



LAW

ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

REVISED REPORT OF PHASE I ENVIRONMENTAL ASSESSMENT

SITE AT THE INTERSECTION OF TENNESSEE HIGHWAY 113

AND

U.S. HIGHWAYS 25/70

JEFFERSON COUNTY, TENNESSEE

November 21, 1996

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1.0 EXECUTIVE SUMMARY

ASSET NAME: Site at Intersection of Tennessee Highway 113 and U.S. Highways 25/70

LOCATION: Tennessee Highway 113, Jefferson County, Tennessee

Law Engineering and Environmental Services, Inc., (LAW) has performed a Phase I Environmental Assessment of a 9.2 acre site located on Highway 113 in Jefferson County, Tennessee. This assessment was requested by Mr. Dave Tomlinson of Parker-Grass Company LLC.

The subject site is currently owned by Mr. Louis Max Jarvis and Ms. Edna Swann Carter and is an undeveloped parcel of land. The properties surrounding the site are mostly undeveloped with several commercial properties located north of the subject site.

Based on the findings of this assessment, we have identified no potential environmental concerns on the site or on surrounding properties. We found no evidence to warrant further environmental assessment of the site at this time.

This executive summary is provided for convenience and should not be used in lieu of the complete report.

2.0 INTRODUCTION

Parker-Grass Company LLC has engaged Law Engineering and Environmental Services, Inc., (LAW) to provide environmental assessment services for the subject property. LAW has completed a Phase I Environmental Site Assessment of a site on Tennessee Highway 113 in Jefferson County, Tennessee. The purpose of our services was to perform a general characterization of potential environmental concerns based on readily available information and on our observations at the site and surrounding properties. This assessment was performed substantially as outlined in our Proposal Number 96492 385, dated October 16, 1996.

2.1 BACKGROUND

The subject site is currently owned by Mr. Louis Max Jarvis and Ms. Edna Swann Carter and has remained generally undeveloped. We understand this Phase I Environmental Assessment is required as part of a potential real estate transaction.

2.2 PROCEDURES

This Phase I Environmental Site Assessment was performed in general accordance with applicable procedures specified in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments, ASTM Designation: E 1527-94. The following services were provided for this assessment:

- A site reconnaissance by a LAW professional qualified in similar environmental site assessments. The purpose of the reconnaissance was to look for obvious indications of past or present waste handling or storage activities, or use of hazardous materials on the site that have or could have contaminated the site.
- A review of selected, reasonably ascertainable lists published by both federal and state regulatory agencies. Our review has included the following sources:

Regulatory Lists	Search Distance (miles from site)
Federal NPL site list	1.0
Federal CERCLIS list	0.5
Federal RCRA TSD facilities	1.0
Federal RCRA generators list	Adjacent Property
Federal ERNS list	Property only
State Hazardous Waste Site list (NPL or CERCLIS equivalent)	1.0
State landfill and/or solid waste disposal lists	1.0
Leaking USTs (state files)	0.5
State registered UST list	Adjacent Property

- A vehicular reconnaissance of the surrounding area to verify the locations of listed facilities and to help determine if adjacent or nearby land use has a visible potential for adverse environmental impact on the subject site.
- A review of the available history of ownership and selected available land use records, and interviews with cognizant persons for consideration of past and present operational or land use practices. We have attempted to identify uses of the site since 1940 and from such time prior to 1940 when the site was not yet developed.
- A review of Chain-of-Title for the site for a period of at least fifty years.
- A review of selected available aerial photographs and both topographic and geologic maps to assist in developing an interpretive model of the local hydrogeology and drainage patterns and in determining past and present land use in the area.
- Preparation of this report, which describes our assessment activities and procedures and presents our findings and conclusions.

2.3 QUALIFICATIONS

The findings presented and the opinions expressed herein are relative to the dates of our site work and should not be relied on to represent conditions at substantially later dates. Our opinions are based on information obtained during the study and on our experience. If additional information becomes available which might change our opinions, we request the opportunity to review the information, reassess the potential concerns, and modify our opinions, if warranted. If this

assessment included a review of documents prepared by others it must be recognized that LAW has no responsibility for the accuracy of information contained therein.

The purpose of this assessment was to attempt to identify the potential for environmental impacts to the subject property; however, potential sources of contamination may have escaped detection due to the limited scope of the assessment, the inaccuracy of public records, and the presence of undetected or unreported environmental incidents. It was not the purpose of this study to determine the actual presence or degree or extent of contamination, if any, at the site.

3.0 SITE SETTING

3.1 GENERAL DESCRIPTION

The subject site is currently undeveloped and the majority of the site has been cleared of vegetation (see Figure 1). Based on our interview with Mr. Charlie Mason, who has been affiliated with the property owner and is familiar with the history of the site, the site has never been developed. The site is comprised of about 9.2 acres of land. The surface elevation of the site ranges from about 1,060 to about 1,122 feet above mean sea level (MSL).

3.2 HYDROGEOLOGY

A consideration of surface and subsurface drainage and geology are of interest since they provide an indication of the direction(s) that contamination, if present either on or off the site, could be transported. The term "upgradient" refers to a location hydraulically upstream.

We reviewed the following information with regard to the hydrogeology of the site and the surrounding area:

- TVA/USGS Topographic Map of the White Pine, Tennessee, Quadrangle, dated 1961.
- Ground-Water Resources of East Tennessee, Tennessee Division of Geology, Bulletin 58, Part I (1956).

3.2.1 Geologic Setting

The subject site is located in the Appalachian Valley and Ridge Physiographic Province. This region extends in a wide belt from central Alabama through Georgia, Tennessee, and northward into Pennsylvania. The rock formations of this region consist primarily of limestone, shale, and sandstone which have been folded, faulted, and in some areas lightly metamorphosed. Formations range in age from Pennsylvanian to Cambrian and have been subjected to several periods of structural deformation.

According to the Geologic Map of East Tennessee, the subject site is underlain by the Knox Dolomite Group. The Knox Dolomite typically consists of thick-bedded siliceous dolomite with some limestone and minor sandstone layers. The formations or members of the Knox Group are generally similar in lithology, differing mainly in color, bedding characteristics and chert (silica) content. The rocks of the Knox Group are generally very competent and subject to localized deformation mainly by "brittle fracture." The Knox Group generally weathers to form a relatively thick residuum of cherty, silty clay. The Knox strata are generally susceptible to solutional weathering, particularly along joints, fractures, and bedding planes, and karst features are readily developed.

3.2.2 Surface Drainage

In general, the subject site is part of a low ridge, and the direction of surface drainage flow on the site is generally to the west and southward. The site is bounded by major highways on three sides and their drainage diversion structures will intercept runoff from off site, so the site does not appear to receive surface runoff from adjacent properties. Surface drainage from most of the site will eventually flow to the Douglas Lake impoundment of the French Broad River, which borders the site on the southeast.

3.2.3 Groundwater

Ground-water storage and flow in this area occur generally under unconfined (water table) conditions although confined conditions may exist locally. Ground-water flow within these dolomitic formations is generally confined to a complex system of interconnecting, solution-enlarged channels. Most ground water in this area originates as precipitation, which infiltrates soil

or bedrock and percolates downward until it reaches the zone of saturation. Sinkholes, if present, may enhance the local ground-water recharge system.

The local directions of ground-water flow in this area are difficult to predict because of the complex nature of the flow system. However, the water table (i.e., the surface of the saturated zone) is frequently a subdued replica of the overlying ground surface, and based on this, it is our opinion the direction of ground-water flow beneath the subject site is generally to the south or southeast towards the French Broad River. The site may receive ground-water flow from properties to the north or northwest. Properties in the general vicinity of the site are mainly undeveloped.

We judge the depth to ground water at the site to range from approximately 30 to 70 feet based on the elevation relationships between the site and the French Broad River located just south of the subject site. A well was observed near the northwestern corner of the site.

4.0 REGULATORY INFORMATION

We conducted a limited review of regulatory information compiled by VISTA Information Solutions, Inc., (VISTA). A copy of the VISTA report is attached as Appendix B.

4.1 EPA NATIONAL PRIORITIES LIST (NPL)

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) established the National Priorities List (NPL) of federal "Superfund" sites. These are contaminated sites that have been prioritized by the EPA with regard to their potential public health effects.

- The site does not appear on the NPL.
- We found no facilities on the NPL within a 1-mile radius of the site.

4.2 EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS) LIST

The CERCLIS List identifies documented and suspected contamination sites throughout the nation that were not ranked high enough to be listed on the NPL.

- The site does not appear on CERCLIS list.
- We found no facilities on the CERCLIS list within a 1/2-mile radius of the site.

4.3 RESOURCE CONSERVATION & RECOVERY INFORMATION SYSTEM (RCRIS)

RCRIS is the EPA database of facilities that generate, transport, store, or dispose of hazardous wastes. Generators of hazardous waste are found on the Notifiers list. Treatment, Storage and Disposal facilities are found on the TSD list.

- The site does not appear on the RCRIS List.
- We found no facilities on the RCRIS Generator Notifiers List on adjacent properties.
- We did not identify any facilities on the RCRIS TSD Notifiers List within a 1-mile radius of the subject site.

4.4 EMERGENCY RESPONSE NOTIFICATION (ERNS) SYSTEM LIST

The ERNS List is a list of hazardous material spills reported to various State agencies.

The site does not appear on the ERNS list.

4.5 LANDFILLS (SWLF)

Lists of active and inactive landfills, industrial fills, and other disposal sites are maintained by the Tennessee Division of Solid Waste Management. The state does not keep a general listing of unregistered landfills or dumps.

- We did not identify any landfills or other disposal facilities within an approximately 1-mile radius of the site.

4.6 LEAKING UNDERGROUND STORAGE TANK LIST (LUST)

Tennessee does not maintain a formal listing of leaking UST systems. However, VISTA has compiled a LUST List by researching the Tennessee Division of Underground Storage Tanks (DUST) records and files for facilities that have reported releases from USTs.

- The site does not appear on the LUST List.
- We did not identify any facilities on the LUST List within a 1/2-mile radius of the subject site..

4.7 REGISTERED UNDERGROUND STORAGE TANK (RUST) LIST

The RUST List is a listing of underground storage tank systems (USTs) that are registered with the DUST.

- The site does not appear on the RUST List.
- We did not identify any RUST Listed facilities on adjacent properties.

5.0 SITE INFORMATION AND USE

We performed a site and vicinity reconnaissance, conducted interviews, and reviewed selected available historical information in order to evaluate the current and historical uses of the site and surrounding properties and to evaluate past or present activities. The following sources are referenced:

- Aerial photographs dated 1967, 1973, and 1981.
- Interview with Mr. Charlie Mason of Mason Realty.

Mr. Scott D. Smith, a LAW environmental professional, conducted a site and area visit on October 23, 1996. The site reconnaissance was performed on foot and the area reconnaissance was a driving tour.

5.1 CURRENT SITE USE

The subject site (see Photograph 1) is currently undeveloped property. The majority of the site has been generally cleared of vegetation with the exception of the southern and western edges of the site.

5.1.1 Storage Tanks

We did not observe any evidence of the presence of USTs or above ground storage tanks (ASTs) on the subject site. Mr. Mason told us that to the best of his knowledge, there have never been any USTs or ASTs on the site.

5.1.2 Hazardous and Petroleum Products Containers/Drums

We did not observe any containers or drums on the subject site that might contain petroleum products or other chemicals.

5.1.3 Sewage Disposal/Septic Tanks

We did not observe any evidence of septic tanks or drainfields.

5.1.4 Electrical Transformers

Electrical transformers are a potential source of environmental concern due to the potential presence of polychlorinated biphenyls (PCB) in dielectric fluids used in some units. We did not observe any electrical transformers on the subject site.

5.1.5 Water Supply and Wells

A well is located near the northwestern corner of the subject site. The well is currently uncovered and enclosed in a concrete box that is located about 3-feet below the ground surface. Water was drawn from the well with a new disposable polyethylene bailer, and no obvious odors were observed from the water. The water appeared to be relatively clear, and there were no visible sheans or discolorations associated with the sample.

5.1.6 Pits, Ponds Lagoons and Surface Waters

We did not observe any pits, ponds, lagoons, or other surface water bodies on the subject site, although the site is bounded to the southeast by Douglas Lake.

5.1.7 Stressed Vegetation/Stained Soils

We did not observe any evidence of stressed vegetation or stained soils during our site visit.

5.1.8 Odors

We did not detect any unusual or noxious odors on the site during our visit.

5.2 PAST SITE USE/CHAIN-OF-TITLEREVIEW

The 1967 aerial photograph indicated that the subject site was mostly wooded and undeveloped at that time. The later aerial photographs that we reviewed indicated that the majority of the site had been cleared of vegetation, but no other development was observed. Our review of the aerial photographs did not indicate any evidence of potential environmental concerns associated with the site or surrounding properties.

According to Mr. Mason the subject site has never been developed.

A chain-of-title for the site is included in this report as Appendix D. Our review of the chain-of-title did not indicate any evidence of environmentally sensitive use or potential environmental concerns associated with the subject site.

5.3 SURROUNDING LAND USE

Nearby property use could potentially impact the surface and subsurface conditions of a site. Identifying uses and occupancies of adjacent properties can provide an indication of the likelihood of environmental concern. Figure 2 is a Surrounding Land Use Map.

5.3.1 North

The subject site is bounded to the north by Tennessee Highway 113 and Interstate 40. Beyond Highway 113 is an electric power substation, and beyond Interstate 40 are several commercial properties.

5.3.2 East

Bordering the subject site to the east is Interstate 40, beyond which to the northeast is mostly pastureland.

5.3.3 South

The subject site is bounded to the south by the French Broad River and U.S. Highway 25/70. Beyond U.S. Highway 25/70 to the southwest is mostly pastureland.

5.3.4 West

The site is bounded to the west by U.S. Highway 25/70 and Tennessee Highway 113. Beyond both highways are mostly pastureland.

6.0 ENVIRONMENTAL CONCERNS

Based on the findings of our Phase I Environmental Assessment of the subject site, we offer the following comments relative to potential environmental concerns.

6.1 ON-SITE CONCERNS

We identified no potential environmental concerns on the subject site

6.2 OFF-SITE CONCERNS

We identified no potential off-site environmental concerns on either adjacent or nearby properties.

7.0 CONCLUSIONS

Based on the findings of this assessment, we have identified no environmental concerns either on the subject site or on surrounding properties. In our opinion, there is no evidence to warrant further environmental assessment of the site at this time.