers and the pad-mounted transformer west of Building 15 appeared to be in good condition with no signs of leaking or staining and therefore do not appear to pose an environmental concern. Several large transformers and various electrical apparatus were observed within the boiler area of Building 9. A large portion of this plant was constructed in the early 1900s, therefore, it is quite possible these transformers utilized PCB oils. Staining was observed beneath several sections of an electrical apparatus in the boiler room area. Several large sections of the boiler area also house large hydraulic equipment to operate turbines, boilers, etc. Due to the construction date of this plant, these items are also suspect for PCB oils.

2.4 Asbestos-Containing Materials (ACMs)

Typically, building materials that contain asbestos are found in a variety of types and uses. Frequently encountered types of ACMs used in building construction include floor tile, sheet flooring, mastic, ceiling tile, spray-applied acoustical/decorative ceiling materials, plaster, wallboard, and wallboard joint compound, insulation, roofing and flashing, and many other materials in common use prior to 1978. Materials that contain asbestos must be handled according to OSHA and USEPA regulations, if disturbed.

Thirteen areas of the facility contained building materials considered suspect asbestos-containing materials. The areas and associated materials are as follows;

- The south-end basement of Building 18 - Pipe insulation and transite panels.
- The old boiler room in Building 18 - Boiler and tank insulation.
- The north end of Building 18 - Plaster walls.
- The bathroom on the north end of Building 18 - 12" x 12" floor tile & mastic.
- Basement on north end of Building 18 - Pipe insulation.
- Building 16, roof area - Pipe insulation.

- Building 15, roof area - Pipe insulation.
- Building 11, north end - Pipe insulation.
- Building 9, north end throughout the entire boiler room and turbine room; - Transite panels, tank, pipe and boiler insulation.
- Building 8 - Entire ceiling area.
- Building 6, east end - 12" x 12" floor tile.
- External areas - Pipe insulation migrating between buildings.

No other suspects ACMs were noted on site. At the time of our survey, the suspect materials throughout Building 18 were observed to be significantly damaged, thus posing a potential hazard to any building occupants. ATC recommends that prior to renovation or disturbance the suspect materials be sampled and laboratory analyzed for potential asbestos content.

2.5 Utilities

Electric service and natural gas is provided to the site by Louisville Gas and Electric (LG&E). Drinking water is obtained from the Louisville Water Company (LWC). Sewage for the Site is provided by the Louisville Metropolitan Sewer District. These services were only made available to the administrative building housing the security personnel.

2.6 Waste Management and Chemicals Handling

Evidence that chemicals or hazardous materials are generated, treated, stored, or disposed of on site was apparent during the site visit.

At the time of our visit, the entire eastern fourth of the site displayed evidence of prior utilization as a staging ground for scrap metal, rock, soil, railroad ties, drums and general refuse. Several 55-gallon drums containing paints, hydraulic & waste oils and unknown substances were observed within this area. Leakage and staining in some of the immediately adjacent areas was noted. In several areas a silicone/plastic material appeared to have been disposed of while in a viscous state that has now hardened. Soil staining and areas of stressed

vegetation were noted throughout this area of the facility. Areas of concern, internally and externally of each building are noted below:

- Building 20: A 20' x 5' concrete lined pit was noted near the loading dock. At the time of our visit, this pit contained approximately 2" of water. A heavy petroleum sheen was observed floating upon this water.
- Building 19: Four unlabeled 55-gallon drums containing an unknown substance were observed on the east end of the building.
- Building 18: Eight 55-gallon drums containing hydraulic oil were located throughout this structure. Staining in the areas surrounding several drums was also noted.
- Building 17: Thirty 55-gallon drums of paint and a substance known as energol were noted throughout the structure. Many drums still contained a substance with some staining in the immediate areas. Large amounts of scrap metal, wood piles and defunct equipment were observed throughout the building.
- Building 15: Two 55-gallon drums were noted on the south end of the building containing a waste oil and aluminum chloride solution. One 55-gallon drum was observed on the north end containing hydraulic oil. Several smaller containers were noted throughout the structure also containing corrosives and waste oils. A generator located in a small storage room on the west end was observed to be leaking an oily substance.
- Building 12, 13, & 14: Fresh staining of petroleum constituents was noted on the floor of Building 12. This may have been from storage of containers in the past.
- Buildings 9 & 10: Six 55-gallon drums containing waste oil were noted throughout the facility. Staining was apparent surrounding several drums. Eight 55-gallon drums containing paint products were noted in Building 9. Several drums appeared to display signs of leaking with staining in the immediate areas. One 55-gallon and one 10-gallon drum of unknown contents were noted within Building 9.
- Boiler/processing Building: Three 55-gallon drums containing boiler feed-water treatment were located in the boiler room. Various small containers of waste oil are located in storage room adjacent to the turbine room. Staining is apparent in the areas surrounding these containers.
- A small area outside (and mud-ridden), between Building 15 and the Boiler Processing Building displayed signs of discoloration within accumulating pools of water. This could be due to past storage of drums, raw materials, etc. in this area.

3.0 ADJACENT LAND USE

The area surrounding the site is used for residential and industrial purposes. Specifically, the adjacent properties are as follows:

North:	Single-family residences
South:	Railroad yard and industrial facilities
East:	Industrial facilities
West:	Dixie Highway with residential communities beyond.

Considering the types of activities and the nature of the immediately adjacent land use, and based on visual observations and review of database records, the potential for environmental impact to the site from immediately adjacent properties appears to be a substantial possibility. The railroad yard to the south appeared to be a heavy traffic area, utilized for the transport of industrial and commercial products. Due to the close proximity, episodes of leakage and spills from rail-cars could possibly migrate onto the subject site. At the time of our visit, no suspect industrial sites or activities were observed to the east. Residential communities are located to the north and west. See Appendix A for photographic documentation.

4.0 SITE HISTORY AND RECORD REVIEW

Past land uses were investigated to identify historical practices or conditions which may have impacted the site. Previous land uses are typically investigated via a chain-of-ownership record review and an analysis of aerial photographs. Regulatory records were also reviewed to evaluate if the site or facilities immediately adjacent to the site is, or has been subject to regulatory action by Federal, State or Local environmental agencies.

4.1 Prior Ownership and Usage

A review of ownership information for the site was conducted by ATC at the office of the Jefferson County Clerk located in Louisville, Kentucky. Hansen Associates also provided a copy of the chain-of-ownership. This information indicates that Down River Forest Products currently own the site. A review of the chain-of-ownership going back 95 years revealed previous owners of facilities operating in very diverse areas, such as: tobacco processing, coal production, alkali batteries, bourbon distillers and packaging, wood production. The full chain-of-ownership is as follows:

Tract 1 - Buildings 1-3

1905 - 1933; Atlantic Tie
1933 - 1953; Stearns Coal Company

Tract 2 - Buildings 4-15

1904-1929; A Schwarzwager & Sons
1929 - 1953; Schenley/Louisville Cooperage

Tract 3 - Buildings 16-20

1910-1928; Tobacco Bi-Products
1928-1933; Diamond Black Leaf
1933-1959; Diamond Alkali Corp

Tract 4 - Buildings 1-20

1959-1982 Schenley Distillers/Louisville Cooperage
1982-1987; Lanham Lumber & Dry Kiln Company
1987-1993; Dunaway/Louisville Hardwoods Inc.
1993-Present; Down River Forest Products

4.2 Aerial Photography

Aerial photographs of the site area from 1951, 1963, 1970, 1980 and 1994 were obtained from Park Aerial Survey, Inc. in Louisville, Kentucky. Each photograph was evaluated for changes in land use and areas of potential environmental concern.

In the 1951 and 1963 photograph, all of the warehouse structures appear to be present and functioning. Railroad spurs are servicing the Site from the south. There appears to be a large

quantity of containers on the eastern perimeter, and between Building 15 and the Boiler Processing Building. Residential neighborhoods still appear to the west and north.

The 1970 photograph, still depicts the storage of containers on the north perimeter of the Site. Some additional structures appear to have been constructed. The eastern perimeter of the property appears to be vacant.

In the 1980 photograph, the site is fully developed, with an extremely large number of containers located throughout the entire facility. The railroad spurs still appear to service the Site from the south but on a limited basis. Residential neighborhoods are fully developed to the north and west. A vacant lot appears to be located to the east.

The 1990 photograph depicts the Site as it appears today. Container storage is still evident to the east, but on a limited basis. The railroad spurs from the south do not appear to service the Site at this time. Industrial facilities are located to the south and east with residential areas to the west and north.

Based on a review of aerial photographs, the Site does appear to have been utilized for industrial purposes in the past. Stockpiling of what appears to be containers was evident in all the aerial photographs. The Site appears to have been serviced by a railroad facility up until 1990. Copies of the aerial photographs are included in Appendix C.

4.3 Regulatory Review

A review of databases and files from federal and state environmental regulatory agencies was conducted to identify use, generation, storage, treatment, or disposal of hazardous materials and chemicals or release incidents of such materials which may impact the subject site. As part of the regulatory review, an ASTM-Compliant Phase I Radial Search was conducted with a database provided by Environmental Data Resources Inc.. A copy of the environmental radius search is included in Appendix D.

The database report included a section entitled "unmapped sites." The locations of the facilities listed in this section cannot be mapped due to incomplete or inaccurate information. ATC reviewed this section and compared the names and addresses (if available) with information generated during the site visit. If a cross-reference could not be made, ATC assumed that the facilities were not within the search distances. None of these facilities appeared to be within the specified search radii, and therefore, they are assumed to be of minimal environmental concern to the site.

4.3.1 Federal

A database search was conducted to determine if the subject site or properties within the indicated radius appear on the following lists:

Searched at a one mile radius

NPL: National Priority List
CORRACTS: Resource Conservation and Recovery Act (RCRA) Facilities
undergoing Corrective Action

Searched at a one-half mile radius

CERCLIS/NFRAP: Comprehensive Environmental Response, Compensation,
and Liability Information System (facilities currently or
formerly under review by the USEPA)
RCRIS-TSD: RCRA Permitted Treatment, Storage Disposal Facilities
USGS Water Wells: Federal and State Drinking Water Sources

Searched at one-quarter mile radius

RCRA Violations: RCRA violations and enforcement actions
TRIS: Toxic Release Inventory Database

Searched at a one-eighth mile radius

ERNS: Emergency Response Notification System

GENERATOR: RCRA Registered Large and Small Generators

Neither the subject site nor any surrounding adjacent properties appear on any of these lists. Surrounding facilities greater than one-quarter mile from the Site and facilities down-gradient from the Site (assumed to be north and west) are not considered a concern to this Site. Twelve facilities are located within one-quarter mile and are up-gradient or cross-gradient of the Site. Information concerning these facilities is listed below:

Facility Name	ADDRESS	Listed Distance (from center of site) and Direction, Anticipated Gradient from the Site	Database Listing(s)	Notes
Louisville Hardwoods (Subject Site)	1698 Saint Louis Ave.	Subject Site	UST	1000-gallon UST listed as verified removal in 1992.
J W Haywood & Sons	1724 W Burnett Ave.	1326 feet SSW, upgradient	UST	One 1000-gal. and one 3000-gal. "exempt" USTs.
Kelley Technical Coatings Inc. Plt. 2 / Lindeman Corporation	1401 South 15 th Street	1360 feet East, upgradient	RCRIS, FINDS	"High priority violator" listing for Kelley. Recommend review of State file(s).
Wheatley Truck Parts, Inc.	1441 S. 15 th Street	1402 feet ESE, upgradient	RCRIS, FINDS	2 violations listed. Recommend review of State file(s).
Kelley Technical Coatings Inc. Plt. 1	1445 S. 15 th Street	1411 feet ESE, upgradient	RCRIS, FINDS	"High priority violator" listing. Recommend review of State file(s).
Philip Morris USA	1419 Dixie Hwy.	1668 feet WSW, upgradient	UST	4 "exempt" USTs, one UST listed as "verified removal". Recommend review of State file(s).
Kelley Technical	Downtown	1668 feet SE,	SHWS	Hazardous class,

Facility Name	ADDRESS	Listed Distance (from center of site) and Direction, Anticipated Gradient from the Site	Database Listing(s)	Notes
Coatings	Louisville	upgradient		active status. Recommend review of State file(s).
Middlewest Freightways Inc.	1660 W. Hill Street	1790 feet South, upgradient	UST	6000-gal. UST verified removal in 1990, 100-gal. UST listed as "exempt".
Bluegrass Coca-Cola Bottling Co.	1661 Hill Street	1790 feet South, upgradient	SHWS, UST, FINDS	Petroleum incident in 1994 list as closed. 6 USTs listed as "verified removal". Minimal concern.
Color Corp. of America	1630 W. Hill Street	1833 feet South, upgradient	RCRIS, FINDS	Large quantity generator. 11 violations listed. Handles ignitable, chromium, mercury, spent solvent, pyridine wastes. Minimal concern based on distance.
Hill Street (Brown & Williamson Tobacco Corp.?)	1600 W. Hill Street	1876 feet SSE, upgradient	UST	6 USTs listed as "unverified" and removed 1980 - 1992, one "verified removal" UST removed in 1990, 2 exempt USTs with no removal date reported. Minimal concern based on distance.
Speedway #1112	Dixie Hwy. & Standard	1852 feet WSW, crossgradient	UST	10 USTs listed as "verified removal", 8 USTs listed as "active". Minimal concern based on gradient and distance.

4.3.2 State

A database search was conducted to determine if the subject site or any adjacent properties within a given radius appear on the following lists:

Searched at a one-half mile radius:

SWF/LS: Solid Waste Facilities/Landfill Sites
SCL: State Equivalent CERCLIS List

Searched at a one-quarter mile radius

UST/AST: State Registered Underground and Above Ground Storage Tank
Facilities
(NOTE: The State of Kentucky does not publish a leaking UST list)

The subject site did appear on the above UST list. The site was listed as:

Louisville Hardwoods
1698 Saint Louis Avenue
Louisville, Kentucky 40210

The database documented a removal of a 1,000-gallon steel underground storage tank on September 28th 1992. Refer to section 2.2.1 for more information concerning this tank. No adjacent sites were listed within the UST database.

Refer to the table in Section 4.3.1 above for a summary of the database review.

A review of permits or files on the site was requested from the Kentucky Division of Waste Management (KDWM), the KDWM - UST Branch, and the Division of Water.

The Division of Water, KDWM-UST Branch, and Division of Waste Management report no files on record for the site. Correspondence is included in Appendix E.

4.3.3 Local

The Jefferson County Health Department, Jefferson County Air Pollution Control District, and the Louisville & Jefferson County Metropolitan Sewer District (MSD) were contacted regarding information on permits, violations, spill incidents, or citations associated with environmental ordinances that have been issued or recorded concerning the subject site.

Several permits and complaint reports were received from the Jefferson County Air Pollution Control District. A permit was issued January 27th, 1994 for the glove-bag removal of 300 linear feet of asbestos pipe insulation. All other permits regarded several types of equipment utilized within the facility. Four different individual complaints were documented for excessive dust on the cars and properties along Saint Louis Avenue. No type of remediation was documented. None of the other above agencies reported any files associated with the site. Correspondence is included in Appendix E.

5.0 CONCLUSIONS AND RECOMMENDATIONS

ATC has completed a Phase I Environmental Site Assessment of the 29-acre tract located at the intersection of 18th Street and Wilson Street in Louisville, Jefferson County, Kentucky. The site is currently owned by Down River Forest Products. The primary purpose of this assessment was to identify current and potential environmental concerns for the site from on-site or off-site sources.

This assessment included a site visit, review of previously listed available databases and related agency information for the site and surrounding properties, prior ownership records, aerial photographs, published geologic information and other related items. The information was used to evaluate existing or potential environmental concerns to the site due to current or past land use disclosed by the study.

Our assessment revealed evidence of former USTs. One area of this facility near the administrative office appeared to be the past site of a UST. Our research indicated that a 1,000- gallon UST was removed from this location in September of 1992. Hydrocarbon impacted soils and groundwater were encountered during the tank removal. Following soil and groundwater remediation the tank was granted closure by the State. It should be noted that no techniques were employed to detect the presence of underground tanks. ATC's inspection consisted of a visual surficial inspection only.

At the time of our visit, ATC noted a large portion of the east end of the Site that displayed signs of past utilization as a staging ground for equipment, scrap metal, drums, railroad ties, gravel and general refuse. Several 55-gallon drums were noted in this area surrounded by heavy ground staining. Numerous areas contained a plastic/silicone substance, appearing to have been disposed of onto the ground in a viscous state and has now hardened. Large mounds of gravel, soil and sawdust were observed, coupled with large areas of stressed vegetation. ATC recommends a sub-surface investigation into the following areas;

- All 55-gallon drums displaying signs of leakage or ground staining.
- The areas surrounding the plastic/silicone substance to better assess its content.
- Any suspect equipment or scrap piles potentially leaking chemical substances.
- Any suspect areas of ground staining or stressed vegetation.

ATC also recommends the removal and proper disposal of all containers of oils, corrosives, or unknown substances throughout the facility. These drums constitute an environmental hazard if persistent leaking due to corrosion or puncture occurs.

A sub-surface investigation is also recommended into the mud-ridden area between Building 15 and the Boiler Processing Building to better assess the discoloration of the water accumulations at the time of our survey.

Additional sampling of suspect asbestos-containing materials is recommended to evaluate potential asbestos content. A laboratory analysis of these suspect materials utilizing polarized microscopy is the primary method for assessing asbestos-containing materials.

Based on a review of previous ownership, historical aerial photographs, and available Federal, State, and Local database records, this site has functioned as a heavy industry facility for at least 94 years. The potential exists for environmental impairment from current and past land usage. Based on the results of our investigation, additional environmental studies of the subject site appear to be warranted.

Based on a review of database records, the potential exists for environmental impacts from the following adjacent properties

Facility Name	ADDRESS	Listed Distance (from center of site) and Direction, Anticipated Gradient from the Site	Database Listing(s)	Notes
Louisville Hardwoods (Subject Site)	1698 Saint Louis Ave.	Subject Site	UST	1000-gallon UST listed as verified removal in 1992
J W Haywood & Sons	1724 W Burnett Ave.	1326 feet SSW, upgradient	UST	One 1000-gal. and one 3000-gal. "exempt" USTs.
Kelley Technical Coatings Inc. Pkt. 2 / Lindeman Corporation	1401 South 15 th Street	1360 feet East, upgradient	RCRIS, FINDS	"High priority violator" listing for Kelley. Recommend review of State file(s).
Wheatley Truck Parts, Inc.	1441 S. 15 th Street	1402 feet ESE, upgradient	RCRIS, FINDS	2 violations listed. Recommend review of State file(s).
Kelley Technical Coatings Inc. Pkt. 1	1445 S. 15 th Street	1411 feet ESE, upgradient	RCRIS, FINDS	"High priority violator" listing. Recommend review of State file(s).
Philip Morris USA	1419 Dixie Hwy.	1668 feet WSW, upgradient	UST	4 "exempt" USTs, one UST listed as "verified removal". Recommend review of State file(s).
Kelley Technical Coatings	Downtown Louisville	1668 feet SE, upgradient	SHWS	Hazardous class, active status. Recommend review of State file(s).

Facility Name	ADDRESS	Listed Distance (from center of site) and Direction, Anticipated Gradient from the Site	Database Listing(s)	Notes
Middlewest Freightways Inc.	1660 W. Hill Street	1790 feet South, upgradient	UST	6000-gal. UST verified removal in 1990, 100-gal. UST listed as "exempt".
Bluegrass Coca- Cola Bottling Co.	1661 Hill Street	1790 feet South, upgradient	SHWS, UST, FINDS	Petroleum incident in 1994 list as closed. 6 USTs listed as "verified removal". Minimal concern.
Color Corp. of America	1630 W. Hill Street	1833 feet South, upgradient	RCRIS, FINDS	Large quantity generator. 11 violations listed. Handles ignitable, chromium, mercury, spent solvent, pyridine wastes. Minimal concern based on distance.
Hill Street (Brown & Williamson Tobacco Corp.?)	1600 W. Hill Street	1876 feet SSE, upgradient	UST	6 USTs listed as "unverified" and removed 1980 - 1992, one "verified removal" UST removed in 1990, 2 exempt USTs with no removal date reported. Minimal concern based on distance.
Speedway #1112	Dixie Hwy. & Standard	1852 feet WSW, crossgradient	UST	10 USTs listed as "verified removal", 8 USTs listed as "active". Minimal concern based on gradient and distance.

The State of Kentucky does not publish a leaking underground storage tank list, therefore our regulatory database provides no records for releases from exempt or regulated USTs. Exempt USTs (i.e. fuel oil tanks) are not required to be registered with the State so information referencing these types of facilities is limited. ATC recommends a review of State files for the above referenced facilities to further evaluate their potential to affect the soils or groundwater at the Site.

6.0 QUALIFICATIONS

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This warranty is in lieu of all other warranties either expressed or implied. This company is not responsible for the independent conclusions, opinions or recommendations made by others based on the records review, site inspection and field exploration data presented in this report.

It should be noted that environmental evaluations are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. ATC is dependent on information available from various government agencies and ATC shall not be liable for any such agency's failure to make relevant files or documents properly available, to properly index files or documents or otherwise fail to maintain or produce accurate or complete records. Additionally, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not investigated. This report is not a regulatory compliance audit and is not intended to satisfy the requirements of any state, federal, or local real estate transfer laws.

This report is intended for the sole use of Louisville Industrial Park, LLC and may not be used or relied upon by any other party without the written consent of ATC. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other

users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

Subsurface conditions were not field investigated for environmental purposes as this was outside the scope of this study and may differ from the conditions implied by the surficial observations. This study is not intended to assess or otherwise determine if soil contamination, waste emplacement, or groundwater contamination exists. These data are accessible only by subsurface material and groundwater sampling through the completion of soil borings and the installation of monitoring wells. The scope of work, in accordance with our agreement, did not include these activities.

Our conclusions regarding the potential environmental impact of nearby, off-site facilities on the subject site are based on readily available information from the environmental databases and the assumed groundwater flow direction. A detailed file review of each facility was beyond the scope of work. Actual groundwater conditions, including direction of flow, can only be determined through the installation of monitoring wells.

ATC does not warrant the correctness, completeness, currentness, merchantability, or fitness of any information related to records review provided in this report. Such information is not the product of an independent review conducted by ATC, but is only publicly available environmental information maintained by Federal, State, and Local government agencies.

ATC is not a professional title insurance firm and makes no guarantee, explicit or implied, that the listing represents a comprehensive delineation of past site ownership or tenancy for legal purposes.

7.0 REFERENCES

Sources of Information

Interviews

Description of Environmental Regulatory Lists and Records

Sources of Information

The following publications, maps, and photographs were reviewed to better determine site characteristics and activities:

- Aerial photographs obtained from Park Aerial Survey, dated 1949, 1951, 1963, 1970, 1980 and 1994
- United States Geological Survey (USGS), 7.5 Minute Series Topographic Map, West Louisville, Kentucky Quadrangle, photo-revised 1987
- United States Geological Survey (USGS), Geologic Quadrangle Map, West Louisville, Kentucky, dated 1974
- Environmental Data Resources, Inc. Environmental Database Report dated June 24, 1999

Interviews

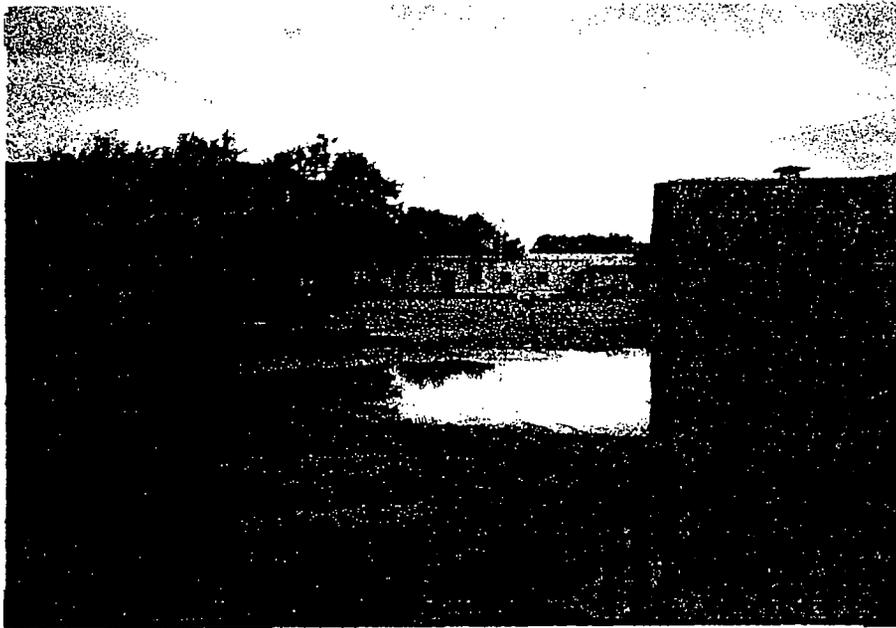
The following individuals were contacted to obtain site use information and any knowledge of environmental concerns regarding the property.

- Ms. Donna Swanson, Kentucky Division of Waste Management – UST Branch
- Ms. Maria Wood, Kentucky Division of Waste Management
- Ms. Anita Estes, Department for Environmental Protection – Division of Water
- Ms. Christina Lee, Jefferson County Air Pollution Control District
- Ms. Felicia Mudd, Jefferson County Health Department
- Mr. Mark Hill, Louisville & Jefferson County Metropolitan Sewer District
- On-site security personnel

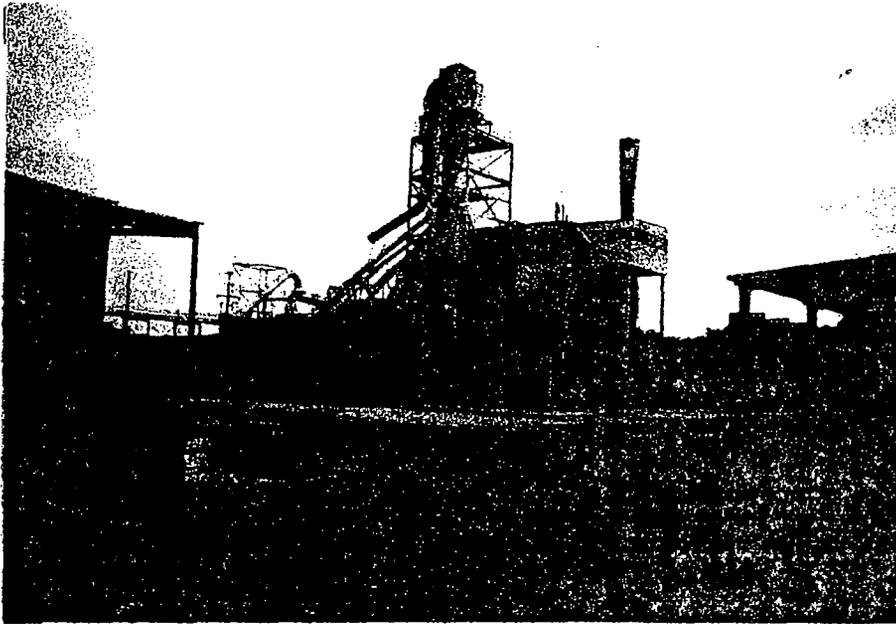


APPENDIX A

Photographic Documentation



PHOTOGRAPH 1
Main Office Building



PHOTOGRAPH 2
Boiler/Processing Building

PHOTOGRAPHIC DOCUMENTATION

SITE NAME Down River Forest Products
STREET Saint Louis at 18th Street
CITY, STATE Louisville, Kentucky

PROJECT NUMBER

18632.0000

DATE: 7/6/99

APPENDIX

A





PHOTOGRAPH 3
Railways: South Of The Site



PHOTOGRAPH 4
Residential Neighborhoods: North Of The Site

PHOTOGRAPHIC DOCUMENTATION

SITE NAME Down River Forest products
STREET Saint Louis Avenue at 18th Street
CITY, STATE Louisville, Kentucky

PROJECT NUMBER

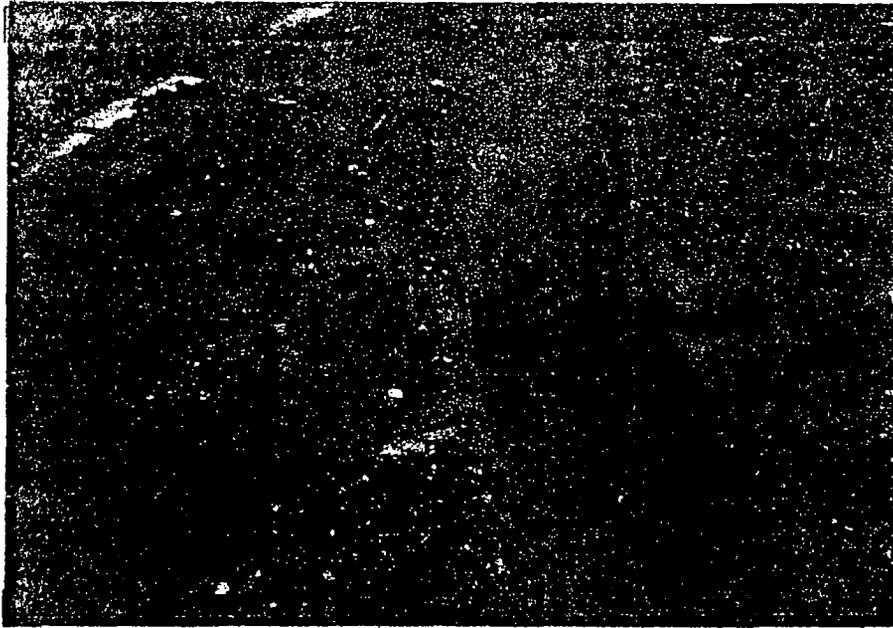
186329.0000

DATE: 7/8/99

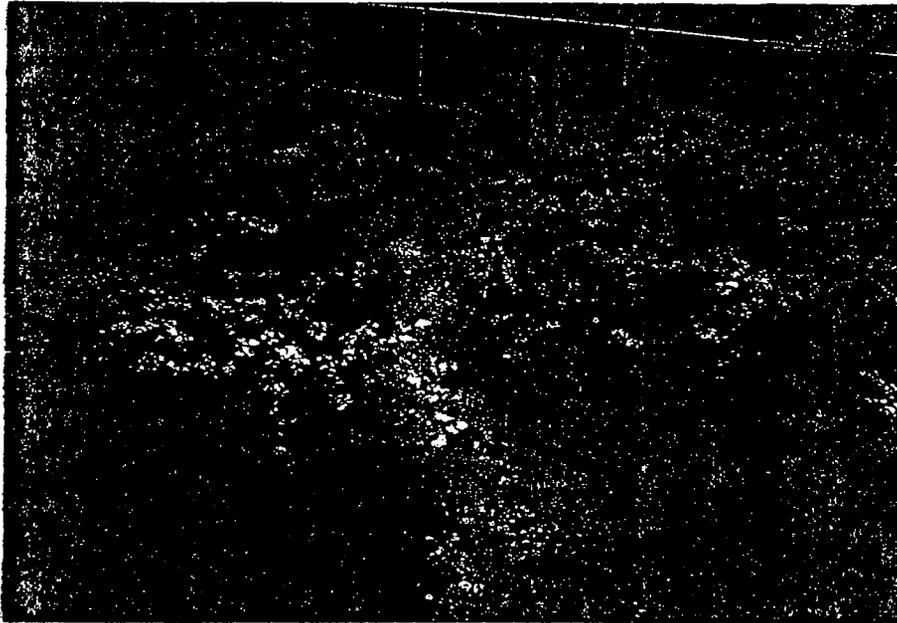
APPENDIX

A



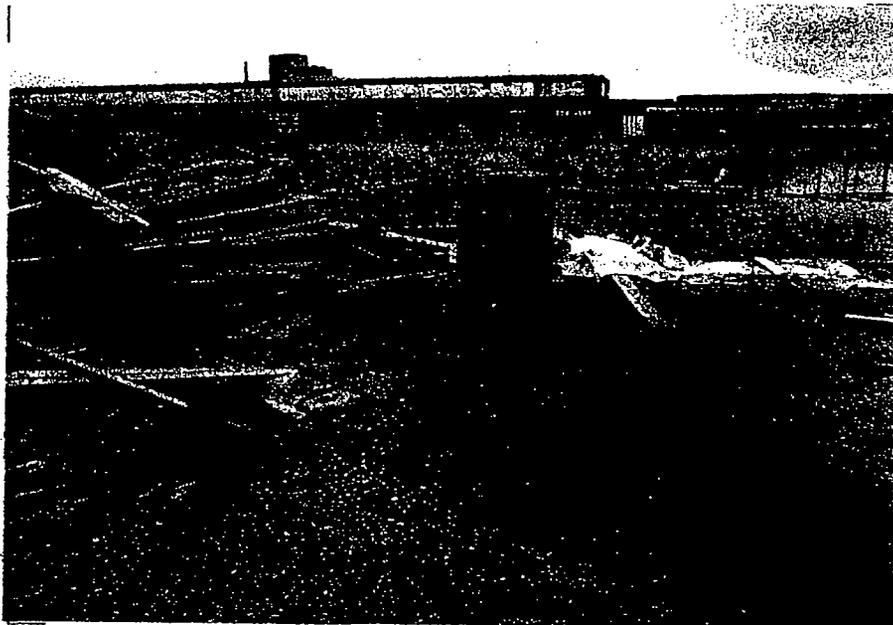


PHOTOGRAPH 5
Discolored Water, Adjacent to Building 15



PHOTOGRAPH 6
Off-site Drainage: North Perimeter Of Site

<u>PHOTOGRAPHIC DOCUMENTATION</u>		PROJECT NUMBER 18632.0000	
SITE NAME	Down River Forest Products	DATE: 7/6/99	
STREET	Saint Louis at 18th Street	APPENDIX A	
CITY, STATE	Louisville, Kentucky		



PHOTOGRAPH 7
55-gallon Drums & Surface Staining: East Perimeter

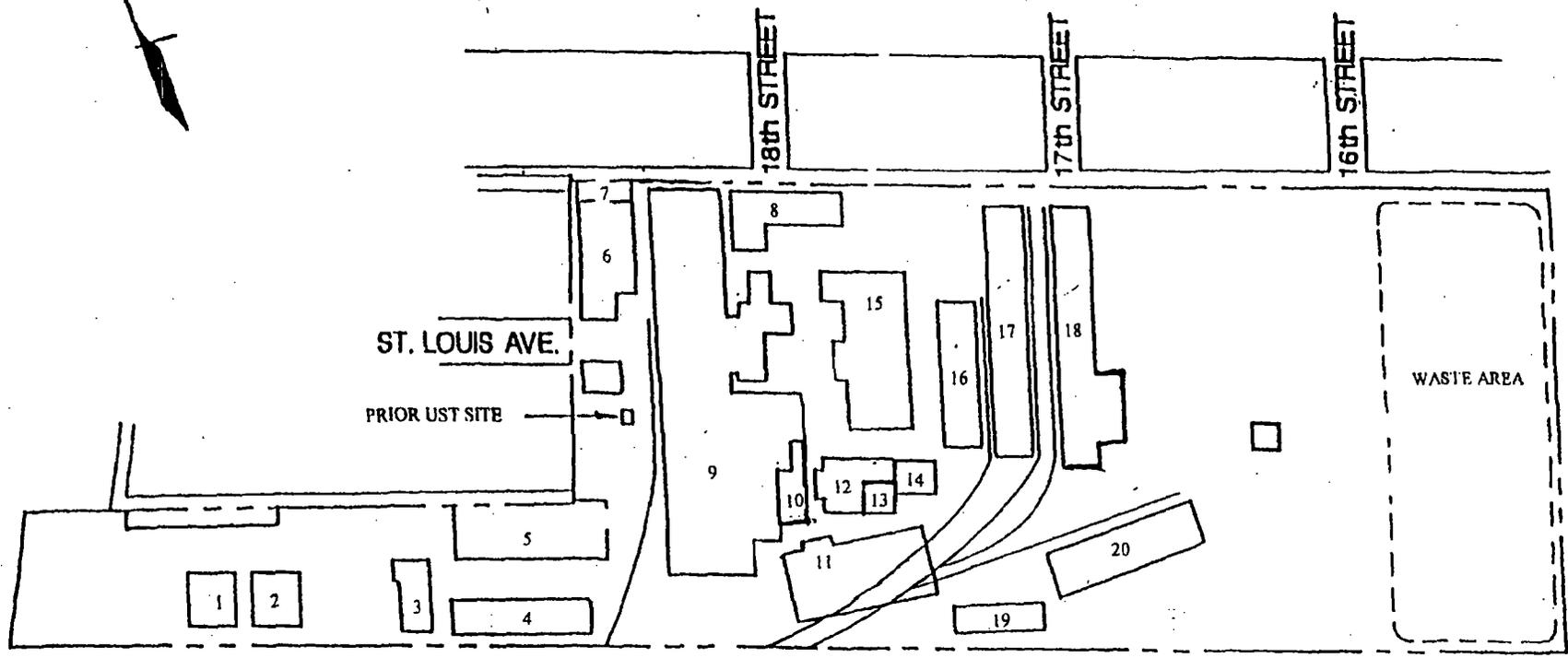


PHOTOGRAPH 8
55-gallon Drums, Trash & Debris: East Perimeter Of Site

PHOTOGRAPHIC DOCUMENTATION		PROJECT NUMBER 186329.0000	
SITE NAME	Down River Forest products	DATE: 7/8/99	
STREET	Saint Louis Avenue at 18th Street	APPENDIX A	
CITY, STATE	Louisville, Kentucky		

APPENDIX B

Site Plan & Site Vicinity Map



KENTUCKY & INDIANA TERMINAL R.R. CO. MAGNOLIA AVENUE

SOURCE: ATC Associates Inc.

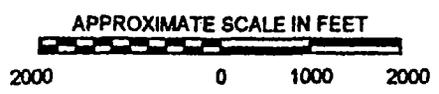
SITE PLAN
DOWN RIVER FOREST PRODUCTS
SAINT LOUIS AT 18TH STREET
LOUISVILLE, KENTUCKY

PROJECT NUMBER
186329.0000
DATE: 7/2/99
FIGURE NUMBER
1





SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF THE
Louisville West Quadrangle Photorevised 1987



PREPARED BY DB CHECKED TQ

SITE LOCATION MAP

Down River Forest products
Saint Louis at 18th Street
Louisville, Kentucky

PROJECT NUMBER
186329.0000

DATE: 7/7/99

FIGURE NUMBER
2



APPENDIX C

Aerial Photographs

EXHIBIT 3

DB07295PG0711

GENERAL WARRANTY DEED

This DEED is made and entered into on August 4, 1999, from

Louisville Hardwoods, Inc., f/k/a Lanham
Lumber & Dry Kiln Co., Inc., f/k/a Louisville
Hardwood Flooring, Inc.
Highway 1700
Fordsville, Kentucky 42343

("Grantor")

to

U. S. Wood Products, Inc.,
a Delaware corporation
200 Baker Avenue
Suite 200
Concord, Massachusetts 01742

("Grantee").

WITNESSETH

For a total consideration of One Million One Hundred Twenty Eight Thousand Three Hundred Twenty Dollars and Eighty-five Cents (\$1,128,320.85), the receipt and sufficiency of which are acknowledged, Grantor grants and conveys to Grantee with covenant of General Warranty the real properties located at 1628 St. Louis Avenue in Louisville, Jefferson County, Kentucky, and more particularly described on EXHIBIT A attached hereto and made a part hereof (the "Property").

Grantor covenants (a) lawful seisin of the Property, (b) full right and power to convey same, and (c) that the Property is free and clear of all liens and encumbrances, except liens for real property taxes and assessments due and payable in 1999 and thereafter, which Grantee assumes and agrees to pay.

This conveyance is made subject to all (i) easements, restrictions and stipulations of record, (ii) governmental laws, ordinances and regulations affecting the Property (iii) Agreement as to use and improvement of property, together with a release for damages, as contained in instrument recorded in Deed Book 1653, Page 553, in the office of the Clerk of Jefferson County, Kentucky, and (iv) rights in all uranium, thorium, and all other materials to be peculiarly essential to the production of fissionable material reserved for the use and benefit of the United States in deed from the Attorney General of the United States of America to Tobacco By-Products & Chemical Corporation, dated May 26, 1950, and recorded in Deed Book 2634, Page 282, in the Clerks office aforesaid. This affects a part of the property having a frontage of 122 feet by a depth of 180 feet to an alley, located on the South side of St. Louis Avenue, beginning 92 feet East of 16th Street.

DB07295PG0712

For purposes of KRS 382.135, Grantor and Grantee, by execution of this Deed, certify that the consideration reflected in this Deed is the full consideration paid for the Property.

IN WITNESS WHEREOF, Grantor and Grantee, acting by and through their duly authorized representatives, duly executed this Deed as of the date first set forth above, but actually on the dates set forth below.

GRANTOR:

Louisville Hardwoods, Inc., f/k/a Lanham
Lumber & Dry Kiln Co., Inc., f/k/a
Louisville Hardwood Flooring, Inc.,
a Kentucky corporation

By Henry Christ

Title: PRESIDENT

Date: August 5, 1999

GRANTEE:

U. S. Wood Products, Inc.
a Delaware corporation

By Charles Holcomb
Charles Holcomb

Title: VICE PRESIDENT

Date: August __, 1999

DB07295PG0713

STATE OF Kentucky)
) SS
COUNTY OF Bullitt)

The foregoing Deed, including the consideration certificate contained therein, was sworn to and acknowledged before me on August ~~8~~ 4, 1999 by Henry Christ, as President of Louisville Hardwoods, Inc., f/k/a Lanham Lumber & Dry Kiln Co., Inc., f/k/a Louisville Hardwood Flooring, Inc., a Kentucky corporation, on behalf of the corporation.

[Signature]
John C. Long, Kentucky, Notary Public

My Commission Expires: 1/21/00

County of residence: Spencer

STATE OF Massachusetts)
) SS
COUNTY OF Middlesex)

The foregoing Deed, including the consideration certificate contained therein, was sworn to and acknowledged before me on August 4, 1999 by Charles Holcomb, as Vice President of U. S. Wood Products, Inc., a Delaware corporation, on behalf of the corporation.

[Signature]
Michael M. [unclear], Notary Public

My Commission Expires: 3-22-02

County of residence: Middlesex

This Deed Prepared By:

[Signature]
RICHARD E. MYERS, 9412598
Brown, Todd & Heyburn PLLC
120 W. Spring Street, Suite 400
New Albany, IN 47150
(812) 948-2800

486jlg
08896.112690
FAUSERS\486\LouisvilleHardwoods\Deed.doc

DB07295PG0714

EXHIBIT "A"

BEGINNING at an iron pipe at the intersection of the East line of Dixie Highway, as established in Deed Book 1653, Page 553, in the Office of the Clerk of Jefferson County, Kentucky, with the North line of the Kentucky and Indiana Terminal Railroad right-of-way; thence with the East side of Dixie Highway North 17 degrees 07 minutes East 185.13 feet to the Northwest corner of the tract conveyed to Schenley Distillers, Inc. by deed of record in Deed Book 4386, Page 457, in the Office aforesaid; thence with the North line of said tract, South 85 degrees 20 minutes East 872.14 feet to an iron pipe in the West line of the tract conveyed to Louisville Cooperaage Company, by deed of record in Deed Book 1533, Page 5, in the Office aforesaid; thence with the West line of said tract, North 8 degrees 25 minutes East 460 73 feet to a Northwesterly corner of said tract; thence South 84 degrees 10 minutes East 775.37 feet to the West line of the 17th Street; thence with same if extended South 7 degrees 11 minutes West 18.37 feet to a spike in the South line of the first alley South of Wilson Avenue ; thence with the south line of aforesaid alley South 84 degrees 17 minutes 30 seconds East 842.14 feet to an iron pipe at the Northeast corner of the tract conveyed to Shenley Distillers, Inc., by deed of record in Deed Book 3574, Page 221, in the Office aforesaid; thence with the East line of said tract, South 6 degrees 37 minutes 30 seconds West 619.56 feet to an iron pipe at the Northeast corner of the tract conveyed to the Kentucky and Indiana Terminal Railroad Company, by deed of record in Deed Book 1843, Page 224, in the Office aforesaid; thence with the North line of last mentioned tract, North 84 degrees 08 minutes 30seconds West 338.48 feet to a point in the center line of 16th Street, as close by judgment in Action #35674, Jefferson Circuit Court; thence South 7 degrees 11 minutes 30 seconds West 25 feet to an iron pipe in the North line of Magnolia Avenue; thence with the North line of Magnolia Avenue and the North line of he Kentucky and Indiana Terminal Railroad right-of-way, North 84 degrees 08 minutes 30 seconds West 2198.24 feet to the point of BEGINNING.

EXCEPTING THEREFROM so much as was conveyed to the City of Louisville for public alley, by deed of record in Deed Book 3510, Page 463, in the Office aforesaid.

Being the same property acquired by LOUISVILLE HARDWOODS, INC., by Deed dated July 19, 1983, of record in Deed Book 5363, Page 949, in the Office of the clerk of Jefferson County, Kentucky.

Document No.: DN1999130259
Lodged By: BORNSTEIN
Recorded On: 08/06/1999 10:50:50
Total Fees: 1,142.50
Transfer Tax: 1,128.50
County Clerk: Bobbie Holsclaw
Deputy Clerk: DENKIN

END OF DOCUMENT

MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is made as of September 1, 1993, by and between LOUISVILLE HARDWOODS, INC., a Kentucky corporation ("Landlord") and DOWN RIVER INTERNATIONAL, INC., a Michigan corporation ("Tenant").

WITNESSETH:

Landlord leases to Tenant and Tenant leases from Landlord the real estate and all improvements located at 1698 St. Louis Avenue, Louisville, Kentucky subject to such covenants and agreements as are set forth in a certain lease between landlord and tenant of even date herewith (the "Lease") which Lease is incorporated herein by this reference.

The term of the Lease shall be for three (3) years, beginning on September 1, 1993, and continuing until midnight on August 31, 1996 (the "initial term"), unless sooner terminated or extended as provided for in the Lease. Pursuant to the Lease, Landlord grants Tenant the right and option to extend the term for certain additional periods of time and upon such terms as set forth in the Lease.

IN WITNESS WHEREOF, this Memorandum of Lease has been executed as of the day, month, and year first above written.

LOUISVILLE HARDWOODS, INC.

By: S. M. Dunaway
Title: Pres.

DOWN RIVER INTERNATIONAL, INC.

By: Thomas B. Sparks
Title: Chief Executive Officer

STATE OF Kentucky)
 : SS
COUNTY OF Jefferson)

The foregoing instrument was subscribed, sworn to and acknowledged before me this 2 day of September, 1993, by S.M. Duvinsky, as President of Louisville Hardwoods, Inc.

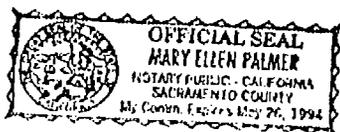
My commission expires: June 25, 1996.

Richard Wood
Notary Public Spokane

STATE OF)
 : SS
COUNTY OF)

The foregoing instrument was subscribed, sworn to and acknowledged before me this 30 day of August, 1993, by William Sparks Jr., as C.E.O of Down River International, Inc.

My commission expires: May 26, 1994.



Mary Ellen Palmer
Notary Public

THIS INSTRUMENT PREPARED BY:

Janet G. Kelley
Janet G. Kelley
WYATT, TARRANT & COMBS
2800 Citizens Plaza
Louisville, Kentucky 40202
(502) 589-5235
I:\DC\DOWN-RIV.MOL
G:\JGK\DOWN-RIV.MOL

18589

Document No: 1994018589
Lodged By: WYATT, TARRANT & COMBS
Recorded On: Feb 14, 1994 02:27:47 P.M.
Total Fees: \$5.50
County Clerk: Rebecca Jackson
Deputy Clerk: KATHY L.

END OF DOCUMENT

✓

DEED OF RELEASE

This DEED OF RELEASE is made and entered into on August 31st, 1993, by and between

LANHAM LUMBER & DRY KILN CO., INC.,
a Kentucky corporation
n/k/a Louisville Hardwoods, Inc.,
f/k/a Louisville Hardwood Flooring, Inc.,
1628 St. Louis Avenue
Louisville, Kentucky 40210 ("Mortgagor")

and

KENTUCKY DEVELOPMENT FINANCE AUTHORITY
500 Mero Street, 24th Floor
Frankfort, Kentucky 40601 ("Mortgagee").

WITNESSETH

For valuable consideration received, Mortgagee releases and discharges in full to Mortgagor the liens in the (a) Mortgage dated October 31, 1983, and recorded on October 31, 1983 in Mortgage Book 2136, Page 568 in the Office of the Clerk of Jefferson County, Kentucky and (b) Assignment of Rents dated October 31, 1983, and recorded in Deed Book 5386, Page 706 in the aforesaid Office, as the indebtedness secured thereby is paid in full.

IN WITNESS WHEREOF, Mortgagee, acting by and through its duly authorized officer, duly executed this Deed of Release as of the date first set forth above.

MORTGAGEE:

KENTUCKY DEVELOPMENT FINANCE
AUTHORITY

By Sharon M. Adkins

Title: Small Business Branch Manager

COMMONWEALTH OF KENTUCKY)
COUNTY OF Franklin) SS

The foregoing Deed of Release was acknowledged before me on August 3rd, 1993 by Theresa Middleton as Small Business Co. member ~~of the Economic Development Finance Authority~~ ~~governmental agency~~, on behalf of the ~~Commonwealth of Kentucky~~

Kathleen Spitzerberg
Notary Public

My Commission Expires: 10/19/96

This Deed of Release Prepared By:

Brown, Todd & Heyburn
1600 Citizens Plaza
Louisville, Kentucky 40202

Todd A. Brown

UJ4.D9809
472:rh:5020
8/27/93

18585

Document No: 1994018585
Lodged By: WYATT, TARRANT & COMBS
Recorded On: Feb 14, 1994 02:26:03 P.M.
Total Fees: \$19.50 - 8.00
County Clerk: Rebecca Jackson
Deputy Clerk: KATHYL

END OF DOCUMENT

54

DEED OF RELEASE

This DEED OF RELEASE is made and entered into on August 31, 1993, by and between

LANHAM LUMBER & DRY KILN CO., INC.,
a Kentucky corporation
n/k/a Louisville Hardwoods, Inc.,
f/k/a Louisville Hardwood Flooring, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210 ("Mortgagor")

and

NATIONAL CITY BANK, KENTUCKY,
a national banking association
(f/k/a First National Bank of Louisville)
101 South Fifth Street
Louisville, Kentucky 40202 ("Mortgagee").

WITNESSETH

For valuable consideration received, Mortgagee releases and discharges in full to Mortgagor the liens in the (a) Mortgage dated July 19, 1983, and recorded on July 19, 1983 in Mortgage Book 2107, Page 548 in the Office of the Clerk of Jefferson County, Kentucky, which Mortgage was assigned to First National Bank (as Trustee) in Mortgage Book 2107, Page 548 in the aforesaid office; (b) Mortgage dated July 19, 1983 and recorded on July 19, 1983 in Mortgage Book 2107, Page 626, in the Office of the Clerk of Jefferson County, Kentucky and (c) Assignment of Rents dated October 31, 1983, and recorded in Deed Book 5386, Page 701 in the aforesaid Office, as the indebtedness secured thereby is paid in full.

IN WITNESS WHEREOF, Mortgagee, acting by and through its duly authorized officer, duly executed this Deed of Release as of the date first set forth above.

MORTGAGEE:

NATIONAL CITY BANK, KENTUCKY
a national banking association

By Corrie C. Tate

Title: Assistant Vice President

BOOK 06919 0213

MEMORANDUM OF LEASE AND
MEMORANDUM OF LEASE EXTENSION

THIS MEMORANDUM OF LEASE is made as of August 4, 1997, by and between LOUISVILLE HARDWOODS, INC., a Kentucky corporation, survivor corporation pursuant to Articles of Merger between Louisville Hardwoods, Inc. and LANUM LUMBER AND DRY KILN COMPANY, INC., a Kentucky corporation ("Landlord") and DOWN RIVER INTERNATIONAL INC., a Michigan corporation ("Tenant Assignor") and DRI Acquisition Corporation, INC., a Delaware corporation ("Tenant Assignee") pursuant to the Assignment of Tenant's interest in Lease between Down River International, Inc. as Assignor and DRI Acquisition Corporation, Inc., Assignee, dated the 1st day of September, 1997.

W I T N E S S E T H:

Landlord leased to Tenant Assignee and Tenant Assignor leased from Landlord the real estate and all improvements located at 1698 St. Louis Avenue, Louisville, Kentucky subject to such covenants and agreements as are set forth in the Lease between Landlord and Tenant Assignee dated September 1, 1993 (the "Lease"). The Lease and all extensions thereof are incorporated herein by this reference.

The term of the original Lease was for three (3) years beginning September 1, 1993 and continued until midnight August 31, 1996 (the "Initial Term"). The Initial Term was extended as provided for in the Lease Notices for Tenant Assignor to Landlord for two (2) additional periods of one (1) year each and upon such terms as set forth in the Notices dated May 17, 1996 and May 5, 1997. The Extended Term of the Lease shall continue until midnight on the 31st day of August, 1998 (the "Extended Term") unless sooner terminated or extended as provided for in the Lease.

IN WITNESS WHEREOF, this Memorandum of Lease and Memorandum of Lease Extension has been executed as of the day, month, and year first above written.

LANDLORD:

LOUISVILLE HARDWOODS, INC.

By: _____
Title: _____

TENANT ASSIGNOR:
DOWN RIVER INTERNATIONAL, INC.

By: Ronald L. Brown
Title: President

TENANT ASSIGNEE:
DRI Acquisition Corporation,
INC.

By: Charles H. Halenak
Title: Vice President

BOOK 06919 0215

The term of the original Lease was for three (3) years beginning September 1, 1993 and continued until midnight August 31, 1996 (the "Initial Term"). The Initial Term was extended as provided for in the Lease Notices for Tenant Assignor to Landlord for two (2) additional periods of one (1) year each and upon such terms as set forth in the Notices dated May 17, 1996 and May 5, 1997. The Extended Term of the Lease shall continue until midnight on the 31st day of August, 1998 (the "Extended Term") unless sooner terminated or extended as provided for in the Lease.

IN WITNESS WHEREOF, this Memorandum of Lease and Memorandum of Lease Extension has been executed as of the day, month, and year first above written.

LANDLORD:

LOUISVILLE HARDWOODS, INC.

By: *S. M. Dunaway*
Title: President

TENANT ASSIGNOR:
DOWN RIVER INTERNATIONAL, INC.

TENANT ASSIGNEE:
DRI Acquisition Corporation,
INC.

By: _____
Title: _____

By: _____
Title: _____

BOOK 06919 0216

STATE OF Ohio)

COUNTY OF Clio)

Subscribed and sworn to before me by [Signature],
the President of Louisville Hardwoods, Inc., this 31st
day of July, 1997.

My Commission expires:

Oct 17 1999
[Signature]
NOTARY PUBLIC



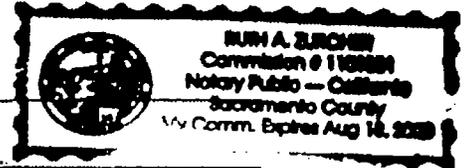
STATE OF California
COUNTY OF Sacramento

BOOK 06919 0217

Subscribed and sworn to before me by Ronald L. Brown,
the President of Down River International, Inc. this
31st day of July, 1997.

My Commission expires: _____

Ruth A. Zucher
NOTARY PUBLIC

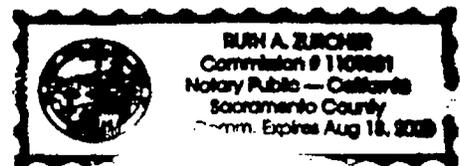


STATE OF California
COUNTY OF Sacramento

Subscribed and sworn to before me by Charles W. Hokomb,
the Vice-president of DRI Acquisition Corporation, Inc., this
31st day of July, 1997.

My Commission expires: _____

Ruth A. Zucher
NOTARY PUBLIC



THIS INSTRUMENT PREPARED BY:

William S. Bornstein
WILLIAM S. BORNSTEIN
BORNSTEIN & OPPENHEIMER
1900 National City Tower
101 South Fifth Street
Louisville, KY 40202-3122
(502) 589-6612

Document No: 1997106527
Lodged By: BORNSTEIN
Recorded On: Aug 04, 1997 03:21:54 P.M.
Total Fees: \$13.00
County Clerk: Rebecca Jackson
Deputy Clerk: CHERYL

183493.1

4

END OF DOCUMENT

D

BOOK 06919 0218

ASSIGNMENT AND ASSUMPTION OF LEASE

THIS ASSIGNMENT AND ASSUMPTION OF LEASE is made as of the 4th day of August, 1997 by DOWN RIVER INTERNATIONAL, INC., a Michigan corporation ("Assignor") and DRI ACQUISITION CORP., a Delaware corporation ("Assignee").

A. Assignor is currently the tenant under that certain lease dated September 1, 1993 (the "Lease") by and between Assignor and Louisville Hardwoods, Inc., as landlord (the "Landlord").

B. Pursuant to that certain Asset Purchase Agreement of even date herewith by and among Assignor, Assignee and Affiliates of Assignor, Assignee is purchasing substantially all of Assignor's assets used in connection with the premises subject to the Lease.

C. In connection with such acquisition, Assignor desires to assign and Assignee desires to receive all of Assignor's right, title and interest under the Lease (the "Assigned Interest").

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor and Assignee hereby agree as follows:

1. Assignment. Assignor hereby sells, assigns, conveys, transfers and sets over to Assignee, its successors and assigns the Assigned Interest.

2. Further Assurances. Assignor, at its sole cost and expense, upon reasonable request of Assignee, shall execute and deliver such further instruments and do or cause to be such further acts as may be reasonably necessary to effectuate and confirm the assignment of the Assigned Interest.

3. Assumption by Assignee. Assignee hereby accepts the assignment of the Assigned Interest and agrees to assume all of Assignor's obligations under the Lease accruing on and after the date hereof.

4. Attorneys' Fees. In the event any litigation or other proceedings are brought to enforce or explain the provisions hereof, the prevailing party shall be entitled to an award of its attorneys' fees and costs from the losing party therein.

5. Counterparts. This Assignment and Assumption may be executed in one or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

BOOK 06919 0219

IN WITNESS WHEREOF, the undersigned has executed this Assignment of Lease as of the date first above written.

ASSIGNOR:

DOWN RIVER INTERNATIONAL, INC.,
a Michigan corporation

By: Ronald B. Brown
Name: Ronald B. Brown
Title: President

ASSIGNEE:

DRI ACQUISITION CORP.,
a Delaware corporation

By: Charles D. Halcomb
Name: Charles D. Halcomb
Title: Vice President

RELEASE BY LANDLORD

The undersigned, the landlord under the above-referenced Lease, hereby finally and forever releases Assignor from any and all liability under the Lease.

LOUISVILLE HARDWOODS, INC.,
a Kentucky corporation

By: _____
Name: _____
Title: _____

BOOK 06919 0220

IN WITNESS WHEREOF, the undersigned has executed this Assignment of Lease as of the date first above written.

ASSIGNOR:

DOWN RIVER INTERNATIONAL, INC.,
a Michigan corporation

By: _____
Name: _____
Title: _____

ASSIGNEE:

DRI ACQUISITION CORP.,
a Delaware corporation

By: _____
Name: _____
Title: _____

RELEASE BY LANDLORD

The undersigned, the landlord under the above-referenced Lease, hereby finally and forever releases Assignor from any and all liability under the Lease.

LOUISVILLE HARDWOODS, INC.,
a Kentucky corporation

By: J. M. Downey
Name: J. M. Downey
Title: Pres.

Document No: 1997106529
Lodged By: BORNSTEIN
Recorded On: Aug 04, 1997 03:22:59 P.M.
Total Fees: \$11.00
County Clerk: Rebecca Jackson
Deputy Clerk: CHERYL

J

~~BOOK 06919 0213~~

MEMORANDUM OF LEASE AND
MEMORANDUM OF LEASE EXTENSION

THIS MEMORANDUM OF LEASE is made as of August 4, 1997, by and between LOUISVILLE HARDWOODS, INC., a Kentucky corporation, survivor corporation pursuant to Articles of Merger between Louisville Hardwoods, Inc. and LANHAM LUMBER AND DRY KILN COMPANY, INC., a Kentucky corporation ("Landlord") and DOWN RIVER INTERNATIONAL INC., a Michigan corporation ("Tenant Assignor") and DRI Acquisition Corporation, INC., a Delaware corporation ("Tenant Assignee") pursuant to the Assignment of Tenant's interest in Lease between Down River International, Inc. as Assignor and DRI Acquisition Corporation, Inc., Assignee, dated the 1st day of September, 1997.

W I T N E S S E T H:

Landlord leased to Tenant Assignee and Tenant Assignor leased from Landlord the real estate and all improvements located at 1698 St. Louis Avenue, Louisville, Kentucky subject to such covenants and agreements as are set forth in the Lease between Landlord and Tenant Assignee dated September 1, 1993 (the "Lease"). The Lease and all extensions thereof are incorporated herein by this reference.

Record
Document No: 1997110969
Lodged By: bornstein
Recorded On: Aug 12, 1997 02:32:11 P.M.
Total Fees: \$13.00
County Clerk: Rebecca Jackson
Deputy Clerk: DENKIN

The term of the original Lease was for three (3) years beginning September 1, 1993 and continued until midnight August 31, 1996 (the "Initial Term"). The Initial Term was extended as provided for in the Lease Notices for Tenant Assignor to Landlord for two (2) additional periods of one (1) year each and upon such terms as set forth in the Notices dated May 17, 1996 and May 5, 1997. The Extended Term of the Lease shall continue until midnight on the 31st day of August, 1998 (the "Extended Term") unless sooner terminated or extended as provided for in the Lease.

IN WITNESS WHEREOF, this Memorandum of Lease and Memorandum of Lease Extension has been executed as of the day, month, and year first above written.

LANDLORD:

LOUISVILLE HARDWOODS, INC.

By: _____
 Title: _____

TENANT ASSIGNOR:
 DOWN RIVER INTERNATIONAL, INC.

By: *Ronald L. Brown*
 Title: *Resident*

TENANT ASSIGNEE:
 DRI Acquisition Corporation,
 INC.

By: *Charles H. Halen*
 Title: *Vice President*

BOOK 06919 0215

The term of the original Lease was for three (3) years beginning September 1, 1993 and continued until midnight August 31, 1996 (the "Initial Term"). The Initial Term was extended as provided for in the Lease Notices for Tenant Assignor to Landlord for two (2) additional periods of one (1) year each and upon such terms as set forth in the Notices dated May 17, 1996 and May 5, 1997. The Extended Term of the Lease shall continue until midnight on the 31st day of August, 1998 (the "Extended Term") unless sooner terminated or extended as provided for in the Lease.

IN WITNESS WHEREOF, this Memorandum of Lease and Memorandum of Lease Extension has been executed as of the day, month, and year first above written.

LANDLORD:

LOUISVILLE HARDWOODS, INC.

By: J. M. Dunaway
Title: President

TENANT ASSIGNOR:
DOWN RIVER INTERNATIONAL, INC.

TENANT ASSIGNEE:
DRI Acquisition Corporation,
INC.

By: _____
Title: _____

By: _____
Title: _____

BOOK 06919 0216

STATE OF Ohio)

COUNTY OF Clio)

Subscribed and sworn to before me by [Signature],
the President of Louisville Hardwoods, Inc., this 31st
day of July, 1997.

My Commission expires:

Oct 17 1999
[Signature]
NOTARY PUBLIC

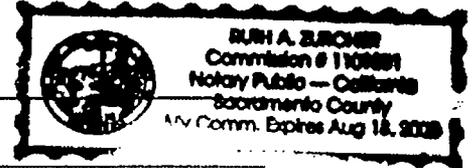
STATE OF California
COUNTY OF Sacramento

BOOK ~~06919 0217~~

Subscribed and sworn to before me by Ronald L. Brown,
the President of Down River International, Inc. this
31st day of July, 1997.

My Commission expires:

Ruth A. Zucher
NOTARY PUBLIC

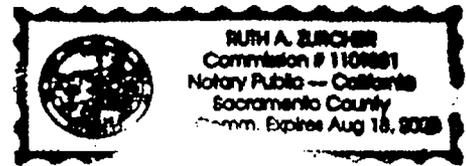


STATE OF California
COUNTY OF Sacramento

Subscribed and sworn to before me by Charles N. Hokomb,
the Vice-president of DRI Acquisition Corporation, Inc., this
31st day of July, 1997

My Commission expires:

Ruth A. Zucher
NOTARY PUBLIC



THIS INSTRUMENT PREPARED BY:

William S. Bornstein
WILLIAM S. BORNSTEIN
BORNSTEIN & OPPENHEIMER
1900 National City Tower
101 South Fifth Street
Louisville, KY 40202-3122
(502) 589-6612

~~Document No: 1997106827
Lodged By: BORNSTEIN
Recorded On: Aug 04, 1997 03:21:54 P.M.
Total Fees: \$13.00
County Clerk: Rebecca Jackson
Deputy Clerk: CHERYL~~

END OF DOCUMENT

K

W

BOOK 6938 PAGE 0014

NationsCredit Commercial Funding

Landlord's Agreement

This Landlord's Agreement, executed and delivered as of the 21st day of July, 1997, by LOUISVILLE HARDWOODS, INC. with an address at P.O. Box 157, Highway 1700, Fordsville, Kentucky 42343 ("*Landlord*"), in favor of NATIONSCREDIT COMMERCIAL CORPORATION, THROUGH ITS NATIONSCREDIT COMMERCIAL FUNDING DIVISION, with an address at 1177 Avenue of the Americas, 36th Floor, New York, New York 10036 ("*Lender*").

WITNESSETH

WHEREAS, Lender and DRI ACQUISITION CORP., D/B/A DOWN RIVER INTERNATIONAL, INC., a Delaware corporation ("*Borrower*"), have entered into, and may from time to time hereafter enter into, various agreements, instruments and documents (collectively, the "*Financing Agreements*") providing for loans and other financial accommodations by Lender to or for the benefit of Borrower,

WHEREAS, to secure payment and performance of all of Borrower's obligations and liabilities to Lender under the Financing Agreements ("*Borrower's Liabilities*"), Lender has required that Borrower grant to Lender a security interest in substantially all of Borrower's assets, including those assets now or hereafter located at or attributable to the premises commonly known as 1698 St. Louis Avenue, Louisville, Kentucky, and legally described on Exhibit A hereto (the "*Premises*") (all of such assets to be referred to as the "*Collateral*");

WHEREAS, the Premises are owned by Landlord and have been leased to Borrower pursuant to that certain Lease dated as of September 1, 1993, a copy of which is attached hereto as Exhibit B (the "*Lease*");

WHEREAS, Borrower requires loans and other financial accommodations from Lender pursuant to the Financing Agreements and Lender, as a condition precedent to continue making such loans and providing such other financial accommodations, has required that Landlord execute and deliver this Agreement;

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord hereby covenants and agrees as follows:

1. Landlord waives all rights which Landlord now or hereafter may have, under the laws of the State of Kentucky or by virtue of the Lease, or any renewals, extensions, amendments, modifications, substitutions or replacements thereof (a "*New Lease*"), to claim or assert any lien, right, claim or title to any of the Collateral which now or hereafter may be located on the Premises, including without limitation the right of levy or distraint for rent.

RETURN TO:
CALIFORNIA LENDERS
1000 G Street, Suite 225

Sacramento, CA 95814 (916) 447-6237

Account Number 8877DC

RETURN TO:

CALIFORNIA LENDERS

1000 G Street, Suite 225

Sacramento, CA 95814 (800) 447-6237

Account Number

2077DC

BOOK ~~6938~~ PAGE 0013

LANDLORD'S AGREEMENT

This Landlord's Agreement was prepared by Diana K. Chuang, Esq. of Orrick, Herrington & Sutcliffe LLP.

The address of Orrick, Herrington & Sutcliffe LLP is:
777 South Figueroa Street, Suite 3200
Los Angeles, CA 90017-5832

Prepared By:


Diana K. Chuang, Esq.

BOOK 6338 PAGE 0015

NationsCredit Commercial Funding

Landlords' Agreement

2. Landlord agrees that the Collateral (i) is and shall remain personal property notwithstanding the manner or mode of the attachment of any item of Collateral to the Premises, and (ii) is not and shall not become or be deemed to be fixtures.

3. Landlord recognizes and acknowledges that Lender's security interest in the Collateral pursuant to the Financing Agreements is superior to any lien, right, claim or title of any nature which Landlord now or hereafter may have or assert in the Collateral by statute, common law, the Lease, any New Lease, any other agreement or otherwise.

4. If Borrower defaults in the payment or performance of any of Borrower's Liabilities, Lender may enter the Premises for the purpose of repossessing, removing, selling, or otherwise dealing with the Collateral or any part thereof in accordance with the terms and conditions of the Financing Agreements without objection, delay, hindrance or interference by Landlord and in such case Landlord will make no claim or demand whatsoever against the Collateral. If any such default by Borrower occurs, Landlord agrees that it will permit Lender to remain on the Premises, or permit Lender to enter the Premises to remove the Collateral, *provided* that Lender shall pay rent for the actual number of days Lender remains on the Premises at a per diem rate based on the monthly base rent under the Lease or any new Lease.

5. Lender may, without affecting the validity of this Agreement, extend, amend or in any way modify the terms of payment or performance of any of Borrower's Liabilities, without the consent of Landlord and without giving notice thereof to Landlord.

6. Landlord will notify Lender if Borrower defaults on its obligations to Landlord under the Lease or any New Lease and allow Lender thirty (30) days from its receipt of notice in which Lender may, but will not be obligated to, cure or cause Borrower to cure any such default.

7. The agreements contained herein shall continue in force until all Borrower's Liabilities are paid and satisfied in full and all financing arrangements between Lenders and Borrower have been terminated.

8. The agreements contained herein may not be modified or terminated orally, and shall be binding upon the successors, assigns and personal representatives of Landlord, upon any successor owner or transferee of the Premises, and upon any purchasers (including any mortgagees) from Landlord.

BOOK 6938 PAGE 0016

NationsCredit Commercial Funding

Landlords' Agreement

IN WITNESS WHEREOF, this Agreement has been duly executed and delivered as of the date set forth above.

Louisville Hardwoods, Inc.

By S M Dunaway
Its President
S. M. Dunaway

BOOK 6938 PAGE 0017

NationsCredit Commercial Funding

ACKNOWLEDGMENT

STATE OF NY
COUNTY OF Westchester)SS

I, David J. [Signature], a Notary Public in and for and residing in said County and State, DO HEREBY CERTIFY THAT S M DUNAWAY of LOUISVILLE HARDWOODS, INC corporation, personally known to me to be the same person whose name is subscribed to the foregoing instrument appeared before me this day in person and acknowledged that he signed and delivered said instrument as HIS own free and voluntary act and as the free and voluntary act of said corporation for the uses and purposes therein set forth.

1997 GIVEN under my hand and notarial seal this 29th day of July

[Signature]
Notary Public
My Commission Expires: Oct 1, 1999



EXHIBIT A

LEGAL DESCRIPTION

For purposes
of reference,
the common
address is:

1698 St. Louis Avenue
Louisville, Kentucky

Legal Description:

BEGINNING at an iron pipe the intersection of the East line of Dixie Highway, as established in Deed Book 1653, Page 553, in the office of the Clerk of Jefferson County, Kentucky, with the North line of the Kentucky and Indiana Terminal Railroad right of way; thence with the East side of Dixie Highway North 17 degrees 07 minutes East 185.13 feet to the Northwest corner of the tract conveyed to Schenley Distillers, Inc., by deed of record in Deed Book 3486, Page 457, in the office aforesaid; thence with the North line of said tract, South 85 degrees 20 minutes East 872.14 feet to an iron pipe in the West line of the tract conveyed to Louisville Cooperage Company, by deed of record in Deed Book 1533, Page 5, in the office aforesaid; thence with the West line of said tract, North 8 degrees 25 minutes East 460.73 feet to a Northwesterly corner of said tract; thence South 84 degrees 10 minutes East 775.37 feet to the West line of 17th Street; thence with same if extended South 7 degrees 11 minutes West 18.37 feet to a spike in the South line of the first alley South of Wilson Avenue; thence with the South line of aforesaid alley South 84 degrees 17 minutes 30 seconds East 842.14 feet to an iron pipe at the Northeast corner of the tract conveyed to Schenley Distillers, Inc., by deed of record in Deed Book 3574, Page 221, in the office aforesaid; thence with the East line of said tract, South 6 degrees 37 minutes 30 seconds West 619.56 feet to an iron pipe at the Northeast corner of the tract conveyed to the Kentucky and Indiana Terminal Railroad Company, by deed of record in Deed Book 1843, Page 224, in the office aforesaid; thence with the North line of last mentioned tract, North 84 degrees 08 minutes 30 seconds West 338.48 feet to a point in the center line of 16th Street, as closed by judgment in Action #35674, Jefferson Circuit Court; thence South 7 degrees 11 minutes 30 seconds West 25 feet to an iron pipe in the North line of Magnolia Avenue; thence with the North line of Magnolia Avenue and the North line of the Kentucky and Indiana Terminal Railroad right of way, North 84 degrees 08 minutes 30 seconds West 2198.24 feet to the point of beginning. EXCEPTING THEREFROM so much as was conveyed to the City of Louisville for public alley, by deed of record in Deed Book 3510, Page 463, in the office aforesaid.

BEING the same property conveyed to Lanham Lumber & Dry Kiln Co., Inc., by deed dated July 19, 1983, of record in Deed Book 5363, Page 949.

BOOK 6938 PAGE 0019

EXHIBIT A (continued)

in the Office of the Clerk of the County Court of Jefferson County,
Kentucky.

BOOK 6938 PAGE 0020

EXHIBIT B

LEASE

See attached.

B-1

LEASE

This Lease is made and entered into effective as of the 1st day of September, 1993, by and between LOUISVILLE HARDWOODS, INC., a Kentucky corporation ("Landlord") and DOWN RIVER INTERNATIONAL, INC., a Michigan corporation ("Tenant").

1. Demise. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, the real estate and all improvements located at 1698 St. Louis Avenue, Louisville, Jefferson County, Kentucky (the "Premises"), described on Schedule A attached hereto and incorporated herein by reference.

2. Term.

A. The initial term of this Lease shall be three (3) years commencing on September 1, 1993 ("Commencement Date"), and terminating at midnight on August 31, 1996, unless sooner terminated or extended pursuant to the provisions of this Lease.

B. Tenant shall have the right to extend the term of this Lease for four (4) additional periods of one year each, until August 31, 2000, on the same terms and conditions as set forth herein. Tenant shall give Landlord not less than ninety (90) days prior written notice of its intent to extend the term of this Lease; provided, however, Tenant shall not lose its right to extend for failure to give such notice unless Landlord sends notice to Tenant that it has not received such extension notice and Tenant shall fail to send its extension notice to Landlord within thirty (30) days from receipt of Landlord's notice.

C. If, on or before August 31, 2000, the Landlord and the Tenant have not received written acknowledgement by the Commonwealth of Kentucky that all remediation work required pursuant to that certain Remediation Plan, as defined herein, was satisfactorily completed and clean closure granted (the "Closure Letter"), then the Tenant shall have the right to extend the term of this Lease for thirteen (13) additional periods of one (1) year each, until August 31, 2013. "Remediation Plan" shall mean that certain remediation plan attached hereto as Addendum C-1 to Schedule C, as such plan may be amended or modified in any manner, at any time, as required by the Commonwealth of Kentucky to obtain a Closure Letter or otherwise. Such renewals shall be on the same terms and conditions as set forth herein except that the rent payable pursuant to paragraph 3 shall continue only until the total rental paid from September 1, 2000, and thereafter, equals One Million Dollars (\$1,000,000); thereafter, rent shall be reduced to One Dollar (\$1.00) per year until the expiration of the term. If, during any annual renewal, a Closure Letter is received, the term of this Lease shall end sixty (60) days thereafter and Tenant may exercise its option to purchase on the terms set forth in paragraph 24 of this Lease.

S-1110

3. Rent. Tenant shall pay to Landlord annual fixed rent of Three Hundred Sixty Thousand Dollars (\$360,000) in monthly installments of Thirty Thousand Dollars (\$30,000) in advance on the first day of each month during the term of this Lease. During the first year of this Lease, such rental shall be paid to Landlord at the address of Landlord set forth in paragraph 27 (or at such other address as may be designated in writing). Thereafter, until receipt of a Closure Letter, all rental shall be paid to an escrow agent mutually agreeable to the parties and shall be deposited in that certain escrow account ("Escrow Account") established pursuant to that certain Escrow Agreement by and among the Landlord and Tenant, a copy of which is attached hereto as Exhibit 1 and the terms of which are incorporated herein by reference. Upon the receipt by the Tenant and the Landlord of the Closure Letter, Tenant shall commence payment of rental to Landlord at the address of Landlord set forth in paragraph 27 and further rental payment shall not be subject to the terms of the Escrow Agreement.

4. Furniture, Fixtures and Equipment. All furniture, fixtures and equipment of every kind and nature that are presently on the Premises, as more specifically described on Schedule B attached hereto (the "Equipment"), are and shall be the property of Tenant during the term hereof. Tenant shall use reasonable care in connection with the use of the Equipment but neither Tenant nor Landlord shall have any obligation to repair, replace or restore any Equipment.

5. Use. Tenant will use and occupy the Premises for only lawful purposes.

6. Mortgages.

A. Landlord shall make all payments required to be made under every mortgage affecting or constituting a lien against the Premises or the improvements thereon and Landlord shall fulfill all other obligations required to be fulfilled by it thereunder. Landlord shall not further encumber the Premises.

B. If Landlord fails to fulfill its obligations under the preceding paragraph, Tenant shall have the right to make such payments and deduct the amount from rent due hereunder. Within five (5) days of Landlord's receipt, it will give Tenant a copy of any default notice Landlord receives from any mortgagee.

7. Impositions.

A. During the term, Tenant will, at its expense, pay prior to delinquency, all taxes of whatever kind or nature, assessments, sewer rents, water rents and charges, duties, impositions, license and permit fees, charges for public utilities of any kind, payments and other charges of every kind and nature whatsoever that shall be levied, charged, assessed, or imposed upon, or become due

and payable out of or for, or become a lien on, the Premises. Impositions for the year 1993 shall be prorated as of the Commencement Date.

B. Tenant shall have the right to contest the validity or amount of any imposition and may endeavor to obtain a lowering of the assessed valuation on the Premises. In such event, Landlord will, without expense to Landlord, cooperate with Tenant in contesting such imposition or effecting such a reduction. Tenant shall be authorized to collect any tax refund payable as a result of any proceeding Tenant may institute for such purpose. Nothing herein contained shall be construed so as to allow any taxes or other impositions to remain unpaid for such length of time as shall permit the Premises or any part thereof, or lien thereon created by such item to be sold by governmental process for non-payment of the same.

8. Repair. Tenant will keep the Premises in as good a condition and repair as may be required by Tenant's business operations.

9. Compliance with Law. Tenant will perform and comply with all laws, rules, orders, ordinances, regulations, and requirements relating to the Premises and the improvements thereon.

10. Condition of Property. Tenant has examined and knows the condition of the Premises and, subject to the provisions of Paragraphs 19 and 20, has received the same in their current "as is" condition.

11. Alterations. Tenant may, at its expense, make alterations or additions to the Premises, including but not limited to the demolition or removal of improvements or the erection of new buildings or fixtures; provided, however, Tenant will obtain the prior written consent of Landlord (not to be unreasonably withheld or delayed) to any removal of improvements contemplated during the first two years of this Lease.

12. No Merger. In no event shall the leasehold estate merge with the estate of Landlord. Such leasehold estate and rights of Tenant hereunder (and of the holder of any mortgage upon this leasehold) shall be deemed to be separate and distinct from Landlord's interest, estate and rights in or to the Premises, notwithstanding that any such interests, estates, or rights shall at any time or times be held by or vested in the same person, corporation or other entity.

13. Mechanic's Liens. Tenant will cause any mechanic's lien or other lien or charge filed or made against the Premises and/or improvements in connection with any work being performed by or on behalf of Tenant or with materials being furnished to or on behalf of Tenant to be cancelled and discharged of record within thirty

(30) days after Tenant has knowledge that such lien or charge has been filed or made, and Tenant shall defend any action, suit, or proceeding brought for enforcement of any such lien or charge, pay any damages, costs, and expenses incurred therein by Landlord, and satisfy and discharge any judgment entered therein.

14. Net Lease. This Lease is an absolutely net lease, and Landlord is not required to provide any services or do any act or thing with respect to the Premises or the improvements except as specifically provided herein.

15. Insurance.

A. Tenant will provide and keep in force general liability policies protecting against liability occasioned by negligence, occurrence, accident, or disaster in or about the Premises, which insurance proceeds shall be payable to Tenant upon any loss.

B. Tenant will keep the improvements insured against loss or damage in an amount equal to eighty percent (80%) of the full insurable value thereof.

C. All such insurance shall also name Landlord as an additional insured and may be part of blanket insurance policies maintained by Tenant on the Premises and on other properties.

16. Indemnity. Tenant hereby indemnifies and holds harmless Landlord from and against any and all liability, loss, damages, expenses, costs of action, suits, interest, fines, penalties, claims and judgments arising from injury or claim of injury during the term of the Lease to person or property growing out of Tenant's occupation, possession, use, management, improvement, construction, alteration, repair, maintenance, or control of the Premises or the improvements, or arising out of Tenant's failure to perform any term, covenant, condition or agreement contained in this Lease. Tenant at its own cost and expense will defend any suits that may be brought or claims that may be made against Landlord upon any of the foregoing, and pay and discharge any judgment that may be recovered against Landlord.

17. Casualty. If any part of the improvements is damaged or destroyed by fire or other casualty, rent shall not abate and Tenant shall continue to perform all of its obligations, covenants, and agreements under this Lease notwithstanding any such damage or destruction.

18. Condemnation.

A. If all or substantially all of the Premises is condemned, this Lease shall terminate on the date of vesting of title in the condemning authority. From the proceeds of the award,

Landlord shall be entitled to an amount equal to the purchase price in Paragraph 24 and Tenant shall be entitled to any remainder.

B. If less than all or substantially all of the Premises is condemned, Tenant shall receive the entire award and this Lease shall continue with no reduction in rent.

19. Representations of Landlord. Landlord represents and warrants to Tenant that to the best of Landlord's knowledge after due inquiry:

A. The Premises currently comply with all laws, rules, regulations, orders, ordinances and requirements of all federal, state and municipal government departments, commissions, boards and offices and all orders, rules and regulations of the National Board of Fire Underwriters, the Kentucky Board of Fire Underwriters, or any other agency or agencies, body or bodies exercising similar functions which may be applicable to the Premises, except as set forth on Schedule C attached hereto.

B. Landlord is the owner of the Premises and the Premises are not subject to any lien, claim, encumbrance, restriction on use, option, agreement to purchase or other limitation, which may interfere with the use of the Premises by Tenant, except as set forth on Schedule C. The current use of the Premises fully complies with all applicable codes and other applicable laws, regulations and ordinances, including without limitation applicable zoning and land use laws, regulations and ordinances.

C. Landlord is a corporation validly existing under the laws of the Commonwealth of Kentucky and has the full power to enter into this Agreement and to consummate the transactions provided for herein. The execution, delivery and performance of this Agreement have been duly authorized by all necessary corporate action on the part of the Board of Directors and shareholders of Landlord and no further action is required to give effect to this Agreement or to permit Landlord to carry out the transactions contemplated hereby. Landlord is financially capable of performing and satisfying, or has obtained sufficient financial assurances to satisfy, in full, its obligations pursuant to this Lease.

D. Landlord has received no notice of nor, to the best knowledge of Landlord, are there any pending or threatened condemnation of similar proceedings of any nature whatsoever affecting the Premises or any portion thereof or that any such proceeding is contemplated.

E. There is no action, suit, litigation or proceeding of any nature pending or, to the best knowledge of Landlord, threatened against or affecting the Premises, or any portion thereof, or which could result in the obtaining of a lien or interest in the Premises by any third party, in any court or before

or by any federal, state, county, or municipal department, commission, board, bureau, agency or other governmental instrumentality. There are no unpaid claims of contractors, materialmen or laborers which could give rise to a lien against the Premises.

F. There are no existing warranties with respect to the design, quality and condition of the improvements, the Equipment and any component thereof.

G. Landlord is not in violation of or subject to any existing, pending, or threatened investigation or litigation by any governmental authority or other third party under any applicable federal, state, or local law, regulation, code, or ordinance pertaining to air or water quality, the handling, transportation, storage, treatment, usage or disposal of Toxic or Hazardous Substances, air emissions, other environmental matters, or zoning and other land use matters except as set forth on Schedule C. Any handling, transportation, storage, treatment, or use of Toxic or Hazardous Substances that has occurred on the Premises to date has been in compliance with all applicable federal, state, and local laws, regulations, codes, and ordinances. No leak, spill, release, discharge, emission, or disposal of Toxic or Hazardous Substances has occurred on the Premises to date and the soil, groundwater, surface water, and soil vapor on or under the Premises is free of Toxic or Hazardous Substances as of the date the term of this Lease commences except as set forth on Schedule C.

20. Environmental Provisions.

A. The definition of terms attached hereto as Schedule D is hereby made a part hereof.

B. Landlord hereby indemnifies and holds Tenant and its officers, employees, and agents harmless from any claims, judgments, damages, penalties, fines, expenses, liabilities, suits, or losses whatsoever arising, out of or in any way relating to: (1) the presence, release, storage, treatment, use, or disposal of Toxic or Hazardous Substances on or from the Premises prior to the Lease Term and not caused by Tenant, or (2) a breach of the environmental representations and warranties made by Landlord. The foregoing indemnification shall not apply to: (i) any environmental contamination or violation caused by Tenant; or (ii) any Remedial Work required by the Commonwealth of Kentucky after the date of the Closure Letter with respect to the environmental contamination of the Premises, the remediation of which has previously been approved pursuant to the Closure Letter.

The indemnification provided by this section shall also specifically cover, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, monitoring, containment, remedial, removal, or restoration work ("Remedial Work") required by any federal, state, or local

governmental agency or political subdivision or any other third party because of the presence or suspected presence of Toxic or Hazardous Substances in the soil, groundwater, surface water, or soil vapor on or under the Premises. The foregoing environmental indemnity shall survive the expiration or other termination of this Lease and/or any transfer of all or any portion of the Premises or of any interest in this Lease.

C. Landlord covenants and agrees to: (i) obtain written approval from the Commonwealth of Kentucky for the remediation plan attached as Addendum C-1 to Exhibit C on or before January 10, 1994; (ii) complete the Remedial Work on or before July 10, 1998; and (iii) present Tenant on or before January 11, 1999 with a letter or other document from the Division of Waste Management of the Kentucky Natural Resources and Environmental Protection Cabinet evidencing that all site investigation and remediation activities have been completed to the Divisions' satisfaction and approving closure of the underground storage tanks referred to in Addendum C-1 to Schedule C.

D. Any interference with Tenant's operations resulting from the presence of Toxic or Hazardous Substances on, under, in or adjacent to the Premises or from Remedial Work not caused by Tenant shall be a material default for which Tenant may exercise any remedies set forth in this Lease, including, but not limited to: (a) abating rent, (b) terminating this Lease and/or (c) recovering any and all damages resulting from such interference and the resulting termination of the Lease by the Tenant.

21. Assignment, Subletting and Mortgage.

A. Tenant may assign this Lease or any interest herein or sublet all or any part of the Premises provided it notifies Landlord of the name and address of such assignee or sublessee and, provided further, that Tenant shall remain liable for all obligations hereunder.

B. Nothing contained herein shall be deemed to restrict Tenant's right to mortgage its interest in its leasehold estate hereunder at any time and from time to time. The mortgagee under any such mortgage shall not become personally liable for the obligations of this Lease, unless and until it or its successors or assigns shall become owner of the leasehold estate created hereby. Tenant shall remain liable for all of its obligations hereunder, notwithstanding any such mortgage or any foreclosure thereof.

22. Default and Termination.

A. If Tenant defaults in the payment of any rent or other sum for fifteen (15) days after receipt of written notice and demand, or defaults in the performance or observance of any of the other terms, covenants, conditions, or agreements of this Lease for

thirty (30) days after receipt of written notice and demand (or, if such non-monetary default cannot practicably be cured within such period, fails to commence the curing and performance of such defaulted term, covenant, condition, or agreement within such period or thereafter fails to complete the same) then Landlord may, at its option, pursue all remedies against Tenant available to Landlord at law or in equity, including, without limitation, the right to terminate this Lease and recover all expenses incurred by Landlord in obtaining possession of the Premises.

B. Upon such default and termination, Tenant shall have the opportunity to remove from the Premises all furniture, fixtures and improvements owned by the Tenant; the parties agree that all furniture, fixtures and improvements on the Premises are owned by Tenant, except the Equipment. If such termination occurs before the end of the second full year of the Lease, Tenant shall have the obligation to restore the Premises to a condition comparable to their condition at the commencement of the Lease; provided, however, that such obligation to restore shall not extend to construction of any building or improvement which may have been removed by Tenant or to the removal of any building or improvement which may have been constructed by Tenant. If such default and termination occur after the end of the second full year of the Lease, Tenant's sole obligation shall be to return the Premises to Landlord in their then current condition, without any further obligation to repair or restore same.

23. Right to Cure Other Party's Defaults. Each party has the right, upon prior written notice to the other (if notice can reasonably be given and otherwise without notice), to comply with and perform any term, covenant, condition, or agreement as to which the other party is in default. If Landlord cures Tenant's default, Tenant shall reimburse Landlord upon demand for all costs and expenses incurred by Landlord in complying with or performing such term, covenant, condition or agreement. If Tenant cures Landlord's default (or performs any Remedial Work, including that described in Addendum C-1 to Schedule C), Landlord shall reimburse Tenant upon demand for all costs and expenses incurred by Tenant in complying with or performing such term, covenant, condition or agreement. If Landlord does not so reimburse Tenant, Tenant shall be entitled to offset such costs and expenses against rent due hereunder, withdraw amounts from the Escrow Account sufficient to reimburse Tenant or pursue its right to recover such amounts directly against Landlord.

24. Option to Purchase.

A. Tenant is hereby given and granted the option to purchase the Premises and Equipment at any time during the Lease term regardless of whether Tenant is in default hereunder. The option must be exercised in writing to Landlord. If the option is exercised before September 1, 2000, the purchase price shall be the total of (i) One Million Dollars (\$1,000,000) payable in accordance

with Tenant's promissory note in the form of Exhibit 2 attached hereto and incorporated herein by reference, plus (ii) the net present value of the annual fixed rent (calculated from the closing date) which Tenant would have paid through September 1, 2000, which rent shall be discounted at the prime rate of CitiBank, N.A., as of the date of such exercise less any reductions as permitted hereunder, which portion of the purchase price shall be due and payable in immediately available funds at the closing. The Tenant's promissory note shall be secured by a mortgage against the Premises in favor of the Landlord. If the option for the purchase of the Premises is exercised on or after September 1, 2000, the purchase price shall be One Million Dollars (\$1,000,000) less the annual fixed rent paid on and after September 1, 2000, pursuant to paragraph 2.C. hereof, less any reductions as permitted hereunder and such purchase price shall be payable in immediately available funds at the closing. At the closing for the purchase of the Premises the Landlord shall deliver to Tenant good and marketable title (to the Premises by general warranty deed and to the Equipment by general warranty bill of sale), free of any and all encumbrances, mortgages, liens or other defects in title thereon, other than the exceptions set forth on Schedule E. All costs and expenses of curing any defects in title shall be borne by Landlord; any such costs or expenses may be paid by Tenant from the purchase price.

B. In the event Landlord fails to perform the provisions of this Paragraph 24, Tenant shall have the right to obtain a decree of specific performance to require conveyance of the Premises to Tenant in accordance with the terms of this Lease and to seek such other remedies to which it might be entitled at law or in equity.

C. Closing shall be held within sixty (60) days from the date notice of exercise of the option to purchase is delivered by Tenant to Landlord. Landlord shall pay all transfer taxes and Tenant shall pay all recording fees in connection with this purchase.

25. Arbitration. The rights, duties and obligations of Landlord and Tenant hereunder shall be determined, if they cannot agree, by the American Arbitration Association, said arbitrator's decision to be final. The cost of the arbitrator shall be paid by the parties in equal shares.

26. Quiet Enjoyment. Landlord covenants that upon Tenant paying the rent and performing the obligations under this Lease, Tenant may peaceably and quietly have, hold and enjoy the Premises for the Lease term.

27. Notices. Any notice, consent or approval which is required to be given under the terms of this Lease shall be in writing and shall either be delivered by hand (either personally or

by contract delivery services) or sent by United States registered or certified mail, postage prepaid, to Landlord and Tenant at the addresses set forth below. Notice shall be deemed given when delivered (if delivered by hand) or when postmarked (if sent by mail).

If to Landlord:

Louisville Hardwoods, Inc.
P.O. Box 157, Highway 1700
Fordsville, Kentucky 42343
Attn: Sam Dunaway

If to Tenant:

Down River Forest Products of Kentucky, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210
Attn: Mr. Al Ryan

With a copy to:

Down River International, Inc.
738 North Market Boulevard
Sacramento, California 95834

Attn: William B. Sparks, Jr.

28. Miscellaneous Provisions.

A. This Lease shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. This Lease constitutes the entire understanding of the parties as to the subject matter hereof and may not be amended or modified except in a writing signed by the parties hereto.

B. Nothing in this Lease shall be construed by the parties hereto, or by any third party, as creating a relation of principal and agent, or of partners, or of joint ventures, or any other relation between the parties other than that of Landlord and tenant.

C. This Lease, in each and every term hereof shall be binding upon and inure to the benefit of the heirs, successors, administrators, legal representative and assigns, as the case may be, of Landlord and of Tenant.

D. The parties agree to execute a memorandum of lease (including the option to purchase) in a form suitable for recording.

E. In all cases where consent or approval is required hereunder, the party required to give such consent or approval shall not unreasonably withhold or delay such consent or approval.

F. This Lease supersedes that certain lease agreement dated as of March 1, 1985 whereby Landlord's predecessor Lanham Lumber & Dry Kiln Co., Inc. leased a portion of the Premises to Down River International, Inc. In the event Tenant elects to terminate this Lease because of Landlord's default, it may (but shall not be required to) elect to reinstate such lease agreement.

G. For purposes of the Lease, the term "due inquiry" shall mean the Landlord's review of its files and records, as maintained by it, and the receipt by Landlord of a Phase I environmental summary conducted by ATEC Engineering.

29. Collateral for Performance. As additional collateral for the performance by Landlord of its obligations hereunder, the Landlord hereby grants to the Tenant, a security interest in any and all equipment, accounts receivable, goods, contracts and intangibles relating to the conduct of the Landlord's business operations at 1937 and 2045 Silver Street, New Albany, Indiana, all as more particularly described and set forth in that certain Security Agreement, a copy of which is attached hereto as Exhibit 3.

30. Execution by Dunaway. Sam Dunaway, a shareholder of the Landlord executes and enters into this Agreement for the sole purpose of agreeing that he will provide the Subordination Agreement in the form of Exhibit 4, attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, the undersigned have executed this Lease as of the date first above mentioned.

Landlord:
LOUISVILLE HARDWOODS, INC.

Tenant:
DOWN RIVER INTERNATIONAL, INC.

By: S. M. Dunaway
Sam Dunaway, President

By: William B. Sparks, Jr.
Chief Executive Officer

S. M. Dunaway
Sam Dunaway, Individually

LIST OF EXHIBITS

Exhibit 1 -- Escrow Agreement
Exhibit 2 -- Form of Note

Exhibit 3 -- Security Agreement
Exhibit 4 -- Subordination Agreement

LIST OF SCHEDULES

Schedule A -- Legal Description of Premises
Schedule B -- List of Furniture, Fixtures and Equipment
Schedule C -- Exceptions to Landlord's Representations
Schedule D -- Environmental Definitions
Schedule E -- Permitted Exceptions

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EXHIBIT 1

ESCROW AGREEMENT

THIS AGREEMENT, made and entered into this 1st day of September, 1993, by and among LOUISVILLE HARDWOODS, INC., a Kentucky corporation ("Louisville Hardwoods"), DOWN RIVER INTERNATIONAL, INC., a Michigan corporation ("Down River"), and _____, as escrow agent (the "Escrow Agent").

W I T N E S S E T H:

WHEREAS, pursuant to the Lease dated September 1, 1993, between Louisville Hardwood and Down River ("Lease"), Louisville Hardwood is leasing to Down River the real estate and all improvements located at 1698 St. Louis Avenue, Louisville, Kentucky;

WHEREAS, one of the conditions to the closing of the Lease is the execution and delivery of this Agreement; and

WHEREAS, the Escrow Agent is willing to act as escrow agent hereunder.

NOW, THEREFORE, in consideration of the premises and the mutual promises, covenants and agreements contained herein, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Establishment of Escrow Fund. Beginning September 1, 1994 and continuing for the period stated in the Lease, Down River shall make all monthly payments of rent under the Lease to the Escrow Agent; such payment to be in the amount of Thirty Thousand Dollars (\$30,000) per month, subject to adjustment as provided in the Lease (all sums deposited with Escrow Agent by Down River, as adjusted from time to time pursuant to the terms hereof, together with any interest earned thereon are hereinafter referred to as the "Escrow Fund". Louisville Hardwoods agrees that such rental payments are to be made by Down River to Escrow Agent. The Escrow Fund shall be held by the Escrow Agent subject to the terms and conditions hereinafter set forth. The Escrow Agent shall invest and reinvest the Escrow Fund and the income therefrom in accordance with the joint written instructions of Louisville Hardwood and Down River.

2. Claims Against the Escrow Fund. In the event that the Remedial Work, as that term is defined in the Lease and incorporated herein by reference is not completed on or before January 11, 1999, then after such date, Down River shall be entitled to direct the manner in which such Remediation Work will be undertaken and completed. Louisville Hardwoods shall bear the cost of such Remediation Work and, if such costs are not paid directly by Louisville Hardwood within five (5) days after demand

therefor by Down River, Down River may obtain monies out of the Escrow Fund for payment of such costs. Escrow Agent shall remit to Down River, upon written request, that amount actually expended by Down River for any Remediation Work, or shall pay directly to third party providers the amount of any unpaid bills for performance of Remediation Work. Down River shall submit a written request to Escrow Agent for disbursement of any monies, which shall include a statement of the amount requested and the date on which it is to be withdrawn, accompanied by invoices for such amount reflecting completed, but unpaid, Remediation Work.

3. Termination of Escrow Fund.

a. Termination Date. The escrow provided for hereunder shall terminate upon the earliest of the following dates:

- i. August 31, 2013; or
- ii. the date as of which Down River exercises its option to purchase under the terms set forth in the Lease.
- iii. the receipt by the parties of a Closure Letter, as defined in the Lease.

b. Payment Upon Termination. Upon termination, the Escrow Agent shall pay to Louisville Hardwoods the balance, if any, of the Escrow Fund.

Section 4. Escrow Agent.

a. The Escrow Agent is acting hereunder as a depository only and is not responsible or liable in any manner whatever for the sufficiency, correctness, genuineness, or validity of any instrument. Notwithstanding any provision herein incorporating other instruments by reference, the Escrow Agent shall not be charged with notice of the terms of any such instruments, and its duties, responsibilities, and immunities shall be determined solely by reference to this Escrow Agreement.

b. The Escrow Agent shall be protected in acting upon any notice, request, waiver, consent, receipt, document, or any other writing believed by it to be genuine and to have been made, signed, sent, or presented by the proper party or parties.

c. The Escrow Agent shall not be liable for any error of judgment or for any act done or step taken or omitted by it in good faith, or for any mistake of fact or law, or for anything which it may do or refrain from doing in connection herewith, except for its own bad faith, gross negligence or willful misconduct.

d. The Escrow Agent may consult with legal counsel of its selection in the event of any dispute or question as to the construction of any of the provisions hereof or its duties

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hereunder, and it shall incur no liability and shall be fully protected in acting in accordance with the opinion of such counsel.

e. The Escrow Agent shall have no responsibility for listing any securities in its possession for ad valorem taxes. The owners thereof agree to comply with the requirements of law now or hereafter in effect and agree to indemnify and hold harmless the Escrow Agent from and against any taxes, interest, or penalties asserted against it by reason of its failure to list the assets held in escrow hereunder.

f. The Escrow Agent shall not be bound by or charged with notice of any transfer or assignment, in whole or in part, made by a party hereto or its successors or assigns, unless and until written notice thereof shall be delivered to and acknowledged by the Escrow Agent.

g. The Escrow Agent shall have no duties except those which are expressly set forth herein.

h. The Escrow Agent may resign at any time by giving 30 days prior written notice to Louisville Hardwoods and Down River. Upon receipt of said notice, Louisville Hardwoods and Down River shall appoint a successor Escrow Agent, which shall be a brokerage company, bank or trust company incorporated under laws of the United States or the Commonwealth of Kentucky and having capital and surplus of no less than \$50,000,000.

i. In the event of a disagreement between the parties hereto or any person or entity claiming under or through the parties hereto (other than the Escrow Agent), resulting in claims and/or demands being made by the disputing parties which in the sole judgment of the Escrow Agent are conflicting, in connection with any matters involved herein or affected hereby, the Escrow Agent shall be entitled at its sole option to refuse to comply with any such demands so long as such disagreement shall continue; the Escrow Agent may refuse to make delivery of any assets in its possession to any or all of the claimants, and the Escrow Agent shall not be or become liable to any claimant by reason of any failure or refusal to comply with such conflicting claims or demands or to deliver assets as demanded. The Escrow Agent may continue to refuse to take any action, irrespective of the time which elapses during which such dispute continues, until either the rights of the disputing claimants have been duly adjudicated and the Escrow Agent shall have received a certified copy of a final judgment of a Court of competent jurisdiction, or until the claimants shall have reached agreement on their differences, and shall have furnished to the Escrow Agent joint instructions with respect to the action to be taken. The Escrow Agent may conclusively rely on any such joint instructions, and shall be fully protected and indemnified in taking any action in reliance thereon. All actions taken by the Escrow Agent pursuant to any court order

shall be conclusively presumed to be taken in good faith. The Escrow Agent shall be held harmless for any action taken pursuant to a court order, even if such order is appealable, or without the actual knowledge of the Escrow Agent, which is or has been reversed, withdrawn, or modified or is not effective for any other reason. In no event shall the Escrow Agent be required to file an interpleader or similar type of action or to defend any action or legal proceeding filed against it, but it may do so in its sole discretion.

All parties hereto (other than the Escrow Agent), for themselves and their respective heirs, personal representatives, successors and assigns, jointly and severally unconditionally and irrevocably agree to indemnify and hold harmless the Escrow Agent from and against any and all claims, actions and suits, whether groundless or otherwise, and from and against any and all liabilities, losses, damages, costs, charges, counsel fees, and other expenses of every nature and character arising out of, occasioned by, or in any manner related to, directly or indirectly, transactions with which the Escrow Agreement may from time to time apply, including without limitation a reasonable charge for the time of its officers and employees spent on matters connected with any litigation by or against the Escrow Agent, it being expressly understood and agreed that the normal fees of the Escrow Agent agreed on by the parties shall not be deemed to cover any services required of Escrow Agent or reasonably believed by it to be necessary or desirable directly or indirectly in connection with an action or suit; provided, however, that the Escrow Agent shall at all times remain responsible for its own bad faith, gross negligence or willful misconduct.

j. Fees. The Escrow Agent's fees hereunder shall be _____ (\$ _____), payable on the execution hereof and on each anniversary date hereof during the term of this Agreement, which amount will be paid by Louisville Hardwoods.

Section 5. Miscellaneous.

a. Binding Effect. This Agreement shall inure to the benefit of and shall be binding upon Louisville Hardwoods, Down River and the Escrow Agent and their respective heirs, executors, successors and assigns.

b. Governing Law. This Agreement shall be deemed to be made in, and in all respects shall be interpreted, construed and governed by and in accordance with, the laws of the Commonwealth of Kentucky.

c. Headings. The section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

d. Notices. Any notice, request, instruction or other document to be given hereunder by any party hereto to any other party hereto shall be in writing and delivered personally or by telecopy transmission or sent by registered or certified mail or by any overnight courier service, postage or fees prepaid,

if to Louisville Hardwoods to:

Louisville Hardwoods, Inc.
P.O. Box 157, Highway 1700
Fordsville, Kentucky 42343
Attn: Sam Dunaway

if to Down River to:

Down River Forest Products of Kentucky, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210
Attn: Al Ryan

With a copy to:

Down River International, Inc.
738 North Market Boulevard
Sacramento, California 95834
Attn: William B. Sparks, Jr.

if to the Escrow Agent to:

or at such other address or number for a party as shall be specified by like notice. Any notice which is delivered personally or by telecopy transmission or overnight courier in the manner provided herein shall be deemed to have been duly given to the party to whom it is directed upon actual receipt by such party or its agent. Any notice which is addressed and mailed in the manner herein provided shall be conclusively presumed to have been duly given to the party to which it is addressed at the close of business local time of the recipient, on the fourth business day after the day it is so placed in the mail.

e. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument.

f. Modification. This Agreement may be modified only by a written instrument signed by each of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement under seal as of the date first written above.

LOUISVILLE HARDWOODS, INC.

By: _____

Title: _____

DOWN RIVER INTERNATIONAL, INC.

By: _____

Title: _____

ESCROW AGENT:

By: _____

Title: _____

EXHIBIT 2

PROMISSORY NOTE

\$1,000,000

Louisville, Kentucky

FOR VALUE RECEIVED, the undersigned, DOWN RIVER INTERNATIONAL, INC., a Michigan corporation, having an address of 738 North Market Boulevard, Sacramento, California ("Maker"), hereby promises and agrees to pay to the order of LOUISVILLE HARDWOODS, INC., a Kentucky corporation, with an address of 1937 Silver Street, New Albany, Indiana ("Payee"), the aggregate principal sum of One Million Dollars (\$1,000,000.00), with no interest thereon, in lawful money of the United States of America, in the manner set forth herein and with a final maturity date of September 1, 2000 (the "Maturity Date").

The principal of this Note shall not bear interest on the unpaid balance thereof. The parties understand that such provision may not be recognized for federal income tax purposes and that payment of the note may be re-characterized for such purposes.

Principal of this Note may be prepaid in whole or in part without penalty or premium at any time.

Principal payments shall be made in immediately available funds to Payee at its address set forth above or to such other person or at such other address as may be designated in writing by the holder.

Failure of the holder of this Note to exercise any of its rights and remedies shall not constitute a waiver of the right to exercise the same at that or any other time. Time shall be of the essence in the payment of principal on this Note.

If there is any default under this Note, and this Note is placed in the hands of an attorney for collection or is collected through any court, including any bankruptcy court, Maker promises to pay to the holder hereof its reasonable attorneys' fees and court costs incurred in collecting or attempting to collect or securing or attempting to secure this Note or enforcing the holder's rights in any collateral securing this Note, provided the same is legally allowed by the laws of the Commonwealth of Kentucky or any state where the collateral or part thereof is situated.

The invalidity or unenforceability of any provision of this Note shall not impair the validity or enforceability of any other provision of this Note.

EXHIBIT 3

SECURITY AGREEMENT

THIS SECURITY AGREEMENT is made and entered into as of the ___ day of _____, 1993, by and between LOUISVILLE HARDWOODS, INC., a Kentucky corporation, whose address is 1937 Silver Street, New Albany, Indiana (hereafter referred to as "Debtor"); and

DOWN RIVER INTERNATIONAL, INC., a Michigan corporation with an address of 738 North Market Boulevard, Sacramento, California 95851 ("Secured Party").

IT IS AGREED BY THE PARTIES AS FOLLOWS:

1. For valuable consideration, the receipt of which is hereby acknowledged by the Debtor, and to secure the Obligations and indebtedness and undertakings of Debtor referred to in Section 2 hereof, Debtor hereby pledges, assigns, transfers, and grants to Secured Party a continuing security interest in all of the property described in Exhibit A hereto (such property hereinafter referred to as the "Collateral"), and all cash or non-cash proceeds of any of the foregoing.

2. This Security Agreement is made as collateral security for, and the security interest granted in the Collateral secures the following obligations (hereinafter sometimes referred to collectively as the "Obligations"): [i] all obligations of the Debtor to complete certain "Remedial Work," as defined and described in the Lease, and [ii] all costs incurred by Secured Party to obtain, preserve, perfect and enforce this security interest, to collect the Obligations enumerated in this Section 2, and to maintain and preserve the Collateral, including without limitation taxes, assessments, insurance premiums, repairs, reasonable attorneys' fees and legal expenses, rent, storage costs and expenses of collection and sale.

3. Debtor represents and warrants to Secured Party that:

A. The individual signing this Security Agreement on behalf of Debtor is duly authorized to execute and deliver this Security Agreement by the Board of Directors of Debtor, and this Security Agreement is legally binding upon Debtor in accordance with its terms and provisions.

B. It is the owner of the Collateral free from all liens and security interests as of the date hereof except for the liens and security interest created by this Agreement and the lien and security interest in favor of National City Bank, Kentucky ("NCB") pursuant to that certain Security Agreement

dated _____, _____, securing that certain line of credit extended by NCB to Debtor in the maximum principal amount of Eight Hundred Thousand Dollars (\$800,000) (the "Prior Debt").

C. It has the right to enter into this Security Agreement, the execution and performance of which will not, either immediately, or with notice and/or passage of time, result in the creation or imposition of any encumbrance upon any of the Collateral except as granted hereby.

D. The Collateral is used for business purposes, and [i] all of the Collateral is physically located at, and [ii] the principal and registered offices of Debtor are located at, the address for Debtor first set forth in this Agreement, or at such address and such other locations as have been disclosed to Secured Party by Debtor, in Exhibit B to this Agreement.

E. At no time during the previous five (5) years has the Collateral been physically located at, or the Debtor maintained a principal office, or a registered office in the Commonwealth of Kentucky or the State of Indiana, other than at the locations disclosed by Section 3.D. of this Security Agreement, except as disclosed to Secured Party by Debtor in Exhibit B to this Agreement.

4. Debtor agrees with Secured Party that until such time as Debtor has paid in full or discharged all of its Obligations to Secured Party, Debtor:

A. Will execute and deliver to Secured Party all information, legal descriptions, UCC-1 and other Financing Statements, and such other documents and instruments pertaining to the Collateral as are necessary in the sole opinion of Secured Party to create, perfect, maintain and preserve the security interest of Secured Party in the Collateral.

B. Will defend the Collateral against the claims and demands of all persons; comply in all material respects with all applicable federal, state and local statutes, laws, rules and regulations, the noncompliance with which could have a material adverse effect on the value of the Collateral or the security intended to be afforded Secured Party hereby; and pay all ad valorem property taxes which constitute or may constitute a lien against any of the Collateral, prior to the date when penalties or interest would attach to such taxes.

C. Debtor will maintain or cause to be maintained, with financially sound and reputable insurers, such insurance with respect to its properties, assets and business, against loss or damage of the kinds customarily insured against by corporations of established reputation engaged in the same or a similar business and similarly situated, of such types and in amounts as are

customarily carried under similar circumstances by such other corporations. Such insurance shall name Secured Party as an insured loss payee.

If Debtor fails to obtain such insurance, Secured Party shall have the absolute right (but not the obligation) to obtain same at Debtor's expense, and Debtor shall reimburse Secured Party therefor, with interest thereon at the Prime Rate of Secured Party then and from time to time thereafter in effect, immediately upon Secured Party's demand.

In the event of damage or destruction of any of the Collateral covered by such insurance, any proceeds from such insurance shall be used by Debtor for repair and restoration of the Collateral unless any amount of the Obligations is then due and owing to Secured Party in which case the proceeds shall, upon request of Secured Party, be paid to Secured Party and, at the option of Secured Party, be applied either to reduce the Obligations, or endorsed to Debtor and disbursed from time to time by Secured Party at Debtor's written request but only for the repair and/or replacement of such damaged or destroyed Collateral. While such insurance proceeds are in the possession of Secured Party, Secured Party shall have and hereby is granted by Debtor a first and prior security interest in such proceeds and cash and in all the repaired and replaced Collateral, and Debtor shall execute all such instruments in connection therewith as Secured Party shall require.

D. Will keep the Collateral in good condition and repair, reasonable wear and tear excepted, and will permit Secured Party and its designees to inspect the Collateral and the books and records of Debtor at any reasonable time and from time to time.

E. Will maintain accurate records of the Collateral, and will permit Secured Party upon request by it from time to time to inspect the Collateral and all evidence of ownership of the Collateral and all other books and records relating to the Collateral.

F. Will advise Secured Party in writing, at least thirty (30) days prior thereto, of any change in the Debtor's principal places of business, or registered office, or any change in the locations where any of the Collateral is kept; or of any change in Debtor's name or the adoption, whether formal or informal, by Debtor of any "trade name" or "assumed name."

G. Will not permit any part of the Collateral, or any of the records concerning same, to be removed from the locations specified in Paragraph 3.C hereof without the prior written consent of Secured Party which will not be unreasonably withheld.

H. Will not permit any liens or security interests to attach to any of the Collateral, except for the lien securing the Prior Debt.

I. Will not permit any material part of the Collateral to be levied upon under any legal process.

J. Will not sell, assign, lease or otherwise dispose of any of the Collateral without the prior written consent of Secured Party.

K. Will not permit anything to be done that may impair the value of any of the Collateral or the security intended to be afforded (material to the assets or the businesses of the Debtor or the value of the security hereunder) by this Security Agreement.

L. Will not permit any of the Collateral to become an accession or improvement to, or affixed to, other property in which Secured Party does not hold a security interest.

M. Will not cause or allow the principal balance of the Prior Debt to be increased beyond \$800,000.

N. Will not pay any dividends or make any distributions to any shareholder of the Debtor, except for those amounts as are necessary for the payment of federal and state income taxes by the shareholders as a result of the income of the Debtor. This exception shall be applicable only so long as the Debtor maintains its status as a non-taxable entity pursuant to Section 1361, et seq. of the Internal Revenue Code of 1986, as amended.

O. Will maintain its corporate existence in good standing in its state of organization and will qualify in all states in which it is required to so qualify to conduct its business operations.

P. Will not merge with or into, or consolidate with, or effect an exchange of shares with any other entity.

Q. Will not sell, transfer, lease or contract to sell, transfer or lease all or a substantial portion of its assets.

R. Will not engage in any other type of reorganization or distribution which would substantially alter the current corporate character and assets of the Debtor.

5. The Debtor hereby irrevocably appoints Secured Party as Debtor's attorney-in-fact to do all acts and things which Secured Party may deem necessary or appropriate to perfect and continue perfected the security interest in the Collateral granted pursuant to this Security Agreement and to protect the Collateral, including, but not in any way limited to, the execution and filing of

UCC-1 and other Financing Statements covering the Collateral in Debtor's name, as Debtor's attorney-in-fact, wherever and whenever Secured Party deems appropriate. All fees and taxes required for or in connection with filing such Financing Statements shall be paid for by the Debtor on demand of Secured Party and if paid by Secured Party, the Debtor shall provide reimbursement therefor, with interest thereon at the Prime Rate of Secured Party in effect from time to time thereafter, upon demand of Secured Party.

6. Each of the following shall be deemed an "Event of Default" hereunder:

A. If any default occurs in the performance of any of the Obligations described in Section 2 of this Agreement, strictly in accordance with their respective terms; or

B. If Debtor shall fail to pay any amount due and payable on any of the Obligations described in Section 2 of this Agreement, strictly in accordance with their respective terms; or

C. If any default occurs under the Prior Debt; or

D. If Debtor shall fail to comply fully with any provision of this Security Agreement and the same is not cured within twenty (20) days after Secured Party shall have given Debtor written notice thereof, at the address first set forth for Debtor in this Agreement or at such other address as shall have been disclosed in writing by Debtor to Secured Party at the address of Debtor for notices prescribed by this Section; or

E. If any warranties or representations made herein by Debtor or in any certificate, instrument, agreement or other writing now or hereafter delivered by Debtor to Secured Party shall prove materially untrue or misleading.

7. Upon the occurrence of any Event of Default under Section 6 hereof, Secured Party shall have all rights and remedies in and against the Collateral and otherwise of a secured party under the Uniform Commercial Code of Kentucky (or such other state where any part of the Collateral may be located, if applicable) and all other applicable laws, and shall also have all rights and remedies provided herein, and in any other agreements between the Debtor and Secured Party, all of which rights and remedies shall, to the fullest extent permitted by law, be cumulative. Secured Party shall have the right to sell the Collateral at public or private sale(s) in one or more lots. Secured Party shall have the right to have the Collateral and all of the records pertaining to the Collateral delivered to Secured Party by Debtor at a place reasonably convenient to Secured Party and Debtor. Debtor will pay, as part of the Obligations secured hereby, all amounts, including but not limited to Secured Party's reasonable attorneys' fees, where permitted by applicable law, and all sums paid by

Secured Party (i) for taxes, levies and insurance on, repair to, or maintenance of, the Collateral, and (ii) in taking possession of, disposing of, or preserving the Collateral, with interest on all of same at the Prime Rate of Secured Party in effect from time to time. Secured Party may bid upon and purchase any or all of the Collateral at any public sale thereof. Secured Party may dispose of all or any part of the Collateral in one or more lots and at one or more times and from time to time, and upon such terms and conditions, including a credit sale, as it determines in its sole discretion. Secured Party may apply the net proceeds of any such disposition of the Collateral or any part thereof, after deducting all costs incurred in connection therewith, including Secured Party's reasonable attorneys' fees, and costs and expenses incidental to the holding, or preparing for sale, in whole or in part, of the Collateral, and with interest thereon at the Prime Rate of Secured Party, in such order as Secured Party may elect, to the indebtedness and Obligations of Debtor secured hereunder, and any remaining proceeds shall be paid to Debtor or other party entitled thereto.

8. To the maximum permitted extent, the laws of the Commonwealth of Kentucky shall govern the construction of this Security Agreement and the rights, remedies and duties of the parties hereto.

9. This Security Agreement shall bind Debtor and its successors and assigns and shall inure to the benefit of Secured Party and its successors and assigns.

10. Time shall be of the essence in the performance by the Debtor of all its covenants, obligations and agreements hereunder.

11. The invalidity or unenforceability of any provision hereof shall not affect or impair the validity or enforceability of any other provisions of this Agreement.

12. As used herein, as appropriate, the singular use includes the plural, and the plural includes the singular.

13. No waiver by Secured Party of any term or provision hereof or failure to insist upon performance of any term or provision hereof shall constitute a waiver of any future breach or non-performance of any term or provision.

14. When Secured Party has received a Closure Letter (as defined in the Lease), this Security Agreement and the security interests granted herein shall terminate and Secured Party shall execute a UCC-3 termination statement of any financing statements given by Debtor hereunder.

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IN WITNESS WHEREOF, the parties hereto have executed this Security Agreement on the date first above written.

DEBTOR:
LOUISVILLE HARDWOODS, INC.

By: _____

Its: _____

SECURED PARTY:
DOWN RIVER INTERNATIONAL, INC.

By: _____

Its: _____

EXHIBIT A

A. All machinery, equipment, furniture and trade fixtures of the Debtor, now owned or hereafter acquired by Debtor and used or useful in connection with the business of the Debtor, together with all accessions thereto and all substitutions and replacements thereof and all parts therefore, and proceeds thereof, and records pertaining thereto.

B. All accounts, contract rights, instruments, documents, chattel paper and general intangibles (including without limitation, choses in action, tax refunds, and insurance proceeds) of the Debtor whether now existing or hereafter arising, and any other obligations or indebtedness owed to Debtor from whatever source and whenever arising; and all rights of Debtor to receive any payments in money or kind, and all guaranties of the foregoing and security therefore; and all of the right, title and interest of Debtor in and with respect to the goods, services, or other property that gave rise to or secure any of the foregoing, and insurance policies and proceeds relating thereto, and all of the rights of Debtor as an unpaid seller of goods or services, including without limitation, the rights of stoppage in transit, replevin, reclamation and resale; and all of the foregoing whether now existing or hereafter created or acquired by Debtor.

C. All goods, merchandise and other personal property now owned or hereafter acquired by Debtor, which are held for sale or lease or are furnished or to be furnished under any contract of service or are raw materials, work in process, supplies or materials used or consumed in Debtor's business, and all products thereof, and all substitutions, replacements, additions therefore and thereto, including insurance proceeds.

D. All machinery, equipment, furniture, goods and other property of Debtor which are attached or affixed or are to be attached or affixed to the real property described below, or to any other real property hereafter acquired or leased by Debtor and all proceeds thereof.

[Insert Description of Real Property]

E. All ledger sheets, files, computer programs and software and all other records of Debtor relating to any of the foregoing.

F. All proceeds, whether cash or otherwise of any of the foregoing, received at any time or held by the Debtor.

EXHIBIT B

Reference Section 3.C

Complete Street, Mailing, City, County and State Addresses of Debtor's:

1. Registered Office(s): _____

2. Principal Place(s) of Business: _____

3. Chief Executive Offices(s) (if different than 2)
4. Place(s) Where Records Concerning the Collateral are kept (if different than 2 and 3):
5. Place(s) Where Collateral is kept (if different than 2, 3 and 4):

Reference Section 3.D

6. Addresses other than as listed above at which during the past five (5) years [i] the collateral has been physically located, and/or [ii] Debtor has maintained a principal office, or a registered office in the Commonwealth of Kentucky:

EXHIBIT 4

SUBORDINATION AGREEMENT

This SUBORDINATION AGREEMENT is made and entered into as of this ___ day of _____, 1993, by and between LOUISVILLE HARDWOODS, INC., a Kentucky corporation with an address of _____, New Albany, Indiana _____ ("Louisville Hardwoods") and DOWN RIVER INTERNATIONAL, INC., 738 North Market Boulevard, Sacramento, California 95851 ("Down River") and SAM DUNAWAY, an individual with an address of _____, and a shareholder of Louisville Hardwoods, Inc. ("Dunaway")

WHEREAS, as of today's date, Louisville Hardwoods, Down River and Dunaway have entered into a certain Lease (the "Lease"), pursuant to the terms of which Louisville Hardwoods has entered into a Security Agreement providing collateral to Down River for performance of its obligations under the Lease; and

WHEREAS, Louisville Hardwoods is currently indebted to Dunaway in the principal amount of \$1,200,000, as evidenced by Louisville Hardwoods' Promissory Note dated _____, 19___ (the "Subordinate Debt"); and

WHEREAS, Louisville Hardwoods is further indebted to National City Bank, Kentucky ("NCB") in the current principal amount of \$500,000, as evidenced by Louisville Hardwoods' Promissory Note dated _____, 19___ (the "NCB Note"); and

WHEREAS, pursuant to the terms of the Lease, Dunaway has agreed to subordinate payment of the Subordinate Debt on the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the premises the parties do agree as follows:

1. All terms and provisions shall have the meaning set forth in the Lease unless otherwise defined herein.
2. Dunaway agrees that \$700,000 of the Subordinate Debt, as defined herein, shall be subordinate in all respects to the payment and performance by Louisville Hardwoods of all terms and conditions of the Lease relating to the completion of the Remedial Work. Pursuant to this Subordination Agreement, no payments of principal or any costs or expenses (other than interest) in connection with \$700,000 of the Subordinate Debt shall be made by Louisville Hardwoods to Dunaway until such time as the Remediation Work has been completed and Down River has received a Closure Letter. If such payments are made, Dunaway acknowledges and agrees that such payments shall be held in trust as a fiduciary for Down River and shall be delivered to Down River for

application to the obligations of Louisville Hardwoods pursuant to the Lease.

3. Dunaway further agrees that so long as the NCB indebtedness is outstanding, all of the Subordinate Debt shall be subordinate in all respects to the performance of the Remedial Work by Louisville Hardwoods, on the same terms and conditions as set forth in paragraph 1; provided, however, that at such time as the indebtedness of Louisville Hardwoods to NCB has been paid in full, Louisville Hardwoods may make payments on \$500,000 of the Subordinate Debt to Dunaway.

4. Notwithstanding any provision hereof, Louisville Hardwoods and Dunaway agree that in no event shall any payments be made by Louisville Hardwoods to Dunaway with respect to the Subordinate Debt if such payments would render Louisville Hardwoods insolvent, or unable to pay its debts as they become due.

5. Louisville Hardwoods hereby agrees and covenants with Down River that it will make no payments to Dunaway on the Subordinate Debt which would be in violation of the terms of this Subordination Agreement.

6. This Subordination Agreement shall be applicable to any modification, amendment, renewal, extension, replacement or refinancing of the Lease. It is agreed that the Subordinate Debt shall, to the extent it is subordinate at all, be subordinate to principal, interest, fees, costs and expenses incurred by Down River in connection with the Lease. Dunaway and Louisville Hardwoods, jointly and severally, represent and warrant to Down River that Louisville Hardwoods is not indebted to Dunaway, except for the Subordinate Debt.

7. Dunaway further agrees that he will maintain his position as a shareholder of Louisville Hardwoods and will not enter into any contract or agreement to transfer any of his interest in Louisville Hardwoods without the prior written consent and approval of Down River, which consent may be withheld in its sole discretion.

8. This Agreement may not be amended, modified or otherwise affected in any manner except in a writing signed by the parties hereto. This Agreement shall be governed by the laws of the Commonwealth of Kentucky. This Agreement constitutes the entire understanding of the parties as to the subject matter hereof. This Agreement shall be enforceable by any assignee of the Lease and by any successor or assign of Down River.

Executed this ___ day of _____, 19__.

BOOK 6938 PAGE 0052

LOUISVILLE HARDWOODS, INC.

By: _____

Its: _____

DOWN RIVER INTERNATIONAL, INC.

By: _____

Its: _____

SAM DUNAWAY

SCHEDULE A

(Legal Description of Premises)

BEGINNING at an iron pipe at the intersection of the East line of Dixie Highway, as established in Deed Book 1653, Page 553, in the office of the Clerk of Jefferson County, Kentucky, with the North line of the Kentucky and Indiana Terminal Railroad right of way; thence with the East side of Dixie Highway North 17 degrees 07 minutes East 185.13 feet to the Northwest corner of the tract conveyed to Schenley Distillers, Inc., by deed of record in Deed Book 3486, Page 457, in the office aforesaid; thence with the North line of said tract, South 85 degrees 20 minutes East 872.14 feet to an iron pipe in the West line of the tract conveyed to Louisville Cooperage Company, by deed of record in Deed Book 1533, Page 5, in the office aforesaid; thence with the West line of said tract, North 8 degrees 25 minutes East 460.73 feet to a Northwesterly corner of said tract; thence South 84 degrees 10 minutes East 775.37 feet to the West line of 17th Street; thence with same if extended South 7 degrees 11 minutes West 18.37 feet to a spike in the South line of the first alley South of Wilson Avenue; thence with the South line of aforesaid alley South 84 degrees 17 minutes 30 seconds East 842.14 feet to an iron pipe at the Northeast corner of the tract conveyed to Schenley Distillers, Inc., by deed of record in Deed Book 3574, Page 221, in the office aforesaid; thence with the East line of said tract, South 6 degrees 37 minutes 30 seconds West 619.56 feet to an iron pipe at the Northeast corner of the tract conveyed to the Kentucky and Indiana Terminal Railroad Company, by deed of record in Deed Book 1843, Page 224, in the office aforesaid; thence with the North line of last mentioned tract, North 84 degrees 08 minutes 30 seconds West 338.48 feet to a point in the center line of 16th Street, as closed by judgment in Action #35674, Jefferson Circuit Court; thence South 7 degrees 11 minutes 30 seconds West 25 feet to an iron pipe in the North line of Magnolia Avenue; thence with the North line of Magnolia Avenue and the North line of the Kentucky and Indiana Terminal Railroad right of way, North 84 degrees 08 minutes 30 seconds West 2198.24 feet to the point of beginning. EXCEPTING THEREFROM so much as was conveyed to the City of Louisville for public alley, by deed of record in Deed Book 3510, Page 463, in the office aforesaid.

BOOK 6938 PAGE 0054

BEING the same property acquired by Landlord, by deed dated July 19, 1983, of record in Deed Book 5363, Page 949, in the Office of the Clerk of the County Court of Jefferson County, Kentucky.

SCHEDULE B

(Furniture, Fixtures & Equipment)

Air Compressors - "J" Bldg, Engine Rm (2)
Air Dryer - Engine Rm and 40 HP Air Compressor
Lumber Stackers - #1, #2, & #3 (Planer)
382 Newman Whitney Planer
6' Kiln Track Rollers
Lumber Hoist
Tractor-Bucket Loader
Stick Racks

Equipment

Smith Sanitation Container
Water Cooler - Down River Area

Forklifts

#06D Clark 15 Model C500Y1550-Ser#Y015-10-7002
#11D Hyster30 Model H300B-Ser#B019001607D
#12D Hyster20 Model H200ES-Ser#B7P6882T (Short Boom)
#15D Yale 110 Model GDP110DBE088-Ser#N485529
#16D Tylor 20 Model Y20W0 (Spare)

Tools

All special wrenches for boiler/stacker
Drill press (small)
Lath
Key-way Machine
Screw press
Welder #440 amp
Small kiln oven
Balance beam
Kiln scale
Track kiln controler
Microwave oven kiln
Flat Press

Supplies

Stacker sticks

BOOK 6938 PAGE 0056

SCHEDULE C

(Exceptions to Landlords Representations)

Attached as Addendum C-1 to this Exhibit is a remediation plan proposed by Landlord for the underground storage tanks formerly located on the Premises.

Permitted Title Exceptions described on Schedule E to this Lease.

BOOK 6938 PAGE 0057

ADDENDUM C-1 to SCHEDULE C

Document No: 1997129304
Lodged By: MAIL
Recorded On: Sep 18, 1997 08:38:52 A.M.
Total Fees: \$93.00
County Clerk: Rebecca Jackson
Deputy Clerk: DENKIN

END OF DOCUMENT

28



JOHN Y. BROWN III
SECRETARY OF STATE

CERTIFICATE

I, JOHN Y. BROWN III, Secretary of State for the Commonwealth of Kentucky, do certify that the foregoing writing has been carefully compared by me with the original record thereof, now in my official custody as Secretary of State and remaining on file in my office, and found to be a true and correct copy of ARTICLES OF MERGER OF LANHAM LUMBER & DRY KILN CO., INC. INTO LOUISVILLE HARDWOODS, INC. FILED JUNE 1, 1987.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal.

Done at Frankfort this 1ST day of AUGUST, 19 97

John Y. Brown III
Secretary of State, Commonwealth of Kentucky

216965-A
229987-M
178790-I

Commonwealth of Kentucky

OFFICE OF
SECRETARY OF STATE

DREXELL R. DAVIS
Secretary



FRANKFORT,
KENTUCKY

CERTIFICATE OF MERGER OF DOMESTIC CORPORATIONS INTO

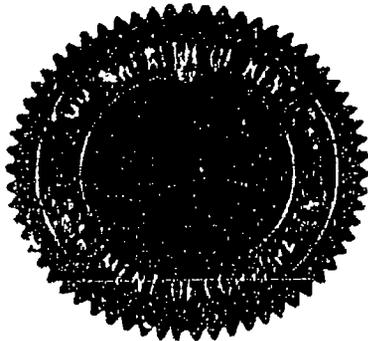
I, DREXELL R. DAVIS, Secretary of State of the Commonwealth of Kentucky, do hereby
certify that triplicate originals of Articles of Merger of

LANHAM LUMBER & DRY KILN CO., INC.

a domestic corporation, into LOUISVILLE HARDWOODS, INC.,
a domestic corporation, duly signed and verified pursuant to the provisions of Kentucky
Revised Statutes Chapter 271A have been received in this office and comply to said statutes.
Accordingly, as Secretary of State and by virtue of the authority vested in me by law, I
do hereby issue this Certificate of Merger of

LANHAM LUMBER & DRY KILN CO., INC.

INTO LOUISVILLE HARDWOODS, INC.



SECRETARY OF STATE

Witness my official signature and seal of office this ^{1ST}
day of JUNE, 19 87, at Frankfort, Kentucky.

Drexell R. Davis
SECRETARY OF STATE

ASSISTANT SECRETARY OF STATE

ORIGINAL COPY FILED

SECRETARY OF STATE OF KENTUCKY
FRANKFORT, KENTUCKY

ARTICLES OF MERGER
OF
LANHAM LUMBER & DRY KILN CO., INC.
AND
LOUISVILLE HARDWOODS, INC.

JUL 11 1987
Diaper

15038

There are Articles of Merger providing pursuant to
KRS 272A.070 for the merger of Lanham Lumber & Dry Kiln
Co., Inc. ("Lanham"), a Kentucky corporation, into Louisville
Hardwoods, Inc. ("Hardwoods"), a Kentucky corporation.

ARTICLE I. The plan of merger adopted in the manner
set forth in Article II is attached hereto as Annex A and is
incorporated by reference as if set forth in full herein.

ARTICLE II. The plan of merger set forth above in
Article I was approved (a) on March 23, 1987, by the unanimous
written action of all of the directors of Lanham and Hardwoods,
(b) on March 23, 1987, by the written consent of the sole
shareholder of Hardwoods, and (c) on April 16, 1987, by the
affirmative vote of the holders of a majority of the shares of
each class of shares of Lanham and of the total shares of
Lanham at a special meeting of the shareholders of Lanham.

LANHAM LUMBER & DRY KILN CO., INC.

LOUISVILLE HARDWOODS, INC.

BY *W. Turner Lanham, Jr.*
W. Turner Lanham, Jr.,
President

BY *S. M. Dunaway*
S. M. Dunaway,
President

AND BY *George W. Ebeling*
George W. Ebeling,
Secretary

AND BY *Louise Hatfield*
Louise Hatfield,
Secretary

COMMONWEALTH OF KENTUCKY

COUNTY OF JEFFERSON

Sworn to and acknowledged before me on this 1st day of 1911 by J. M. Lowmyer, President of the Louisville Harrow Works, and C. Turner Latham, Jr., President of Latham Hammer Works, both of Kentucky corporations, on behalf of the corporations, and

Notary Public

My commission expires

PLAN AND AGREEMENT
OF
MERGER AND REORGANIZATION

This is a Plan and Agreement of Merger and Reorganization (the "Merger Agreement") dated as of March 23, 1987, between Louisville Hardwoods, Inc., a Kentucky corporation, ("Hardwoods"), and Lanham Lumber & Dry Kilm Co., Inc., a Kentucky corporation ("Lanham Lumber").

SECTION 1

THE MERGER

1.01 Plan of Merger. Upon the terms and conditions set forth in this Merger Agreement Lanham Lumber shall be merged with and into Hardwoods (the "Merger").

1.02 Hardwoods Capital Stock. The authorized capital stock of Hardwoods consists of 2,000 shares of common stock, no par value (the "Hardwoods Common Stock"), of which 200 shares are issued and outstanding.

1.03 Lanham Lumber Capital Stock. The authorized capital stock of Lanham Lumber consists of 200 shares of Class A common stock, no par value, and 1,800 shares of Class B common stock, no par value, all of which are issued and outstanding (collectively referred to as the "Lanham Lumber Common Stock").

SECTION 2

THE EFFECTIVE TIME

2.01 The Effective Time. Hardwoods shall deliver Articles of Merger to the Kentucky Secretary of State on April 16, 1987, or as soon thereafter as practicable following satisfaction of the conditions set forth in Section 7 below. Hardwoods shall cause the Kentucky Secretary of State to issue a certificate of merger as of 1:00 P.M., Louisville time, on such date (the "Effective Time").

ANNEX A

SECTION 3

BASIC TERMS OF THE MERGER

3.01 Statutory Merger. At the Effective Time, Lanham Lumber shall be merged into and with Hardwoods on the terms and conditions of this Merger Agreement and in accordance with the Kentucky Business Corporation Act.

3.02 Terms of Exchange. At the Effective Time, each issued and outstanding share of Lanham Lumber Common Stock not owned by Hardwoods shall be converted, by virtue of the Merger and without any action on the part of the holder thereof, into a right to receive in exchange therefor, forthwith, the amount of One Hundred Dollars (\$100.00) per share in cash. The holders of such shares shall have no further rights with respect to the shares except the right to receive such amount in cash upon surrender of their certificates to the Surviving Corporation. The shares of Lanham Lumber Common Stock owned by Hardwoods shall be cancelled in the Merger. At the Effective Time, each issued and outstanding share of Hardwoods Common Stock shall be converted, without any action on the part of the holder thereof, into one fully paid and nonassessable share of the common stock of the Surviving Corporation (the "Surviving Corporation Common Stock").

3.03 Surrender of Certificates. After the Effective Time, each holder, other than Hardwoods, of an outstanding certificate or certificates formerly representing shares of Lanham Lumber Common Stock ("Lanham Lumber Certificate(s)") shall receive, upon the surrender of the holder's Lanham Lumber Certificate(s) to the Surviving Corporation, payment of One Hundred Dollars (\$100.00) for each share of Lanham Lumber Common Stock represented by the Lanham Lumber Certificate(s). After the Effective Time, each certificate formerly representing shares of Hardwoods Common Stock shall represent a like number of shares of the Surviving Corporation Common Stock.

3.04 Effect of Merger. Upon the issuance of the certificate of merger pursuant to subsection 2.01:

(a) The Surviving Corporation shall possess all the rights, privileges, immunities, and franchises of a public as well as of a private nature, of each of Hardwoods and Lanham Lumber;

(b) All property, real, personal and mixed, and all debts due on whatever account, including subscriptions to shares, and all other choses in action, and all and every other interest of or belonging to or due to each of Hardwoods

and Lanham Lumber shall be taken and deemed to be transferred to and vested in the Surviving Corporation without further act or deed;

(c) The title to any real estate, or any interest therein, vested in either Hardwoods or Lanham Lumber shall not revert or be in any way impaired by reason of the Merger;

(d) The Surviving Corporation shall be responsible and liable for all the liabilities and obligations of each of Hardwoods and Lanham Lumber; and

(e) Any claim existing or action or proceeding pending by or against either Hardwoods or Lanham Lumber may be prosecuted as if the Merger had not taken place, or the Surviving Corporation may be substituted in place of Hardwoods or Lanham Lumber, as the case may be.

Neither the rights of creditors nor any liens upon the property of either Hardwoods or Lanham Lumber shall be impaired by the Merger.

3.05 Name, Articles, Bylaws, Directors and Officers.

(a) From and after the Effective Time the name of the Surviving Corporation shall be "Louisville Hardwoods Inc."

(b) The Articles of Incorporation of Hardwoods at the Effective Time shall be the Articles of Incorporation of the Surviving Corporation from and after the Effective Time.

(c) The Bylaws of Hardwoods at the Effective Time shall be the Bylaws of the Surviving Corporation from and after the Effective Time.

(d) The Board of Directors of Hardwoods at the Effective Time, listed below, shall be the Board of Directors of the Surviving Corporation and shall from and after the Effective Time hold office subject to the provisions of the laws of Kentucky and the Articles of Incorporation and Bylaws of the Surviving Corporation:

S. M. Dunaway
Louise Hatfield
Melvin T. Brown

(e) The principal officers of Lanham Lumber at the Effective Time, listed below, shall be the officers of the Surviving Corporation from and after the Effective Time and

shall hold office subject to the provisions of the laws of Kentucky and the Articles of Incorporation and Bylaws of the Surviving Corporation:

<u>Office</u>	<u>Name</u>
President	S. M. Dunaway
Vice President	Melvin T. Brown
Secretary-Treasurer	Louise Hatfield

SECTION 4

REPRESENTATIONS AND WARRANTIES
OF LANHAM LUMBER

Lanham Lumber represents and warrants to Hardwoods as follows:

4.01 Organization and Qualification. Lanham Lumber is a Kentucky corporation, duly organized, validly existing and in good standing under the laws of the Commonwealth of Kentucky and has all requisite corporate power and authority to own and lease its property and to carry on its business as it is now being conducted.

4.02 Authorization. Lanham Lumber has the corporate power to enter into, execute, deliver and perform its obligations under this Merger Agreement. The execution, delivery and performance of this Merger Agreement by Lanham Lumber have been duly authorized and approved by all requisite corporate action of Lanham Lumber and, except for the authorization by the shareholders of Lanham Lumber, no other corporate acts or proceedings on the part of Lanham Lumber are necessary to authorize this Merger Agreement or the transactions contemplated hereby. This Merger Agreement constitutes a valid and legally binding obligation of Lanham Lumber.

4.03 No Survival. The representations and warranties made by Lanham Lumber as of the Effective Time shall survive any investigation by Hardwoods but shall expire and be terminated and extinguished at the Effective Time or the termination and abandonment of the Merger, as the case may be.

SECTION 5

REPRESENTATIONS AND WARRANTIES OF HARDWOODS

Hardwoods represents and warrants to Lanham Lumber as follows:

5.01 Organization and Qualification. Hardwoods is a Kentucky corporation, duly organized, validly existing and in good standing under the laws of the Commonwealth of Kentucky and has all requisite corporate power and authority to own and lease its property and to carry on its business as it is now being conducted.

5.02 Authorization. Hardwoods has the corporate power to enter into, execute, deliver and perform its obligations under this Merger Agreement. The execution, delivery and performance of this Merger Agreement by Hardwoods has been duly authorized and approved by all requisite corporate action of Hardwoods and, except for the authorization by the sole shareholder of Hardwoods, no other corporate acts or proceedings on the part of Hardwoods are necessary to authorize this Merger Agreement or the transactions contemplated hereby. This Merger Agreement constitutes a valid and legally binding obligation of Hardwoods.

5.03 No Survival. The representations and warranties made by Hardwoods as of the Effective Time shall survive any investigation by Lanham Lumber but shall expire and be terminated and extinguished at the Effective Time or the termination and abandonment of the Merger, as the case may be.

SECTION 6

COVENANTS AND CONDUCT OF HARDWOODS AND LANHAM LUMBER PRIOR TO THE EFFECTIVE TIME

6.01 Shareholder Approvals. The Boards of Directors of Hardwoods and Lanham Lumber shall each approve, and submit to its respective shareholders for approval, this Merger Agreement at a meeting of shareholders duly called for that purpose by each Board of Directors as soon as appropriate and possible.

6.02 Consents. Hardwoods and Lanham Lumber shall each use its best efforts to procure upon reasonable terms and conditions all consents and approvals in satisfaction of all of the requirements prescribed by law which are necessary for consummation of the Merger.

6.03 Cooperation. Hardwoods and Lanham Lumber shall each cooperate fully, completely, and promptly with the other in connection with satisfying all conditions to the Merger and effecting the transaction contemplated by this Merger Agreement.

SECTION 7

CONDITIONS OF CONSUMMATION

7.01 Conditions to Obligations. The obligations of Hardwoods and Lanham Lumber to consummate the Merger shall be subject to the satisfaction or waiver (if permitted by applicable law) of the following conditions on or before the Effective Time.

(a) Shareholder Approval. This Merger Agreement shall have been approved by the shareholders of both Hardwoods and Lanham Lumber.

(b) No Proceedings. No action or proceedings shall have been instituted before a court or other governmental body by any governmental agency or public authority or other person to restrain or prohibit the transaction contemplated by this Merger Agreement or to obtain damages or other relief in connection with the execution of this Merger Agreement or the consummation of the transaction contemplated hereby.

(c) Statutory Requirements and Consents. All statutory requirements for the valid consummation of the transaction contemplated by this Merger Agreement shall have been fulfilled; all authorizations, consents and approvals of all federal, state, local or foreign governmental agencies and authorities required to be obtained in order to permit consummation of the transaction contemplated by this Merger Agreement and to permit the business presently carried on by each of Hardwoods and Lanham Lumber to continue unimpaired in all material respects immediately following the Effective Time shall have been obtained; and all required consents of lenders and other parties to material agreements binding upon either Hardwoods or Lanham Lumber shall have been obtained.

(d) Available Capital. The Surviving Corporation shall be reasonably assured of having, a and after the Effective Time, unreserved and unrestricted capital surplus available for the payment of the amounts required to be paid pursuant to Section 3 hereof.

7.02 Termination of Agreement. This Merger Agreement may be terminated at any time before the Effective Time under the following circumstances:

(a) Mutual Consent. By the Boards of Directors of both Hardwoods and Lanham Lumber if for any reason consummation of the Merger is inadvisable in the opinions of both Boards of Directors.

(1) One Year. By either the Board of Directors of Hardwoods or Lanham Lumber if the other has not acted within one year of the date hereof.

Upon termination of this Merger Agreement, this Merger Agreement shall be void and of no other effect, and there shall be no liability, in respect of this Merger Agreement or the termination thereof, on the part of the directors of Lanham Lumber or their respective directors, officers, employees, and independent agents.

SECTION 10
MISCELLANEOUS

8.01 Headings. The headings in this Merger Agreement have been included solely for ease of reference and shall not be considered in the interpretation or construction of this Merger Agreement.

8.02 Entire Agreement. All prior negotiations and agreements between Hardwoods and Lanham Lumber are superseded by this Merger Agreement and there are no representations, warranties, understandings or agreements other than those expressly set forth herein.

8.03 Governing Law. This Merger Agreement shall be construed and interpreted in accordance with the laws of the Commonwealth of Kentucky and of the United States.

IN WITNESS WHEREOF, Hardwoods and Lanham Lumber have executed and delivered this Merger Agreement as of and on the date first written above.

LANHAM LUMBER & DRY KILN CO., INC.

By: G. Turner Lanham, Jr. President

LOUISVILLE HARDWOODS, INC.

By: S. M. Dunaway President

END OF DOCUMENT

Document No: 1997108668
Lodged By: BORNSTEIN
Recorded On: Aug 07, 1997 02:18:18 P.M.
Total Fees: \$23.00
County Clerk: Rebecca Jackson
Deputy Clerk: STACIE

D

0807295PG0715

This DEED made and entered into this 4th day of August, 1999, by and between U.S. WOOD PRODUCTS, INC., a Delaware corporation, of 200 Baker Avenue, Suite 200, Concord, Massachusetts 01742, first party, and LOUISVILLE INDUSTRIAL PARK, LLC, a Kentucky limited liability company, of 1987 South Park Road, Louisville, Kentucky 40219, second party.

WITNESSETH: That for a valuable consideration, the receipt and sufficiency of which is hereby acknowledged, being the sum of ONE MILLION SEVEN HUNDRED TWENTY FIVE THOUSAND DOLLARS AND NO/100 (\$1,725,000.00), the first party hereby sells and conveys with covenant of general warranty, unto the second party, its successors and assigns, the following described real estate located in JEFFERSON County, Kentucky:

EXHIBIT "A" ATTACHED HERETO
AND INCORPORATED HEREIN BY REFERENCE.

BEING the same property conveyed to U.S. WOOD PRODUCTS, INC., a Delaware corporation, by deed dated August 4, 1999, of record in Deed Book 795, Page 711 in the Jefferson County Court Clerk's Office.

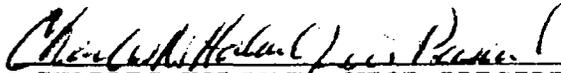
130259
8-6-99

The first party hereto certifies the consideration for the property being conveyed herein to be \$1,725,000.00. The grantee joins this Deed for the sole purpose of certifying the consideration pursuant to KRS Chapter 382.

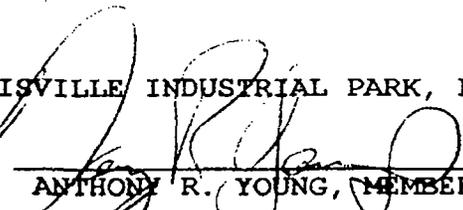
The first party further covenants it is lawfully seized of the estate herein conveyed with the full right and power to convey same in fee simple and there are no encumbrances against same except easements and restrictions of record and Zoning Regulations of JEFFERSON County. The 1999 State, County and School taxes, and the 2000 City of Louisville taxes have been prorated between the parties and the second party shall assume all liability to pay same when due. Possession with deed.

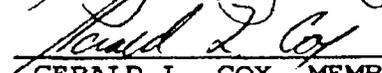
IN TESTIMONY WHEREOF witness the hands of the parties this day and year first herein written, by and through their duly authorized officers, as authorized by resolution of the Board of Directors.

U.S. WOOD PRODUCTS, INC.

BY: 
CHARLES HOLCOMB, VICE-PRESIDENT

LOUISVILLE INDUSTRIAL PARK, LLC

BY: 
ANTHONY R. YOUNG, MEMBER

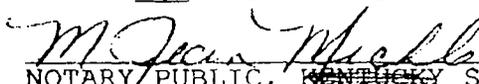
BY: 
GERALD L. COX, MEMBER

DB07295PG0717

STATE OF Massachusetts
COUNTY OF Middlesex

I, the undersigned Notary Public, for and in the County and State aforesaid hereby certify that the foregoing instrument was produced before me in said County and State and acknowledged and sworn to by **CHARLES HOLCOMB, VICE-PRESIDENT OF U.S. WOOD PRODUCTS, INC.**, a Delaware corporation, party thereto, to be his true act and deed and the true act and deed of the corporation.

WITNESS my hand this 4 day of August, 1999.


NOTARY PUBLIC, ~~KENTUCKY~~ STATE AT LARGE (Massachusetts)
My Commission expires: 3-22-02

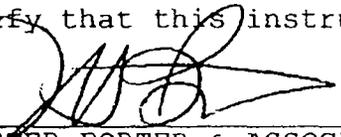
STATE OF KENTUCKY
COUNTY OF BULLITT

I, the undersigned Notary Public, for and in the County and State aforesaid hereby certify that the foregoing instrument was produced before me in said County and State and acknowledged and sworn to by **ANTHONY R. YOUNG and GERALD L. COX, the sole members of LOUISVILLE INDUSTRIAL PARK, LLC**, parties thereto, to be their true act and deed and the true act and deed of the limited liability company.

WITNESS my hand this 5th day of August, 1999.


NOTARY PUBLIC, KENTUCKY STATE AT LARGE
My Commission expires: 7/24/2000

I certify that this instrument was prepared by:



J. CHESTER PORTER & ASSOCIATES
LINDA S. BOUVETTE, ATTORNEY
P.O. Box 509
Taylorsville, KY 40071
502/477-6412

c:\myfiles\bcbl\loandoc\louisvilleindustrial.doc

DB07295PG0718

EXHIBIT "A"

BEGINNING at an iron pipe at the intersection of the East line of Dixie Highway, as established in Deed Book 1653, Page 553, in the Office of the Clerk of Jefferson County, Kentucky, with the North line of the Kentucky and Indiana Terminal Railroad right-of-way; thence with the East side of Dixie Highway North 17 degrees 07 minutes East 185.13 feet to the Northwest corner of the tract conveyed to Schenley Distillers, Inc. by deed of record in Deed Book 4386, Page 457, in the Office aforesaid; thence with the North line of said tract, South 85 degrees 20 minutes East 872.14 feet to an iron pipe in the West line of the tract conveyed to Louisville Cooperage Company, by deed of record in Deed Book 1533, Page 5, in the Office aforesaid; thence with the West line of said tract, North 8 degrees 25 minutes East 460 73 feet to a Northwesterly corner of said tract; thence South 84 degrees 10 minutes East 775.37 feet to the West line of the 17th Street; thence with same if extended South 7 degrees 11 minutes West 18.37 feet to a spike in the South line of the first alley South of Wilson Avenue ; thence with the south line of aforesaid alley South 84 degrees 17 minutes 30 seconds East 842.14 feet to an iron pipe at the Northeast corner of the tract conveyed to Shenley Distillers, Inc., by deed of record in Deed Book 3574, Page 221, in the Office aforesaid; thence with the East line of said tract, South 6 degrees 37 minutes 30 seconds West 619.56 feet to an iron pipe at the Northeast corner of the tract conveyed to the Kentucky and Indiana Terminal Railroad Company, by deed of record in Deed Book 1843, Page 224, in the Office aforesaid; thence with the North line of last mentioned tract, North 84 degrees 08 minutes 30seconds West 338.48 feet to a point in the center line of 16th Street, as close by judgement in Action #35674, Jefferson Circuit Court; thence South 7 degrees 11 minutes 30 seconds West 25 feet to an iron pipe in the North line of Magnolia Avenue; thence with the North line of Magnolia Avenue and the North line of he Kentucky and Indiana Terminal Railroad right-of-way, North 84 degrees 08 minutes 30 seconds West 2198.24 feet to the point of **BEGINNING**.

EXCEPTING THEREFROM so much as was conveyed to the City of Louisville for public alley, by deed of record in Deed Book 3510, Page 463, in the Office aforesaid.

Being the same property acquired by **LOUISVILLE HARDWOODS, INC.**, by Deed dated July 19, 1983, of record in Deed Book 5363, Page 949, in the Office of the clerk of Jefferson County, Kentucky.

Document No. : DN1999130260
Lodged By: BORNSTEIN
Recorded On: 08/06/1999 10:51:28
Total Fees: 1,739.00
Transfer Tax: 1,725.00
County Clerk: Bobbie Holsclaw
Deputy Clerk: DENKIN

END OF DOCUMENT

POWER OF ATTORNEY

The undersigned, Louisville Hardwoods, Inc. (formerly named Lanham Lumber & Dry Kiln Co., Inc.) ("LHI"), a Kentucky corporation whose address is 1698 St. Louis Street, Louisville, Kentucky 40210, does hereby make, constitute and appoint Down River International, Inc. ("DRI"), a Michigan corporation qualified to do business in Kentucky, with an address of P.O. Box 15290-C, Sacramento, California 95851, by its designated officers, to act severally for the undersigned in its name, place and stead, as authorized in this document.

By this document LHI intends to create a general Power of Attorney. Subject to any limitations in this document, LHI hereby grants to DRI and its designated officers, full power and authority to act severally for LHI in its name, and in any way which it could act if it were personally present and able to act with respect to: (i) the execution of certain Notices of Alienation of Property and any amendments thereto, in accordance with Kentucky Revised Statute 378.040, as may be filed from time to time; and (ii) the execution of UCC-1 financing statements and any continuations, amendments or terminations thereof, as may be filed from time to time; and (iii) the execution of Bills of Sale, and any amendments thereto, as may be filed from time to time, all pursuant to that certain Purchasing Agreement dated October 1, 1985, by and between Lanham Lumber & Dry Kiln Co., Inc., now known as Louisville Hardwoods, Inc., and DRI.

RECORDING REQUESTED BY
THE BANK OF CALIFORNIA, N.A.

This instrument prepared by Beverly S. Moore representing
The Bank of California, N.A., 407 S.W. Broadway,
Portland, Oregon 97205.

Beverly S. Moore
Document & Title Administrator

WHEN RECORDED MAIL TO

BOOK 6139 PAGE 897

THE BANK OF CALIFORNIA, N.A.
407 S.W. Broadway
Portland, Oregon 97205
Attn: Beverly Moore

Street
Address
City,
State, Zip
Attention:

SPACE ABOVE THIS LINE FOR RECORDERS USE

**WAIVER OF RIGHTS AND CONSENT TO REMOVAL OF PERSONAL PROPERTY
ON OR AFFIXED TO REAL PROPERTY**

This Waiver and Consent is made and entered into as of the 26 day
of 26 1991 by and between THE BANK OF CALIFORNIA, N.A., a national
banking association, hereinafter called "Secured Party," and the undersigned.

WHEREAS, the undersigned has an interest either as owner, lessor, mortgage holder, trust deed holder, or seller under a
conditional sales contract in the real property situated at 1698 St. Louis Road, Louisville
County of Jefferson State of Kentucky
the legal description of which is:

See Exhibit "A" attached hereto and by this reference incorporated herein.

which real property is hereinafter called the "Real Property."

WHEREAS, TREE PRODUCTS HARDWOODS, INC.
hereinafter called "Debtor," in order to induce Secured Party to extend or continue credit or financial accommodations to it or
some third party, has or will execute a Security Agreement granting to Secured Party a security interest in and to the following
described collateral:

See Exhibit "B" attached hereto and by this reference incorporated herein.

which collateral is hereinafter called the "Personal Property."

WHEREAS, as a condition to extending or continuing credit or financial accommodations to Debtor or a third party,
Secured Party requires the undersigned's waiver of rights and consent to the removal of the Personal Property.

NOW, THEREFORE, for good and sufficient consideration the receipt of which is hereby acknowledged, and to induce
Secured Party to extend or continue credit or financial accommodations to Debtor or a third party, the undersigned jointly and
severally agree as follows:

1. The Personal Property shall be deemed for all purposes to be personal property and shall not be considered part of the Real Property, regardless of whether or by what means it is or may become attached or affixed to the Real Property.
2. The undersigned has not and will not claim any interest in the Personal Property superior to the interest of Secured Party, and the undersigned hereby subordinates any interest it has or may hereafter acquire in the Personal Property to the security interest which Secured Party has or hereafter acquires therein.
3. If the undersigned has, under applicable law or otherwise, any right, title or interest in or to the Personal Property, the undersigned hereby waives such right, title and interest to the extent necessary to effectuate Secured Party's rights under this Waiver and Consent and under the Security Agreement executed or to be executed by Debtor.
4. In the event of a default by Debtor under the above mentioned Security Agreement or under any other presently existing or future contract, agreement or document with Secured Party, the undersigned consents to Secured Party's employees, agents or invitees entering upon the Real Property to do any or all of the following with respect to the Personal Property: assemble, have appraised, display, operate, maintain, remove, repair, prepare for public or private sale, exhibit, or sell. Secured Party hereby agrees to reimburse the undersigned for the cost of repair of any physical damage to the Real Property caused by Secured Party's removal of the Personal Property, but not for any diminution in value of the Real Property caused by the absence of the Personal Property so removed or by any necessity of replacing the Personal Property. Any such reimbursement by Secured Party to any one or more of the undersigned shall be deemed reimbursement to all of the undersigned. The undersigned hereby waives any right to require Secured Party to provide security for the performance of this obligation.
5. In the event Debtor breaches its agreement with the undersigned and fails to cure such breach within any applicable grace period, the undersigned shall notify Secured Party and Secured Party shall, within fourteen (14) days of receiving such notice, have the right and license, but not the obligation, to occupy the Real Property for the purposes described in Paragraph 4 above for a period of up to one hundred twenty (120) days. In that event, Secured Party shall pay to the undersigned periodically in arrears, a daily fee equal to one-thirtieth (1/30th) of the minimum monthly rental provided for in Debtor's agreement with the undersigned until Secured Party vacates the Real Property.

This Waiver and Consent shall be deemed effective as of the date of the above mentioned Security Agreement, shall be governed by and construed in accordance with the laws of the State of Kentucky, and shall inure to the benefit of and be binding upon the successors, heirs and assigns of the undersigned and Secured Party.

IN WITNESS WHEREOF, the parties hereto have executed this Waiver and Consent on the day and year first written above.

LOUISVILLE HARDWOODS, INC.

THE BANK OF CALIFORNIA, N.A.

By: Tony Mitchell
Tony Mitchell, EVP & Gen. Mgr.

By: Pat Kelly
BOOK 6139 PAGE 897

Title: Vice President

ALL SIGNATURES ON THIS DOCUMENT REQUIRE NOTARIZING

STATE OF KENTUCKY

County of _____

ss.

BE IT REMEMBERED, That on this _____ day of _____, 1991, before me, the undersigned, a Notary Public in and for said County and State, personally appeared the within named _____

known to me to be the identical individual described in and who executed the within instrument and acknowledged to me that _____ executed the same freely and voluntarily.

IN WITNESS WHEREOF, I hereunto set my hand and affixed my seal the day and year last above written.

Notary Public for Kentucky
My Commission expires _____

STATE OF KENTUCKY

County of Jefferson

ss.

BE, IT REMEMBERED, That on this 27 day of Nov, 1991, before me Brenda C. Jones, the undersigned Notary Public, personally appeared Tony Mitchell, personally known to me, proved to me on the basis of satisfactory evidence to be the person who executed the written instrument on behalf of the corporation therein named and acknowledged to me that the corporation executed it.

IN WITNESS WHEREOF, I hereunto set my hand and affixed my seal the day and year last above written.

Brenda C. Jones
Notary Public for Kentucky
My Commission expires 4-21-94

STATE OF OREGON

County of Multnomah

ss.

BE IT REMEMBERED, That on this 19th day of November, 1991, before me Faye Kramer, the undersigned Notary Public, personally appeared Michael Schlieski, personally known to me, proved to me on the basis of satisfactory evidence to be the person who executed the written instrument on behalf of the corporation therein named and acknowledged to me that the corporation executed it.

IN WITNESS WHEREOF, I hereunto set my hand and affixed my seal the day and year last above written.

Notary Public for Oregon
My Commission expires _____

Faye Kramer
FAYE KRAMER
NOTARY PUBLIC-OREGON
MY COMMISSION EXPIRES 2-29-93



EXHIBIT "A"

W.M. Dist and Green Hard Wood Trunks

BEGINNING at an iron pipe at the intersection of the East line of Dixie Highway, as established in Deed Book 1653, in the office of the Clerk of Jefferson County, Kentucky, with the North line of the Kentucky and Indiana Terminal Railroad right of way; thence with the East side of Dixie Highway North 17° 07' East 185.13 feet to the Northwest corner of the tract conveyed to Schenley Distillers, Inc., by deed of record in Deed Book 3486, Page 457, in the office aforesaid; thence with the North line of said tract, South 05° 20' East 872.14 feet to an iron pipe in the West line of the tract conveyed to Louisville Coopersage Company, by deed of record in Deed Book 1833, Page 5, in the office aforesaid; thence with the West line of said tract, North 8° 25' East 460.73 feet to a Northwesterly corner of said tract; thence South 84° 10' East 775.37 feet to the West line of 17th Street; thence with same if extended South 7° 11' West 18.37 feet to a spike in the South line of the first alley South of Wilson Avenue; thence with the South line of aforesaid alley South 84° 17' 30" East 842.14 feet to an iron pipe at the Northeast corner of the tract conveyed to Schenley Distillers, Inc., by deed of record in Deed Book 3574, Page 221, in the office aforesaid; thence with the East line of said tract, South 6° 37' 30" West 619.56 feet to an iron pipe at the Northeast corner of the tract conveyed to the Kentucky and Indiana Terminal Railroad Company, by deed of record in Deed Book 1843, Page 224, in the office aforesaid; thence with the North line of last mentioned tract, North 84° 08' 30" West 338.48 feet to a point in the center line of 16th Street, as closed by judgement in Action #35674, Jefferson Circuit Court; thence South 7° 11' 30" West 25 feet to an iron pipe in the North line of Magnolia Avenue; thence with the North line of Magnolia Avenue and the North line of Kentucky and Indiana Terminal Railroad right of way, North 84° 08' 30" West 2798.24 feet to the point of beginning. EXCEPTING THEREFROM so much as was conveyed to the City of Louisville for public alley, by deed of record in Deed Book 3510, Page 463, in the office aforesaid.

BEING the same property acquired by Schenley Distillers, Inc., by deed dated September 7, 1951, of record in Deed Book 2794, Page 171; by deed date June 9, 1959, of record in Deed Book 3574, Page 221, and by deed dated January 21, 1958, of record in Deed Book 3486, Page 457, in said Office.



EXHIBIT "B"

"Collateral" means all Debtor's Accounts, General Intangibles, and Rights to Payment now owned or hereafter acquired, wherever located, and whether held by Debtor or any third party, and all royalties, proceeds and products thereof, including all insurance and condemnation proceeds, and all Records.

"Accounts" means all rights to payment for goods sold or leased by Debtor or for services rendered by Debtor, which rights are not evidenced by an instrument or chattel paper, whether or not earned by performance.

"General Intangibles" means all personal property of Debtor other than goods not otherwise defined as Collateral, including without limitation all interests or claims in insurance policies; literary property; tradenames, tradename rights; trademarks, trademark rights, copyrights, patents, and all application therefor; licenses, permits, franchises and like privileges or rights issued by any governmental or regulatory authority; income tax refunds; claims and causes of action.

"Rights to Payment" means all Debtor's instruments, contract rights, documents, chattel paper and all other rights to payment other than the Accounts, including without limitation all rights to payment under any commercial or standby letter of credit.

"Records" means all Debtor's computer programs, software, hardware, source codes and data processing information, all written documents, books, invoices, ledger sheets, financial information and statements, and all other writings concerning Debtor's business.

All Debtor's inventory, including raw materials, work in process, finished goods and goods held for sale or lease or furnished under contracts of service, and all returned and repossessed goods, and all goods covered by documents of title, including warehouse receipts, bills of lading and all other documents of every type covering all or any part of the Collateral.

END OF DOCUMENT

92 JAN 23 AM 7:45
7136
MAD
W. Williams

MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is effective as of March 1, 1985, by and between LANHAM LUMBER & DRY KILN CO., a Kentucky corporation ("Lessor") and DOWN RIVER INTERNATIONAL, INC., a California corporation ("Lessee").

WITNESSETH:

Lessor has leased certain premises to the Lessee, and the sole purpose of this instrument is to give notice of the written lease agreement (the "Lease") between Lessor and Lessee dated of even date with this Memorandum to the same effect as if the Lease had been fully set forth herein.

1. The Lease. The Lease was executed and delivered as of March 1, 1985 by the Lessee and the Lessor.

2. Leased Premises. Lessor has leased unto Lessee premises located at 1698 St. Louis Avenue, Louisville, Kentucky.

3. Term. The term of the Lease is for the period of time from March 1, 1985, which is also the date the Lease commences, until December 31, 1985. The Lease is renewable at the discretion of the Lessee for a period of nine months beginning the last day of the initial term. Following such renewal Lessee has four consecutive additional options to renew the Lease for one-year terms each commencing the last day of the prior term.

4. General Provisions. The terms, covenants and conditions of the Lease are as stated therein, and the Lease by its terms is binding upon and insures to the benefit of the Lessor and the Lessee and their respective successors and assigns.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Assignment of Lease this 18th day of April, 1985.

LESSOR:

LANHAM LUMBER AND DRY KILN
CO.

By Ronald A. Lewis

LESSEE:

DOWN RIVER INTERNATIONAL, INC.

By [Signature]

COMMONWEALTH OF KENTUCKY)
) SS
COUNTY OF JEFFERSON)

The foregoing instrument was acknowledged before me this 15th day of April, 1985, by Ronald A. Lewis on behalf of Lanham Lumber and Dry Kiln Co.

My commission expires: 5/15/87

Sandra C. [Signature]
NOTARY PUBLIC

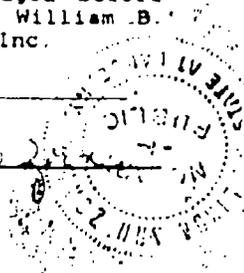


COMMONWEALTH OF KENTUCKY)
) SS
COUNTY OF JEFFERSON)

The foregoing instrument was acknowledged before me this 15th day of April, 1985, by William B. Sparks, Jr. on behalf of Down River International, Inc.

My commission expires: 5/15/87

Sandra C. [Signature]
NOTARY PUBLIC



THIS INSTRUMENT PREPARED BY:

[Signature]
Douglas R. Sharps
WYATT, TARRANT & COMBS
Citizens Plaza
Louisville, Kentucky 40202
(502) 589-5235

[Signature]
PAGE 8.50
JUN 17 1985
NOTARY PUBLIC
25688

END OF DOCUMENT

POWER OF ATTORNEY

The undersigned, Louisville Hardwoods, Inc. (formerly named Lanham Lumber & Dry Kiln Co., Inc.) ("LHI"), a Kentucky corporation whose address is 1698 St. Louis Street, Louisville, Kentucky 40210, does hereby make, constitute and appoint Down River International, Inc. ("DRI"), a Michigan corporation qualified to do business in Kentucky, with an address of P.O. Box 15290-C, Sacramento, California 95851, by its designated officers, to act severally for the undersigned in its name, place and stead, as authorized in this document.

By this document LHI intends to create a general Power of Attorney. Subject to any limitations in this document, LHI hereby grants to DRI and its designated officers, full power and authority to act severally for LHI in its name, and in any way which it could act if it were personally present and able to act with respect to: (i) the execution of certain Notices of Alienation of Property and any amendments thereto, in accordance with Kentucky Revised Statute 378.040, as may be filed from time to time; and (ii) the execution of UCC-1 financing statements and any continuations, amendments or terminations thereof, as may be filed from time to time; and (iii) the execution of Bills of Sale, and any amendments thereto, as may be filed from time to time, all pursuant to that certain Purchasing Agreement dated October 1, 1985, by and between Lanham Lumber & Dry Kiln Co., Inc., now known as Louisville Hardwoods, Inc., and DRI.

RECORDING REQUESTED BY:

WHEN RECORDED RETURN TO:

Downey, Brand, Seymour & Rohwer
555 Capitol Mall, Suite 1050
Sacramento, California 96814
Attention: Stephen G. Stwora

POWER OF ATTORNEY

The undersigned, Lanham Lumber & Dry Kiln Co., Inc. ("Lanham"), a Kentucky corporation whose address is 1698 St. Louis Street, Louisville, Kentucky 40210, do hereby make, constitute and appoint Down River International, Inc. ("DRI"), a Michigan corporation qualified to do business in Kentucky, by its designated officers, to act severally for the undersigned in its name, place and stead, as authorized in this document.

By this document Lanham intends to create a general Power of Attorney. Subject to any limitations in this document, Lanham hereby grants to DRI and its designated officers, full power and authority to act severally for Lanham, in its name, and in any way which it could act if it were personally present and able to act with respect to the execution of certain Notices of Alienation of Property in Accordance with Kentucky Revised Statute 378.040, filed of record with the County Clerk of Jefferson County, Kentucky, file number 074995, and as may be filed from time to time, pursuant to that certain Purchasing Agreement dated October 1, 1985 by and between Lanham and DRI.

This Power of Attorney shall become effective on the date of execution hereof and shall expire sixty (60) days after the termination of the Purchasing Agreement.

DRI, as attorney-in-fact for Lanham, is empowered hereby to determine in its sole discretion the time when, purpose for and manner in which any power herein conferred upon it shall be exercised.

Executed this _____ day of _____, 1985 at Louisville, Kentucky.

LANHAM LUMBER & DRY KILN CO., INC.,
a Kentucky corporation

By: S. M. Dunaway

Title: Pres.

COMMONWEALTH OF KENTUCKY)
COUNTY OF JEFFERSON) SS.

Acknowledged before me this 29 day of Oct, 1985, by S. M. Dunaway as Pres. of Lanham Lumber & Dry Kiln, Inc., a Kentucky corporation.

My commission expires: 2/21/86

J. Bleal
Notary Public



PAID 3
JUL 2 4PM '85
MAIL ROOM
JUL 29 1985
Express by
Airmail
94246
Lanham

END OF DOCUMENT

Commonwealth of Kentucky
John Y. Brown III
Secretary of State

Certificate of Dissolution

S. M. DUNAWAY
HWY. 1700
FORDSVILLE, KY 42343

0216965

I, John Y. Brown, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the office of the Secretary of State,

LOUISVILLE HARDWOODS, INC.

did not file its 2001 annual report within sixty days after it was due. Accordingly, the Secretary of State administratively dissolved the corporation on November 1, 2001.



IN WITNESS THEREOF, I have hereunto set my hand and affixed my official seal this 1st day of November, 2001.

John Y. Brown III

John Y. Brown III
Secretary of State

EXHIBIT 4

ORIGINAL

SAM FY1

Louisville ✓
UST Branch

COST RECOVERY ENVIRONMENTAL RESPONSE INCIDENT REPORT
CASE () DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ERT NO.: 38116 SARA TITLE III INCIDENT: _____ COUNTY: Jefferson

OCT 7 1 00 PM '92

1. Recorded by: J. Schmidt Date/Time: 9/28/92 - 1505

2. Reported by: (Resp. Party () Complainant () DES () Other) _____
Name: contractor Phone: () _____
Address: _____

3. Responsible Party: Louisville Hardwood Phone: () _____
Address: 1698 St Louis

4. Location: Nearest Community: _____ Watercourse: _____
Directions: Facility Site #3903-056

5. Occurrence: () Spill () Release () Complaint () Abandoned Drums () Illegal Dumping () Fire/Explosion
() Fish Kill (Underground Storage Tank () Other _____
Description: evidence of release specifics unknown
Date: 9/28/92 Time: 1400

6. Material/Quantity: gasoline unknown

7. Other Agencies Contacted/Involved:
() ORSANCO () EPA () State Police
() Coast Guard () Fire Marshal () Air Quality
() Corps of Engineers () Fish and Wildlife () Waste Management
() DES () Health Department () Water
() Other _____

8. ERT Action taken:
() On-Scene Investigation (input checked="" type="checkbox"/> Referred to: DWMA
() No Action Necessary Date: _____
ERT Investigator _____ Date Investigated _____

9. Division Action Requested:
() Emergency On-Scene Investigation () Routine or Follow-up Inspection
() For Information Only () Other _____
() Investigator S. Hall Date Investigated FILE SEARCH on 9/16/93

10. Additional Information/Comments: S. Hall of DWMA on site during removal. The above statement is incorrect & has not been to this site. Corrective action is being done by UST guidelines. George McCabe was on site on 8/25/93. S. Hall

Incident Closed: _____ Initials JSS Copies Distributed 9-28-92
Indexed 9-28-92

RECEIVED
SEP 24 1992
U.S.T.I.
40216

SEP 29 1992
COMPLIANCE BRANCH

EX4

EXHIBIT 5

RECEIVED
UST BRANCH

FEB 25 11 00 AM '93

Subsurface Investigation 3903 056
Louisville Hardwoods, Inc.
Louisville, Kentucky
ATEC Associates Project
No. 23-07-92-00261



PREPARED FOR:

Mr. Anthony Mitchell
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210

November 4, 1992

EXS



RECEIVED
UST BRANCH

FEB 25 11 00 AM '93

November 4, 1992

Mr. Anthony Mitchell
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210

Re: Subsurface Site Assessment
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky
ATEC Project Number 23-07-92-00261

Dear Mr. Mitchell:

ATEC Associates, Inc. (ATEC) is pleased to provide Louisville Hardwoods, Inc. with this subsurface investigation report for Louisville Hardwoods facility located at 1698 St. Louis Avenue, Louisville, Kentucky. The report presents ATEC's findings and provides conclusions regarding the site.

We trust this submittal is responsive to your needs. If you have any questions or comments regarding this report, or we can be of further service to you in the future, please do not hesitate to contact us at (502) 267-8355.

Very truly yours,

ATEC Associates, Inc.

Edward C. Bowling
Staff Geologist

Raymond R. Ashcraft
Manager, Environmental Services

EB/RRA:ab

Enclosures

Copies Submitted: (2) Mr. Anthony Mitchell

FEB 25 1993

Subsurface Investigation
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky
ATEC Project Number 23-07-92-00261

Prepared By:

ATEC Associates, Inc.
2815 Watterson Trail
Louisville, Kentucky 40299-3868
November 4, 1992

Prepared For:

Mr. Anthony Mitchell
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210

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 3.3 Groundwater Sample Results 7

4.0 CONCLUSIONS 7

5.0 QUALIFICATIONS 8

APPENDICES

- Appendix A: Screening Equipment
- Appendix B: Soil Boring Logs
- Appendix C: Analytical Results

SUBSURFACE INVESTIGATION

Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky
ATEC Project Number 23-07-92-00261

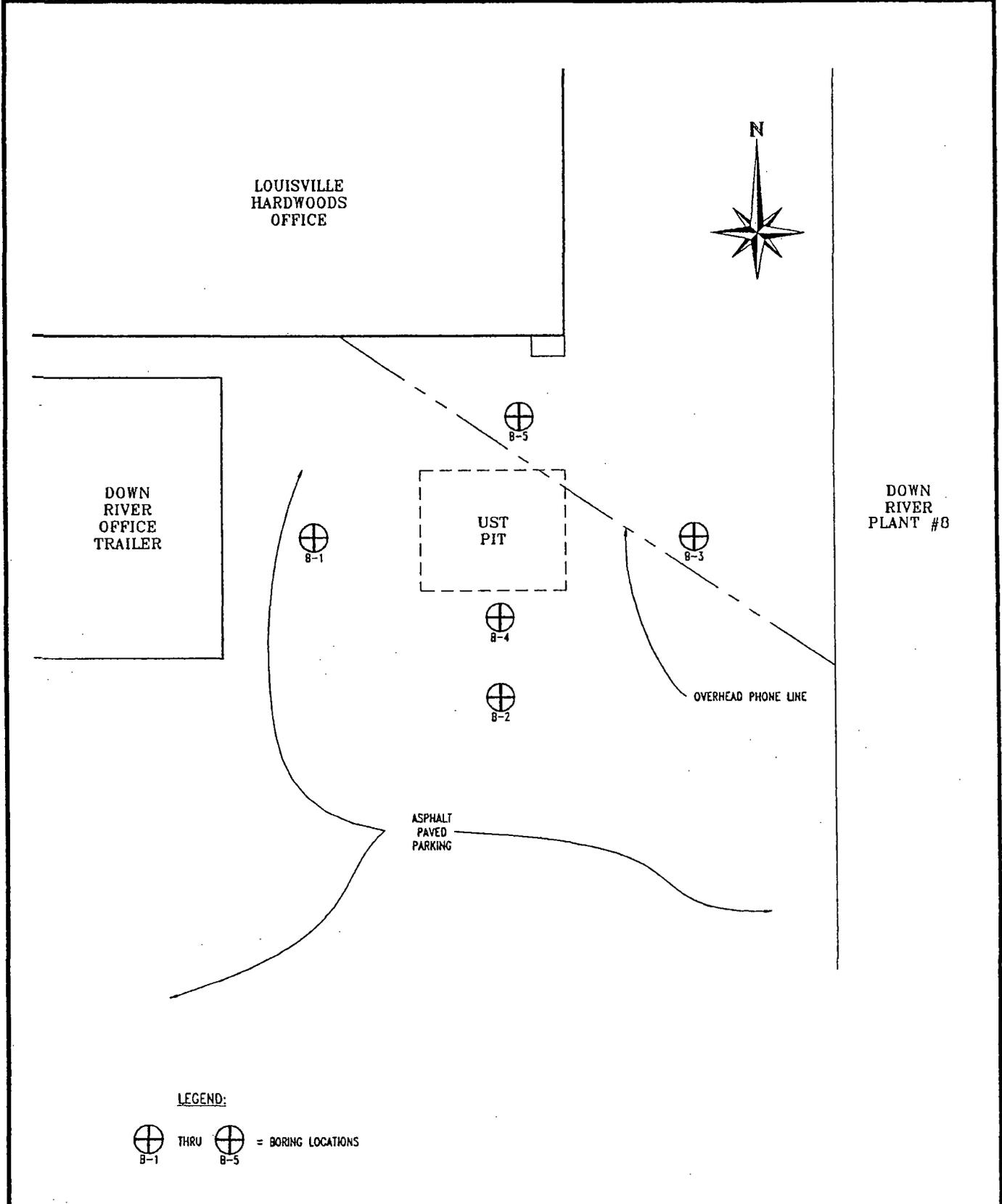
1.0 INTRODUCTION

ATEC Associates, Inc. (ATEC) was retained by Mr. Anthony Mitchell, Louisville Hardwoods, Inc. to perform a subsurface site investigation at Louisville Hardwoods facility located at 1698 St. Louis Avenue, Louisville, Kentucky. A vicinity map showing the location of the site is provided on Figure 1. The purpose of this investigation was to determine if adsorbed and dissolved petroleum hydrocarbons are present beneath the site. ATEC advanced five (5) borings, and collected soil and groundwater samples to characterize the subsurface conditions at the site. The following report describes the work performed, documents the analytical results, details our findings and presents conclusions regarding the site.

Subsurface soils and groundwater were tested for monoaromatic hydrocarbons, constituents associated with gasoline and other petroleum products. Specific parameters included Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) performed via SW-846, methods 624 and 8240.

2.0 WORK PERFORMED

The work performed by ATEC included a soil boring and sampling program to evaluate subsurface conditions, and performance of a groundwater sampling program. A diagram of the project site indicating the location of soil borings and monitoring wells is presented on Figure 2.



LEGEND:


 THRU
 
 = BORING LOCATIONS

BORING LOCATION PLAN
 LOUISVILLE HARDWOODS, Inc.
 1698 St. LOUIS AVENUE
 LOUISVILLE, KENTUCKY

DATE
 11-04-92

PROJECT NO.
 23-07-92-00261

SCALE
 1" = 20'

FIGURE NO.
 2



On October 16, 1992, ATEC advanced five (5) soil borings adjacent to the former UST pit using a truck-mounted rotary drill rig equipped with 3-3/8 inch I.D. hollow stem augers. Soil samples were collected at 5.0 ft intervals using carbon steel split-spoon samplers. The location of each boring, is displayed on Figure 2.

The soil samples collected from each sampling interval were visually inspected by an ATEC field geologist and classified using the Unified Soil Classification System (USCS). Each soil sample was placed in a 6.0 ounce glass sample jar, sealed with an aluminum wrap and later field screened for the presence of petroleum hydrocarbon vapors using a Photo-ionization Detector (PID). The PID measures Total Photo-ionizable Vapors (TPVs). The field screening procedure is outlined in Appendix A. The two (2) samples that exhibited the highest TPV reading from each soil boring were collected for BTEX analysis. Each sample was placed in a 4 oz. glass sample container and sealed under zero head space with a Teflon lined lid. The samples were preserved on ice and transported to the ATEC Environmental/Analytical Laboratory in Indianapolis, Indiana using all appropriate QA/QC and chain-of-custody documentation. A complete description of the geologic materials encountered and TPV responses are included on the boring logs in Appendix B. The augers were steam cleaned before the drilling started and the split-spoons were decontaminated between sample collection using a non-phosphate detergent wash followed by a tap water rinse, a methanol rinse to remove any remaining hydrocarbons and a final rinse with deionized water. The auger cuttings from each boring were backfilled into the boring.

ATEC collected a groundwater sample from Boring No. 2 for BTEX analysis. The groundwater sample was collected with a disposable Teflon bailer. The groundwater sample was collected in 40.0 ml glass vials with Teflon septum lids, stored on ice and transported to the ATEC laboratory following standard chain-of-custody procedures.

3.0 FINDINGS

3.1 Site Geology

The subsurface lithology of the site can be generalized based on the split-spoon samples collected from the five (5) soil borings. Directly beneath the asphalt and concrete surface a brown to gray, silty clay to silty sand was encountered. This lithology was homogenous at each boring to 9 ft. below grade. A fine to medium grained, brown sand was encountered at each boring from a depth of 9.0 ft. to boring termination at 40 ft.

Water was noted on the split-spoon samplers at depths ranging from 38 to 38.5 ft. below ground surface. Copies of the ATEC soil boring logs are provided in Appendix B.

3.2 Soil Sample Results

Split-spoon samples from each boring were field screened by the ATEC geologist. The two (2) split-spoon samples that had the highest TPV reading from each boring were collected for BTEX analysis. Table 1 summarizes the TPV readings and BTEX results from each soil boring.

Table 1
Soil Analytical Results
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky

SAMPLE ID	SAMPLE INTERVAL	PID READING	B	T	E	X
B-1	28.5-30	76.2	<1	<1	<1	<1
B-1	33.5-35	579	<1	<1	<1	<1
B-2	23.5-25	1247	<1	<1	<1	<1
B-2	33.5-35	2500+	<1	<1	<1	<1
B-3	3.5-5	605	<1	<1	<1	<1
B-3	33.5-35	493	<1	<1	<1	<1
B-4	8.5-10	2500+	<1	22	16	120
B-4	28.5-30	2500+	<1	<1	<1	<1
B-5	8.5-10	1045	<1	<1	<1	<1
B-5	33.5-35	1445	<1	<1	<1	<1
Method Blank			<1	<1	<1	<1

BTEX units in mg/kg (ppm= parts per million)
 PID units in parts per million
 Samples Collected 10/18/92
 Analyzed by ATEC Associates

Soil sample analysis did indicate BTEX contamination at levels above the method quantitation limit of 1 ppm from the 8.5 - 10 ft. interval from Boring No. 4. Laboratory analysis indicated Toluene at 22 ppm; Ethylbenzene at 16 ppm; and Xylene at 120 ppm. Copies of the laboratory results are provided in Appendix C.

FEB 25 1993

3.3 Groundwater Sample Results

A groundwater sample was collected from Boring No. 2 during the subsurface investigation for BTEX analysis. The analytical results of the groundwater sample is presented in Table 2

Table 2 Groundwater BTEX Results Louisville Hardwoods, Inc. 1698 St. Louis Avenue Louisville, Kentucky					
SAMPLE ID	BENZENE	TOLUENE	ETHYLBENZENE	XYLENE	TOTAL BTEX
GW-1	150	160	46	260	616

BTEX units in ug/L (ppb= parts per billion), detection limit
Samples Collected 10/16/92
Analyzed by ATEC Associates

The analytical results indicate BTEX concentrations in the groundwater sample from GW-1 contained 150ppb benzene; 160 ppb Toluene; 46ppb ethylbenzene, and 260 ppb xylene. Total BTEX concentration was 616 ppb. Copies of the laboratory results are found in Appendix C.

4.0 CONCLUSIONS

Soil sample analysis indicated BTEX contamination at levels above the method quantitation limit of 1 ppm. The sample from Boring No. 4, 8.5 to 10 ft. interval, had elevated concentrations of Toluene at 22 ppm; Ethylbenzene at 16 ppm; and Xylene at 120 ppm. The analytical results obtained from groundwater sample indicates BTEX concentrations of 150 ppb Benzene, 160 ppb Toluene; 46 ppb Ethylbenzene; and 26 ppb Xylene. Total BTEX concentration was 616 ppb.

Based on our findings, ATEC recommends two (2) additional borings to evaluate the lateral extent of impacted soils south of the former UST pit.

Due to the presence of hydrocarbon impacted groundwater, five (5) monitoring wells should be installed and developed to evaluate groundwater conditions at the site and to determine the extent of contamination.

5.0 QUALIFICATIONS

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This warranty is in lieu of all other warranties either express or implied. This company is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

APPENDIX A
SCREENING EQUIPMENT

APPENDIX B

SOIL BORING LOGS

MicroTIP HL-2000

A TEC used a portable instrument called a MicroTIP HL-2000 (TIP) to measure TPVs emitted from the soil samples. The TIP is equipped with a small pump which continuously draws air samples into an ionization chamber which is flooded with ultra-violet light. Ionization of the vapors within this chamber results in the generation of an electric current which relates to the concentration of vapors below this energy. Most of the light permanent gases (such as those in ambient air) have ionization potentials at 12 eV or more while many organic chemicals (benzene, xylene, toluene, etc.) have ionization potentials below 10.5 eV.

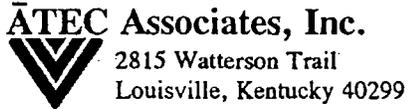
For the purposes of this investigation, the TIP was used as a screening tool for the presence of photo-ionizable contaminants. Following extrusion the sample was placed in an 8 ounce glass jar and the pump inlet for the TIP was placed in the jar for measurement. The highest value recorded during this procedure was recorded on the boring logs. For screening purposes, ATEC calibrates the TIP prior to each usage and at the completion of each day. The TIP is calibrated 100 ppm isobutylene, therefore, values reported on the boring logs represent ppm as isobutylene. The relative magnitude of the values between sampling sites is considered to be of primary importance in screening for the presence of contaminated samples. In general, background levels of TPVs at an undeveloped site would be 25 ppm or less while background values at an industrial site or, in this case, a gasoline station would be 50 to 100 ppm.

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-1**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES	
				NO	BLOWS	TYPE	REC	w, %		PID, ppm
	SILTY SAND (SC) - slight odor, brown			1	Push	SPT	12"		8.7	About 4 inches asphalt over 3 inches aggregate was encountered at the ground surface
			5							
		9.5	10	2	Push	SPT	18"		9.2	
	SAND (SP) - fine-to-medium grain, very slight odor, brown									
			15	3	Push	SPT	14"		0.0	
			20	4	Push	SPT	18"		0.0	
		23.0	25	5	Push	SPT	12"		51.9	
	SAND (SP) - fine-to-medium grain, scattered gravel, dry to moist, slight to detectable odor									
			30	6	Push	SPT	12"		76.2*	*Samples analyzed for BTEX
			35	7	Push	SPT	10"		579*	



ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-1**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

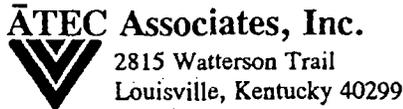
ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
			38.5							
	SAND (SP) - medium-to-coarse grain, abundant gravel, wet		40.0	8	Push	SPT				Water was noted on split-spoon at 38.5 ft. below the ground surface
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-2**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
										About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface
	SILTY CLAY (ML) - brown, strong odor		5	1	Push	SPT	0			
		6.0								
	SILTY SAND (SC) - brown, detectable odor		7.5							
	SAND (SP) - brown, fine-to-medium grain, slight odor, dry to damp		10	2	Push	SPT	16*		248	
			15	3	Push	SPT	18*		0.0	
			20	4	Push	SPT	18*		62.4	
		24.0								
	SAND (SP) - black, carbonaceous streak	24.5		5	Push	SPT	14*		1247*	
	SAND (SF) - fine-to-medium grain, fine laminations, slight odor		30	6	Push	SPT	16*		268	
			33.0							*Samples analyzed for BTEX
	SAND (SP) - medium grain with abundant gravel, brown to gray, moist to wet		35	7	Push	SPT	14*		2500+*	



ATEC Associates, Inc.
 2815 Watterson Trail
 Louisville, Kentucky 40299

ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-2**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation:

Hammer Weight: **140 lbs.**

Hole Dia.: **7.5 in.**

Date Started: **10/16/92**

Hammer Drop: **30 in.**

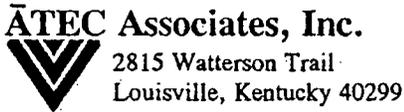
Boring Method: **HSA**

Date Completed: **10/16/92**

Drill Foreman: **F. Horton**

Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
		40.0	40	8	Push	SPT	3"			Water level was noted at 36.5 ft. below the ground surface in the open borehole 1 hour after the completion of drilling. Water was noted on split-spoon at 38.5 ft. below the ground surface.
	TERMINATED									



**ENVIRONMENTAL
SOIL TEST BORING LOG**

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-3**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
		40.0	40	8	Push	SPT	18"		634	Water was noted on split-spoon at 38.5 ft. below the ground surface
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-4**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: Hammer Weight: 140 lbs. Hole Dia.: 7.5 in.
 Date Started: 10/16/92 Hammer Drop: 30 in. Boring Method: HSA
 Date Completed: 10/16/92 Drill Foreman: F. Horton Inspector: E. Bowling

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES	
				NO	BLOWS	TYPE	REC	Time		Pid,ppm
	SILTY CLAY (ML) - brown, strong odor									About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface
		4.5	5	1	Push	SPT	18"		2037	
	CLAY (CL) - medium gray, strong odor									
		6.5								
	SILTY SAND (SC) - brown, strong odor									
		9.5	10	2	Push	SPT	18"		2500+*	
	SAND (SP) - fine-to-medium grain, brown to gray-brown, strong odor									
			15	3	Push	SPT	14"		2500+	
			20	4	Push	SPT	12"		2500+	
			25	5	Push	SPT	14"		1402	
		28.5	30	6	Push	SPT	14"		2500+*	
	SAND (SP) - medium-to-coarse grain, brown to gray brown, damp to wet, scattered gravel									
			35	7	Push	SPT	14"		1959	

*Sample analyzed for BTEX

**ENVIRONMENTAL
 SOIL TEST BORING LOG**

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-5**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES	
				NO	BLOWS	TYPE	REC	w, %		PID, ppm
	SILTY SAND (SC) - slight odor, brown									About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface
			5	1	Push	SPT	18"		64.4	
		9.5	10	2	Push	SPT	18"		1045*	
	SAND (SP) - fine grain, slight odor, brown to gray-brown, dry		15	3	Push	SPT	18"		77.8	
			20	4	Push	SPT	18"		53.7	
			25	5	Push	SPT	6"		25.1	
		28.5	30	6	Push	SPT	10"		265	
	SAND (SP) - fine-to-coarse grain, brown, slight to no odor, scattered gravels, damp to wet		35	7	Push	SPT	12"		1445*	*Sample analyzed for BTEX

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-5**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: Hammer Weight: 140 lbs. Hole Dia.: 7.5 in.
 Date Started: 10/16/92 Hammer Drop: 30 in. Boring Method: HSA
 Date Completed: 10/16/92 Drill Foreman: F. Horton Inspector: E. Bowling

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES	
				NO	BLOWS	TYPE	REC	w, % PID, ppm		
		40.0	40	8	Push	SPT	18"		16.9	Water was noted on split-spoons at 38.5 ft. below the ground surface
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							

FEB 25 1993

APPENDIX C
LABORATORY RESULTS



Division of ATEC Associates, Inc.
6150 East 65th Street
Indianapolis, Indiana 46220-4871
(317) 849-4990, FAX (317) 849-4278



Solid & Hazardous Waste Site Assessments
Remedial Design & Construction
Underground Tank Management
Asbestos Surveys & Analysis
Hydrogeologic Investigations & Monitoring
Analytical Testing / Chemistry
Industrial Hygiene / Hazard Communication
Environmental Audits & Permitting
Exploratory Drilling & Monitoring Wells

November 4, 1992

Mr. Ed Bowling
ATEC Environmental Services
2815 Watterson Trail
Louisville, KY 40299-3868

Re: Ten Soil BTEX
One Water BTEX
Louisville Hardwoods, Inc.
ATEC Work Order Number 9210227
ATEC Project Number 23-03-92-00261

Dear Mr. Bowling:

Enclosed is a nineteen page report of results for the Organic Analyses for the ten soil and one water samples which were submitted to the ATEC Environmental/Analytical Testing Division on October 20, 1992, on behalf of the Louisville Hardwoods, Inc. The BTEX samples were analyzed on a Finnigan 1020 OWA GC/MS/DS system, complete with Superincos Software, via SW 846 Method 8240 and U.S. EPA Method 624 for Purgeable Aromatic Compounds. Prior to analysis, the system was tuned against Bromofluorobenzene and calibrated with the appropriate standard.

The analytical procedures are performed in accordance with the ATEC Analytical Standard Operating Procedures, which are based on the methods referenced in this report. These SOPs are available for your review upon request.

All soil results are reported on "as received" basis unless otherwise specified. All associated Quality Control information will be maintained in the Testing Division files, a copy of which can be forwarded to you upon request. After a thirty-day period, a fee will be assessed for this additional information.

A Definition of LIMS Terms is included in this report for your convenience. Two copies of this Analytical Report are being provided for your records. Additional copies can be provided at a minimum cost of \$30.00 per copy. It has been a pleasure serving you and, as always, if there are any questions concerning these results or the ATEC policies, please feel free to contact me.

Respectfully submitted,
ATEC Associates, Inc.

Brenda L. Keller
Brenda L. Keller
GC/MS Group Leader
Environmental/Analytical
Testing Division

BLK/lcm

ATEC Associates, Inc.
 2815 Watterson Trail
 Louisville, KY 40299-3869
 FAX (502) 267-8528
 Attn: Edward Bowling
 Invoice Number:

Order #: 92-10-227
 Date: 11/04/92 09:14
 Work ID: Hardwoods, Inc (2505-9200261)
 Date Received: 10/20/92
 Date Completed: 11/04/92

SAMPLE IDENTIFICATION

<u>ATEC Sample Number</u>	<u>Client Sample Description</u>	<u>ATEC Sample Number</u>	<u>Client Sample Description</u>
01	B-1 (28.5-30)	02	B-1 (33.5-35)
03	B-2 (23.5-25)	04	B-2 (33.5-35)
05	B-3 (3.5-5)	06	B-3 (33.5-35)
07	B-4 (8.5-10)	08	B-4 (28.5-30)
09	B-5 (8.5-10)	10	B-5 (33.5-35)
11	GW-1		

This report shall not be reproduced except
 in full, without approval of the Laboratory.

Brenda L. Keller
 Certified By
 Brenda L. Keller

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-1 (28.5-30) TEST CODE BTEX S NAME Volatile BTEX-SOIL
 FRACTION 01A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/22/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u> </u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>ng/kg</u>
COMMENTS	<u> </u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS. #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

A TEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-1 (33.5-35) TEST CODE BTEX-S NAME Volatile BTEX-SOIL
 FRACTION Q2A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	10/22/92
INSTRUMENT	1020 A
DILUTION FACTOR	
ANALYST	P. Reed
VERIFIED BY	M. McGill
UNITS	mg/kg
COMMENTS	

PURGEABLE AROMATICS

PARAMETER	CAS #	RESULT	LIMIT
Benzene	71-43-2	<1	1
Toluene	108-88-3	<1	1
Ethylbenzene	100-41-4	<1	1
Total Xylenes		<1	1

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-2 (23.5-25) TEST CODE BTEX S NAME Volatile BTEX-SOIL
 FRACTION D3A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/22/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u> </u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>H. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u> </u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-2 (33.5-35) TEST CODE BTEX S NAME Volatile BTEX-SOIL
 FRACTION 04A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/22/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u> </u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u> </u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-3 (3.5-5) TEST CODE BTEX 3 NAME Volatile BTEX-SOIL
 FRACTION 05A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u></u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u></u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-3 (33.5-55) TEST CODE BIEX 3 NAME Volatile BTEX-SOIL
 FRACTION 06A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u></u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u></u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-61-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-4 (8.5-10) TEST CODE BTEX S NAME Volatile BTEX-SOIL
FRACTION 07A Date & Time Collected 10/16/92 Category SOIL

FEB 25 1993

DATE ANALYZED	<u>10/27/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u></u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u></u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u>22</u>	<u>1</u>
Ethylbenzene	100-41-4	<u>16</u>	<u>1</u>
Total Xylenes		<u>120</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-4 (28.5-30) TEST CODE BTEX 6 NAME Volatile BTEX-SOIL
 FRACTION Q8A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u> </u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u> </u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	106-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-5 (B.5-10) TEST CODE BTEX S NAME Volatile BTEX-SOIL
FRACTION 09A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/26/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u></u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u></u>
	<u></u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method B240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID B-5 (33.5-35) TEST CODE BTEX 8 NAME Volatile BTEX-SOIL
 FRACTION 10A Date & Time Collected 10/16/92 Category SOIL

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u></u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	<u></u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SU 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID GW-1 TEST CODE BTEX W NAME Volatile BTEX-WATER
 FRACTION 11A Date & Time Collected 10/16/92 Category WATER

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	<u></u>
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>ug/L</u>
COMMENTS	<u></u>

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u>150</u>	<u>5</u>
Toluene	108-88-3	<u>160</u>	<u>5</u>
Ethylbenzene	100-41-4	<u>46</u>	<u>5</u>
Total Xylenes		<u>260</u>	<u>5</u>

Analytical Method: U.S. EPA 624

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID Method Blank TEST CODE BTEX 6 NAME Volatfle BTEX-SOIL
 FRACTION 10B Date & Time Collected _____ Category SOIL

DATE ANALYZED	<u>10/22/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	_____
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	_____

PURGEABLE AROMATICS

PARAMETER	CAS #	RESULT	LIMIT
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID Method Blank TEST CODE BTEX S NAME Volatile BTEX-SOIL
 FRACTION 10C Date & Time Collected _____ Category SOIL

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	_____
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	_____

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID Method Blank TEST CODE BTEX W NAME Volatile BTEX-WATER
 FRACTION 11B Date & Time Collected _____ Category WATER

DATE ANALYZED	<u>10/23/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	_____
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>ug/L</u>
COMMENTS	_____

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><5</u>	<u>5</u>
Toluene	108-88-3	<u><5</u>	<u>5</u>
Ethylbenzene	100-41-4	<u><5</u>	<u>5</u>
Total Xylenes		<u><5</u>	<u>5</u>

Analytical Method: U.S. EPA 624

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID Method Blank TEST CODE BTEX S NAME volatile BTEX-SOIL
FRACTION 100 Date & Time Collected _____ Category SOIL

DATE ANALYZED	<u>10/26/92</u>
INSTRUMENT	<u>1020 A</u>
DILUTION FACTOR	_____
ANALYST	<u>P. Reed</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS	_____

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1</u>	<u>1</u>
Toluene	108-88-3	<u><1</u>	<u>1</u>
Ethylbenzene	100-41-4	<u><1</u>	<u>1</u>
Total Xylenes		<u><1</u>	<u>1</u>

Analytical Method: SW 846 Method 8240

FEB 25 1993

ATEC Associates REPORT

Work Order # 92-10-227

Received: 10/20/92

SAMPLE ID Method Blank TEST CODE BTEX 3 NAME Volatile BTEX-SOIL
FRACTION 10E Date & Time Collected _____ Category SOIL

DATE ANALYZED	10/27/92
INSTRUMENT	1020 A
DILUTION FACTOR	
ANALYST	P. Reed
VERIFIED BY	M. McGilll
UNITS	mg/kg
COMMENTS	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<1	1
Toluene	108-88-3	<1	1
Ethylbenzene	100-41-4	<1	1
Total Xylenes		<1	1

Analytical Method: SW 846 Method 8240

Received: 10/20/92

ATEC Associates REPORT

Work Order # 92-10-227

REPORT COMMENTS

LIMS General Definition of Terms

Order Number: ATEC Laboratory Identification for your sample set.
(Please reference this number with any correspondence)

Sample Number: ATEC Laboratory Identification for individual samples
with the set.

Sample Description: Your Sample Identification

Test Description: Analytical Test

Result: Analytical Value Obtained

Result Qualifiers: < denotes less than
> denotes greater than
N/A denotes not applicable
NR denotes not reported
J denotes analyte detected but amount present is less
than the Quantitation Limit

Units: Unit of Measurement

Limit: Denotes Quantitation Limit: Limit of reliability based
on the sample quantity analyzed and the analytical
method sensitivity.

Analyzed: Optional Field for Date Analyzed

By: Optional Field for Test Analyst

CHAIN OF CUSTODY RECORD

(317) 649-4990

NOV - 4-92 MED 10:26

ATEC INDIANAPOLIS

FAX NO. 3178427932

P. 22/22

PROJ. NO. 230392 00261		PROJECT NAME Louisville Hardwoods, Inc				NO. OF CONTAINERS	<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;"> BTEX #240 </div>					REMARKS
SAMPLERS: (Signature) <i>Ed Bowling</i>												
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION							
B1	10/16/92	9:45			28.5 - 30 Soil	1	X					Report results in ppm
B1	10/16/92	9:50			33.5 - 35 Soil	1	X					
B2	10/16/92	11:35			23.5 - 25 Soil	1	X					
B2	10/16/92	11:40			33.5 - 35 Soil	1	X					
B3	10/16/92	1:05			3.5 - 5 Soil	1	X					
B3	10/16/92	1:25			33.5 - 35 Soil	1	X					
B4	10/16/92	10:35			8.5 - 10 Soil	1	X					
B4	10/16/92	10:50			28.5 - 30 Soil	1	X					
B5	10/16/92	2:02			8.5 - 10 Soil	1	X					
B5	10/16/92	2:20			33.5 - 35 Soil	1	X					
GW1	10/16/92	12:15			GROUND WATER from B2	1	X					40 ml vial
Relinquished by: (Signature) <i>Ed Bowling</i>			Date / Time 10/19/92 9:10		Received by: (Signature)			Relinquished by: (Signature)		Date / Time		Received by: (Signature)
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			Relinquished by: (Signature)		Date / Time		Received by: (Signature)
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature) <i>D. Borge</i>			Date / Time 10/20/92 12:00		Remarks		

ATEC[®] Associates, Inc.



2815 Watterson Trail
Louisville, Kentucky 40299-3868
(502) 267-8355, FAX (502) 267-8528

January 27, 1995

ORIGINAL

JAN 30 4 18 PM '95
RECEIVED
U.S. BRANCH

Division of Waste Management
Underground Storage Tank Branch
Frankfort Office Park
18 Reilly Road
Frankfort, Kentucky 40601

Attention: Mr. Jerry O'Bryan

Re: Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky
I.D. #3903-056
ATEC Project No. 23-07-93-00386

Dear Mr. O'Bryan:

ATEC Associates, Inc. is pleased to submit two (2) copies of the site investigation conducted December 15, 1994 on behalf of Louisville Hardwoods for the above referenced facility. This data includes soil and groundwater analytical data and conclusions regarding the site.

As always, if you should have any questions, please feel free to contact our office at (502) 267-8355.

Sincerely,

American Testing and Engineering Corporation
d/b/a ATEC Associates, Inc.

Edward C. Bowling
Edward C. Bowling, C.P.G.
Staff Geologist

James K. Jarman
James K. Jarman, C.P.G.
Manager, Environmental Services

CC: Mr. Tony Mitchell, Louisville Hardwoods

EXHIBIT 6

PHILLIP J. SHEPHERD
SECRETARY



BRERETON C. JONES
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

FRANKFORT OFFICE PARK
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601

August 11, 1993

CERTIFIED NUMBER P 096 284 908

LOUISVILLE HARDWOODS INC
1698 ST LOUIS AVE
LOUISVILLE KY 40210
ATTN ANTHONY MITCHELL

RE: Louisville Hardwoods
St. Louis Avenue
Louisville - Jefferson County
UST ID # 3903-056

Dear Mr. Mitchell:

A technical review of the corrective action plan submitted June 19, 1993 has been completed by the Division of Waste Management personnel. Based on this review, the plan has been found to be acceptable with the following conditions:

1. Under Kentucky Revised Statutes (KRS) 224.60-105 and Kentucky Administrative Regulation 401 KAR 42:060, you must implement a corrective action plan to be protective of the public health and the environment.
2. Under KRS 224.60-105 and 401 KAR 42:060, prior to final acceptance of Corrective Action Plan, the Division of Waste Management requires Louisville Hardwoods, Inc. to give notice of proposed action by publishing the attached Public Notice in a newspaper having general circulation in the county where the remediation is to take place. This Public Notice must be published in the paper one time. Submit one copy of your invoice, and two copies of an affidavit of publication to the Division of Waste Management, Underground Storage Tank Branch within seven days after publication.
3. The Underground Storage Tank (UST) Branch requires the Louisville Hardwoods submit a progress report of corrective action activities within thirty (30) days after the close of each calendar quarter. These reports will be required until the site is closed by the issuance of a closure letter from the UST Branch. These reports will include, but are not limited to, the following information: sample results, monitoring data, system performance evaluations, discussion of any trends, and actions relating to the implementation of the corrective action. The first report will be due prior to January 1, 1994. Please include the above referenced site number or the site name if no number was assigned, on all documents submitted. In addition, always submit the original and one (1) copy of any information sent to this office. Failure to comply with this request will delay the review process.



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EX6

Page 2
Louisville Hardwoods, Inc.
August 11, 1993

Your attention in this environmental issue is requested. If you have any questions, contact Jerry O'Bryan at (502) 564-6716, extension 253.

Sincerely,


Doyle Mills, Manager
Underground Storage Tank Branch
Division of Waste Management

DM/JO/jb

cc: Lesley Henney, Louisville Regional Office
Tracking
Jerry O'Bryan
File (2)
PSTEAFB
Annette Hayden

PUBLIC NOTICE

Kentucky Department for Environmental Protection
Division of Waste Management
Underground Storage Tank Branch
14 Reilly Road
Frankfort, Kentucky 40601

NOTIFICATION OF PROPOSED CORRECTIVE ACTION PLAN

The Louisville Hardwoods, Inc. facility, identification number 3903-056 located at 1698 St. Louis Avenue Louisville, Kentucky has proposed a plan to clean up gasoline contamination from the soil and groundwater.

An underground storage tank system caused a release of gasoline. A site investigation has been completed to determine the horizontal and vertical extent of contamination to the environment.

Proposed corrective measures include bioventing and groundwater recovery. The proposed activities are designed to restore the environment to its original condition prior to contamination.

The Kentucky Department for Environmental Protection proposes to accept the Corrective Action Plan. The tentative decision is based on a thorough review of site conditions, Kentucky statutes and regulations.

Copies of the Corrective Action Plan are available from the Division of Waste Management at the above address or by contacting the Records Custodian for the Underground Storage Tank Branch at (502) 564-6716. Persons wishing to submit written comments on the Corrective Action Plan should direct them to the Division of Waste Management within thirty (30) days after publication of this notice.

Upon request, the Cabinet will provide a copy of the Corrective Action Plan in an alternate format.

EXHIBIT 7

RECEIVED
JUL 19 1993

ORIGINAL

U.S.T.

Corrective Action Plan
Louisville Hardwoods
1698 St. Louis Avenue
Louisville, Kentucky
ATEC Project No. 23-03-92-00322
I.D. No. 3903-056



PREPARED FOR:

Mr. Anthony Mitchell
Louisville Hardwoods
1698 St. Louis Avenue
Louisville, Kentucky

27

ATEC Associates, Inc.



2815 Watterson Trail
Louisville, Kentucky 40299-3868
(502) 267-8355 FAX (502) 267-8528

July 16, 1993

Mr. Anthony Mitchell
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky 40210

Re: Corrective Action Plan
Louisville Hardwoods, Inc.
1698 St. Louis Avenue
Louisville, Kentucky
I.D. No. 3903-056
ATEC Project No. 23-07-93-00322

Dear Mr. Mitchell:

ATEC Associates, Inc. (ATEC) is pleased to provide Louisville Hardwoods, Inc. with this Corrective Action Plan for the Louisville Hardwoods facility located at 1698 St. Louis Avenue, Louisville, Kentucky. This plan covers past investigations at the site and outlines the proposed remedial activities for soil and groundwater treatment.

We trust this submittal is responsive to your needs. If you have any questions or comments regarding this plan, or if we can be of further service to you in the future, please do not hesitate to contact us at (502) 267-8355.

Very truly yours,

ATEC Associates, Inc.

Edward C. Bowling
Staff Geologist

Raymond R. Ashcraft
Manager, Environmental Services

ECB/RRA:cc

Copies Submitted: (3) Mr. Anthony Mitchell

EXECUTIVE SUMMARY

The Louisville Hardwoods Plant is located at 1698 St. Louis Avenue in Louisville, Kentucky. The subject site is on flat terrain. The immediate vicinity is surrounded by residential, industrial, and commercial property.

During the course of UST closure activities, hydrocarbon impacted soils were encountered. Elevated BTEX values were found within the UST pit.

Subsurface conditions at the site are characterized by silty clay grading to silty sand to a depth of 9.5 ft. From 9.5 ft. to boring termination at 40 ft. a fine-to-medium to medium-to-coarse grain sand was encountered. These soils are characteristic of the Ohio River alluvium. Upon closer examination of these soils we found that the target zone to be very porous and conducive to a soil vapor extraction type system. Thus, a bioventing system has been proposed. These systems should serve as effective remedial systems considering soil type, levels of impacted soils, and physical constraints. This report provides design recommendations for the bioventing system. In addition, this Corrective Action Plan provides a plan for monitoring this system to ensure a timely compliance for remediation.

During the subsurface investigation to determine the lateral extent of impacted soils, a groundwater sample was collected for BTEX analyses and the analytical results indicated BTEX constituents were present in the groundwater. Additional subsurface investigation was completed through the installation of nine (9) groundwater monitoring wells. Each monitoring was developed by purging three (3) well volumes or until dry. Each well was allowed to recharge and sampled. Groundwater analysis of these wells indicate the lateral extent of impacted groundwater has been delineated. ATEC had applied and obtained approval for groundwater discharge into the Metropolitan Sewer District (MSD) sanitary sewer system of 10,000 gallons.

10/11

In conclusion, bioventing is the method of choice for remediation of the impacted soils. ATEC proposes to recover impacted groundwater and discharge through the sanitary sewers in a means similar to the previous pilot study. The BTEX levels do not exceed the Metropolitan Sewer District (MSD) limits. ATEC was previously approved for the release of 10,000 gallons of groundwater by MSD in April 1993. It is believed that when this plan is implemented and operated, the resultant targeted site conditions will be at levels comparable to background conditions. Information obtained from the site coupled with the physical site conditions and observations indicate favorable circumstances for the following remediation system.

CORRECTIVE ACTION PLAN

**Louisville Hardwoods
1698 St. Louis Avenue
Louisville, Kentucky
ATEC Project No. 23-03-92-00322
I.D. No. 3903-056**

PREPARED FOR:

**Mr. Anthony Mitchell
Louisville Hardwoods
1698 St. Louis Avenue
Louisville, Kentucky**

PREPARED BY:

**ATEC Associates, Inc.
2815 Watterson Trail
Louisville, Kentucky 40299**

July 16, 1993

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1.0 INTRODUCTION

Louisville Hardwoods retained ATEC Associates, Inc. (ATEC) to develop a Corrective Action Plan (CAP) for the remediation of hydrocarbon impacted soils at the Louisville Hardwoods facility - UST I.D. #3903-056 located at 1698 St. Louis Avenue in Louisville, Kentucky. This CAP was initiated in response to known hydrocarbon impacted soils originating from a UST.

The objective of the CAP is to evaluate data collected by ATEC during task closure activities and previous subsurface investigations and to determine the most effective solution for remediation of impacted soils. Specifically, this CAP documents site activities, provides descriptions of the two (2) remedial systems and provides for monitoring of the Remedial System.

2.0 SITE BACKGROUND

2.1 Site Description

The site is located near the center of the Louisville Hardwoods plant on St. Louis Avenue in Louisville, Kentucky (see Figure 1). The subject site consists of approximately 26 acres on flat terrain. The site is located in the northwestern portion of Jefferson County in north central Kentucky. The property is located in a heavily populated urban area of Louisville, Kentucky with the general area consisting of residential and small retail/commercial and industrial buildings.

The site originally contained one 1,000-gallon UST. Gasoline was dispensed through a single pump island.

Surface cover of the site consists of an asphalt paved lot and buildings.

Surface water flows toward the west into storm drains along St. Louis Avenue. Underground sewer, water and gas lines are buried along St. Louis Avenue and extend onto the property. Overhead utilities are located along St. Louis Avenue.

The site is bordered on the north and west by residential areas and to the east and south the Louisville Hardwood plant is bordered by various industries and CSX railroad. The immediate vicinity can best be characterized as residential and industrial.

2.2 UST Removal/Closure Activities

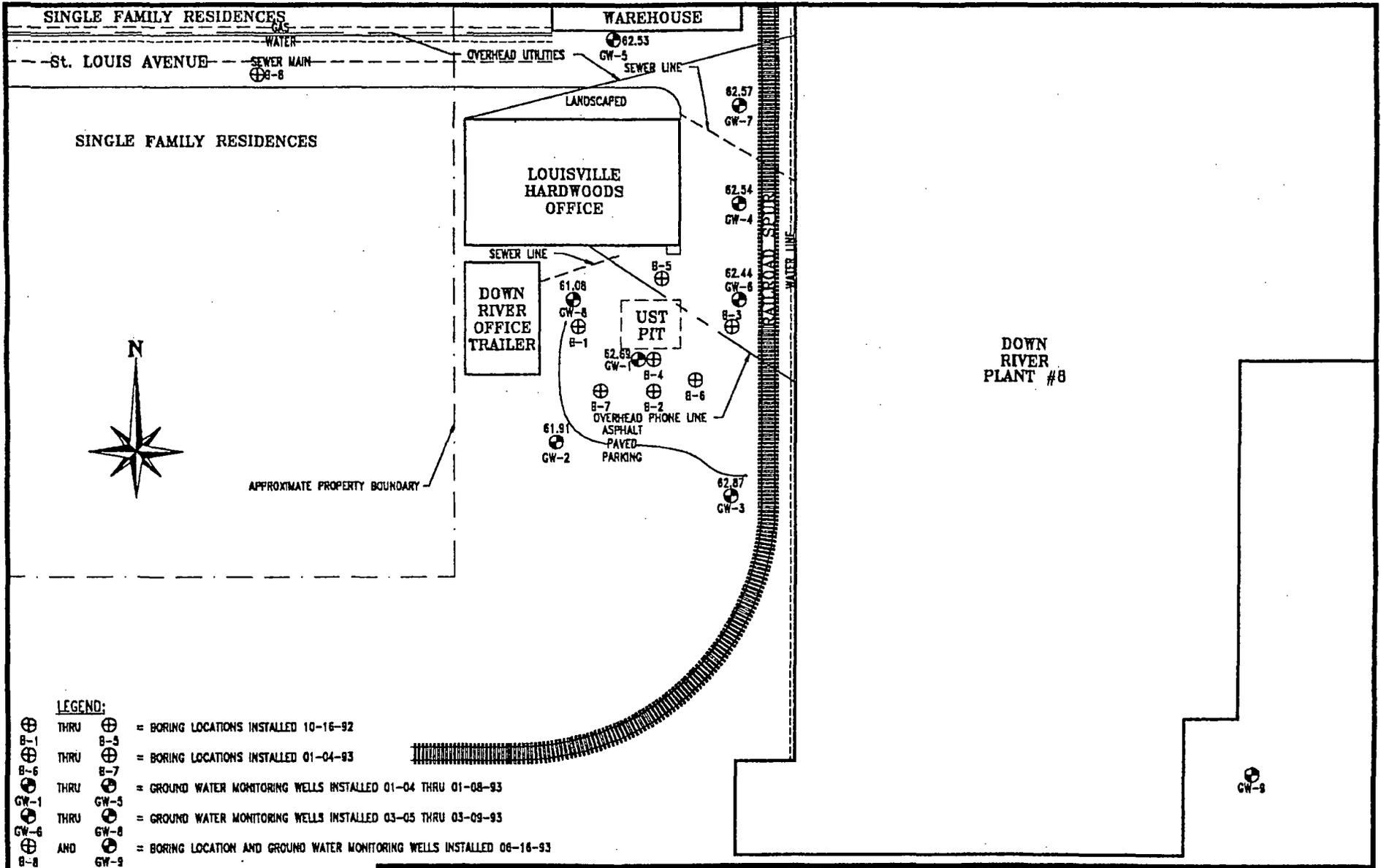
On September 28, 1992 Norman Estes Excavating began excavation for the removal of one (1) 1,000-gallon gasoline UST. The removal process was initiated by evacuating the remaining liquid and vapors from the tank. Following this, an 18" x 18" hole was cut in the top of the tank. The tank was cleaned and removed from the pit. The tank pit was located in the middle of the employee's parking lot approximately 25 ft. south of the Louisville Hardwoods office and 35 ft. east of the Down River office. No indications of impacted soils were noted during the tank removal. An area approximately 20 ft. x 20 ft. x 20 ft. was excavated. Following compliance with the Kentucky Division of Waste Management UST Branch policies and procedures, a total of five (5) soil samples were collected by Heise Environmental Services and analyzed for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) by EPA Publication SW846 Method 8240. Samples were collected from each wall of the tank pit excavation, and a composite sample of the floor. Laboratory results revealed elevated levels of BTEX are present within the area of the tank pit excavation. Approximately 30 gallons of sludge was removed from the tank and drummed on-site. This was removed by Midwest Environmental Services. The tank was reportedly in poor condition. On January 19, 1993 eighty-six (86) cubic yards of soil were removed from the area. This soil was hauled to the Outer Loop RDF landfill. Due to wall instability and the close proximity of the offices and driveway, the excavation was stopped and backfilled.

2.3 Subsurface Investigation Activities

Following the tank closure, ATEC proceeded with four subsurface investigations to evaluate the vertical and horizontal extent of impacted soils and groundwater (See Figure 2).

On October 16, 1992 and January 4, 1993, seven (7) soil borings were advanced to 40 ft. (see Figure 2). Samples were collected at 5 ft. intervals. During the October drilling program, a groundwater sample was collected. These samples were analyzed for gasoline constituents associated with gasoline: i.e. Benzene, Toluene, Ethylbenzene, and Xylene (BTEX). As part of the subsurface investigation, five (5) groundwater monitoring wells were installed to evaluate BTEX levels of groundwater. Three (3) additional monitoring wells were installed on March 5 through 8, 1993 to further evaluate the extent of impacted groundwater. Following these findings an additional upgradient monitoring well and downgradient water sample were installed to define the limits of impacted groundwater.

Laboratory analysis indicated that hydrocarbons were present above detection limits in the soil collected adjacent to the tank pit (Boring No B-4). All other soil samples were below 1 part per million (ppm) detection limit. Groundwater analytical results from the upgradient monitoring well and downgradient water sample were below the analytical method quantitative limit of 5 ppb, thereby defining the limits of the BTEX plume. Groundwater collected from Boring No. 2 and Monitoring Well Nos. GW-1, GW-4, GW-6, GW-7, and GW-8 were above the action level of 5 parts per billion (ppb). Copies of the soil boring logs and well construction diagrams are included in Appendix A.



DOWN RIVER PLANT #8

GW-9

LEGEND:

- THRU B-1 = BORING LOCATIONS INSTALLED 10-16-92
- THRU B-3 = BORING LOCATIONS INSTALLED 01-04-93
- THRU B-7 = BORING LOCATIONS INSTALLED 01-04-93
- THRU GW-1 = GROUND WATER MONITORING WELLS INSTALLED 01-04 THRU 01-08-93
- THRU GW-3 = GROUND WATER MONITORING WELLS INSTALLED 03-05 THRU 03-09-93
- AND B-8 = BORING LOCATION AND GROUND WATER MONITORING WELLS INSTALLED 06-16-93

BORING LOCATION PLAN
LOUISVILLE HARDWOODS, Inc.
 1698 St. LOUIS AVENUE
 LOUISVILLE, KENTUCKY

DATE 06-22-93	PROJECT NO. 23-07-93-00066	
	SCALE 1" = 50'	
	FIGURE NO. 2	

2.4 Findings

The purpose of the soil borings and monitoring wells was to define the extent of residual hydrocarbons to evaluate remedial options. These results are presented on Tables 1 and 2:

Table 1 Soil Analytical Results Louisville Hardwoods, Inc. 1698 St. Louis Avenue Louisville, Kentucky						
SAMPLE ID	SAMPLE INTERVAL	PID READING	B	T	E	X
B-1	28.5-30	76.2	<1	<1	<1	<1
B-1	33.5-35	579	<1	<1	<1	<1
B-2	23.5-25	1247	<1	<1	<1	<1
B-2	33.5-35	2500+	<1	<1	<1	<1
B-3	3.5-5	605	<1	<1	<1	<1
B-3	33.5-35	493	<1	<1	<1	<1
B-4	8.5-10	2500+	<1	22	16	120
B-4	28.5-30	2500+	<1	<1	<1	<1
B-5	8.5-10	1045	<1	<1	<1	<1
B-5	33.5-35	1445	<1	<1	<1	<1
B-6	13.5-15	245	<1	<1	<1	<1
B-6	33.5-35	415	<1	<1	<1	<1
B-7	8.5-10	1306	<1	<1	<1	<1
B-7	33.5-35	1246	<1	<1	<1	<1
Method Blank			<1	<1	<1	<1

BTEX units in mg/kg (ppm = parts per million)
 PID units in parts per million
 Samples B1 - B5; Samples B6, B7 Collected 1/4/93
 Analyzed by ATEC Associates

<p style="text-align: center;">Table 2 Groundwater BTEX Results Louisville Hardwoods, Inc. 1698 St. Louis Avenue Louisville, Kentucky</p>					
SAMPLE ID	BENZENE	TOLUENE	ETHYLBENZENE	XYLENE	TOTAL BTEX
GW1	180	5	<5	130	315
GW2	<5	<5	<5	<5	<5
GW3	<5	<5	<5	<5	<5
GW4	87	5	6	30	128
GW5	<5	<5	<5	<5	<5
GW6	1200	500	36	15	1886
GW7	8	12	<5	<5	20
GW8	3000	990	46	99	4635
GW9	<5	<5	<5	<5	<5
B8	<5	<5	<5	<5	<5
Method Blank	<5	<5	<5	<5	<5
<p>BTEX Units in ug/L (ppb = parts per billion), detection limit Samples GW1, GW5 collected 1/13/93 Samples GW6 - GW8 collected 3/11/93 Samples GW9 - B8 collected June 16, 1993 Analyzed by ATEC Laboratories</p>					

Based on these results, ATEC concluded that hydrocarbons are present above closure limits on the subject property. Soil samples collected away from the tank pit indicating that horizontal migration had not occurred and that impacted soils were restricted to the tank pit area. Due to the subsurface lithology, it appears that no confining soils exist and vertical migration has occurred. The groundwater samples collected support this conclusion. However, upgradient and downgradient groundwater results were below the laboratory quantitative limit of 5 parts per billion (ppb). Thus, extent of impacted groundwater has been determined.

3.0 GEOLOGIC AND HYDROGEOLOGIC INFORMATION

3.1 Regional Geology

Soils of the site are identified as part of the Wheeling-Weinbach-Huntington association. These soils consist of deep, well-drained to poorly drained soils on wide, nearly level to sloping soils in ridges and bottom along the Ohio River. The surface layer and the upper part of the subsoil is formed in mixed sediment that washed from the upper part of the Ohio River basin. The depth of the soil is approximately 45 inches.

Beneath the soils are Quaternary outwash deposits (Wisconsin). These deposits are characterized as sand, gravel, silt, and clay. These deposits represent alluvium by a river of low gradient following release of glacial meltwater. The alluvium ranges up to 130 ft. in thickness.

3.2 Site Geology

The characterization of the site geology was based on observations made during the tank removal process and soil borings. In general, the upper nine (9) feet of unconsolidated sediments is best characterized as a silty clay to silty sand. From 9.0 to 23 feet below the surface the material is fine-to-medium grain sand. Below this sand, the material grades to a medium-to-coarse grain sand with scattered pebbles. This description applies fairly consistently across the site.

3.3 Site Hydrogeology

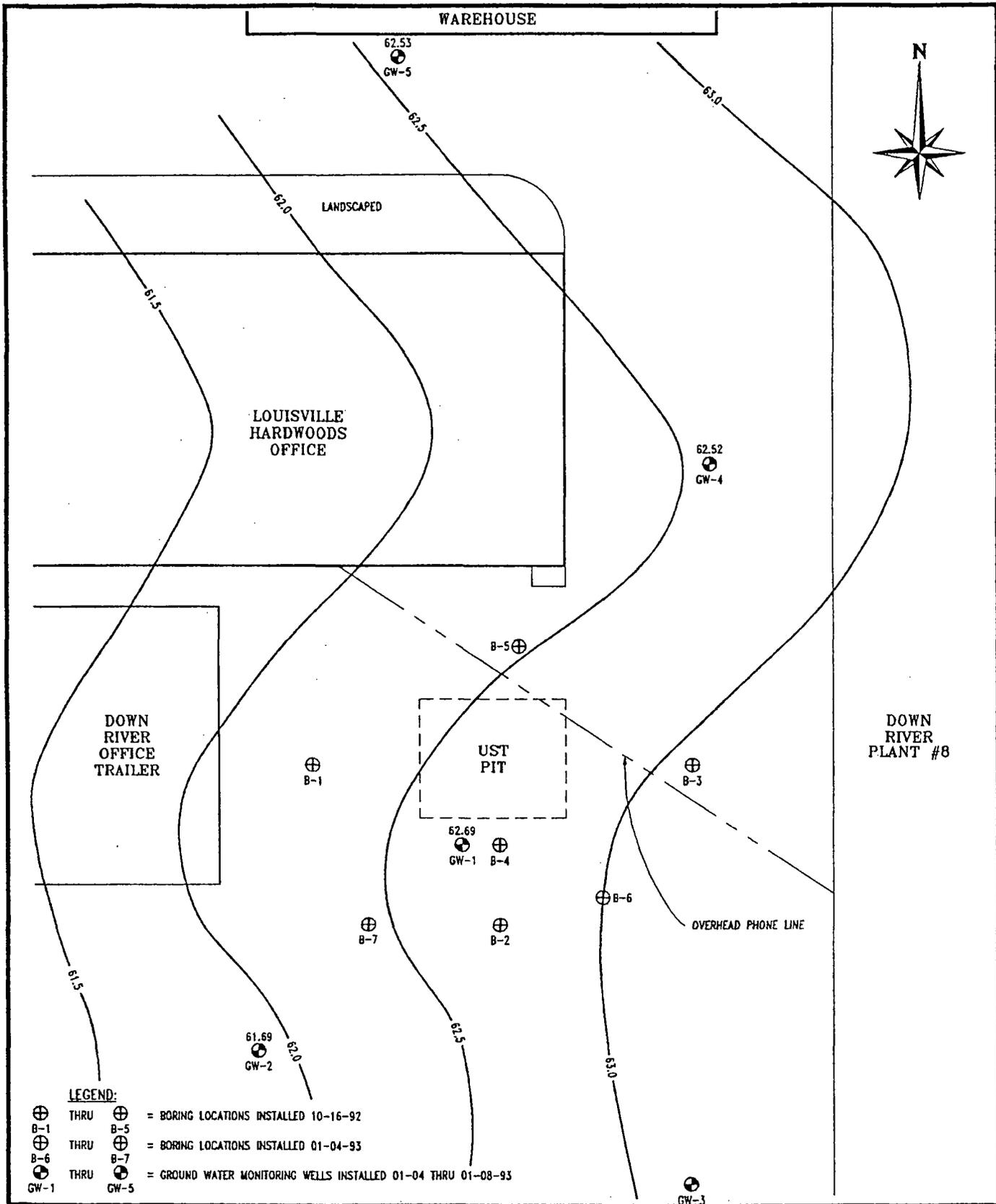
A TEC returned to the site January 11, 1993 to survey and develop the monitoring wells. The relative elevations of the five (5) monitoring wells were determined using an engineer's level and stadia rod. The top of the well casing of GW4 was assigned the relative elevation of 100 ft. From this arbitrary benchmark of 100 ft. the relative

elevation of the remaining wells were determined. An electric level device was used to measure the depth to groundwater in each well within 0.01 feet. The relative groundwater elevations in each well were determined by subtracting the depth to groundwater from the relative well elevation for each monitoring well.

Depth to groundwater measurement collected on January 11, 1993 ranged from 36.41 to 38.20 ft. below the ground surface. A summary of the measurements are provided in Table 3. Based on these measurements, the inferred groundwater flow direction was toward the west. The potentiometric surface and inferred direction of groundwater flow are illustrated on Figure 3.

Table 3 Groundwater Level Measurements January 11, 1993 Louisville Hardwoods 1698 St. Louis Avenue Louisville, Kentucky				
Well I.D.	Relative Well Elevation	Depth to Groundwater	Relative Groundwater Elevation	Top of the Screened Interval
GW-1	100.62	37.93	62.69	71.62
GW-2	100.11	38.20	61.91	70.11
GW-3	100.34	37.47	62.87	70.34
GW-4	100	37.48	62.52	70.00
GW-5	98.94	36.41	62.53	68.94

Three additional monitoring wells (GW-6, GW-7, and GW-8) were installed during March 5 through 9, 1993. These wells were installed to assist in determining the extent of impacted groundwater. Groundwater wells 1 through 8 were surveyed and water levels readings were recorded during May 5 through 10, 1993. A summary of the measurements are provided in Table 4. The potentiometric surface and inferred direction of groundwater flow are illustrated in Figure 4.



LEGEND:

- ⊕ B-1 THRU ⊕ B-5 = BORING LOCATIONS INSTALLED 10-16-92
- ⊕ B-6 THRU ⊕ B-7 = BORING LOCATIONS INSTALLED 01-04-93
- ⊕ GW-1 THRU ⊕ GW-5 = GROUND WATER MONITORING WELLS INSTALLED 01-04 THRU 01-08-93

RELATIVE POTENTIOMETRIC SURFACE MAP
 LOUISVILLE HARDWOODS, Inc.
 1698 St. LOUIS AVENUE
 LOUISVILLE, KENTUCKY

DATE
 01-19-93

PROJECT NO.
 23-07-92-00321

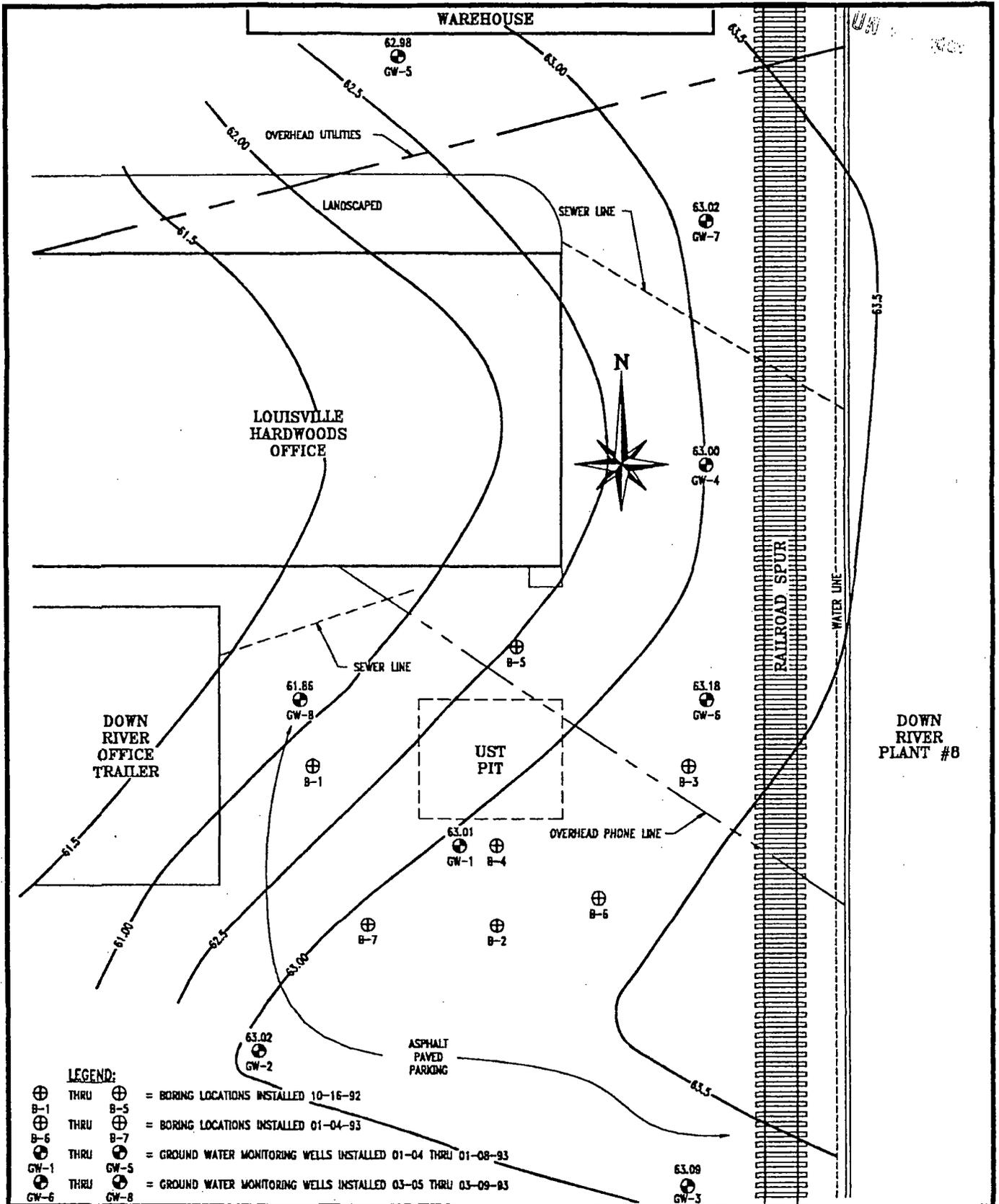
SCALE
 1" = 20'

FIGURE NO.
 3



Table 4
 Groundwater Level Measurements
 May 5 - 10, 1993
 Louisville Hardwoods
 1698 St. Louis Avenue
 Louisville, Kentucky

Well I.D.	Relative Well Elevation	Depth to Groundwater	Relative Groundwater Elevation	Top of the Screened Interval
GW-1	100.36	37.35	63.01	71.36
GW-2	100.68	37.66	63.02	70.68
GW-3	99.89	36.80	63.09	69.89
GW-4	100.00	37.00	63.00	70.00
GW-5	98.98	36.00	62.98	68.98
GW-6	99.86	37.68	63.18	69.86
GW-7	99.82	36.80	63.02	70.82
GW-8	99.49	37.63	61.86	69.49



- LEGEND:**
- ⊕ THRU ⊕ = BORING LOCATIONS INSTALLED 10-16-92
 - P-1 THRU P-5 = BORING LOCATIONS INSTALLED 01-04-93
 - P-6 THRU P-7 = GROUND WATER MONITORING WELLS INSTALLED 01-04 THRU 01-08-93
 - GW-1 THRU GW-5 = GROUND WATER MONITORING WELLS INSTALLED 03-05 THRU 03-09-93
 - GW-6 THRU GW-8 = GROUND WATER MONITORING WELLS INSTALLED 01-04 THRU 01-08-93

POTENTIOMETRIC SURFACE MAP (MAY 1993)
 LOUISVILLE HARDWOODS, Inc.
 1698 St. LOUIS AVENUE
 LOUISVILLE, KENTUCKY

DATE 05-19-93	PROJECT NO. 23-07-93-00066
	SCALE 1" = 20'
	FIGURE NO. 4



4.0 BIOVENTING SYSTEM DESCRIPTION

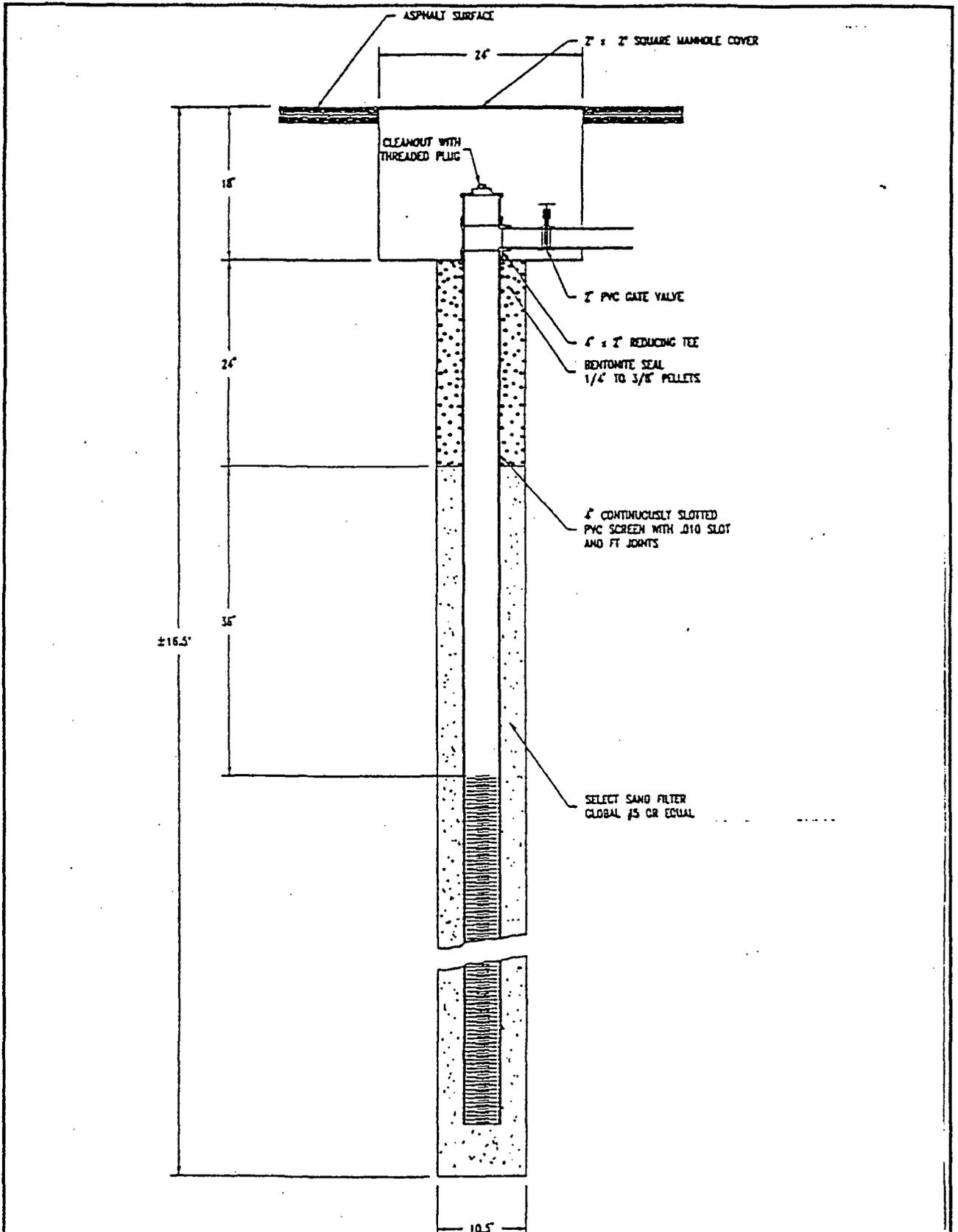
The application of a bioventing system to remediate impacted soils has grown rapidly in recent years. Bioventing is a general term that refers to any technique that evaporates volatiles from the unsaturated soil zone, removes the vapors for treatment or discharge, and provides oxygen for bioremediation. A schematic of a typical bioventing well is shown in Figure 5. This well collects vapor through the soil at a certain flow rate. This flow rate is dependent upon several factors, including the permeability of the soil, the air-filled porosity of the soil and the amount of volatile constituent present.

Flow rates can be improved by increasing the vacuum on the extraction well, by increasing the number of extraction wells, and/or by installing inlet or injection wells in strategic locations. Passive air injection wells are open to the atmosphere and allow air to be drawn into the soil from the surface. Forced air injection wells use forced air to control the air movement through the soil. Typically, passive air and forced air wells are similar in construction to extraction wells.

The vapor is extracted from a single well or series of vacuum wells (commonly called a well field) through the use of a vacuum pump. The water vapor is separated in an air/water separator tank and the effluent vapor is discharged.

Due to the complex nature of the physical chemistry and soil environment, physically based mathematical equations are difficult to apply with a high degree of confidence in describing remediation effectiveness. However, practical experience and case studies indicate that the technology is applicable to the site.

The vapor extraction well locations were chosen to insure vapor flow across the extent of the impacted soils. The proposed design includes four vapor extraction wells. The



TYPICAL SOIL VAPOR & BIOVENTING
EXTRACTION WELL
LOUISVILLE HARDWOODS
LOUISVILLE, KENTUCKY

ATEC Project No.
23-07-92-00322

SCALE
1/16

Figure No.
5



proposed location of the soil bioventing system will be centered around the former UST installation pit and will utilize several of the existing monitoring wells. A vacuum will be placed on the extraction points to induce volatilization, removal of subsurface volatiles, and oxygen transfer. An enclosure blower unit will be used to supply the vacuum source.

4.1 Vent Points (Extraction Legs)

Two-inch diameter schedule 40 PVC well screen and casing will be installed as the extraction leg (vent point) components. Four ten-foot long well screens will be installed vertically at a subsurface depth of approximately fifteen to forty feet below grade. The screened portion of the vent points will be responsible for the removal of hydrocarbon laden vapors from the subsurface. Flush-jointed, 0.010 inch slotted well screen will be used for the vent points. A one foot solid PVC riser with control valves will be connected at the top of each vent point. A brass adapter or equivalent is proposed for installation on the riser to monitor the vacuum induced by the regenerative blower. All six vapor points will be manifolded to one horizontal PVC pipe for connection with a union fitting to the regenerative blower. Filter pack will be placed between the borehole and the well screen to a depth of approximately three inches above the top of the well screen. Filter pack is used to increase the permeability of the subsurface materials directly around the vent points, thus lowering the resistance to vapor flow in the vicinity of the vent screens. A layer of bentonite approximately one foot thick will be placed on top of the filter pack to prevent infiltration of surface water onto the borehole and to prevent the release of the vacuum applied to the blower.

4.2 Regenerative Blower

A regenerative blower will be used to induce a vacuum on the subsurface and as a positive pressure source for vapor discharge and oxygen transfer. One function of the blower is to induce a negative pressure on the subsurface unsaturated (vadose) zone.

This vacuum provides the driving force necessary to extract hydrocarbon constituents that are present in the soil interstices and absorbed to soil particles. In addition to providing a vacuum, the blower also provides a positive pressure necessary to force this extracted vapor through the system. See Appendix B for system specifications.

4.3 Remediation System Enclosure

The moisture/particulate trap, regenerative blower, vapor phase controls and associated piping and controls will be housed in an above ground enclosure. The proposed enclosure location is the north central part of the site near the current location of the Down River office (see Figure 2).

5.0 BIOVENTING REMEDIATION SYSTEM DESCRIPTION

In-situ bioremediation technology utilizes acclimated microorganisms to degrade hydrocarbon constituents to carbon dioxide and water. Microorganisms that specifically degrade the waste stream characteristics are capable of treating many compounds to required levels. Batch studies have shown that acclimated and naturally occurring microorganisms are capable of degrading BTEX and other hydrocarbon constituents. The effectiveness of treating soil is dependent on a number of factors including temperature, pH, hydrocarbon type, concentration, availability of nutrients and physical soil characteristics. Nutrients and oxygen are normally added to the biosystem to increase the rate of residual hydrocarbon degradation. An advantage to this technology is that the residuals are destroyed on-site, as opposed to Granular Activated Carbon (GAC) or air stripping where the constituents are transferred from one phase to another. A disadvantage to this technology is the high cost and degree of complication involved in operating and maintaining the system. In-situ bioremediation is the most technically feasible treatment alternative for the elevated BTEX values found at the subject site.

It is essential that sufficient nitrogen and phosphorous be added to the soils at the onset of treatment to bring the nitrogen level to approximately 80 ppm (parts per million) and the phosphorous level up to approximately 20 ppm.

As an example, 1,000 cubic yards of soil (essentially nutrient-free) requires 650 pounds of 20-20-20 (nitrogen-phosphorous-potassium, percent by weight) to bring the nitrogen level to 80 ppm. Subsequently, the phosphorous level will also be brought to a level of 80 ppm.

However, the nitrogen content of the soil should never exceed 20 ppm and the phosphorous content should not exceed 150 ppm.

Any inorganic nitrogen source is acceptable. Some common inorganic forms of nitrogen include: ammonium chloride, ammonium sulphate, ammonium nitrate, and 10-10-10 (nitrogen-phosphorous-potassium, percent by weight). The fertilizers should be water soluble. If nitrate fertilizers are used, care will be taken not to expose the groundwater to the nitrate.

Similarly, any inorganic form of phosphorous is acceptable for use in soil treatment. Some common sources include monosodium phosphate, disodium phosphate and common commercial fertilizers.

Frequent monitoring will ensure the pH of the system will not be significantly changed when adding fertilizers. Nutrient levels will be monitored using laboratory analysis or field test kits for nitrogen and phosphorous. Nitrogen levels will be kept at approximately 20 ppm at all times. Phosphorous levels will be kept above 5 ppm at all times.

In order for this plan to be effective, ATEC recommends that the application of nutrients not be conducted until spring. This will enhance the growth of bacteria and degradation

of hydrocarbon constituents. It will also bypass a passive winter program where additional oxygen, heat and moisture conductivity will not be a complication thus reducing costs of the process. Since BTEX constituents are targeted, the mobility of these hydrocarbons is minimal and the winter delay will not create additional concerns. Additionally, once the system has been implemented and the degradation process has been created, subsequent winter seasons will not significantly delay the remedial or degrading process.

Based upon the soils data currently available, it is believed that conditions exist that will greatly assist the penetration of air and nutrients. The soils within the impacted zones are described as silty sands to fine-to-medium grain sand which aid in the overall porosity and permeability of the soils.

6.0 MONITORING OF REMEDIATION SYSTEM

6.1 Bioventing System Monitoring

Upon startup of the bioventing system, vapor samples will be collected and subsequently shipped for analysis. Samples will be collected at vapor effluent sample ports. Samples will be collected in charcoal tubes, cooled to 4° C and shipped to a qualified analytical laboratory. During the first day of operation, samples will be collected and analyzed. Concurrently with charcoal tube samples, Photovac PID measurements will be taken of samples collected from the vapor extraction system sample ports. This procedure will be performed at all sampling events when samples are sent to the laboratory for analysis. The purpose of these simultaneous PID measurements is to correlate a PID (qualified) value to the analytical values (quantified) obtained from the laboratory samples. During future operation, this information will allow field personnel to promptly determine whether the treatment unit is operating within regulatory guidelines. Following the first day of operation, vapor samples will be collected and analyzed weekly for the next two

week period. Subsequently, sampling and analysis will occur on a quarterly basis or as required.

Once analytical results indicate that target compounds are near or below detection limits, the bioventing system will be turned off for approximately one month. Following the one month system shutdown, the bioventing system will be operated again for 24 hours and vapor treatment system samples will be collected and analyzed. If analysis determines that target volatile levels are still near or below detection limits, a determination will be made (as to whether) soil samples should be collected, analyzed and compared to cleanup levels.

These soil samples will be analyzed for Benzene, Toluene, Ethylbenzene and Xylene (BTEX).

6.2 Bioventing System Monitoring

Once the cell has been successfully loaded, the limiting factor in the operation is temperature. Ongoing maintenance will be predicated solely upon temperature. Nutrient and moisture supplementations will be the two areas to monitor.

Nutrients (notably nitrogen) will be monitored with a simple HACH test kit with occasional verification by an analytical laboratory. Moisture content can be monitored by using a soil moisture probe. With the exception of ongoing monitoring and minor adjustments, the system is virtually maintenance free. Bioventing System Monitoring will occur on an annual basis or as required by the Kentucky Division of Waste Management.

Moisture will be monitored during treatment and maintained at a level between 20% and 80% of saturation, with 45% being optimum.

7.0 GROUNDWATER TREATMENT

ATEC applied for an unusual discharge request through the Louisville Metropolitan Sewer District (MSD) to pump and dispose of 10,000 gallons of groundwater into the sanitary sewer. The groundwater was pumped from Monitoring well No. GW-1 using a decontaminated submersible pump. Groundwater was pumped into a 550 gallon above ground storage tank (AST) prior to release into the sewer system and used to minimize the increased handling by the area sanitary sewers.

Following the pumping and disposal of 10,000 gallons of groundwater between April 20 and April 23, 1993 the monitoring wells were redeveloped and sampled. Water samples were collected with dedicated bailers. The groundwater samples were collected in 40 ml glass vials with teflon septa lids, stored on ice, and transported to the ATEC laboratory following standard chain-of-custody procedures.

The findings indicated dissolved hydrocarbons are present in the following Monitoring Wells: GW-2 (5 ppb Xylene and Total BTEX 5 ppb); GW-3 (6 ppb Benzene, and Total BTEX 6 ppb); GW-4 (210 ppb Benzene 17 ppb Xylene, and Total BTEX 227 ppb); GW-6 (690 ppb Benzene, 130 ppb Toluene, 230 ppb Xylene, and Total BTEX 1050 ppb); GW-7 (9 ppb Benzene and Total BTEX 9 ppb) and GW-8 (770 ppb Benzene, 340 ppb Toluene, 110 ppb Xylene, and 1220 ppb Total BTEX).

ATEC proposes to obtain a permanent MSD industrial discharge permit and to continue the groundwater recovery process. Specifically, ATEC proposes to continue pumping 10,000 gallons of water per month for one (1) year. At the end of this period ATEC will re-examine the impacted wells to assess the progress of this system.

8.0 SYSTEM TIME FRAMES

Time requirements for completion of any program are dependent upon many different factors including the nature and complexity of the compositions present. Temperature, pH, salinity, applications techniques, amount of aeration and moisture are also factors for consideration.

Some compositions are more easily degraded than others. Straight-chained hydrocarbon compounds generally break down much more quickly than aromatic or cross-linked hydrocarbons. It may take longer to break down a large number of different compositions than if fewer are present. The viscosity and quantity of hydrocarbon constituents to be degraded influence the time required for the program.

Bacteria perform most efficiently at 35° C (95° F). Bacterial efficiency is roughly halved for every 10° C (50° F) shift. Pasteurization occurs above 50° C (122°F). Similarly, a pH of 7 is best with activity being approximately halved for every shift of one pH unit. Variable pHs have a very deleterious effect on the bacteria.

Aeration is crucial as the initial degradation steps require oxygen. Furthermore, bacteria operate more efficiently aerobically. Aeration also provides agitation which increases the surface interface area dramatically, and thus will allow the bacteria to have a greater opportunity to degrade the hydrocarbon constituents.

9.0 QUALIFICATIONS

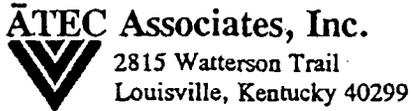
The procedures contained in this report are based on conditions attained through previous sampling and testing, observed site conditions and client contact. It is assumed the information attained is representative of the subsurface conditions throughout the site. If conditions substantially differ from those described herein, ATEC would immediately

notify Louisville Hardwoods and make any adjustments necessary after approval from Louisville Hardwoods and the State UST Branch.

The remediation discussed herein is based on site conditions, discussions with Louisville Hardwoods and our understanding of the regulations of the state and federal jurisdictions and the need for immediate remediation to accommodate site closure. Changes in applicable or appropriate standards may occur, whether from changes in legislation, the broadening of knowledge or other reasons. Additional remediation activities may be required. However, ATEC feels that if properly applied, monitored and maintained, this proposed plan will be effective to reduce the site to comparable background levels.

This corrective action plan has been prepared for the exclusive use of Louisville Hardwoods. ATEC is not responsible for independent conclusions or recommendations made by others. The information provided and remediation plan expressed herein is consistent with generally accepted environmental standards of practice.

APPENDIX A
Soil Boring Logs and
Well Construction Diagrams



ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-1**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
		38.5								
	SAND (SP) - medium-to-coarse grain, abundant gravel, wet	40.0	40	8	Push	SPT				Water was noted on split-spoon at 38.5 ft. below the ground surface
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							

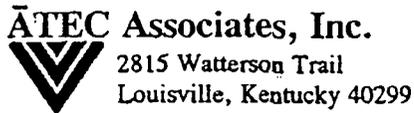
**ENVIRONMENTAL
 SOIL TEST BORING LOG**

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-2**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
										About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface
	SILTY CLAY (ML) - brown, strong odor		5	1	Push	SPT	0			
		6.0								
	SILTY SAND (SC) - brown, detectable odor		7.5							
	SAND (SP) - brown, fine-to-medium grain, slight odor, dry to damp		10	2	Push	SPT	16"		248	
			15	3	Push	SPT	18"		0.0	
			20	4	Push	SPT	18"		62.4	
		24.0								
	SAND (SP) - black, carbonaceous streak	24.5	25	5	Push	SPT	14"		1247*	
	SAND (SP) - fine-to-medium grain, fine laminations, slight odor		30	6	Push	SPT	16"		268	
			33.0							*Samples analyzed for BTEX
	SAND (SP) - medium grain with abundant gravel, brown to gray, moist to wet		35	7	Push	SPT	14"		2500+*	



ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-2**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

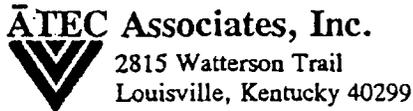
ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
			40.0	40	8	Push	SPT	3"	-	Water level was noted at 36.5 ft. below the ground surface in the open borehole 1 hour after the completion of drilling. Water was noted on split-spoon at 38.5 ft. below the ground surface.
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-3**
 PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
										About 4 inches asphalt over 3 inches aggregate was encountered at the ground surface
	SILTY CLAY (ML) - brown and gray, detectable odor		5	1	Push	SPT	9"		605*	
		9.5	10	2	Push	SPT	18"		304	
	SAND (SP) - fine grain, brown, slight odor, dry		15	3	Push	SPT	14"		169	
			20	4	Push	SPT	14"		412	
		23.0	25	5	Push	SPT	6"		--	
	SAND (SP) - medium-to-coarse grain, damp to wet, scattered gravels, slight odor		30	6	Push	SPT	8"		158	
			35	7	Push	SPT	10"		493*	*Samples analyzed for BTEX



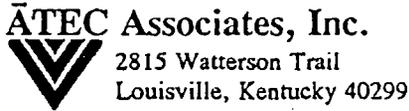
**ENVIRONMENTAL
SOIL TEST BORING LOG**

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-3**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
		40.0	40	8	Push	SPT	18"		634	Water was noted on split-spoon at 38.5 ft. below the ground surface
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							



GEOTECHNICAL SOIL TEST BORING LOG

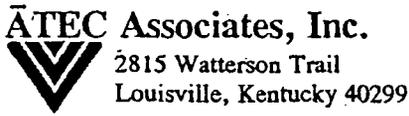
CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-4**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES	
				NO	BLOWS	TYPE	REC	Time		Pid,ppm
	SILTY CLAY (ML) - brown, strong odor									About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface
		4.5		1	Push	SPT	18"		2037	
	CLAY (CL) - medium gray, strong odor		5							
		6.5								
	SILTY SAND (SC) - brown, strong odor									
		9.5		2	Push	SPT	18"		2500+*	
	SAND (SP) - fine-to-medium grain, brown to gray-brown, strong odor		10							
			15							
				3	Push	SPT	14"		2500+	
			20							
				4	Push	SPT	12"		2500+	
			25							
				5	Push	SPT	14"		1402	
			28.5							
	SAND (SP) - medium-to-coarse grain, brown to gray brown, damp to wet, scattered gravel									
			30							
				6	Push	SPT	14"		2500+*	
			35							
				7	Push	SPT	14"		1959	

*Sample analyzed for BTEX



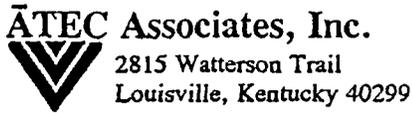
ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-5**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
	SILTY SAND (SC) - slight odor, brown									About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface
			5	1	Push	SPT	18"		64.4	
		9.5	10	2	Push	SPT	18"		1045*	
	SAND (SP) - fine grain, slight odor, brown to gray-brown, dry		15	3	Push	SPT	18"		77.8	
			20	4	Push	SPT	18"		53.7	
			25	5	Push	SPT	6"		25.1	
		28.5	30	6	Push	SPT	10"		265	
	SAND (SP) - fine-to-coarse grain, brown, slight to no odor, scattered gravels, damp to wet		35	7	Push	SPT	12"		1445*	*Sample analyzed for BTEX



ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-5**
PROJECT NUMBER: **23-03-92-00261**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **10/16/92** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **10/16/92** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

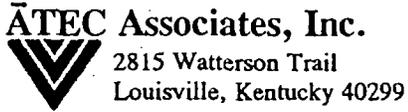
ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PID, ppm	
		40.0	40	8	Push	SPT	18"		16.9	Water was noted on split-spoons at 38.5 ft. below the ground surface
	TERMINATED									
			45							
			50							
			55							
			60							
			65							
			70							

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-6**
 PROJECT NUMBER: **23-07-92-00321**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **1/4/93** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **1/4/93** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES	
				NO	BLOWS	TYPE	REC	W, %		PID, ppm
	SILTY CLAY (ML) with sand, very fine grain, brown, no odor		5	1	Push	SPT	16"	-	60.3	About 6 inches asphalt over 2 inches aggregate was encountered at the ground surface.
				2	Push	SPT	18"	-	243	
				3	Push	SPT	12"	-	245*	
				4	Push	SPT	18"	-	138	
				5	Push	SPT	16"	-	197	
				6	Push	SPT	14"	-	297	
				7	Push	SPT	16"	-	415*	
	SAND (SP), very fine-to-fine grain, well sorted, brown, no odor, dry	9.5	10							
	SAND (SP), fine-to-medium grain, brown, scattered pebbles, moist, no odor or discoloration	23.5	25							
			30						Intermittant rain showers	
			35							



**ENVIRONMENTAL
SOIL TEST BORING LOG**

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-6**
PROJECT NUMBER: **23-07-92-00321**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **1/4/93** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **1/4/93** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

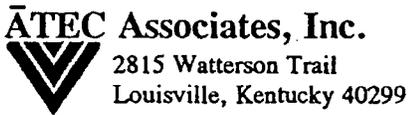
ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	W, %	PID, ppm	
		38.5								
	SAND (SP), medium-to-coarse grain with abundant pebbles, brown	40.0	40	8	Push	SPT	8"	-	216	Water was noted on split-spoons at 38.5 feet below the ground surface. *Sample Analyzed
	TERMINATED AT 40 FT.									
			45							
			50							
			55							
			60							
			65							
			70							

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods, Inc.**
 LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-7**
 PROJECT NUMBER: **23-07-92-00321**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **1/4/93** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **1/4/93** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA					NOTES		
				NO	BLOWS	TYPE	REC	W, %		PID, ppm	
	SILTY CLAY (ML) to SILTY SAND (SC), very fine grain, brown, no odor			1	Push	SPT	18"	-	735	About 6 inches asphalt over 2 inches aggregate was encountered at the ground surface.	
		5									
		9.0									
		SAND (SP), fine-to-medium grain, brown, no odor or discoloration, dry			2	Push	SPT	14"	-		1306*
			10								
		SAND (SP), fine-to-medium grain, no odor, brown, scattered pebbles, moist			3	Push	SPT	16"	-		623
			13.5								
	15										
				4	Push	SPT	14"	-	184		
				5	Push	SPT	12"	-	379		
				6	Push	SPT	10"	-	239		
				7	Push	SPT	10"	-	1246*	Intermittant rain showers	
				35							



ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: **Louisville Hardwoods, Inc.**
PROJECT NAME: **Louisville Hardwoods, Inc.**
LOCATION: **1698 St. Louis Avenue, Louisville, Kentucky**

BORING NUMBER: **B-7**
PROJECT NUMBER: **23-07-92-00321**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
Date Started: **1/4/93** Hammer Drop: **30 in.** Boring Method: **HSA**
Date Completed: **1/4/93** Drill Foreman: **F. Horton** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES	
				NO	BLOWS	TYPE	REC	W, %	PID, ppm		
			38.5								
	SAND (SP), coarse grain with abundant pebbles, brown, wet		40.0	8	Push	SPT	8"	-	200		Water was noted on split-spoons at 38.5 feet below the ground surface. *Sample Analyzed
	TERMINATED AT 40 FT.										
			45								
			50								
			55								
			60								
			65								
			70								

CLIENT: **Louisville Hardwoods, Inc.**
 PROJECT NAME: **Louisville Hardwoods**
 LOCATION: **1698 St. Louis Avenue**

BORING NUMBER: **B-8**
 PROJECT NUMBER: **23-07-93-00066**

Surface Elevation: _____ Hammer Weight: **140 lbs.** Hole Dia.: **7.5 in.**
 Date Started: **6/16/93** Hammer Drop: **30 in.** Boring Method: **HSA**
 Date Completed: **6/16/93** Drill Foreman: **F. Campbell** Inspector: **E. Bowling**

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH	DEPTH SCALE	SAMPLE DATA						NOTES
				NO	BLOWS	TYPE	REC	w, %	PIID, ppm	
	SAND (SP) with gravel	37.0								Water level was noted at 35 ft. below the ground surface in open borehole at the completion of drilling.
	TERMINATED									
			40							
			45							
			50							
			55							
			60							
			65							
			70							

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW 1

Project LOUISVILLE HARDWOODS, 1698 ST. LOUIS AVE. Location LOUISVILLE, KY

Type of Rig Auger Installed By Frank K. Horton Date 1/5/93 Time 3:00

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flushmount manhole assembly (Universal 65-8012 with rubber gasket and boltdown cover (9/16 inch bolts) and 2 ft. by 2 ft. protective pad were then installed along with a 4 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt Silty clay (ML) to clayey sand (SC), brown to gray, strong odor, moist	Ground Elev. _____ Ground surface	Top of Riser Elev. _____ (Protective Casing) Vented Cap
10	9.0	Sand (SP), fine to medium grain brown, slight to strong odor	I.D. of Riser Pipe <u>4 inch</u> Type of Pipe <u>PVC</u>	Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
20			L ₁ = <u>0.3</u> L ₂ = <u>24.7</u> L ₃ = <u>2</u> L ₄ = <u>17</u> L ₅ = <u>29</u> L ₆ = <u>15</u> L ₇ = <u>44</u>	Top of Seal Elev. <u>25</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>
30	28.0	Sand (SP), fine to medium grain scattered pebbles, dark brown, no odor moist	Top of Filter Elev. <u>27</u> Elev. of Perforations <u>29</u>	Size of Openings <u>0.010 in.</u>
40	36.	Sand (SP), medium to coarse grain, w/ abundant pebbles, brown, no odor, wet	Diameter of Casing Tip <u>4.0 inch</u> Type of Filter Material <u>#5 Quartz Filter Sand</u> Bottom of Csg. Elev. <u>44</u>	Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>12 in.</u>
50		Terminate @ 45 ft.		

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-2

Project Louisville Hardwoods, 1698 St. Louis Ave.

Location Louisville, KY

Type of Rig Auger

Installed By Frank K. Horton

Date 1/5/93

Time 10:30

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and bolt-down cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt Silty clay (ML) to Clayey sand (SC), brown, fine grain, no odor	Ground Elev. <u>Ground surface</u>	Top of Riser Elev. <u> </u> (Protective Casing) Vented Cap
10	9.0	Sand (SP), fine to medium grain, no odor	L ₁ <u>0.3</u> L ₂ <u>25.7</u> L ₃ <u>2</u> L ₄ <u>17</u> L ₅ <u>30</u> L ₆ <u>15</u> L ₇ <u>45</u>	I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>
20				Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
30	26.0	Sand (SP), fine to medium grain, scattered gravel & pebbles, brown, no odor		Top of Seal Elev. <u>26</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>
40				Top of Filter Elev. <u>28</u> Elev. of Perforations <u>30</u>
50		Terminate @ 45 ft.		Size of Openings <u>0.010 in.</u> Diameter of Casing Tip <u>2.0</u> Type of Filter Material <u>#5 Quartz Filter Sand</u> Bottom of Csg. Elev. <u>45</u>
				Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-3

Project Louisville Hardwoods, 1698 St. Louis Ave. Location Louisville, KY
 Type of Rig Auger Installed By Frank K. Horton Date 1/6/93 Time 9:30

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and boltdown cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt Silty clay (ML) to clayee sand (SC), brown, no odor	Ground Elev. <u>Ground surface</u>	Top of Riser Elev. <u>(Protective Casing)</u> <u>Vented Cap</u>
10	9.0	Sand (SP), fine to medium grain brown, no odor	I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>	Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
20			Top of Seal Elev. <u>26</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>	
30	26.0	Sand (SP), fine grain, scattered pebbles, moist, dark brown	Top of Filter Elev. <u>28</u> Elev. of Perforations <u>30</u>	Size of Openings <u>0.010 in.</u>
40	38.0	Sand (SP), medium to coarse grain, abundant pebbles & gravel, wet	Diameter of Casing Tip <u>2.0</u> Type of Filter Material <u>#5 Quartz Filter Sand</u> Bottom of Csg. Elev. <u>45</u>	
50		Terminate @ 45 ft.	Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>	

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-4

Project Louisville Hardwoods, 1698 St. Louis Ave. Location Louisville, KY

Type of Rig Auger Installed By Frank K. Horton Date 1/7/93 Time 9:00

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and boltdown cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt		Ground Elev. _____
2		Sand (SP), black, w/ gravel (Fill)		Ground surface _____
7		Silty clay (ML), brown, moist, no odor or discoloration		Top of Riser Elev. _____ (Protective Casing)
10		Clayey sand (SC), brown, no odor		Vented Cap _____
12		Sand (SP), brown, fine to medium grain, no odor		I.D. of Riser Pipe <u>2 inch</u>
20		Sand (SP), fine to medium grain, medium brown, w/ scattered pebbles, moist, no odor		Type of Pipe <u>PVC</u>
36		Sand (SP), w/ gravel, brown, medium to coarse grain		Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
40		Terminate @ 45 ft.		Top of Seal Elev. <u>26</u>
50				Type of Seal Material <u>3/8 in. bentonite pellets</u>

L ₁ = .2	L ₂ = 25.8	L ₃ = 2	L ₄ = 17	L ₅ = 30	L ₆ = 15	L ₇ = 45
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Top of Filter Elev. <u>28</u>	Elev. of Perforations <u>30</u>	Size of Openings <u>0.010 in.</u>	Diameter of Casing Tip <u>2.0</u>	Type of Filter Material <u>#5 Quartz Filter Sand</u>	Bottom of Csg. Elev. <u>45</u>	Bottom of Boring Elev. <u>45</u>	Diameter of Boring <u>8.5 in.</u>
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Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-5

Project Louisville Hardwoods, 1698 St. Louis Ave.

Location Louisville, KY

Type of Rig Auger

Installed By Frank K. Horton

Date 1/6/93

Time 2:00

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and bolt-down cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt/concrete Clayey sand(SC), brown, no odor, moist	Ground Elev. Ground surface	Top of Riser Elev. (Protective Casing) Vented Cap
8	8	Silty sand(SC), brown, no odor	L ₂	I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>
10			L ₇	Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
14	14	Sand(SP), fine grain, brown, no odor or discoloration	L ₁ = 0 L ₂ = 26 L ₃ = 2	Top of Seal Elev. <u>26</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>
20			L ₄ = 17 L ₅ = 30 L ₆ = 15	
22	22	Sand(SP), fine to medium grain brown, no odor, scattered pebbles, moist	L ₃	Top of Filter Elev. <u>28</u> Elev. of Perforations <u>30</u>
30			L ₆	Size of Openings <u>0.010 in.</u>
35	35	Sand(SP), medium to coarse grain, w/ gravel, brown, wet no odor	L ₄	Diameter of Casing Tip <u>2.0</u>
40			L ₅	Type of Filter Material <u>#5 Quartz Filter Sand</u>
45		Terminate @ 45 ft.	L ₇ = 45	Bottom of Csg. Elev. <u>45</u>
50				Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-6

Project Louisville Hardwoods, 1698 St. Louis Ave. Location Louisville, KY
 Type of Rig Auger Installed By Frank K. Horton Date 3/5/93 Time 4:00

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and bolt-down cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
			Type of Observation Well <u>Groundwater</u>	
Depth in ft.	Cored Interval	Description	Ground Elev. <u>Ground surface</u>	Top of Riser Elev. _____ (Protective Casing) Vented Cap
0		Asphalt/concrete Clayee sand(SC), brown, no odor, moist		
10	8	Silty sand(SC), brown, no odor	L_7	I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>
14	14	Sand(SP), fine grain, brown, no odor or discoloration	$L_1 = 0$ $L_2 = 26$ $L_3 = 2$ $L_4 = 17$	Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
22	22	Sand(SP), fine to medium grain brown, no odor, scattered pebbles, moist	$L_5 = 30$ $L_6 = 15$ $L_7 = 45$	Top of Seal Elev. <u>25</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>
35	35	Sand(SP), medium to coarse grain, w/ gravel, brown, wet no odor		Top of Filter Elev. <u>27</u> Elev. of Perforations <u>30</u> Size of Openings <u>0.010 in.</u>
40		Terminate @ 45 ft.		Diameter of Casing Tip <u>2.0</u> Type of Filter Material <u>#5 Quartz Filter Sand</u> Bottom of Csg. Elev. <u>45</u>
50				Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW- 7

Project Louisville Hardwoods, 1698 St. Louis Ave. Location Louisville, KY
 Type of Rig Auger Installed By Frank K. Horton Date 3/8/93 Time 3:30pm

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and bolt-down cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt/concrete Clayey sand(SC), brown, no odor, moist		Ground Elev. <u>Ground surface</u> Top of Riser Elev. <u>(Protective Casing)</u> Vented Cap
8		Silty sand(SC), brown, no odor		I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>
14		Sand(SP), fine grain, brown, no odor or discoloration		Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
22		Sand(SP), fine to medium grain brown, no odor, scattered pebbles, moist		Top of Seal Elev. <u>24</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>
35		Sand(SP), medium to coarse grain, w/ gravel, brown, wet no odor		Top of Filter Elev. <u>26</u> Elev. of Perforations <u>28</u> Size of Openings <u>0.010 in.</u> Diameter of Casing Tip <u>2.0</u> Type of Filter Material <u>#5 Quartz Filter Sand</u> Bottom of Csg. Elev. <u>44</u>
45		Terminate @ 45 ft.		Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-8

Project Louisville Hardwoods, 1698 St. Louis Ave. Location Louisville, KY

Type of Rig Auger Installed By Frank K. Horton Date 3/9/93 Time 12:00

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and boltdown cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description	Type of Observation Well	Groundwater
0		Asphalt/concrete Clayey sand(SC), brown, no odor, moist	Ground surface	Top of Riser Elev. _____ (Protective Casing)
8		Silty sand(SC), brown, no odor	I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>	Vented Cap
14		Sand(SP), fine grain, brown, no odor or discoloration	Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>	
22		Sand(SP), fine to medium grain brown, no odor, scattered pebbles, moist	Top of Seal Elev. <u>25</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>	
35		Sand(SP), medium to coarse grain, w/ gravel, brown, wet no odor	Top of Filter Elev. <u>27</u> Elev. of Perforations <u>29</u> Size of Openings <u>0.010 in.</u> Diameter of Casing Tip <u>2.0</u> Type of Filter Material <u>#5 Quartz Filter Sand</u>	
40		Terminate @ 45 ft.	Bottom of Csg. Elev. <u>45</u>	
50			Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>	

Remarks Depths are in feet below ground surface

Inspected By _____

OBSERVATION WELL INSTALLATION REPORT

Observation Well No. GW-9

Project Louisville Hardwoods, 1698 St. Louis Ave Location Louisville, KY

Type of Rig Auger Installed By F. Campbell Date 6/16/93 Time AM

Method of Installation Well materials were assembled and lowered through hollow-stem augers. Filter sand and bentonite pellet seal were tremmied into place. Bentonite pellets were charged with potable water. A flush mount manhole assembly (Universal 65-8012) with rubber gasket and bolt-down cover (9/16 inch bolts) and a 2 ft.-by-2 ft. protective pad were then installed along with a 2 inch locking well cap to protect the well head.

LOG OF BORING AND OBSERVATION WELL

BORING			OBSERVATION WELL	
Depth in ft.	Cored Interval	Description		Type of Observation Well <u>Groundwater</u>
0		Clayey sand (SC), brown, no odor, moist	Ground Elev. <u>Ground surface</u>	Top of Riser Elev. <u>(Protective Casing)</u> <u>Vented Cap</u>
10	10	Sand (SP), brown to medium/dark brown, fine-to-medium grain, moist, no odor or unusual discoloration	L ₁ <u>0</u> L ₂ <u>23.5</u> L ₃ <u>2.3</u> L ₄ <u>17.5</u> L ₅ <u>28.3</u> L ₆ <u>15</u> L ₇ <u>45</u>	I.D. of Riser Pipe <u>2 inch</u> Type of Pipe <u>PVC</u>
20				Type of Backfill Around Riser <u>Concrete/cement bentonite grout</u>
30				Top of Seal Elev. <u>23.5</u> Type of Seal Material <u>3/8 in. bentonite pellets</u>
40	37	Sand (SP), with abundant gravel sand: medium-to-coarse grain, medium brown, wet; gravel: flat smooth, subrounded		Top of Filter Elev. <u>25.8</u> Elev. of Perforations <u>28.3</u> Size of Openings <u>0.010 in.</u> Diameter of Casing Tip <u>2.0</u> Type of Filter Material <u>#5 Quartz Filter Sand</u> Bottom of Csg. Elev. <u>43.3</u>
50				Bottom of Boring Elev. <u>45</u> Diameter of Boring <u>8.5 in.</u>

Remarks Depths are in feet below ground surface

Inspected By _____

JUN 1962

APPENDIX B
System Specifications

FEATURES

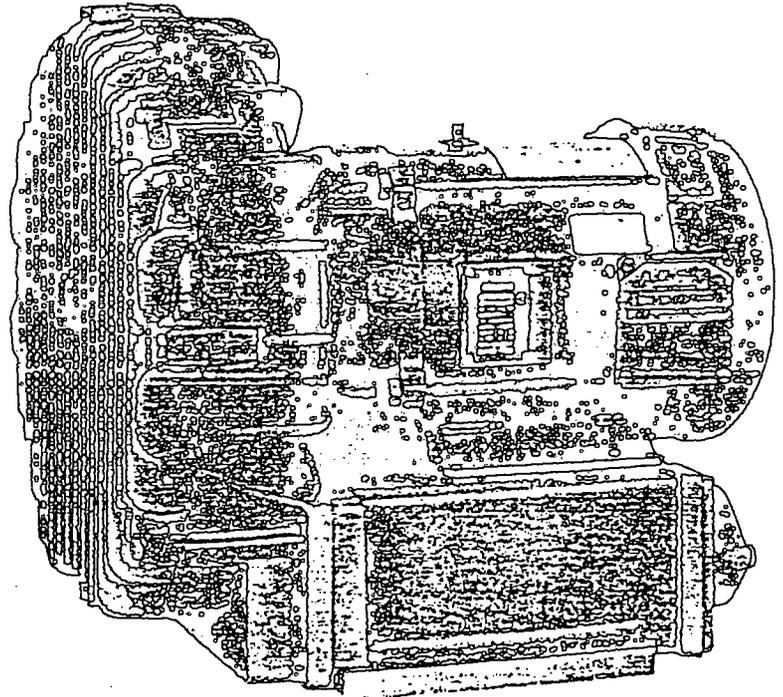
- Manufactured in the USA
- Maximum flow: 345 SCFM
- Maximum pressure: 100" WG
- Maximum vacuum: 97" WG
- Standard motor: 7.5 HP
- Blower construction — cast aluminum housing, impeller and cover
- UL & CSA approved motors for Class I, Group D atmospheres
- Sealed blower assembly
- Quiet operation within OSHA standards

OPTIONS

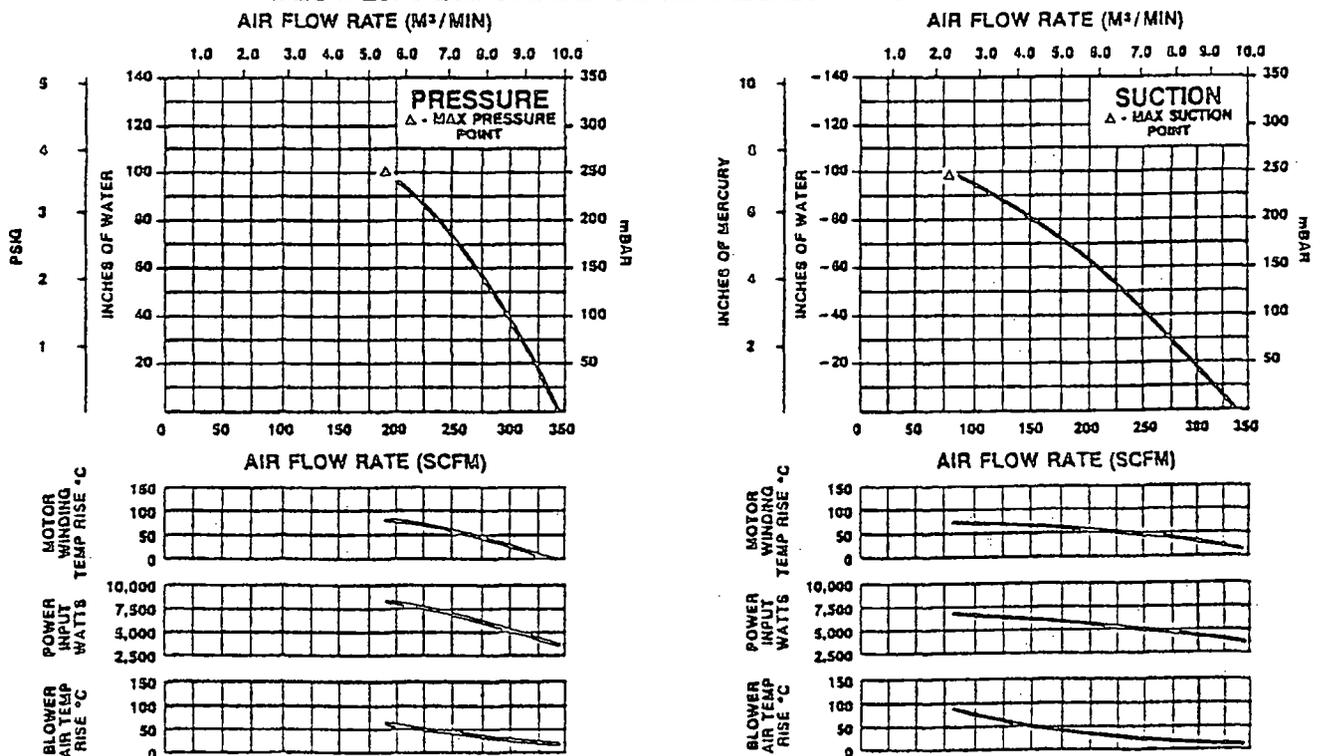
- 50 Hz motors
- International voltages
- Other HP motors
- Corrosion resistant surface treatments
- Remote drive (motorless) models

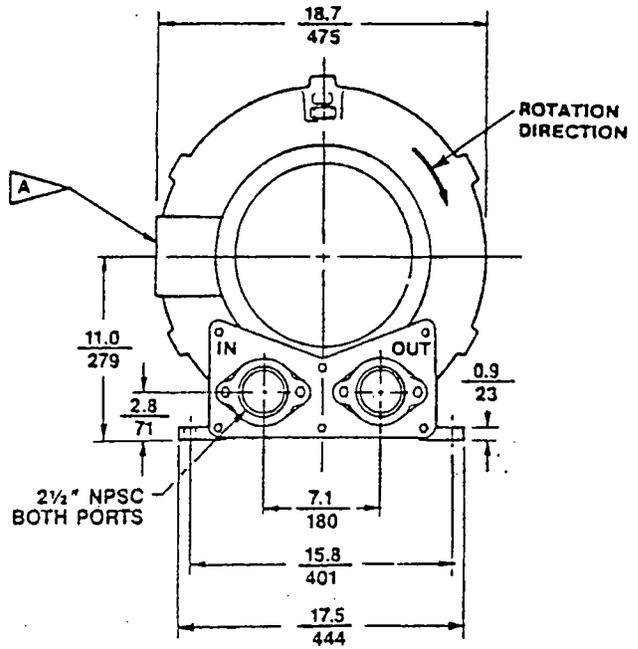
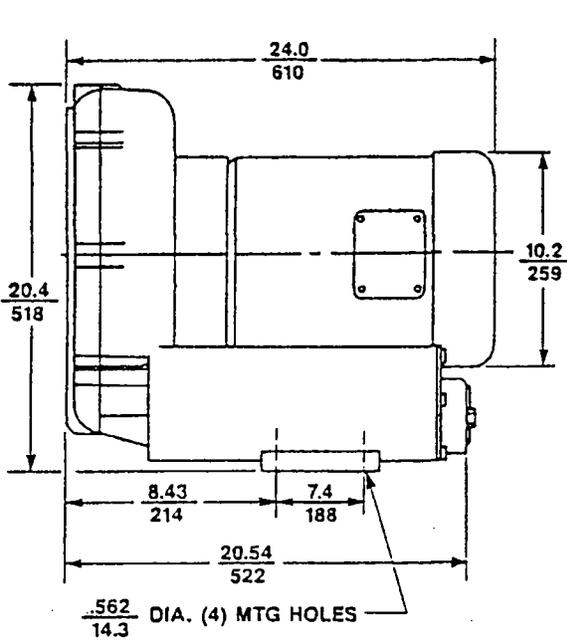
ACCESSORIES

- Moisture separators
- Explosion-proof motor starters
- Inline & inlet filters
- Vacuum & pressure gauges
- Relief valves
- External mufflers



BLOWER PERFORMANCE AT STANDARD CONDITIONS





DIMENSIONS: IN
MM
TOLERANCES: .XX ± .1
(UNLESS OTHERWISE NOTED)

A 0.75" NPT CONDUIT CONNECTION AT 12 O'CLOCK POSITION

SPECIFICATIONS

MODEL	EN808BA72XL	
Part No.	038182	
Motor Enclosure Type	Explosion-proof	
Horsepower	7.5	
Phase — Frequency	Three - 60 Hz	
Voltage	230	460
Motor Nameplate Amps	18.6	9.3
Maximum Blower Amps ¹	20.2	10.1
Inrush Amps	140	70
Starter Size	1	1
Service Factor	1.0	
Thermal Protection	Pilot Duty	
Bearing Type	Sealed, Ball	
Shipping Weight	304 lb (138 kg)	

BLOWER LIMITATIONS

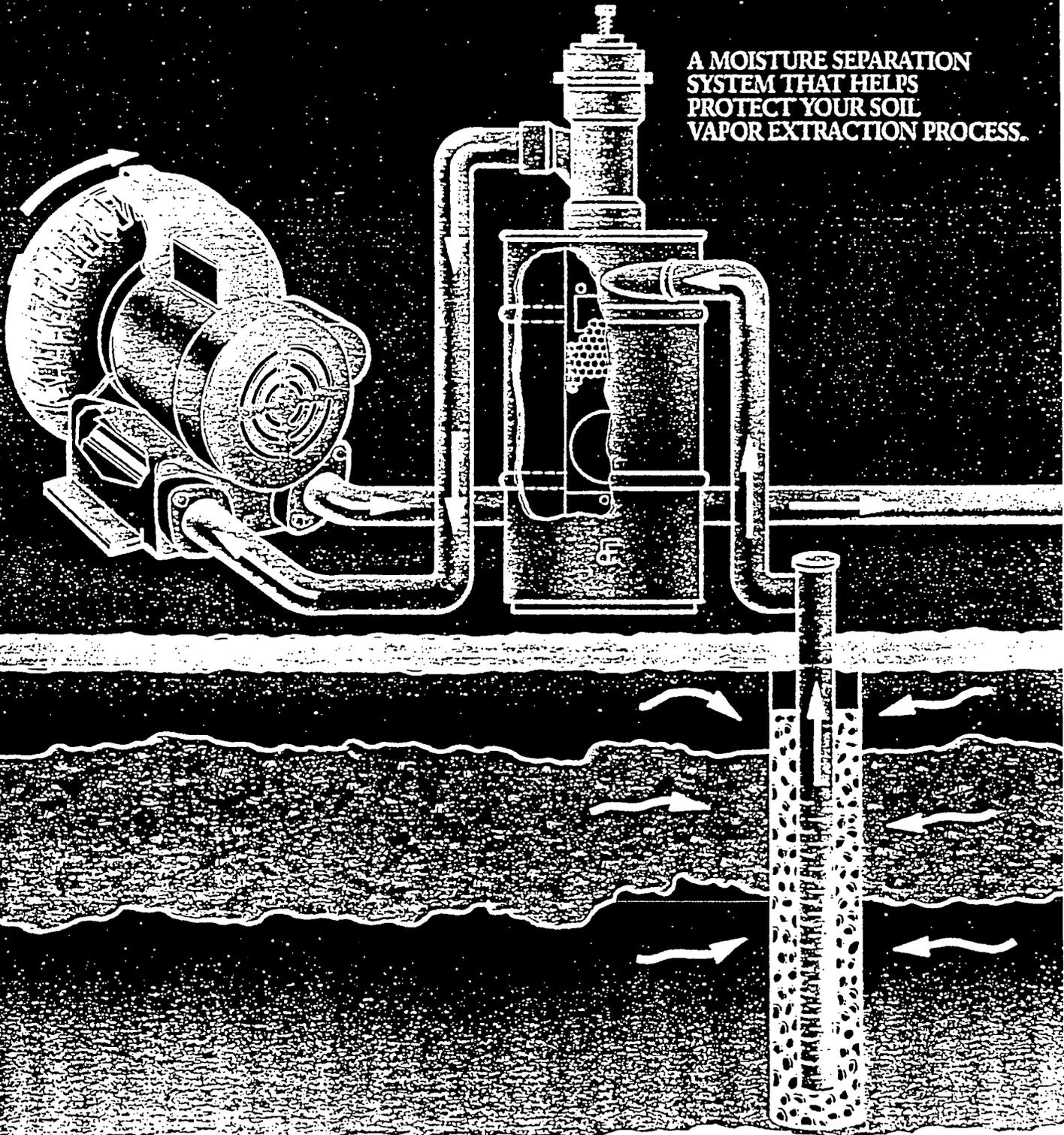
Min. Flow @ Max. Suction	80 SCFM @ -97" WG
Min. Flow @ Max. Pressure	185 SCFM @ 100" WG

¹Corresponds to the performance point at which the blower and/or motor temperature rise reaches the limit of the thermal protection in the motor.

 **EG&G ROTRON**
Industrial Division

ROTRON MOISTURE SEPARATORS FOR ENVIRONMENTAL APPLICATIONS

A MOISTURE SEPARATION SYSTEM THAT HELPS PROTECT YOUR SOIL VAPOR EXTRACTION PROCESS.



With our moisture separator, you can protect your remediation system while making the removal of hazardous vapors and gases more efficient.

As it becomes imperative to remove known environmental hazards from soils and below dwellings, the explosion-proof Rotron regenerative blower has become a valuable tool in the vapor extraction process. Our new moisture separator is used in conjunction with the Rotron blower to make vapor extraction methods safer and more efficient for the entire process.

By separating and containing entrained liquids which are extracted during the removal process from the gas flow stream, Rotron's moisture separator helps protect the blower from corrosion damage caused by excess moisture and protects the end treatment system from further contamination. The moisture separator is positioned between the blower

and the extraction well and contains two safeguards that help protect your system during the vapor extraction process. Rotron can offer application assistance when installing the moisture separator.* For more information, contact our Application Engineering department.

Product Features.

- Large capacity ranges from 10 gallons to 40 gallons.
- High efficiency cyclonic separation for all models.
- Inherently safe collection design.
- Many sizes available to suit application (see chart).
- Moisture separators are sized to blower.
- No routine maintenance, except to drain liquid.
- Epoxy coated interiors.
- Outfitted with drain for convenient removal of fluid.
- Two safety features include a relief valve and a liquid level float.
 - A vacuum relief valve protects the blower from overheating by detecting blockage in the line.
 - A float system containing a cage, float seat, and stainless steel ball automatically seats to protect the blower from flooding when the moisture separator is full.

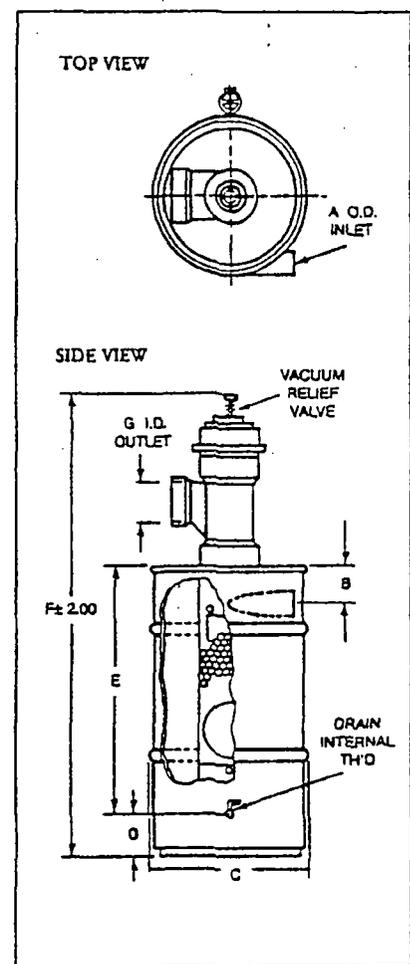
Product Options.

- Site and vacuum gauges read fluid levels and working vacuum point available.
- Automatic draining systems available.
- Private labeling is available.
- Insulation blanket available to winterize separator.

Selecting the right moisture separator.

For Rotron Blower Model	Select Moisture Separator Model	Liquid-holding capacity
DR404, DR454, DR505, DR513, DR523, DR555	MS2000	10 gallons
DR608, DR6, DR707	MS3000	10 gallons
DR808	MS3508	40 gallons
DR8	MS5008	40 gallons
DR12	MS6008	40 gallons

MODEL	A DIA.	CFM	B	C DIA.	D	E	F	G DIA.	DRAIN	WEIGHT
MS2000	2.00	200	3.00	14.88	3.00	24.66	36.78	4.50	3/4" NPT	30 LBS
MS3000	2.50	300								
MS3508	3.00	350	6.00	23.44	5.00	34.37	46.50	6.63	1" NPT	65 LBS
MS5008		500								
MS6008	4.00	600	6.50							



Hazardous Location Policy. EG&G Rotron will not knowingly specify, design, or build any product for installation in a hazardous, explosive location without the proper UL or NEMA enclosure. EG&G Rotron does not recognize sealed components as a substitute for explosion-proof

components. Sealed units should never be utilized where local, state, and/or federal codes specify the use of explosion-proof equipment. Division I & II, Class I, Group D; Class 2, Groups F & G requirements are met with these standard explosion-proof blowers.

Notes:
Dimensions: inches
Tolerance: .XX ± .25
6.25

Specifications subject to change without notice.

*EG&G Rotron offers general application guidance; however, the suitability of the particular



Industrial Division

North Street, Saugerties, NY 12477

TEL: (914) 246-3401 FAX: (914) 246-3802 TLX: 981511 TWX: 510-247-9033

MOISTURE SEPARATOR SPECIFICATIONS

1.1 Duty

The moisture separator shall be designed for use in a soil vapor extraction system capable of continuous operation with a pressure drop of less than six inches of water at the rated flow of ___ SCFM. The separator shall be capable of operation under various inlet conditions ranging from a fine mist to slugs of water with high efficiency.

1.2 Principle of Operation

The moisture separator shall incorporate cyclonic separation to remove entrained water. The separator must protect against an overflow by fail safe mechanical means. An electrical switch or contact(s) alone is not an acceptable means of protection against overflow.

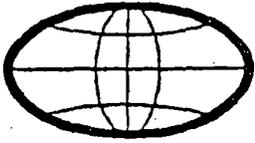
1.3 Construction

The body of the moisture separator shall be constructed of heavy gauge cold rolled steel. The interior shall be epoxy coated to resist abrasion and corrosion. The exterior shall be coated with a Hammertone™ enamel for durability and chip resistance. The inlet shall be tangentially located and welded to the body. The outlet port shall be constructed of PVC or cast aluminum alloy, flanged and sealed to the center of the top of the separator. The separator shall incorporate a non-sparking copper float ball and an adjustable relief valve to protect against overflow and overheating the blower.

1.4 Capacity and Dimensions

The moisture separator must have a liquid capacity of ___ gallons. The inlet shall be ___ inch OD slip-on type. The outlet shall be ___ inch OD slip-on type.

<u>For Rotron Blower Model</u>	<u>Select Moisture Separator Model</u>	<u>Liquid-holding Capacity</u>	<u>Inlet</u>	<u>Outlet</u>
DR404, DR454, DR505				
DR513, DR523, DR555	MS200D	10 gallons	2.0" OD	4.50" OD
DR606, DR6, DR707	MS300D	10 gallons	2.5" OD	4.50" OD
DR808	MS350B	40 gallons	3.0" OD	4.50" OD
DR8	MS500B	40 gallons	3.0" OD	7.25" OD
DR12	MS600B	40 gallons	4.0" OD	7.25" OD



GLOBAL DRILLING SUPPLIERS, INC.

12101 Centron Place

Cincinnati, Ohio 45246-1704

(800) 356-6400

(513) 671-8700

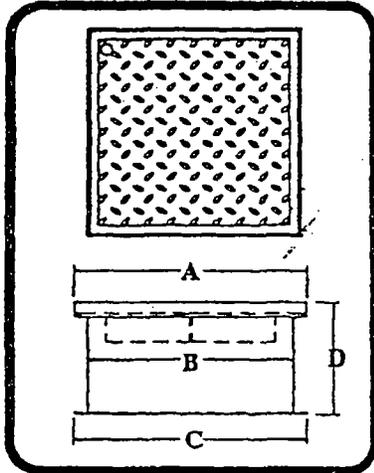
FAX (513) 671-8705

FLUSH MOUNT WELL COVERS

16" CLEAR OPENING

Lid rests in place

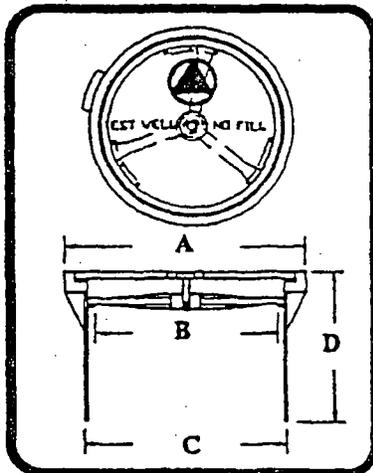
22-3/8" CLEAR OPENING



Global Drilling Suppliers offers heavy-duty square well covers featuring a 3/8" thick diamond plate steel cover and welded, reinforced corners. 18" model has a 1" dia. hole in lid for easy access. Lid is non-locking.

MATERIALS Body, cover, and skirt: steel

MODEL NUMBER	WEIGHT/LBS.	WRENCH	REPLACEMENT GASKET	INCHES			
				"W" A	"W" B	"W" C	"L" D
48U-18 x 18-G	42.0	NONE	NONE	18.12	16.00	18.12	8.50
48U-24 x 24	73.0	NONE	NONE	24.00	22.37	22.75	9.31



Lid water-tight

8" CLEAR OPENING

The MB-519-9 features a full-cast, one piece iron body and skirt, cast iron lid, brass spider, replaceable Buna-N gasket, and stainless steel bolts. A brass I.D. plate is provided for field marking and permanent warning symbol affixed to the cover. Using wrench WR-519, lid bolts to removable spider assuring a WATER-TIGHT SEAL. Global Drilling Suppliers will provide custom I.D. tag engraving upon request.

MATERIALS Body, cover, and skirt: cast iron LD. plate and spider: brass

MODEL NUMBER	WEIGHT/LBS.	WRENCH	REPLACEMENT GASKET	INCHES			
				DIA. A	DIA. B	DIA. C	"L" D
MB-519-9	32.0	WR-519	G-519-9	11.00	8.00	9.31	9.37

Additional varieties of flush mount well covers are available from Global Drilling Suppliers, Inc. If you do not see a model you would like, feel free to call us at (800) 356-6400 for more information.

EXHIBIT 8

ORIGINAL

Phase II Soil and Groundwater Investigation
Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky
ID # 3903-056
ATEC Project No. 23-07-93-00386



Prepared by:

ATEC Associates, Inc.
2815 Watterson Trail
Louisville, Kentucky 40299

Prepared for:

Mr. Tony Mitchell
Louisville Hardwoods
2045 Silver Street
New Albany, Indiana 47150

January 26, 1995

EX8

ATEC[®] Associates, Inc.



2815 Watterson Trail
Louisville, Kentucky 40299-3868
(502) 267-8355, FAX (502) 267-8528

January 27, 1995

Louisville Hardwoods
2045 Silver Street
New Albany Indiana 47150

Attention: Mr. Tony Mitchell

Re: Phase II Soils and Groundwater Investigation
Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky
ID # 3903-056
ATEC Project No. 23-07-93-00386

Dear Mr. Mitchell:

ATEC Associates, Inc. (ATEC) is pleased to submit this summary report of the additional soils and groundwater investigation conducted at the above referenced facility in December 1994. Previous soil and groundwater investigations conducted by ATEC from October 1992 (Project Nos. 23-07-92-00321 and 23-07-92-00322) through July 1993 (ATEC Project No. 23-07-93-00066) disclosed the presence of adsorbed and dissolved petroleum hydrocarbons associated with gasoline, specifically, benzene, toluene, ethylbenzene, and xylene (BTEX) at the site. These investigations and the corrective action were conducted to evaluate the vertical and horizontal extent of hydrocarbon impacted soils detected during the closure of the underground storage tank (UST) at the facility in September 1992. As part of the site closure process, the Kentucky Division of Waste Management (KDWM) Underground Storage Tank Branch requested an additional site investigation which involved soil and groundwater sampling in order to evaluate the response to the remedial system installed in August 1993 prior to issuing a letter of closure.

The purpose of this investigation was to address these concerns. ATEC proposed to drill four (4) additional soil borings adjacent to and near the center of the former UST pit and to collect two (2) groundwater samples from monitoring wells GW-6 and GW-8.

A total of four (4) soil samples and two (2) groundwater samples were submitted for laboratory analysis for BTEX. The analytical results for the soils indicated the presence of the BTEX constituent xylene at 1 part per million (ppm) in boring B-10, near the center of the former UST pit, and 11 ppm in soil boring B-9, south of the UST pit. BTEX constituents were not detected in the soil samples submitted for analysis from borings B-8 or B-11. Dissolved BTEX was not detected in the groundwater samples analyzed above the laboratory quantitation limit of 5 parts per billion (ppb).

Mr. Tony Mitchell
Page 2

January 27, 1995

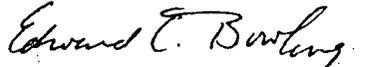
The analytical results do not indicate that further groundwater treatment would be required.

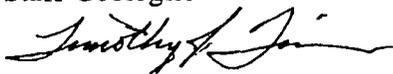
New site closure regulations were promulgated by the State of Kentucky in February 1994 which established action levels for the various BTEX constituents based on the following criteria: site geology, soil type, and depth to groundwater. These parameters were used to develop a series of matrix tables for site classification. For this study site, Matrix Table II would be utilized. The site is underlain by the Ohio River alluvium (Quaternary) which consists of a fine to medium grain sand with an average depth to groundwater of 38 ft. or 11.5 meters. The new regulations establish the following BTEX constituent action levels: benzene: 20 ppm; toluene: 230 ppm; ethylbenzene: 550 ppm; and xylene: 200 ppm. Xylene was the only BTEX constituent detected at levels of 1 ppm and 11 ppm. Based on the new regulations and laboratory results, ATEC recommends contacting the KDWM and requesting site closure.

We trust the attached report is responsive to your needs. If you have any questions or comments regarding this investigation, or if we can be of further service to you in the future, please feel free to contact us at (502) 267-8355.

Very truly yours,

American Testing and Engineering Corporation
ATEC Associates, Inc.


Edward C. Bowling, C.P.G.
Staff Geologist


Timothy J. Quinn, C.P.G.
Senior Project Manager


James K. Jarman, C.P.G.
Manager, Environmental Services

Copies Submitted: (2) Mr. Tony Mitchell

EXECUTIVE SUMMARY

ATEC Associates, Inc. conducted a Phase II Subsurface Investigation of the former Louisville Hardwoods plant located at 1698 St. Louis Avenue in Louisville, Jefferson County, Kentucky, facility I.D. number 3903-056. This included drilling four (4) soil borings adjacent to and near the center of the former UST pit and collecting two (2) groundwater samples. Results of the soil and groundwater samples analyzed were used to evaluate the performance of a remedial system installed in August 1993 and to provide assessment data prior to requesting site closure from the KDWM. Soil and groundwater samples were collected and analyzed for the presence of petroleum hydrocarbons associated with gasoline, specifically, benzene, toluene, ethylbenzene, and xylene (BTEX).

Previous subsurface evaluation of the site conducted by ATEC from October 1992 through July 1993 indicated hydrocarbon impacted soils and groundwater were present on the subject site in borings adjacent to the former gasoline UST pit. ATEC designed and installed a bioremediation and groundwater treatment system for in-situ remediation of the hydrocarbon impacted soils and groundwater.

Four (4) soil borings were drilled on-site and a soil sample from each boring was submitted for laboratory analysis for BTEX constituents. BTEX constituents were detected in the soil samples from borings B-9 and B-10 at reported levels of 11 parts per million (ppm) xylene and 1 ppm xylene respectively.

In addition, existing groundwater monitoring wells GW-6 and GW-8 were developed and sampled. These groundwater samples were also laboratory analyzed for BTEX constituents. The analytical results did not indicate the presence of BTEX above the laboratory quantitation limit of 5 parts per billion (ppb).

No further groundwater treatment should be required, as four (4) consecutive quarters of groundwater sampling have occurred and dissolved BTEX has not been detected.

The Kentucky Division of Waste Management (KDWM) UST Branch should be contacted regarding the results of this investigation. New regulations regarding action levels for BTEX were promulgated by the State in February 1994. These regulations establish the action levels based on geologic setting, soil matrix and depth to groundwater. At the study site, the geologic setting is in the Ohio River alluvium (Quaternary) with a sand soil matrix and a depth to groundwater at an average depth of 38 ft. or 11.5 meters. Based on this data, the regulations utilize Matrix Table II which allows the following BTEX levels: benzene: 20 ppm; toluene: 230 ppm; ethylbenzene: 550 ppm; and xylene: 200 ppm. Based on the analytical result of 1 ppm xylene and 11 ppm xylene, ATEC recommends requesting a letter of site closure from the State. ATEC further recommends that if a letter of closure is received, all on-site monitoring wells and the remediation system be properly abandoned.

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Phase II Soil and Groundwater Investigation
Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky
I.D. No. 3903-056
ATEC Project No. 23-07-93-00386

1.0 INTRODUCTION

A TEC Associates, Inc. (ATEC) was retained by Louisville Hardwoods to perform a subsurface site investigation at the former Louisville Hardwoods plant located at 1698 St. Louis Avenue in Louisville, Kentucky. The purpose of this investigation was to evaluate the progress of the soil and groundwater remediation system installed in August 1993 in order to request site closure from the Kentucky Division of Waste Management (KDWM). This investigation was performed by collecting soil samples adjacent to and near the center of the former UST pit and collecting groundwater samples from two (2) of the existing monitoring wells. This site investigation was authorized by Mr. Tony Mitchell of Louisville Hardwoods on December 5, 1994. A vicinity map showing the location of the site is provided on Figure 1.

A TEC performed a series of subsurface investigations and prepared a corrective action plan (CAP) for the subject property from October 1992 (Project Nos. 23-07-92-00321 and 23-07-92-00322) through July 1993 (Project No. 23-07-93-00066). This investigation was performed to determine if the soils and groundwater had responded to the soil and groundwater remediation system installed in August 1993. Analytical results of soil and groundwater samples collected from the soil borings and monitoring wells indicated that the subject site has responded to the site remediation.

A total of four (4) soil borings were drilled at the site during the December 1994 study. Soil samples were collected and described for subsurface characterization and submitted for laboratory analysis. Two (2) of the existing monitoring wells (GW-6 and GW-8) were developed and groundwater samples were collected to characterize groundwater quality at the site.

The following report describes the work performed, documents the analytical results, details our findings, and presents conclusions regarding the site.

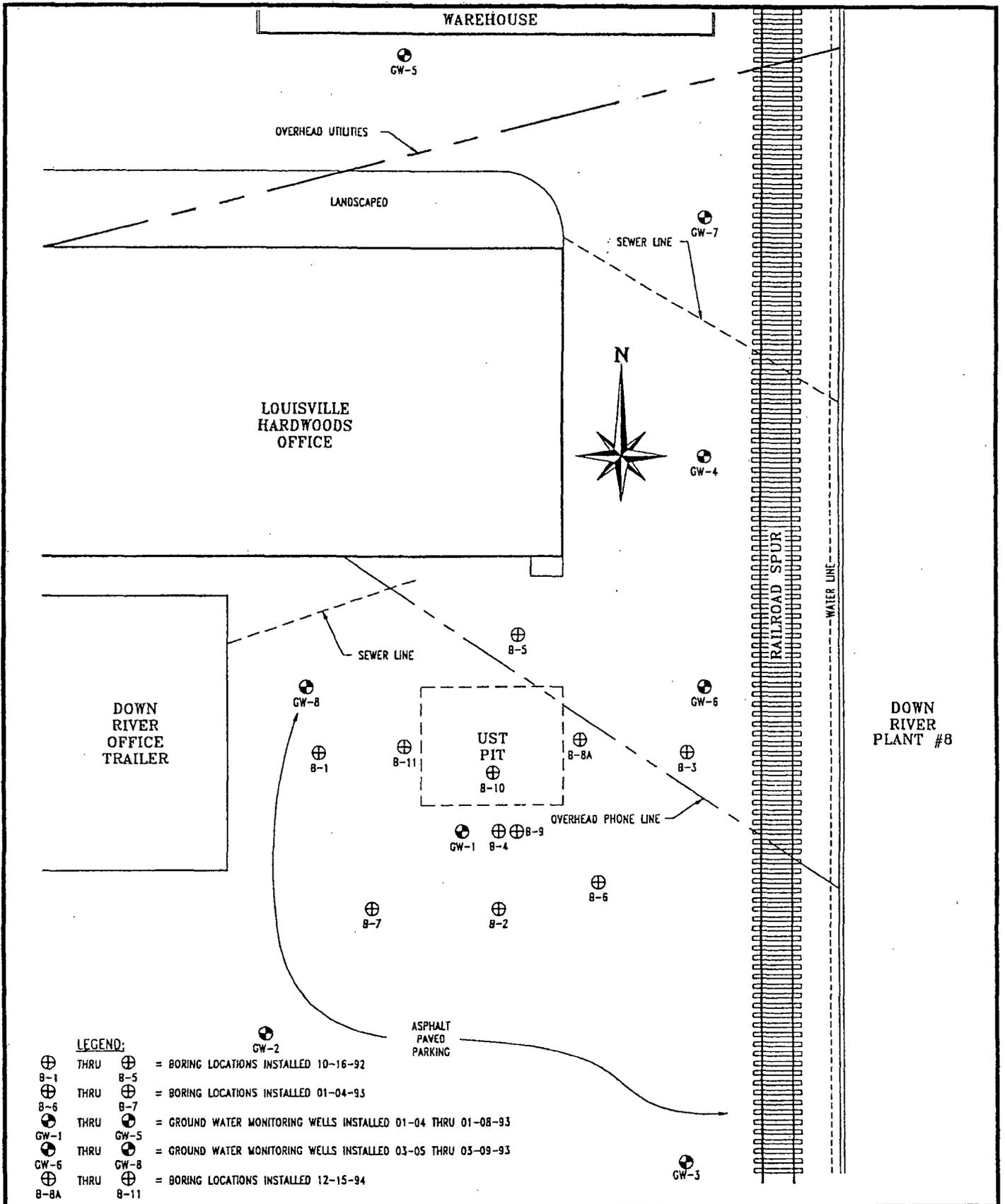
2.0 SCOPE OF WORK

The project scope of work performed by ATEC in December 1994 included a soil and groundwater sampling program to evaluate subsurface conditions at the subject site. This work was undertaken to further evaluate the performance of the soil remediation and groundwater treatment that has been conducted at the site since August 1993 as part of the process to request site closure from the KDWM.

2.1 Previous Subsurface Investigations

During the removal of a 1000 gallon nominal capacity UST at the site, adsorbed hydrocarbon constituents associated with gasoline, specifically, benzene, toluene, ethylbenzene, and xylene (BTEX) were detected above the Kentucky state action level of 1 part per million (ppm) in closure samples. As a result, ATEC performed a series of subsurface investigation from October 1992 through July 1993 (ATEC Project Nos. 23-07-92-00261, 23-07-92-00321, 23-07-92-00322 and 23-07-93-00066). A total of eight (8) soil borings and nine (9) monitoring wells were drilled and installed on the study site through these investigations to determine the extent of hydrocarbon impacted soil and groundwater. Based on the analytical results it appeared that impacted soils were present on the south side of the UST pit at a depth of 10 ft. in boring B-4 (see Figure 2). The adsorbed BTEX level at this location was 22 parts per million (ppm) toluene, 16 ppm ethylbenzene, and 120 ppm xylene at a depth of 8.5 ft to 10 ft.

The potentiometric gradient at the site was .02 ft. per linear foot in May 1993 sloping southeast to northwest. Phase separate hydrocarbons (PSH) were not noted in the monitoring wells and only dissolved hydrocarbons were detected in the laboratory analysis. BTEX constituents were detected in the groundwater samples collected from GW-6 and GW-8.



LEGEND:

- ⊕ THRU ⊕ = BORING LOCATIONS INSTALLED 10-16-92
- ⊕-1 THRU ⊕-5 = BORING LOCATIONS INSTALLED 01-04-93
- ⊕-6 THRU ⊕-7 = BORING LOCATIONS INSTALLED 01-04-93
- ⊕-1 THRU ⊕-5 = GROUND WATER MONITORING WELLS INSTALLED 01-04 THRU 01-08-93
- ⊕-6 THRU ⊕-8 = GROUND WATER MONITORING WELLS INSTALLED 03-05 THRU 03-09-93
- ⊕-8A THRU ⊕-11 = BORING LOCATIONS INSTALLED 12-15-94

BORING LOCATION PLAN
LOUISVILLE HARDWOODS, Inc.
 1698 St. LOUIS AVENUE
 LOUISVILLE, KENTUCKY

DATE
 01-24-95

PROJECT No.
 23-07-93-00386

SCALE
 1" = 20'

FIGURE No.
 2



The soil and groundwater samples were analyzed for BTEX via EPA publication SW846 method 8240.

2.2 Remediation Activities

In order to remediate the site, a bioremediation and groundwater treatment was proposed and installed for two-fold purpose. One was to withdraw vapor phase hydrocarbons via a series of extraction points connected to a Rotron blower. Secondly, air was drawn into the subsurface through the vacuum pull of the Rotron blower. This air added to the available oxygen supply to promote and sustain the hydrocarbon biodegradation activities of indigenous microorganisms.

Time requirements for completion of any program are dependent upon many different factors including the nature and complexity of the compositions present. Temperature, pH, salinity, amount of aeration and moisture are also factors for consideration.

Some compositions are more easily degraded than others. Straight-chained hydrocarbon compounds generally breakdown much more quickly than aromatic or cross-linked hydrocarbons. It may take longer to break down a large number of different compositions than if fewer are present. The viscosity and quantity of petroleum to be degraded influence the time required for the program.

Aeration is crucial as the initial degradation steps require oxygen. Furthermore, bacteria operate more efficiently aerobically. Aeration also provides agitation which increases the oil/water interface surface area dramatically, and thus will allow the bacteria to have a greater opportunity to degrade the hydrocarbon constituents.

To treat the impacted groundwater, an Unusual Discharge Permit (UDR) was applied for through the Louisville Metropolitan Sewer District. This application requested the permission to discharge approximately 10,000 gallons per month over a one (1) year period into the sanitary sewer system. This request was approved and groundwater was withdrawn from monitoring well GW-1 (see Figure 2).

The KDWM had requested quarterly groundwater samples be collected and analyzed for the presence of dissolved BTEX on a quarterly basis. The analytical results did not detect BTEX constituents over the past three (3) quarters.

2.3 Subsurface and Groundwater Investigation - December 1994

The December 1994 investigation was performed to evaluate site remediation in the anticipation of obtaining site closure if the soils and groundwater were below the respective laboratory quantitative limits.

A total of four (4) soil borings were drilled during this phase of the project. The locations of the soil borings are displayed on Figure 2.

2.3.1 Soil Sampling - Methodology

Soil samples were collected at 5 foot intervals using carbon steel split-spoon samplers. The split spoons were decontaminated between sample collection using the following method: a non-phosphate detergent, followed by a tap water rinse, a methanol rinse to remove any remaining hydrocarbons and a final rinse with deionized water.

Two (2) soil samples were collected from each sampling interval. One (1) sample was placed into a 4.0 ounce glass jar with teflon lined lids and preserved on ice. The second soil sample was placed in a 4.0 ounce glass jar, sealed with aluminum wrap, and later field screened for the presence of petroleum hydrocarbon vapors utilizing a Microtip photoionization detector (PID). The soil sample that exhibited the highest reading was submitted for laboratory analysis following standard chain-of-custody procedures.

A TEC's field procedures require the following information be placed on each sample jar label: project name, project number, date, time, sample location, and sampler's initials. Moreover, when the samples are prepared for shipment, a chain-of-custody accompanies the samples in shipment.

A copy of an ATEC chain-of-custody may be found in with the attached analytical report. A completed chain-of-custody requires the project number, project name, client, sampler's signature, sample I.D., and the date and time samples are relinquished. The receiver must also sign and date the chain-of-custody upon receipt. This method is to ensure sample integrity throughout the project.

Each sample submitted for analysis requires that the date and time of collection be recorded, preservation techniques, sample type, and number of containers. The analysis requested is also marked and the sample interval is recorded.

Soil borings were installed and alphanumerically labeled to be consistent with those installed in the previous studies and are B-8A, B-9, B-10, and B-11. A previous soil boring numbered B-8 was drilled off-site in St. Louis Avenue during the July 1993 study. These soil borings are on site and adjacent to the UST pit.

ATEC utilized a truck mounted Mobile Drill B-57 to drill the soil borings. The drill was steam pressure washed prior to arriving on-site. Hollow stem augers were utilized to drill each soil boring. After each boring was completed, the boring was backfilled with the cuttings.

2.3.2 Groundwater Sampling

Groundwater monitoring wells GW-6 and GW-8 were developed by purging three (3) well volumes utilizing a new, decontaminated disposable bailer. Each well was allowed to recharge and sampled. Groundwater samples were placed in 40 ml glass vials with teflon septa lids, and placed on ice for transport to the laboratory following standard chain-of-custody procedures.

3.0 FINDINGS

3.1 Site Geology and Hydrogeology

The study site is located in a developed, urban area of Louisville, Kentucky and is approximately 470 feet above mean sea level with a relatively flat topography. Surface water flows to the west and leaves the property via storm drains located along St. Louis Avenue.

According to the Jefferson County, Kentucky, soil survey, the site is associated with the Wheeling-Weinbach-Huntington association. These soils consists of deep, well drained to poorly drained soils on wide, nearly level to sloping soils on ridges and bottoms along the Ohio River. The surface layer and the upper part of the subsoil is formed in mixed sediment that washed from the upper part of the Ohio River basin. The soils range up to 45 inches in depth.

The site is underlain by Quaternary outwash deposits (Wisconsin). These deposits are characterized as sand, gravel, silt, and clay. The deposits represent alluvium by a river of low gradient following release of glacial meltwater. The alluvium ranges up to 130 ft. in thickness.

The subsurface lithology of the site was described based on split-spoon samples collected during the drilling activity. Each sample interval was visually inspected by an ATEC field geologist and classified using the Unified Soil Classification System (USCS). The sample descriptions were recorded on boring logs and are included in Appendix C. Directly beneath the asphalt surface a brown and black sand was encountered to drill depths of 3.0 ft. below the ground surface (bgs). This soil also had brick fragments and is most likely fill. Beneath this material, a brown to black, fine to medium grained sand was present and extended to a drill depth of 8.5 ft. to 13.5 ft. bgs. Underlying this fine grain sand was a medium grained, brown sand. The subsurface material sampled in boring B-10 consisted of tank pit backfill material, silt, and sand. This extended to

boring termination at 20 ft. bgs in all borings. Groundwater was not encountered in any of the soil borings.

3.2 Analytical Results - Soil Samples

The split-spoon samples from each boring were field screened by an ATEC geologist using a Microtip HL-2000 calibrated to an isobutylene gas standard of 100 ppm. The sample that had the highest PID reading or that exhibited unusual characteristics, such as color variation or notable hydrocarbon odors, was submitted for laboratory analysis. The PID responses are recorded on the soil boring logs and are displayed on Table 1. A copy of the analytical report is presented in Appendix C. One (1) sample was submitted for analysis from each boring. A total of four (4) soil samples were laboratory analyzed during this project and are described below and summarized on data tables found in Appendix A.

3.2.1 BTEX Results

Each soil sample was analyzed for petroleum hydrocarbons associated with gasoline, specifically, benzene, toluene, ethylbenzene, and xylene (BTEX) via USEPA publication SW846 method 8240. Laboratory results indicated the presence of adsorbed BTEX in the soil samples from borings B-9 and B-10. These data are presented in Table 2 and indicate the presence of total BTEX from 1 ppm to 11 ppm. The soil samples submitted from borings B-8 and B-11 did not have adsorbed BTEX constituents above the laboratory quantitation limit of 1 part per million.

3.3 Analytical Results - Groundwater

Groundwater samples were collected from monitoring wells GW-6 and GW-8 on December 15, 1994. Samples were laboratory analyzed for BTEX. Results of groundwater sampling are summarized on Table 3 and copies of the analytical data can be found in Appendix C.

3.3.1 BTEX Results

Dissolved phase petroleum hydrocarbons associated with gasoline were not detected in the water samples above the laboratory quantitation limit of 5 parts per billion.. The analytical data is presented on Table 3. Copies of analytical reports in Appendix C and the summary table may be found in Appendix A.

4.0 CONCLUSIONS

The purpose of this study was to evaluate the performance of the soil remediation and groundwater treatment that has been conducted at the site since August 1993. Four (4) soil borings were drilled adjacent to and near the center of the former UST pit and provided information regarding the progress of site remediation. Soil samples were collected and analyzed for BTEX. Laboratory analysis of the samples indicated the presence of adsorbed petroleum hydrocarbons near the center and south of the former UST pit at levels of 1 ppm xylene and 11 ppm xylene, respectively.

Two (2) of the existing groundwater monitoring wells were sampled for analysis. Laboratory data indicates that BTEX constituents were not detected above the laboratory quantitation limit of 5 ppb.

The KDWM-UST Branch has promulgated regulatory levels for BTEX analytical parameters. The regulations base the action levels upon the soil type, bedrock type, and depth to groundwater. The subject site would therefore, be classified utilizing Matrix Table II (see Appendix D) based on the geologic setting and underlying alluvium. Furthermore, the subject site would be a Class IV closure. This designation stipulates that a site does not meet the requirements of any other class or has exceeded the allowable levels specified in the groundwater worksheet. In this specific case, the BTEX level in the groundwater is below the laboratory quantitative limit of 5 ppb.

Based on our investigation, adsorbed hydrocarbons remain in the soils analyzed near the center and adjacent to the south wall of the former UST pit below the permitted levels

on Matrix Table II. The remedial system installed on site has reduced the total adsorbed BTEX level previously detected in soils south of the pit (boring B-4). This comparative data, along with the appropriate data from Matrix Table II, is presented on Table 4.

The groundwater samples collected from monitoring wells GW-6 and GW-8 did not have dissolved petroleum hydrocarbons detected above the laboratory quantitation limit.

5.0 RECOMMENDATIONS

ATEC recommends requesting site closure from the Kentucky Division of Waste Management-UST Branch. The analytical data from soil samples collected adjacent to the east and west walls of the former UST pit were below the laboratory quantitation limit of 1 part per million (ppm). Soil samples were also collected from near the center and adjacent to the south wall of the former UST pit. These analytical results indicated the presence of adsorbed xylene at levels of 1 ppm and 11 ppm respectively. These analytical results are below the new BTEX levels established by the KDWM on soil Matrix Table II. Moreover, the groundwater collected and analyzed from the site exhibited non-detect levels of BTEX constituents at the laboratory quantitation limit of 5 parts per billion (ppb). ATEC further recommends that upon the receipt of site closure from the KDWM, all on-site monitoring wells be properly abandoned and the removal of the remediation system.

6.0 QUALIFICATIONS

The conclusions presented in this report are professional opinions based solely upon visual observations and supplemental testing of soil and/or groundwater at the site. Our interpretation of the available historical information and documents reviewed, as described in this report, were also considered in the conclusions. This report is intended for the sole use of Louisville Hardwoods. The scope of services performed in execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. This company is not responsible for the independent conclusions, opinions, or recommendations made by others based on the records review, site observations, field exploration, and laboratory test data presented in this report.

It should be noted that environmental evaluations are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. For these types of evaluations, it is often necessary to use information prepared by others and ATEC cannot be responsible for the accuracy of such information. Additionally, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not investigated.

The present study included a limited number of borings across the entire project site. The conclusions drawn from the investigation are considered reliable, however, there may exist localized variations in subsurface conditions that have not been completely defined at this time. It should be noted that subsurface conditions may be better delineated with increased subsurface exploration including test pits, soil borings with sample collection and laboratory testing, and surface geophysical survey techniques.

REFERENCES

Geologic Map of parts of the Louisville West and Lanesville Quadrangles, Jefferson County, Kentucky, Roy C. Kepferle, USGS, 1974.

Louisville West Quadrangle, 7.5 Minute Series Topographic Map, USGS, 1989.

Soil survey of Jefferson County, Kentucky, United States Department of Agriculture, 1966.

APPENDIX A

Data Tables

TABLE 1
PID Responses
Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky

Soil Boring	3.5 - 5	8.5 - 10	13.5 - 15	18.5 - 20
B-8	10.9	1339	70.0	26.4
B-9	40.9	75.5	1207	339
B-10	99.0	521	542	313
B-11	13.1	10.1	6.7	7.7

Readings collected December 15, 1994
Readings in **Bold** were submitted for laboratory analysis

TABLE 2
BTEX Soil Sample Analytical Results
Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky

Soil Boring	Interval	Benzene	Toluene	Ethylbenzene	Xylene
B-8	8.5-10	<1	<1	<1	<1
B-9	13.5 - 15	<1	<1	<1	11
B-10	13.5 - 15	<1	<1	<1	1
B-11	18.5-20	<1	<1	<1	<1

Samples collected December 15, 1994
 Analyzed by ATEC Associates, Inc., Indianapolis, Indiana
 BTEX units in mg/kg - parts per million (ppm)

TABLE 3
BTEX Groundwater Analytical Results
Former Louisville Hardwoods Plant
1698 St. Louis Avenue
Louisville, Kentucky

Sample I.D.	Benzene	Toluene	Ethylbenzene	Xylene
GW-6	<5	<5	<5	<5
GW-8	<5	<5	<5	<5

Samples collected December 15, 1994
Analyzed by ATEC Associates, Inc., Indianapolis, Indiana
BTEX units in ug/l - parts per billion (ppb)

TABLE 4
 BTEX Soil Sample Analytical Results
 Former Louisville Hardwoods Plant
 1698 St. Louis Avenue
 Louisville, Kentucky

Soil Boring	Interval	Benzene	Toluene	Ethylbenzene	Xylene
B-4	8.5-10	<1	22	16	120
B-9	13.5-15	<1	<1	<1	11
Current Kentucky Action Levels*		20	230	550	200

Soil sample B-4 collected October 1992
 Soil sample B-8 collected December 1994
 Analyzed by ATEC Associates, Inc., Indianapolis, Indiana
 BTEX units in mg/kg - parts per million (ppm)
 * Source - Kentucky State UST Regulations, February 1994

APPENDIX B

Soil Boring Logs

CLIENT: Louisville Hardwoods, Inc.
 PROJECT NAME: Former Louisville Hardwoods Plant
 LOCATION: Louisville, Kentucky

BORING NUMBER: B-8A
 PROJECT NUMBER: 23-07-93-00386
 PROJECT MANAGER: E. Bowling

Surface Elevation:
 Date Started: 12/15/94
 Date Completed: 12/15/94

Hammer Weight: 140 lbs.
 Hammer Drop: 30 in.
 Drill Foreman: J. Wharton

Hole Dia.: 7.5 in.
 Boring Method: HSA
 Inspector: E. Bowling

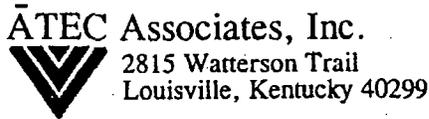
ELEV	MATERIAL DESCRIPTION	LAYER DEPTH & TYPE	DEPTH SCALE	SAMPLE DATA					NOTES
				NO	BLOWS	TYPE	REC	PID ppm	
	SAND (SP) - black-brown with brick fragments (fill)								About 4 inches asphalt over 6 inches aggregate was encountered at the ground surface.
	SAND (SP) - brown, fine grain, silty	3.0		1	Push	SS	18	10.9	
	SAND (SP) - brown to tan, fine to medium grain, dry	8.5		2	Push	SS	14	1339*	
				3	Push	SS	15	70.0	
				4	Push	SS	18	26.4	Borehole was dry at the completion of drilling.
	TERMINATED	20.0							

CLIENT: Louisville Hardwoods, Inc.
 PROJECT NAME: Former Louisville Hardwoods Plant
 LOCATION: Louisville, Kentucky

BORING NUMBER: B-9
 PROJECT NUMBER: 23-07-93-00386
 PROJECT MANAGER: E. Bowling

Surface Elevation: Hammer Weight: 140 lbs. Hole Dia.: 7.5 in.
 Date Started: 12/15/94 Hammer Drop: 30 in. Boring Method: HSA
 Date Completed: 12/15/94 Drill Foreman: J. Wharton Inspector: E. Bowling

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH & TYPE	DEPTH SCALE	SAMPLE DATA					NOTES
				NO	BLOWS	TYPE	REC	PID ppm	
	SAND (SP) - fine grain with black sand (fill)								About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface.
	SAND (SP) - fine to medium grain, silty, brown, dry	3.0		1	Push	SS	18	40.9	
	SAND (SP) - medium grain, brown to tan, well sorted	8.5		2	Push	SS	15	75.5	Slight hydrocarbon odor 8.5 to 15 ft.
				3	Push	SS	10	1207*	
				4	Push	SS	12	339.0	*Sample submitted for analysis.
	TERMINATED	20.0							
									Borehole was dry at the completion of drilling.



ENVIRONMENTAL SOIL TEST BORING LOG

CLIENT: Louisville Hardwoods, Inc.
PROJECT NAME: Former Louisville Hardwoods Plant
LOCATION: Louisville, Kentucky

BORING NUMBER: B-10
PROJECT NUMBER: 23-07-93-00386
PROJECT MANAGER: E. Bowling

Surface Elevation: Hammer Weight: 140 lbs. Hole Dia.: 7.5 in.
Date Started: 12/15/94 Hammer Drop: 30 in. Boring Method: HSA
Date Completed: 12/15/94 Drill Foreman: J. Wharton Inspector: E. Bowling

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH & TYPE	DEPTH SCALE	SAMPLE DATA					NOTES
				NO	BLOWS	TYPE	REC	PID ppm	
	SAND (SP) - medium grain brown with rounded gravel (tank pit backfill)			1	Push	SS	16	99.0	About 3 inches of asphalt was encountered at the ground surface.
				2	Push	SS	18	521.0	
	SAND (SP) - brown to tan, fine to medium grain, dry, with sand (SP), black (fill)	13.5		3	Push	SS	14	542*	
				4	Push	SS	11	313.0	
	TERMINATED	20.0							Borehole was dry at the completion of drilling.
									Black sand - fill from upper 3 ft. in non-disturbed area.

CLIENT: Louisville Hardwoods, Inc.
 PROJECT NAME: Former Louisville Hardwoods Plant
 LOCATION: Louisville, Kentucky

BORING NUMBER: B-11
 PROJECT NUMBER: 23-07-93-00386
 PROJECT MANAGER: E. Bowling

Surface Elevation: Hammer Weight: 140 lbs. Hole Dia.: 7.5 in.
 Date Started: 12/15/94 Hammer Drop: 30 in. Boring Method: HSA
 Date Completed: 12/15/94 Drill Foreman: J. Wharton Inspector: E. Bowling

ELEV	MATERIAL DESCRIPTION	LAYER DEPTH & TYPE	DEPTH SCALE	SAMPLE DATA					NOTES
				NO	BLOWS	TYPE	REC	PID ppm	
	SAND (SP) - brown with sand (SP) black (fill)	3.0							About 4 inches asphalt over 2 inches aggregate was encountered at the ground surface.
	SAND (SP) - brown, fine grain silty, dry		5	1	Push	SS	15	13.1	
	SAND (SP) - fine to medium grain, brown to tan, dry, well sorted	8.5	10	2	Push	SS	14	10.1	
			15	3	Push	SS	9	6.7	
			20	4	Push	SS	18	7.7*	*Sample submitted for analysis. Borehole was dry at the completion of drilling. No unusual odor or discoloration noted.
	TERMINATED		25						
			30						
			35						

APPENDIX C

Soil and Groundwater

Analytical Results

December 1994



Solid & Hazardous Waste Site Assessments
Remedial Design & Construction
Underground Tank Management
Asbestos Surveys & Analysis
Hydrogeologic Investigations & Monitoring
Analytical Testing / Chemistry
Industrial Hygiene / Hazard Communication
Environmental Audits & Permitting
Exploratory Drilling & Monitoring Wells

January 5, 1995

Mr. Ed Bowling
ATEC Environmental Services
2815 Watterson Trail
Louisville, KY 40299-3868

Re: Four Soil BTEX
Two Water BTEX
Louisville Hardwoods
ATEC Work Order Number 9412235
ATEC Project Number 23-07-93-00386

Dear Mr. Bowling:

Attached is a thirteen page report of results for the Organic Analyses for the four soil and two water samples which were submitted to the ATEC Environmental/Analytical Testing Division on December 16, 1994, on behalf of Louisville Hardwoods. The BTEX samples were analyzed on a Finnigan Inco 50 GC/MS/DS system, complete with Superincos Software, via SW 846 Method 8240A for Purgeable Organic Compounds. Prior to analysis, the system was tuned against Bromofluorobenzene and calibrated with the appropriate standard.

The analytical procedures are performed in accordance with the ATEC Analytical Standard Operating Procedures, which are based on the methods referenced in this report. These SOPs are available for your review upon request.

All Soil results are reported on an "as received" basis unless otherwise specified. Any associated Quality Control information will be maintained in the Testing Division files, a copy of which can be forwarded to you upon request. After a thirty-day period, a fee will be assessed for this additional information.

A Definition of LIMS Terms is included in this report for your convenience. Two copies of this Analytical Report are being provided for your records. Additional copies can be provided at a minimum cost of \$30.00 per copy. It has been a pleasure serving you and, as always, if there are any questions concerning these results or the ATEC policies, please feel free to contact me.

Respectfully submitted,

ATEC ASSOCIATES, INC.



Mary McGill-Maxwell
GC/MS Group Leader
Environmental/Analytical
Testing Division

MMM/feb

ATEC Associates, Inc.
 2815 Watterson Trail
 Louisville, KY 40299-3869
 FAX (502) 267-8528
 Attn: Ed Bowling
 Invoice Number:

Order #: 94-12-235
 Date: 01/03/95 12:42
 Work ID: L'ville Hardwood 2307-9300386
 Date Received: 12/16/94
 Date Completed: 01/03/95

SAMPLE IDENTIFICATION

ATEC Sample Number	Client Sample Description	ATEC Sample Number	Client Sample Description
01	B-8 (8.5-10)	02	B-9 (13.5-15)
03	B-10 (13.5-15)	04	B-11 (18.5-20)
05	GW-8	06	GW-6

This report shall not be reproduced except
 in full, without approval of the Laboratory.

Mary McGill-Maxwell
 Certified By
 Mary McGill-Maxwell

Received: 12/16/94

ATEC Associates REPORT

Work Order # 94-12-235

REPORT COMMENTS

LIMS General Definition of Terms

Order Number: ATEC Laboratory Identification for your sample set.
(Please reference this number with any correspondence)

Sample Number: ATEC Laboratory Identification for individual samples with the set.

Sample Description: Your Sample Identification

Test Description: Analytical Test

Result: Analytical Value Obtained

Result Qualifiers: < denotes less than
> denotes greater than
N/A denotes not applicable
NR denotes not reported
J denotes analyte detected but amount present is less than the Quantitation Limit
M denotes analyte spiked with matrix spike compound
B denotes analyte found in method blank
ND not detected

Units: Unit of Measurement

Limit: Denotes Quantitation Limit: Limit of reliability based on the sample quantity analyzed, the sample matrix, and the analytical method sensitivity

Analyzed: Optional Field for Date Analyzed

By: Optional Field for Test Analyst

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID B-8A(8.5-10) TEST CODE BTEX S NAME Volatile BTEX
 FRACTION D1A Date & Time Collected 12/15/94 Category SOIL

DATE ANALYZED	<u>12/21/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>10</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	
Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u><1.0</u>	<u>1.0</u>

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID B-9 (13.5-15) TEST CODE BTEX S NAME Volatile BTEX
 FRACTION 02A Date & Time Collected 12/15/94 Category SOIL

DATE ANALYZED	<u>12/22/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>125</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	
Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u>11</u>	<u>1.0</u>

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID B-10 (13.5-15) TEST CODE BTEX S NAME Volatile BTEX
 FRACTION Q3A Date & Time Collected 12/15/94 Category SOIL

DATE ANALYZED	<u>12/22/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>125</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	

Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u>1.0</u>	<u>1.0</u>

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID B-11 (18.5-20) TEST CODE BTEX S NAME Volatile BTEX
 FRACTION 04A Date & Time Collected 12/15/94 Category SOIL

DATE ANALYZED	<u>12/20/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	

Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u><1.0</u>	<u>1.0</u>

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID GW-8 TEST CODE BTEX S NAME Volatile BTEX
 FRACTION Q5A Date & Time Collected 12/15/94 Category WATER

DATE ANALYZED	<u>12/20/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>H. McGill</u>
UNITS	<u>ug/L</u>
COMMENTS:	
Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><5</u>	<u>5</u>
Toluene	108-88-3	<u><5</u>	<u>5</u>
Ethylbenzene	100-41-4	<u><5</u>	<u>5</u>
Total Xylenes		<u><5</u>	<u>5</u>

A TEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID GW-6 TEST CODE BTEX S NAME Volatile BTEX
 FRACTION 06A Date & Time Collected 12/15/94 Category WATER

DATE ANALYZED	<u>12/20/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>ug/L</u>
 COMMENTS: _____	
 Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><5</u>	<u>5</u>
Toluene	108-88-3	<u><5</u>	<u>5</u>
Ethylbenzene	100-41-4	<u><5</u>	<u>5</u>
Total Xylenes		<u><5</u>	<u>5</u>

A TEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID Method Blank TEST CODE BTEX S NAME Volatile BTEX
FRACTION Q4C Date & Time Collected _____ Category SOIL

DATE ANALYZED	<u>12/20/94</u>
INSTRUMENT	<u>Incoe BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	_____ _____
Analytical Method: SU 846 Method 8240A	

PURGEABLE AROMATICS

PARAMETER	CAS #	RESULT	LIMIT
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u><1.0</u>	<u>1.0</u>

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID Method Blank TEST CODE BTEX S NAME Volatile BTEX
 FRACTION 04D Date & Time Collected _____ Category SOIL

DATE ANALYZED	<u>12/21/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknie</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	
_____ _____	
Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u><1.0</u>	<u>1.0</u>

A TEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID Method Blank TEST CODE BTEX S NAME Volatile BTEX
 FRACTION 04E Date & Time Collected _____ Category SOIL

DATE ANALYZED	<u>12/22/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>mg/kg</u>
COMMENTS:	

Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><1.0</u>	<u>1.0</u>
Toluene	108-88-3	<u><1.0</u>	<u>1.0</u>
Ethylbenzene	100-41-4	<u><1.0</u>	<u>1.0</u>
Total Xylenes		<u><1.0</u>	<u>1.0</u>

ATEC Associates REPORT

Work Order # 94-12-235

Received: 12/16/94

SAMPLE ID Method Blank TEST CODE BIEX S NAME Volatile BIEX
 FRACTION Q68 Date & Time Collected _____ Category WATER

DATE ANALYZED	<u>12/20/94</u>
INSTRUMENT	<u>Incos BV2</u>
DILUTION FACTOR	<u>1</u>
ANALYST	<u>R. Booknis</u>
VERIFIED BY	<u>M. McGill</u>
UNITS	<u>ug/L</u>
COMMENTS:	

Analytical Method: SW 846 Method 8240A	

PURGEABLE AROMATICS

<u>PARAMETER</u>	<u>CAS #</u>	<u>RESULT</u>	<u>LIMIT</u>
Benzene	71-43-2	<u><5</u>	<u>5</u>
Toluene	108-88-3	<u><5</u>	<u>5</u>
Ethylbenzene	100-41-4	<u><5</u>	<u>5</u>
Total Xylenes		<u><5</u>	<u>5</u>

CHAIN OF CUSTODY RECORD

PROJ. NO. 230743-00526			PROJECT NAME <i>Louisville Hardwoods</i>								LAB PROJ. NO. 9412235		LABORATORY ANALYSIS						
CLIENT <i>Louisville HARDWOODS</i>			SAMPLERS: (Signature) <i>[Signature]</i>											SAMPLE LOCATION / REMARKS <i>Down Limb soil</i> <i>1 ppm for H₂O</i> <i>SPR6 for H₂O</i>					
SAMPLING METHOD			SAMPLERS: (Signature)																
SAMPLE I.D. NO.	DATE	TIME	COMPOSITE	GRAB	WATER	SOIL	FILTERED	ACIDIFIED	ICED	NUMBER OF CONTAINERS	LAB I.D. NUMBER	VOLATILE ORGANICS BTX & E	TOTAL HYDROCARBONS PCBS						
B8A	12/15/94	9:41				X			X	1	1						8.5-10		
B9	12/15/94	7:45				X			X	1	2						15.5-15		
B10	12/15/94	10:37				X			X	1	3						13.5-15		
B11	12/15/94	11:38				X			X	1	4						16.5-20		
GW8	12/15/94	6:30			X				X	2	5						GW-8		
GW6	12/15/94	2:45			X				X	2	6						GW-6		
Relinquished by: (Signature)			Date / Time			Received by: (Signature)			Relinquished by: (Signature)			Date / Time			Received by: (Signature)				
<i>[Signature]</i>			12/15/94 4:25			<i>[Signature]</i>													
Relinquished by: (Signature)			Date / Time			Received for Laboratory by: (Signature)			Date / Time			Project Manager / Phone #:							
						<i>[Signature]</i>			12-16-94 4:00										

ATEC Environmental Consultants
 Division of ATEC Associates, Inc.
 5150 East 85th Street
 Indianapolis, Indiana 46220-4871
 (317) 849-4990, FAX # (317) 849-4278

JAN-27-95 FRI 11:21

ATEC INDY LAB

FAX NO. 13178427932

P. 06

APPENDIX D

KDWM - Soil Matrix Table II

MATRIX TABLE II

SOIL TYPE	DEPTH TO GROUNDWATER (METERS)	DISTANCE TO HYDROGEOLOGICALLY DOWN-GRADIENT PROPERTY LINE, DOMESTIC USE WELL, SPRING OR WELL HEAD PROTECTION AREA, OR ENVIRONMENTALLY SENSITIVE FEATURES		
		0 - 100 METERS <u>B/T/E/X:(PPM)</u>	100 - 300 METERS <u>B/T/E/X:(PPM)</u>	> 300 METERS <u>B/T/E/X:(PPM)</u>
SAND	5.5	0.01/2.0/2.0/15	0.040/180/450/200	20/230/550/200
	7.5	0.025/7.0/4.0/40	1.0/230/550/200	20/230/550/200
	10.5	0.06/19/10/85	2.0/230/550/200	20/230/550/200
	13.5	0.135/40/20/190	5.0/230/550/200	20/230/550/200
	23.5	1.25/230/215/200	20/230/550/200	20/230/550/200
SILT	5.5	<u>B/T/E/X:(PPM)</u> 0.035/2.0/4.0/40	<u>B/T/E/X:(PPM)</u> 1.4/170/550/200	<u>B/T/E/X:(PPM)</u> 20/230/550/200
	7.5	0.30/40/25/200	10/230/550/200	20/230/550/200
	10.5	6.0/230/180/200	20/230/550/200	20/230/550/200
	13.5	7.0/230/550/200	20/230/550/200	20/230/550/200
	23.5	20/230/550/200	20/230/550/200	20/230/550/200
CLAY	5.5	<u>B/T/E/X:(PPM)</u> 0.18/45/40/200	<u>B/T/E/X:(PPM)</u> 7.0/230/550/200	<u>B/T/E/X:(PPM)</u> 20/230/550/200
	7.5	20/230/550/200	20/230/550/200	20/230/550/200
	10.5	20/230/550/200	20/230/550/200	20/230/550/200
	13.5	20/230/550/200	20/230/550/200	20/230/550/200
	23.5	20/230/550/200	20/230/550/200	20/230/550/200

EXHIBIT 9

PHILLIP J. SHEPHERD
SECRETARY



BRERETON C. JONES
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

FRANKFORT OFFICE PARK
14 REILLY ROAD
FRANKFORT, KENTUCKY 40601

March 1, 1995

ATTN TONY MITCHELL
LOUISVILLE HARDWOODS INC
1698 ST LOUIS AVENUE
LOUISVILLE KY 40210

RE: Louisville Hardwoods
1698 St. Louis Ave
Louisville - Jefferson County
UST ID # 3903-056
Tank(s): One (1) 1,000 Gallon Gasoline

Dear Mr. Mitchell:

The Division of Waste Management personnel have reviewed the information contained in the Closure Assessment Report signed October 28, 1992 and subsequent data submitted on behalf of Louisville Hardwoods. This data indicates that no concentrations of hydrocarbon constituents for which you analyzed remain within the tank pit area above acceptable method detection limit with the exception of xylene, which is below the most stringent cleanup goal established for an alluvium soil under 401 KAR 42:080E.

From your analyses, the Division agrees that this site has satisfied the requirements of Kentucky Revised Statute 224.60-105 and Kentucky Administrative Regulation 401 KAR 42:070. The Division has based this determination on information submitted by Norman Estes Excavating and ATEC, Inc. and reserves all rights to require additional monitoring or testing and to take whatever action is necessary to protect public health and the environment if the Division determines there is a need for further investigation.

For information on possible reimbursement of permanent closure costs, contact the Petroleum Storage Tank Environmental Assurance Fund Commission at (502)564-5981 or 1-800-928-7782.

Sincerely,

A handwritten signature in dark ink, appearing to read "Doyle Mills", with a horizontal line extending to the right.

Doyle Mills, Manager
Underground Storage Tank Branch
Division of Waste Management

DM/GPOB/jb

c: Lesley Henney, Louisville Regional Office
Tracking
PSTEAFB
Jerry O'Bryan
File (2)
Ed Bowling, ATEC



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EX9

EXHIBIT 10



Former Black Leaf Chemical
1340 S. 17th St. Louisville, KY 40210

- Approximate location of leaking drums
- Approximate location of oil-like, black staining on the ground

EXHIBIT 11



AIR POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



914 East Broadway • Louisville, Kentucky 40204

O P E R A T I N G P E R M I T

Permit No. 240-89 Effective Date Aug 30, 1989 Expiration Date Aug 30, 1992

Permit Fee \$38.00 EIS Plant 0715 EIS Emission Pt(s) 01

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Louisville Hardwoods, Inc., 1698 St Louis Ave, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof.

Permit covers:

1,000 gallon gasoline storage tank equipped with vapor recovery, submerged fill tube, and pressure vacuum vent valve. This permit covers the addition of the control equipment to an existing tank. Usage in 1988: 18,600 gallons.

Max Permitted Cap 1,000 gallons Permitted Oper Schedule 24x7x52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	TSP	SO2	VOC	CO	NOx	Other	Basis: % Rated Capacity	Max Permitted Oper Hrs/Yr
---------------------	-----	-----	-----	----	-----	-------	-------------------------	---------------------------

Lbs/Hr NA

Tons/Yr NA

VOID

Applicable Regulation(s) 6.15

Process Reference NA Date 10-19-89 PM 75

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

Emissions Bank Code Ref. _____

Bubble Reference _____

Applicant for Permit Charles P. Cox

Title Plant Engineer Application Dated Aug 4, 1989

Reviewing Engineer (23)

Air Pollution Control Officer

EXHIBIT 12



AIR POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

OPERATING PERMIT

Permit No. 133-89

Co./Plant ID 0715

Effective Date Aug 30, 1992

Expiration Date Aug 30, 1994

Permit Fee 1325.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Louisville Hardwoods, Inc., 1698 St. Louis Ave., Louisville, KY

In accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Carter-Day bag collector, model 232RF10, used to control emissions from air conveying operation. Collection eff. - 99.9%.

Max Permitted Cap 28,000 cfm Permitted Oper Schedule 24x7x52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	<u>TSP</u>	<u>SO2</u>	<u>VOG</u>	<u>CO</u>	<u>NOx</u>	<u>Other</u>
Lbs/Hr	<u>2.34</u>					
Tons/Yr	<u>10.2</u>					

Special Restrictions on Emissions (see page 2)

Nil

Applicable Regulation(s) 7.02

The requirements of Regulation 1.04 shall be followed for any source testing.

Process Reference Permit 133-89

Neither EMISSIONS OFFSET nor PSD applicable to the granting of this permit.

Emissions Bank Code Ref _____

Bubble Reference _____

Applicant for Permit S. Endria Burlong

Title Vice President

Application Received Jul 27, 1992

Douglas L. Sullivan
Revising Engineer (08)

William J. ...
Air Pollution Control Officer

EXHIBIT 13



AIR POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

OPERATING PERMIT

Permit No. 83-03 Co/Plant ID 0715
 Effective Date Aug 30, 1992 Expiration Date Aug 30, 1994 Permit Fee \$525.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Louisville Hardwoods, Inc., 1698 St Louis Ave, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Prut - Daniel multi-cyclone dust collector, model 8BV - # 6-10, to control boiler fly ash emissions

Max Permitted Cap 34,500 cfm Permitted Oper Schedule 8720 hours

Fuels Used: Primary NA Secondary NA

Allowable Emissions	<u>TSP</u>	<u>SO2</u>	<u>NO2</u>	<u>CO</u>	<u>NOx</u>	<u>Other</u>
Lbs/Hr	<u>14.2</u>					

Special Restrictions on Emissions (see page 2)

Tons/Yr 64.4 Date 10/11/93 BY M.S.D.

Applicable Regulation(s) 6.07

The requirements of Regulation 1.04 shall be followed for any source testing.

Process Reference Permit 87-83

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

Emissions Bank Code Ref. _____

Stipple Reference _____

Applicant for Permit E. Endcia Eurlong

Title Vice President

Application Received Jul 21, 1993

Douglas J. Gilman
 Reviewing Engineer (06)

[Signature]
 Air Pollution Control Officer

(3742-5400-12287)

EXHIBIT 14

RECEIVED

APR 30 1993

AGREEMENT

ID 00329

A.P.C.D.

This agreement is made by and between the AIR POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY, a public body corporate and a political subdivision of the Commonwealth of Kentucky (District) and LOUISVILLE HARDWOODS, INC., a Kentucky corporation (Company).

1. This agreement administratively settles the alleged violation by Company of District Regulation 1.14 CONTROL OF FUGITIVE PARTICULATE EMISSIONS. District alleges that Company on March 15, 1993 at 1698 St. Louis Avenue allowed sawdust and wood shavings to cross its property line as stated in Notice of Violation Letter 00080 dated March 23, 1993.

2. In order to avoid litigation and without Company admitting liability, the parties agree that Company shall pay \$125 to the Air Pollution Control District of Jefferson County by April 9, 1993: \$125 was received by the District on April 7, 1993.

3. In the event it shall be necessary for District to seek a court order to enforce this agreement, Company shall pay the filing fees and costs of any such action.

Dated this 25th day of April, 1993.

AIR POLLUTION CONTROL DISTRICT
OF JEFFERSON COUNTY

LOUISVILLE HARDWOODS, INC.

BY: Billy J. Sexton
BILLY J. SEXTON, P.E.
ACTING DIRECTOR

BY: A. J. Mitchell
A. J. MITCHELL
EXECUTIVE VICE PRESIDENT and
GENERAL MANAGER

APPROVED AS TO FORM AND
LEGALITY:

BY: Gaylord B. Ballard
GAYLORD B. BALLARD
ATTORNEY

02:Legal93:hh

EXHIBIT 15



AIR POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

CONDITIONAL OPERATING PERMIT

Permit No. 87-83-0 Co./Plant ID 0715
 Effective Date Aug 30, 1984 Expiration Date Aug 30, 1995 Permit fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE PROCESS equipment located at:

Down River Forest Products, Inc. 1391 Dixie Highway, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Henry Vogt water tube boiler, model VL-3.

Max Permitted Cap 35 million BTU per hour Permitted Oper Schedule 24x7x52 hr/yr.

Fuels Used: Primary Wood waste, 8000 BTU/lb. Secondary NA

Allowable Emissions	TSP	SO ₂	VOC	CO	NO _x	Other	Special Restrictions on Emissions (see page 2)
Lbs/Hr	<u>*</u>	<u>3.43</u>	_____	_____	_____	_____	<u>Yes</u>
Tons/Yr	<u>*</u>	<u>15.0</u>	_____	_____	_____	_____	

Applicable Regulation(s) 46.07

The requirements of Regulation 1.04 shall be followed for any source testing.

Control Reference *Permit 80-86

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

Emissions Bank Code Ref. _____

Bubble Reference _____

Applicant for Permit E. Endris Yurkova Date 8/31/99 By 3186

Title Vice President Application Received Nov 16, 1984



 Reviewing Engineer (46)

VOID

 Air Pollution Control Officer

Additional conditions applicable to this permit are attached hereto and made part hereof on page 2. (6733-14206)



AIR POLLUTION CONTROL DISTRICT
OF JEFFERSON COUNTY

850 Barret Ave. • Louisville, Kentucky 40204



Permit 87-88 Page 2

Plant ID 0715

ADDITIONAL CONDITIONS

Wood waste will be the only fuel used in this boiler.

COMMENTS/EXPLANATIONS

Estimated actual emissions from AP-42 calculation are 1.8 tons per year
of sulfur dioxide.

(5388-6733-14206)

CAN
7/25/94

1015
8/31/99 EME

EXHIBIT 16



A. POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

O P E R A T I N G P E R M I T

Permit No. 89-83-0 Co/Plant ID 0215
 Effective Date Aug 30, 1994 Expiration Date Aug 30, 1999 Permit Fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Down River Forest Products, Inc. 1381 Dixie Highway, Louisville, KY

In accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Carter-Day bag collector, model 23ERF10, used to control emissions from air conveying operation. Collection eff. - 99.9%.

Max Permitted Cap 29,500 cfm Permitted Over Schedule 24hrs/52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	<u>TSP</u>	<u>SO2</u>	<u>VOC</u>	<u>CO</u>	<u>NOx</u>	<u>Other</u>	Special Restrictions on Emissions (see page 2)
Lbs/Hr	<u>2.34</u>	_____	_____	_____	_____	_____	<u>No</u>
Tons/Yr	<u>10.2</u>	_____	_____	_____	_____	_____	_____

Applicable Regulation(s) 7.03

The requirements of Regulation 1.04 shall be followed for any source testing.

Control Reference Permit 133-89

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

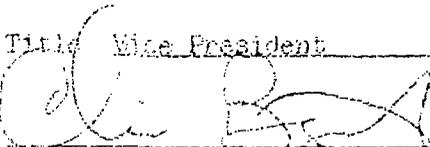
Emissions Bank Code Ref. _____

VOID

Bubble Reference _____

Applicant for Permit E. Endris Furlong Date 2/26/99 By SKK

Title Vice President Application Received Jul 27, 1989



 Reviewing Engineer (46)

 Air Pollution Control Officer

(6733-14206)

EXHIBIT 17

EXHIBIT 18



A. POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barrett Ave. • Louisville, Kentucky 40204

O P E R A T I N G P E R M I T

Permit No. 385-85-0 Co./Plant ID 0715
 Effective Date Aug 30, 1984 Expiration Date Aug 30, 1989 Permit Fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE PROCESS equipment located at:

Down River Forest Products, Inc. 1391 Dixie Highway, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

Williams crusher/pulverizer Size 4 Jumbo Hog, Serial No. 8077.
 Wood waste from this hogger is blown to cyclone of permit 90-83.

Max Permitted Cap 3000 pounds per hour Permitted Oper Schedule 24x7x88 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	<u>TSP</u> <u>SO2</u> <u>VOC</u> <u>CO</u> <u>NOx</u> <u>Other</u>	Special Restrictions on Emissions (see page 2)
Lbs/Hr	<u>*</u> _____	<u>No</u>
Tons/Yr	<u>*</u> _____	

Applicable Regulation(s) #6.03

The requirements of Regulation 1.04 shall be followed for any source testing.

Control Reference *Permit 134-89 and Permit 90-83

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

VOID

Emissions Bank Code Ref. _____

Bubble Reference _____

Date 8/31/99 BY EMG

Applicant for Permit E. Endris Wurland

Title Vice President

Application Received Jul 27, 1983

 Revising Engineer (46)

 Air Pollution Control Officer

(5733-14206)

EXHIBIT 19



A POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

O P E R A T I N G P E R M I T

Permit No. 133-89-0

Co./Plant ID 0715

Effective Date Aug 30, 1994

Expiration Date Aug 30, 1999

Permit Fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Down River Forest Products, Inc. 1391 Dixie Highway, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Kirk & Blum high efficiency cyclone, Type C-7, Size 42, used to separate sawdust and wood shavings from the air of a pneumatic conveying system. Input is less than 400 pounds per hour.

Max Permitted Cap 32,800 cfm Permitted Oper Schedule 24x7x52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	Special Restrictions on Emissions (see page 2)
TSP <u>*</u>	<u>No</u>
SO ₂ <u>*</u>	
VOC <u>*</u>	
CO <u>*</u>	
NO _x <u>*</u>	
Other <u>*</u>	
Tons/Yr <u>*</u>	

Applicable Regulation(s) 7.05

The requirements of Regulation 1.04 shall be followed for any source testing.

Control Reference #Permit 89-83

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

Emissions Bank Code Ref. _____

VOID

Bubble Reference _____

Applicant for Permit Charles Cox Date 3/31/99 by Emma

Title Plant Engineer Application Received May 12, 1989

Reviewing Engineer (46)

Air Pollution Control Officer

(6733-14206)

EXHIBIT 20



A. POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

OPERATING PERMIT

Permit No. 134-89-0

Co./Plant ID 0715

Effective Date Aug 30, 1994

Expiration Date Aug 30, 1999

Permit Fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Loma River Forest Products, Inc. 1321 Dixie Highway, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Carter Day fabric filter, model 144 RJ 120. Receives air from cyclone covered under permit 90-83.

Max Permitted Cap 35,355 cfm Permitted Oper Schedule 24x7x52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	<u>TSP</u>	<u>SO2</u>	<u>VOC</u>	<u>CO</u>	<u>NOx</u>	<u>Other</u>
Lbs/Hr	<u>4.5</u>					
Tons/Yr	<u>19.7</u>					

Special Restrictions on Emissions (see page 2)

No

Applicable Regulation(s) 5.03

The requirements of Regulation 1.04 shall be followed for any source testing.

Process Reference Permit 87-83 and Permit 385-85 Control Ref: Permit 20-83

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

Emissions Bank Code Ref. _____

Bubble Reference _____

Applicant for Permit Al Ryan Date 8/31/99 By Jrma

Title General Manager Application Received May 12, 1989


Reviewing Engineer (46)

Air Pollution Control Officer

VOID

EXHIBIT 21



AIR POLLUTION CONTROL DISTRICT
OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204

OPERATING PERMIT

Permit No. 159-23-0 Co./Plant ID 0715
Effective Date Apr 22, 1994 Expiration Date Aug 30, 1999 Permit Fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Owens River Forest Products, Inc., 1891 Dixie Highway, Louisville, KY

in accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Donaldson-Day baghouse model # 373, controlling emissions from Jumbo bag, with a maximum process weight of 3000 pounds per hour.

Max Permitted Cap 45,000 cfm Permitted Oper Schedule 24x7x52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	TSP	SO ₂	VOC	CO	NO _x	Other
lbs/Hr	<u>4.62</u>					
Tons/Yr	<u>20.1</u>					

Special Restrictions
on Emissions
(see page 2)

No

Applicable Regulation(s): 7.02

The requirements of Regulation 1.04 shall be followed for any source testing.

Process Reference Permit 325-85

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

VOID

Emissions Bank Code Ref. _____

Subtle Reference _____

Applicant for Permit Al Ryan Date 2/10 By 8/31/99

Title General Manager Application Received Mar 22, 1994

Ed M. Allmon
Revising Engineer (46)

Ed M. Lambert
Air Pollution Control Officer

(505: 5540 18120)

2/12/98

EXHIBIT 22



JEFFERSON COUNTY, KENTUCKY
DEPARTMENT OF PLANNING AND ENVIRONMENTAL MANAGEMENT
AIR POLLUTION CONTROL DISTRICT

DAVID L. ARMSTRONG
County Judge/Executive

NOTICE OF VIOLATION LETTER 00080

ADRIAN P. FREUND
Department Director

ROBERT T. OFFUTT
District Director

LOUISVILLE HARDWOODS, INC.
A. J. MITCHELL EXEC.VP GENMGR
1698 ST LOUIS AVENUE
LOUISVILLE KY 40210 1732

March 23, 1993

Dear Mr. A. J. Mitchell:

Based upon our investigation, the Air Pollution Control District of Jefferson County alleges that you violated District regulations as described in the attached report.

Failure to prevent the reoccurrence of this violation could result in additional penalties. If you have any questions on what is required, please contact Samuel Bate at 574-6000.

KRS Chapter 77 AIR POLLUTION CONTROL provides that every person who violates any provision of KRS 77.155 or 77.165 shall be guilty of a violation and shall be fined not more than \$500 nor less than \$10 for each offense. Every day or any portion thereof during which any violation of these sections occurs or continues shall constitute a separate offense. Every person who violates any provision of KRS 77.180 to 77.240 shall be guilty of a violation and shall be fined not more than \$500 nor less than \$10 for each offense. Such violations are prosecuted as criminal complaints in either Jefferson Circuit Court or Jefferson District Court. Taxation of court costs against a defendant, upon conviction, will depend upon the court in which the complaint is filed.

However, by Board policy, I am authorized to offer you an alternative administrative means of settlement. Pursuant to the District's Civil Penalty Policy, an appropriate settlement would be \$500 which would be made part of an administrative agreement.

850 BARRET AVENUE
LOUISVILLE, KENTUCKY 40204-1745
(502) 574-6000
FAX (502) 574-5306

An Equal Opportunity Employer

Please let Mr. Gayle Ballard, our attorney, know of your decision as to which method you prefer. If you wish, a conference may be arranged at which time you may be represented by counsel. Contact him at 574-6000 no later than 04/02/93.

Sincerely,


Billy J. Sexton, P.E.
AIR POLLUTION CONTROL OFFICER

enc: Incident Report(s)
c: APCO, Attorney, Chief Compliance, CDS Coordinator, Chief
Engineer
file: MNR19301

INCIDENT/VIOLATION REPORT
DATE PRINTED 03/23/93

INCIDENT INVESTIGATION REPORT

.....
INCIDENT ID 00329 DATE LOGGED IN 03/18/93
ORIGIN OF INCIDENT COMPLAINT DATE AND TIME INCIDENT 03/15/93
FIRST OBSERVED 11:50 AM

OWNER/OPERATOR Louisville Hardwoods, Inc.
RESPONSIBLE PARTY A. J. Mitchell, Exec.VP GenMgr
CONTACT INFORMATION 1698 St Louis Avenue
Louisville, KY 40210-1732
502-635-5277

INCIDENT ADDRESS 1698 St Louis Avenue
Louisville, KY 40210-1732

INCIDENT DESCRIPTION:

APCD received a complaint that Louisville Hardwood is blowing wood particles all over Wilson Avenue and is causing a nuisance to the neighborhood. The neighbors are worried that they have to breath this material.

INVESTIGATION REPORT:

Arrived on site of Louisville Hardwoods and viewed cyclone emissions depositing on Wilson Avenue.

Proceeded to complainants property on Wilson Avenue and took samples from their property and on the street and curb. The cyclone was raining down sawdust and/or wood shavings on us as complainant and I stood and discussed the facts of this incident. Pictures were taken of these emissions from Louisville Hardwoods cyclone. Before leaving Wilson Avenue an accumulation of this sawdust powder was discovered all over my APCD automobile windshield.

Proceeded to Louisville Hardwoods' Plant and was shown their cyclone area by Mr. Tony Mitchell, General Manager. Maintenance man noticed that they had a problem and proceeded to correct. They had a baghouse vacuum pump malfunction, it "kicked off", he went over and switched it on again. They stated that it doesn't happen often, rarely. This, they explain, is due to weather, temperature changes, moisture, etc.

Upon arriving back at the APCD Office the Malfunction Log was consulted and no malfunction was on file.

Louisville Hardwoods did by their failure to correct or report the malfunction of their cyclone baghouse vacuum pump return permit wood particulate matter to become airborne, transported beyond their property line to the surrounding neighborhood causing nuisance and discomfort to their neighbors in violation of APCD Regulation #1.14 - Control of Fugitive Particulate Emissions.

LAB WORK? Y TEST PERFORMED? N
AFFECTED FACILITY ID PERMITTED SOURCE? Y

INVESTIGATOR Samuel Bate
INVESTIGATION STATUS COMPLETE
SUPERVISOR Jerry Schlatter
DATE OF FINAL ACTION 03/18/93 ACTION VIOLATION

VIOLATION REPORT

THE ABOVE INCIDENT INVESTIGATION SHOWS THAT YOU HAVE VIOLATED THE FOLLOWING REGULATIONS. YOUR COMPLIANCE STATUS AND THE VIOLATION PENALTY IS INDICATED.

REGULATION 1.14 AMENDED 01/20/88 SECTION 02 SUBSEC 02 INCID=00329
TITLE CONTROL OF FUGITIVE PARTI EMMISIONS REGID=10041

ARE THEY IN COMPLIANCE NOW? Y DATE COMPLIANCE CONFIRMED OR ORDER DATE 03/15/93
COMPLIANCE NOTE:

The baghouse vacuum pump was turned on.

DESCRIPTION OF HOW INCIDENT VIOLATED REGULATION:

The baghouse vacuum pump had failed to activate during cyclone functioning and sawdust and wood shavings were not filtered or removed due to equipment malfunction allowing particulate discharge into the ambient air.

CALCULATED PENALTY \$250 VIOLATION TYPE LOCAL

REGULATION 1.14 AMENDED 01/20/88 SECTION 02 SUBSEC 04 INCID=00329
TITLE CONTROL OF FUGITIVE PARTICULATE EMISSIONS REGID=10043

ARE THEY IN COMPLIANCE NOW? Y DATE COMPLIANCE CONFIRMED OR ORDER DATE 03/15/93
COMPLIANCE NOTE:

Cyclone discontinued raining particulates into neighborhood.

DESCRIPTION OF HOW INCIDENT VIOLATED REGULATION:

Cyclone baghouse failure allowed sawdust and wood shavings to be discharged into ambient air crossing their property line taken by the prevailing winds through the surrounding residential neighborhood.

CALCULATED PENALTY \$250 VIOLATION TYPE LOCAL

TOTAL CALCULATED PENALTY \$500

THE ATTACHED NOTICE OF VIOLATION LETTER 00080 INDICATES YOUR OPTIONS AND REQUIREMENTS YOU MUST MEET.

EXHIBIT 23

APCD INCIDENT INVESTIGATION REPORT

DATE PRINTED 03/30/12

INCIDENT ID 01523 DATE LOGGED IN 05/29/97
ORIGIN OF INCIDENT APPI DATE AND TIME 02/21/97
OF INCIDENT 04:00 PM

OWNER/OPERATOR Down River Forest Products, Inc.
RESPONSIBLE PERSON Al Ryan, General Manager
MAILING ADDRESS 1698 Saint Louis Ave
Louisville, KY 40210-
502-636-1128
INCIDENT LOCATION 1698 Saint Louis Ave
Louisville, KY

INCIDENT DESCRIPTION:

Complainant called regarding saw dust in air (white particiles) white dust on everything. This has been going on for awhile.

INVESTIGATION REPORT:

DATE: 02/21/97 TIME: 04:00 PM

Met with complainant at his home. He said visible emissions come out of the wood products plant, Down River Wood Products and get on his home and in the air. He showed me his front porch. There was dirt and dust on his porch and he said it had not been cleaned all winter. I took a sample from the floor of the porch. The sample does appear to have some wood particles in it. I looked at other areas of the house and yard. I did not see a lot of sawdust on these surfaces. Looking at the cyclone today I did not see visible emissions.

DATE: 02/24/97 TIME: 12:30 PM

Surveillance of source 2/24, 2/25, 2/26, 2/27. No visible emissions.

DATE: 02/25/97 TIME: 02:00 PM

Took sample to lab for analysis.

DATE: 03/13/97 TIME: 02:15 PM

Surveillance of source. No visible emissions. Called complainant. Cap 3623. Left message.

DATE: 03/17/97 TIME: 02:30 PM

Surveillance of source. No visible emissions. Spoke with complainant by phone. She has had sawdust on her property and is concerned about breathing the dust.

DATE: 03/19/97 TIME: 01:00 PM

Surveillance of source. No emissions. Visited source unannounced. Met with Al Ryan, Manager. I informed him of the 2 complaints. We discussed past major improvements done about 4 years ago which include an oversized collection system and we toured the plant. There were no visible emissions coming from the collection equipment at this time. I told him I had not seen visible emissions coming from the equipment during surveillance, however, I did see some wood particles in a sample I took from a complainant's porch. Mr. Ryan said most likely it is coming from the sawdust lying on the ground that the wind picks up. While we were talking a worker was wheeling out a 55 gal barrel of sawdust to put in the storage area and it was spilling out to the ground. Mr. Ryan said he has hired a new supervisor for the boiler operation and has plans to pave some areas around the plant so they can sweep up sawdust. He has plans to sweep the lot this spring with Doyle Allsweep. I noticed a major improvement since last year, their gravel lot is now paved. I had asked Mr. Ryan to keep it watered last year.

DATE: 03/24/97 TIME: 02:30 PM

Received call from complainant who said she had sawdust on her car this

morning. Met with her at her home. We looked around her home but did not see any wood fibers on her home. We did observe sawdust still on her car. I called Down River. Mr. Ryan was not there but Mr. Clark, Sales Manager, met us and observed the car. I approached a neighbor leaving in his car. He said it does not bother him, it's a lot better than it used to be. I also spoke with Beverly Tyler about the past problems here. Apparently there was a major problem here several years ago but the installation of control equipment has minimized the amount of particulates in the neighborhood. However with the houses and plant being extremely close together there is still some minimal amounts of fugitive sawdust that occurs on occasion. I took photos of the complainant's car.

DATE: 03/26/97 TIME: 10:00 AM

Received call from Al Ryan in regard to Mr. Clark meeting with us the other day. He said perhaps the reason for the sawdust being noticed on Monday was that on the weekend an old roof was being removed and replaced. The roofer had used a blower to clean the roof.

DATE: 03/27/97 TIME: 04:30 PM

I received a call from the complainant who said at 7:10pm Wednesday 3/26 she noticed a sickening sweet smell that she has noticed before and cream color dust coming from the plant. I called and spoke with Al Ryan of Down River. He said there should be no odor from the plant. He checked with employees and they said the sweet odor comes from Mother's Cookies. I called the complainant and left this information on her answering machine.

DATE: 03/28/97 TIME: 04:00 PM

Received results from lab: Four components; clear fibers, black agglomerates, reddish crystals and clear crystals. The fibers could be wood or cellulose. The other 3 components are like road dust or flyash. Called and gave results to complainant.

LAB WORK?	N	TEST PERFORMED?	N
AFFECTED FACILITY ID		PERMITTED SOURCE?	Y

SIGNATURE

INVESTIGATOR Nancy Kottak

SIGNATURE

SUPERVISOR Jerry Schlatter

DATE 06/06/97

ACTION SIGNED FOR: NO VIOLATE

COMMUNITY AIR POLLUTION REPORT NO 03590

RECEIVED BY Donna Anthony

DATE PRINTED 03/30/12

RECEIVED DATE 02/20/97

RECEIVED TIME 04:03pm

METHOD PHONE

COMPLAINANT'S STATEMENT:

Complainant called regarding saw dust in air (white particiles) white dust on everything. This has been going on for awhile. At work until 3:30 pm.

STATEMENT DETAILS:

POLLUTION TYPE PLANT DUST
DATE 1ST OBSERVED
TIME FIRST OBSERVED : am
OWNER OPERATOR OF SOURCE Louisville Cooperage
LOCATION OF SOURCE-ADDRESS 1700 Baldwin St

RESPONSE TO COMPLAINANT: OFFICER Nancy Kottak

DATE 02/21/97 TIME 04:00pm

RESPONSE NOTES

Met with complainant at 4pm at his home.

IF NOT RESPONDED TO REASON:

INVESTIGATION APPIID: 00931

IF NOT INVESTIGATED REASON:

REPORT STATUS: CLOSED

SUPERVISOR Jerry Schlatter

DATE COMPLETED/SIGNED 02/26/97

EXHIBIT 24

APCD INCIDENT INVESTIGATION REPORT
DATE PRINTED 03/30/12

INCIDENT ID 00748 DATE LOGGED IN 03/02/94
ORIGIN OF INCIDENT COMPLAINT DATE AND TIME 02/28/94
OF INCIDENT 09:53 AM

OWNER/OPERATOR Down River Forest Products, Inc.
RESPONSIBLE PERSON Al Ryan, General Manager
MAILING ADDRESS 1698 Saint Louis Ave
Louisville, KY 40210-
502-636-1128
INCIDENT LOCATION 1391 Dixie Hwy
Louisville, KY

INCIDENT DESCRIPTION:

Complainant stated that sawdust has been emitted again throughout community. There is sawdust on their vehicles parked on St. Louis Avenue.

INVESTIGATION REPORT:

When I arrived at the location of the complainant, I noticed immediately that several of the vehicles parked on St. Louis Avenue had sawdust like material on them. After taking several pictures and a sample, I decided to visit the company.

Once there, I met with Al Ryan, General Manager and Jim McKinney, operations control manager concerning the complaint and my findings at the complainant location. Mr. Ryan was very obviously surprised to see me. He also stated that they had had no malfunctions nor any other problems that they knew of. He and Mr. McKinney took me on a tour of the plant to show me some of the changes that they have made to the plant. I immediately noticed how clean the area was since my last visit there about 2 years ago. I also noticed that they had changed the entrance to plant to Dixie Highway instead of St. Louis Avenue because of complaints received concerning traffic.

I explained to Mr. Ryan that the complainant had stated that the emission occurred over the weekend and that was when Mr. Ryan and myself remembered that there was very high winds in our area both Friday and Saturday, which probably caused the sawdust that was on their grounds to be carried beyond their property line. Later confirming with the weather bureau that the wind was blowing at 37mph on Friday afternoon.

The sawdust was noticeable but based on previous emissions from this plant, I expected the emission to be much greater.

LAB WORK? N TEST PERFORMED? N
AFFECTED FACILITY ID PERMITTED SOURCE? N

SIGNATURE

INVESTIGATOR Beverly Slade

SIGNATURE

SUPERVISOR Jerry Schlatter

DATE 03/08/94

ACTION SIGNED FOR: NO VIOLATE

EXHIBIT 25



A. POLLUTION CONTROL DISTRICT OF JEFFERSON COUNTY



850 Barret Ave. • Louisville, Kentucky 40204
OPERATING PERMIT

Permit No. 169-94-0

Co./Plant ID 0715

Effective Date Apr 25, 1994

Expiration Date Aug 30, 1995

Permit Fee \$275.00

Permission is hereby given by the Air Pollution Control District of Jefferson County to OPERATE CONTROL equipment located at:

Down River Forest Products, Inc. 1391 Dixie Highway, Louisville, KY

In accordance with plans and specifications on file with the District and under the conditions stipulated on the reverse hereof. Permit covers:

One Donaldson-Day baghouse model # 376, controlling emissions from Jumbo hog, with a maximum process weight of 3000 pounds per hour.

Max Permitted Cap. 45,000 cfm Permitted Oper Schedule 24x7x52 hr/yr

Fuels Used: Primary NA Secondary NA

Allowable Emissions	<u>TSP</u>	<u>SO2</u>	<u>VOC</u>	<u>CO</u>	<u>NOx</u>	<u>Other</u>
Lbs/Hr	<u>4.62</u>					
Tons/Yr	<u>20.7</u>					

Special Restrictions
on Emissions
(see page 2)

No

Applicable Regulation(s) 7.03

The requirements of Regulation 1.04 shall be followed for any source testing.

Process Reference Permit 385-85

Neither EMISSIONS OFFSET nor PSD applicable in the granting of this permit.

Emissions Bank Code Ref. _____

Bubble Reference _____

Applicant for Permit Al Ryan

Title General Manager

Application Received Mar 25, 1994

[Signature]

Reviewing Engineer (48)

Air Pollution Control Officer

(6540-14116)

4/26/94

EXHIBIT 26

AIR POLLUTION PROBLEM INVESTIGATION REPORT NO 00406
DATE PRINTED 03/30/12

AIR POLLUTION PROBLEM DEFINITION:

DATE LOGGED IN 09/07/95

POLLUTION DUST
TYPE OF DUST
IMPACT AREA
RESPONSIBLE PARTY Unknown
SOURCE LOCATION 18th & St. Louis

DESCRIPTION OF PROBLEM

Complainant stated that there is sawdust on the car from the lumber yard at 18th and St. Louis.

ACTIVITY

DATE 08/22/95 TIME 11:30am BY Nancy Kottak

Met with the complainant and observed a slight dusting on his vehicle. I drove the area and found there are several woodworking companies in the area. I did not observe any emissions at this time.

DATE 08/28/95 TIME 12:00pm BY Nancy Kottak

I met with Al Ryan of Down River and explained that we had a complaint in the area and because he is the closest woodworking source I thought I should let him know we had a complaint. He rode with me to observe the dusting on a vehicle in the complainants neighborhood. There were no visible emissions coming from his plant. He checked with his maintenance superintendent and they did not know of any problems. I told him I would contact him if we continued to receive complaints. We have not received more complaints.

INVESTIGATION STATUS CLOSED HOW WAS IT CLOSED NO SOURCE FOUND
OFFICER ASSIGNED Nancy Kottak
ORIGIN CAPRPT
DATE SIGNED/CLOSED 10/30/95
SUPERVISOR/SIGNER Jerry Schlatter

INVESTIGATOR SIGNATURE _____

SUPERVISOR SIGNATURE _____

DATE SIGNED/CLOSED ___/___/___

COMMUNITY AIR POLLUTION REPORT NO 02561

RECEIVED BY Nancy Kottak

DATE PRINTED 03/30/12

RECEIVED DATE 08/28/95

RECEIVED TIME 09:30am

METHOD PHONE

COMPLAINANT'S STATEMENT:

The cars have been dusted again.

STATEMENT DETAILS:

POLLUTION TYPE	PLANT DUST
DATE 1ST OBSERVED	08/28/95
TIME FIRST OBSERVED	08:30am
OWNER OPERATOR OF SOURCE	Down River Forest Pr
LOCATION OF SOURCE-ADDRESS	1391 Dixie Highway

RESPONSE TO COMPLAINANT: OFFICER Nancy Kottak

DATE 08/28/95 TIME 09:30am

RESPONSE NOTES

Took information and discussed more dust on vehicles.

IF NOT RESPONDED TO REASON:

INVESTIGATION APPIID: 00406

IF NOT INVESTIGATED REASON:

REPORT STATUS: CLOSED

SUPERVISOR Jerry Schlatter

DATE COMPLETED/SIGNED 08/28/95

COMMUNITY AIR POLLUTION REPORT NO 02562

RECEIVED BY Nancy Kottak

DATE PRINTED 03/30/12

RECEIVED DATE 08/28/95

RECEIVED TIME 09:45am

METHOD PHONE

COMPLAINANT'S STATEMENT:

Dust is still getting on cars.

STATEMENT DETAILS:

POLLUTION TYPE	PLANT DUST
DATE 1ST OBSERVED	08/28/95
TIME FIRST OBSERVED	: am
OWNER OPERATOR OF SOURCE	Down River Forest Pr
LOCATION OF SOURCE-ADDRESS	1391 Dixie Hwy

RESPONSE TO COMPLAINANT: OFFICER Nancy Kottak

DATE 08/28/95 TIME 09:45am

RESPONSE NOTES

Took information and discussed more dust on vehicle.

IF NOT RESPONDED TO REASON:

INVESTIGATION APPIID: 00406

IF NOT INVESTIGATED REASON:

REPORT STATUS: CLOSED

SUPERVISOR Jerry Schlatter

DATE COMPLETED/SIGNED 08/28/95

COMMUNITY AIR POLLUTION REPORT NO 02535

RECEIVED BY Christina Oakes

DATE PRINTED 03/30/12

RECEIVED DATE 08/22/95

RECEIVED TIME 04:57pm

METHOD PHONE

COMPLAINANT'S STATEMENT:

Complainant stated that there is sawdust on the car from the lumber yard at 18th and St. Louis.

STATEMENT DETAILS:

POLLUTION TYPE	FUGITIVE DUST
DATE 1ST OBSERVED	08/22/95
TIME FIRST OBSERVED	04:57am
OWNER OPERATOR OF SOURCE	Unknown
LOCATION OF SOURCE-ADDRESS	18th & St. Louis

RESPONSE TO COMPLAINANT: OFFICER Nancy Kottak

DATE 08/22/95 TIME 09:30am

RESPONSE NOTES

Made appointment time to meet with complainant.

IF NOT RESPONDED TO REASON:

INVESTIGATION APPIID: 00406

IF NOT INVESTIGATED REASON:

REPORT STATUS: CLOSED

SUPERVISOR Jerry Schlatter

DATE COMPLETED/SIGNED 08/22/95

Printed: 03/30/12 13:01

REPORT:

DATE LOGGED 07/01/96

TIME LOGGED AM09:33

LOGGED BY OakCh

METHOD REC PHONE

CALLER STATEMENT

Taking boiler down for inspection week of July 1. Will be back on line July 10th.

PLANT NAME Down River Forest Products Inc

EQUIPMENT Boiler

POLLUTANT PART. OPACITY

START DATE 07/01/96

STOP DATE 07/10/96

REPORTED DATE 07/01/96

START TIME AM09:32

STOP TIME AM08:00

REPORTED TIME AM09:32

CALLER:

NAME Al Ryan

POSITION Gen Manager

PHONE 502-636-1128

FOLLOW UP: Eva M. Addison

PROBLEM DETAILS

Shut down equipment to inspect and service.

EQUIPMENT COVERED BY PERMIT NO 0087-83

TYPE OF MESS: PLANNED SU/SD

HARD COPY RQRD? Y 07/08/96

REPORT STATUS: CLOSED

APPIID IF INVESTIGATED

ACTION _____

NO ACTION

SUPERVISOR SIGNATURE: _____

Chris N. Bryant

DATE COMPLETED/SIGNED ____/____/____

07/08/96

ENGINEER SIGNATURE: _____

Printed: 03/30/12 13:01

REPORT:

DATE LOGGED 07/01/97
 TIME LOGGED AM07:40
 LOGGED BY AlsBa
 METHOD REC PHONE

CALLER STATEMENT

Taking boiler down for inspection on July 7 and will notify us when back up.

PLANT NAME Down River Forest Products Inc

EQUIPMENT boiler

POLLUTANT PART. OPACITY

START DATE 06/28/97

STOP DATE 07/08/97

REPORTED DATE 06/30/97

START TIME PM04:50

STOP TIME PM03:30

REPORTED TIME PM04:50

CALLER:

NAME Al Ryan

POSITION Gen Manager

PHONE 502-636-1128

FOLLOW UP: Eva M. Addison

PROBLEM DETAILS

Down for planned maintenance the first week of July and started a slow fire 7/7/97 and brought back up to full fire 7/8/97. Everything O.K.

EQUIPMENT COVERED BY PERMIT NO 0087-83

TYPE OF MESS: PLANNED SU/SD

HARD COPY RQRD? Y 07/07/97

REPORT STATUS: CLOSED

APPIID IF INVESTIGATED

ACTION _____

NO ACTION

SUPERVISOR SIGNATURE: _____

DATE COMPLETED/SIGNED ___/___/___

Chris N. Bryant

07/16/97

ENGINEER SIGNATURE: _____

REPORT:

DATE LOGGED 06/25/98
TIME LOGGED AM08:11
LOGGED BY AlsBa
METHOD REC PHONE

CALLER STATEMENT

Dwight Barnett called in that they are shutting down the boiler for their annual inspection. It is tentatively set to come back on about July 6 or 7.

7/6 Dwight Barnett called that they started the boiler at 8:00AM today. There is a 24 hr warm up period and it should be back up to pressure tomorrow.

PLANT NAME Down River Forest Products Inc

EQUIPMENT boiler

POLLUTANT PART. OPACITY

START DATE 06/25/98

STOP DATE 07/06/98

REPORTED DATE 06/25/98

START TIME AM08:08

STOP TIME AM08:00

REPORTED TIME AM08:08

CALLER:

NAME Dwight Barnett

POSITION

PHONE 502-636-1128

FOLLOW UP: Eva M. Addison

PROBLEM DETAILS

Planned shutdown for maintenance. Started boiler back up at 8:00 am on July 6, 1998. There is a 24 hour warm up and was back up to pressure on July 7, 1998.

EQUIPMENT COVERED BY PERMIT NO 0087-83

TYPE OF MESS: PLANNED SU/SD

HARD COPY RQRD? Y 06/25/98

REPORT STATUS: CLOSED

APPIID IF INVESTIGATED

ACTION _____

NO ACTION

SUPERVISOR SIGNATURE: _____

Chris N. Bryant

DATE COMPLETED/SIGNED ___/___/___

06/25/98

ENGINEER SIGNATURE: _____

LOUISVILLE METRO AIR POLLUTION CONTROL DISTRICT
FINAL COMPLIANCE EVALUATION REPORT
PRINTED March 30, 2012

Evaluation ID: 00716

Plant: 0715 Down River Forest Products Inc
Location: 1698 Saint Louis Ave
Louisville KY 40210

Owner/Operator: Mr. Al Ryan, General Manager
Mailing Address: Down River Forest Products, Inc.
1698 Saint Louis Ave
Louisville KY 40210
502-636-1128

Type of Evaluation: RE-INSPECTION

Scope of Evaluation:
scheduled inspection

Inspector: Melanie S. Davis
Date Assigned: 06/15/94
Supervisor: Chris N. Bryant
Date Complete/Signed: 09/26/94

Date Required: 08/31/94

.....
FINDINGS

The above compliance evaluation produced the following findings:

Finding ID: 00636 Date of Finding: 09/12/94 Time: 11:00 AM
Equipment & Requirements: Em. Unit or Permit:
Permit numbers 87-83, 89-83, 90-83, 385-85, 133-89, 134-89, and 169-94.

Findings Regarding This Item:

All equipment was operating during the inspection and it was determined that the source was operating in compliance with all applicable requirements.

Action: NO ACTION

Incident ID:

LOUISVILLE METRO AIR POLLUTION CONTROL DISTRICT
FINAL COMPLIANCE EVALUATION REPORT
PRINTED March 30, 2012

Evaluation ID: 01980

Plant: 0715 Down River Forest Products Inc
Location: 1698 Saint Louis Ave
Louisville KY 40210

Owner/Operator: Mr. Al Ryan, General Manager
Mailing Address: Down River Forest Products, Inc.
1698 Saint Louis Ave
Louisville KY 40210
502-636-1128

Type of Evaluation: RE-INSPECTION

Scope of Evaluation:

Inspector: Eva M. Addison
Date Assigned: 10/01/95 Date Required: 09/30/96
Supervisor: Chris N. Bryant
Date Complete/Signed: 06/17/96

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FINDINGS

The above compliance evaluation produced the following findings:

Finding ID: 02245 Date of Finding: 05/28/96 Time: 10:00 AM
Equipment & Requirements: Em. Unit or Permit: 00175
Permit #87-83 Henry Vogt water tube boiler
Permit #89-83 Carter-Day bag collector
Permit #90-83 (1) Kirk & Blum cyclone
Permit #385-85 Williams crusher/pulverizer Jumbo Hog
Permit #133-89 (1) Kirk & Blum cyclone
Permit #134-89 (1) Carter-Day fabric filter
Permit #169-94 (1) Donaldson-Day baghouse

Findings Regarding This Item:
No changes, everything O.K.
Action: NO ACTION

Incident ID:

LOUISVILLE METRO AIR POLLUTION CONTROL DISTRICT
FINAL COMPLIANCE EVALUATION REPORT
PRINTED March 30, 2012

Evaluation ID: 04465

Plant: 0715 Down River Forest Products Inc
Location: 1698 Saint Louis Ave
Louisville KY 40210

Owner/Operator: Mr. Al Ryan, General Manager
Mailing Address: Down River Forest Products, Inc.
1698 Saint Louis Ave
Louisville KY 40210
502-636-1128

Type of Evaluation: RE-INSPECTION

Scope of Evaluation:

Inspector: Eva M. Addison
Date Assigned: 10/01/98 Date Required: 09/30/99
Supervisor: Chris N. Bryant
Date Complete/Signed: 09/16/99

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FINDINGS

The above compliance evaluation produced the following findings:

Finding ID: 06934 Date of Finding: 08/27/99 Time: 01:30 PM
Equipment & Requirements: Em. Unit or Permit: 00715
It is now called Louisville Industrial Park, they are using the property for
warehousing and distribution of wood materials. The equipment was auctioned so
they are not using any equipment. There are currently no plans for production.

Findings Regarding This Item:
Closed
Action: NO ACTION

Incident ID:

EXHIBIT 27

* A S B E S T O S *
PERMIT

Permit No. JCAP-0431-99

Permit Fee: \$ 250.00

Effective: August 04, 1999

Expires: September 30, 1999

The Air Pollution Control District of Jefferson County hereby authorizes the asbestos abatement project identified in the notification received August 02, 1999

Said project shall be performed in accordance with District Regulations 5.04 and 5.13.

Owner

Tony Young & Gerald Cox
1500 Turquoise Dr.
Louisville, KY 40214-

Address of Project

Louisville Industrial Park
1391 Dixie Highway
Louisville. KY

Issued to Contractor

Cardinal Ind Insulation Co
1300 West Main Street
Louisville, KY 40203-

Covers the removal of 2110 LF pipe insulation.

Specific Location: Bldg. 9,16,17,18,20

Additional conditions pertaining to this project:

Abatement work areas must be properly contained. Material will be wetted and remain wet throughout removal and handling. Areas under and around pipes will be cleaned before and after abatement. All material will be bagged, drummed, labeled, sealed, and disposed of at an approved landfill.

The material is to be disposed of at:

Outer Loop Landfill, 2673 Outer Loop Rd, Louisville, KY 40219-

The material is to be transported by:

WMI, 7501 Grade Ln, Louisville, KY 40219-

Applicant: Robert Probus

Application Date: July 30, 1999

Applicant Phone: 502-589-5794

Deputy Air Pollution Control Officer

03/29/2012-KYJC990426

Air Pollution Control Officer