
**PHASE I ENVIRONMENTAL
SITE ASSESSMENT**

**LOT 302
BLACK HAWK SUBDIVISION
Arrington, Tennessee**

AG & E FILE NUMBER: 2009-054

Prepared By
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Prepared for
Mr. Ira Weiss
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Fairfax Station, VA 22039-2520

October 5, 2009



American
Geotechnical and
Environmental, Inc.

October 5, 2009

Mr. Ira Weiss
7818 Ox Rd
Fairfax Station, VA 22039-2520

RE: Phase I Environmental Site Assessment
Lot 302, Black Hawk Subdivision
Arrington, Tennessee
AG & E File Number: 2009-054

Dear Mr. Weiss,

As requested, we have completed the Phase I Environmental Site Assessment for the above referenced property. We are pleased to transmit our written report of the results of this study.

This assessment was performed at the request of the client utilizing methods and procedures consistent with good commercial or customary practices designed to conform to acceptable industry standards. The independent conclusions represent the best professional judgment of the Environmental Professional based upon the conditions that existed and the information and data available to us during the course of this study. Factual information regarding operations, conditions, and test data provided by the client, owner, or their representative has been assumed to be correct and complete.

This report may be distributed and relied upon by the client, its successors and assigns. Reliance on the information and conclusions presented in this report by any other party(ies) is not authorized by American Geotechnical & Environmental, Inc.

Thank you for the opportunity to be of service to you in this matter. If you should have any questions concerning this or any other matter, please feel free to contact us at your convenience.

Respectfully Submitted,

AMERICAN GEOTECHNICAL & ENVIRONMENTAL, INC.

A handwritten signature in blue ink, appearing to read 'Robert T. Stickney', is written over a horizontal line.

Robert T. Stickney, P.E.
President

Enclosure

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

LOT 302 BLACK HAWK SUBDIVISION Arrington, Tennessee

AG & E FILE NUMBER: 2009-054

1.0 INTRODUCTION

American Geotechnical and Environmental, Inc. was authorized by Mr. Ira Weiss to perform a Phase I Environmental Site Assessment for the 3.29 acre parcel of land located at 5525 Hawks Landing Drive. The Subject Property is identified as Tax Map 109, Parcel 043.17 in Arrington, Williamson County, Tennessee.

1.1 Purpose

The purpose of the Phase I ESA was to identify, to the extent feasible, recognized environmental concerns in connection with the property. This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property management, and regulatory agencies.

1.2 Scope of Services

The scope of work for this assessment was in general accordance with the American Society of Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Designation: E1527-05). These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions.

1.3 Significant Assumptions

While this report provides an overview of potential environmental concerns, both past and present, the environmental assessment is limited by the availability of information at the time of the assessment. It is possible that unreported disposal of waste or illegal activities impairing the environmental status of the property may have occurred which could not be identified. The conclusions and recommendations regarding environmental conditions that are presented in this report are based on a scope of work authorized by Mr. Ira Weiss. Please note, however, that virtually no scope of work, no matter how exhaustive, can identify all contaminants or all conditions above and below ground.

1.4 Limitations and Exceptions

The report has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM 1527-05, and contains all of the limitations inherent in these methodologies. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

The conclusions of this report are based in part, on the information provided by others. The possibility remains that unexpected environmental conditions may be encountered at the site in locations not specifically investigated. Should such an event occur, this office must be notified in order that we may determine if modifications to our conclusions are necessary.

The services performed and outlined in this report were based, in part, upon visual observations of the site and attendant structures. Our opinion cannot be extended to portions of the site that were unavailable for direct observation, reasonably beyond the control of American Geotechnical & Environmental, Inc.

The objective of this report was to assess environmental conditions at the site, within the context of our contract and existing environmental regulations within the applicable jurisdiction. Evaluating compliance of past or future owners with applicable local, provincial and federal government laws and regulations was not included in our contract for services.

Our observations relating to the condition of environmental media at the site are described in this report. It should be noted that compounds or materials other than those described could be present in the site environment.

1.5 Special Terms and Conditions

There are no special terms or conditions.

1.6 User Reliance

This report may be distributed and relied upon by the client, its successors and assigns. Reliance on the information and conclusions presented in this report by any other party(ies) is not authorized by American Geotechnical & Environmental, Inc.

2.0 PROPERTY DESCRIPTION

Mr. Robert T. Stickney, P.E. performed a site visit on September 24, 2009. The observations noted in this section apply to the site as it appeared on those days. Site maps and plans showing the general site layout are included in the Appendix in Figures 1 and 2.

2.1 Location and Legal Description

The Subject Property is a 3.29 acre parcel of land located at 5525 Hawks Landing Drive. The Subject Property is identified as Tax Map 109, Parcel 043.17 in Arrington, Williamson County, Tennessee.

2.2 Site and Vicinity General Characteristics

The Subject Property is located on the western side of Hawks Landing Drive as shown in Figure 2. The Property covers an area of 3.29 acres. The Property is currently is vacant and covered with grass vegetation. The ground surface has a moderate to steep slope to the north with a total relief of 50 feet across the Property. The highest elevation of the Property is near the southeast property corner. The slope of the ground surface has an average 3 horizontal to 1 vertical slope (20 to 25 percent). A large diameter walnut tree is located at the base of this slope where there is an apparent wet weather spring outlet. The stormwater runoff flows to the north off of the property to Arrington Creek.

2.3 Current Use of the Property

The Subject Property is currently vacant.

2.4 Descriptions of Structures, Roads, Other Improvements

There are no structures on the Subject Property.

2.5 Current Uses of the Adjoining Properties

Following is a summary of the current use of the adjoining properties:

Direction	Development Type	Site Use	Remarks
North	Residential	Vacant Lot	
South	Residential	Vacant Lot	
East	Residential	Vacant Lot	
West	Farm		

3.0 USER PROVIDED INFORMATION

3.1 Title Records

We prepared the following title history for the Subject Property. Following is a summary of the title history.

TRANSFER FROM:	TRANSFER TO:	DATE
Gerald M. Kole and wife Diane L.	The Gerald and Diane Kole Family Trust	02/13/2006
Thomas Robison Jr., Lillian Jefferson and Ruth Henshall	Gerald M. Kole and wife Diane L.	08/15/2003
W. P. Scales, Mrs. Myrtle Scales Flippen, Mrs. Mary Scales McMurray, and Mrs. Sallie Scales McCord	Tom M. Robison	01/02/1939
No Reference to previous transaction		

The title history does not suggest any prior corporate ownership that may have potentially dumped any waste on this property.

3.2 Environmental Liens or Activity and Use Limitations

The client reported no environmental liens or activity and use limitations.

3.3 Specialized Knowledge

The client reported no specialized knowledge of recognized environmental concerns or other environmental concerns in connection with the Property. The client reported no property valuation reduction related to environmental issues or concerns.

3.4 Commonly Known or Reasonably Ascertainable Information

American Geotechnical & Environmental, Inc. was not provided with any commonly known or reasonably ascertainable information about the Property that is material to recognized environmental conditions.

3.5 Valuation Reduction for Environmental Liens

American Geotechnical & Environmental, Inc. was not provided with any information that indicated any valuation reduction for the Property.

3.6 Owner, Property Manager, and Occupant Information

The Gerald and Diane Kole Family Trust is the current owner.

3.7 Reason for Performing the Phase I Environmental Site Assessment

American Geotechnical & Environmental, Inc. prepared the Phase I ESA at the request of Mr. Ira Weiss as part of his due.

4.0 RECORDS REVIEW

The purpose of the records review was to obtain and review records that will help identify recognized environmental concerns in connection with the Property.

Some records reviewed pertain not only to the property, but also to properties within an additional approximate minimum search distance in order to help assess the likelihood of problems from migrating hazardous substances or petroleum products. Unless stated otherwise the approximate minimum search distances used below were as specified in the ASTM Standard 1527-05.

4.1 Standard Environmental Records Sources

A search of available federal and state environmental records was obtained from Environmental Data Resources, Inc. (EDR). The EDR Radius Map with GeoCheck Report, dated September 23, 2009, is included in the Appendix. This report meets or exceeds the regulatory records search requirements of ASTM E1527-05. Discrepancies may exist between the EDR report and the findings of our research and reconnaissance regarding sites identified in the EDR report. Listed facilities may not be plotted in correct locations or may be listed as unmapped sites because of incomplete or incorrect addresses or other inadequate data. When discrepancies occur, the findings of our site reconnaissance and other records review will take precedence over information provided by EDR.

A review of the EDR report revealed in the following sections of this report the following facilities as possible recognized environmental conditions (RECs) within the ASTM approximate minimum search distance is provided in the Federal and State sections.

4.1.1 Federal

The Subject Property is not listed on any of the federal databases listed in the EDR report.

4.1.2 State

The Tennessee Department of Environment and Conservation (TDEC), Division of Underground Storage Tanks (UST), listing of registered USTs did not identify any facilities within a ¼ mile radius of the Subject Property.

The Tennessee LUST files of known sites that have had a reported release were also reviewed. No facilities within a 0.5 mile radius of the Subject Property were found.

4.1.3 Unmapped Orphan Sites

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The EDR report lists three (3) facilities in the unmapped section of their report in the Appendix. None of these facilities were found within a 0.5 mile radius of the Subject Property.

4.2 Additional Environmental Record Sources

The Sanborn Fire Insurance Map database indicates there is no map coverage for the Subject Property.

The EDR City Directories was reviewed and identified past uses of the Subject Property. There is no listing for the Subject Property's address, 5525 Hawks Landing Drive

4.3 Physical Setting Source(s)

4.3.1 Topography

The Subject Property is located as shown in Figures 1 and 2. Figure 1 is a reproduction of the USGS Topographic Map and Figure 2 is a Topographic Survey of the Subject Property.

The Subject Property is located on the western side of Hawks Landing Drive as shown in Figure 2. The ground surface has a moderate to steep slope to the north with a total relief of 50 feet across the Property. The highest elevation of the Property is near the southeast property corner. The slope of the ground surface has an average 3 horizontal to 1 vertical slope (20 to 25 percent). A large diameter walnut tree is located at the base of this slope where there is an apparent wet weather spring outlet. The stormwater runoff flows to the north off of the property to Arrington Creek.

4.3.2 Geology

Published geologic mapping indicates the Hermitage Formation of the Ordovician Period underlies this site above Elevation 740+/- and the Carters Limestone underlies the lower elevation of the property. The Hermitage Formation in this area is a sandy limestone with a medium gray to dark gray color. The limestone is thin bedded with shale partings and also contains trace to some amounts of phosphate. The upper member of the Carters Limestone is a medium light gray to brownish gray limestone that is very fine grained to cryptocrystalline and thin bedded.

4.3.3 Subsurface Soils

As a part of this study, AG & E observed the excavation of four (4) exploratory test pits on this Property. The test pits were located as shown in Figure 3 in the Appendix. Each test pit encountered 0.8 to 1.0 feet of topsoil that is underlain by a brown to orangish brown silty clay to a depth of 2.3 to 4.2 feet. We then found a mottled brown and gray silty clay that extend to a depth of 3.8 to 8.0 feet. Each test pit then encountered a thin layer of phosphate above limestone rock where each test pit excavation was terminated. The presence of the phosphate indicates the underlying bedrock is from the Hermitage Formation.

4.3.4 Groundwater

The static groundwater table is anticipated to be found at depths of 15 to 50 feet. A complete Hydrogeologic study would be needed to adequately determine groundwater flow and direction at the Subject Properties. This is beyond the scope of a Phase I Environmental Site Assessment. Please note that we did find a wet weather spring outlet above the area of the large diameter oak tree along the north property line.

4.3.5 Flood Zone Map

No flood zone maps were provided by the client or obtained during this study.

4.3.6 Other Maps and Data

No additional maps or other data were provided by the client or obtained for this study.

4.4 Historical Use Information on the Property

The objective of consulting historical sources is to develop a history of the previous uses of the property in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the Property. Historical use information describing the Subject Properties was obtained from a variety of sources as discussed below. This information is summarized below.

4.4.1 Land Use and Development

The data presented in this study indicate the Subject Property was vacant farm land prior to the construction of the Black Hawk Subdivision in 2006.

4.4.2 City Directories

Historical city directories provided by EDR and included in the Appendix were reviewed for indications of previous uses of the Subject Property. The EDR City Directories were reviewed with listings in 1997, 2003 and 2009. There are no listings for the Subject Property.

Our review of the listed city directories did not identify usage of the Property or adjoining properties that is considered evidence of a recognized environmental concern or a potential recognized environmental concern.

4.4.3 Fire Insurance Maps

Fire Insurance Maps were produced for urban areas since the late 1800's and were utilized for determining fire hazards. When available, these maps are reviewed for further documentation concerning the historical use of the Subject Properties and the surrounding area.

Information provided by EDR indicates there is no map coverage for the area of the Subject Properties.

4.4.4 Aerial Photographs

Aerial photographs from 1976, 1981, 1987, 1992, 1997, and 2006 were obtained for our review and are included in the Appendix. These photos were evaluated to identify changes in land use and areas of potential environmental concern.

- {2006} Aerial Photograph - The Subject Property is in its current condition prior to the extension of Hawks Landing Drive.
- {1997} Aerial Photograph – Prior to the construction of the Black Hawk Subdivision.
- {1992} Aerial Photograph – No apparent change in use from the 1997 photograph.
- {1987} Aerial Photograph – No apparent change in use from the 1992 photograph.
- {1981} Aerial Photograph – No apparent change in use from the 1987 photograph.
- {1976} Aerial Photograph – No apparent change in use from the 1981 photograph.

Neither of these photographs identifies usage of the Property or adjoining sites that is considered evidence of a recognized environmental concern or a potential recognized environmental concern.

4.4.5 Historical Topographic Maps

Historical topographic maps were provided by EDR and are included in the Appendix. The maps available are dated 1981 and 1967. Neither of these maps identifies usage of the Property or adjoining sites that is considered evidence of a recognized environmental concern or a potential recognized environmental concern.

4.4.6 Prior Reports and Documentation

AG & E was not provided with, nor did we obtain, prior environmental reports or other documentation for the Subject Properties.

4.4.7 Building Department Records

Building Department Records were not reviewed during the assessment.

4.4.8 Zoning/Land Use Records

Zoning and Land Use Records were not reviewed during this study.

4.4.9 Other Historical Sources

Other Historical Sources were not reviewed during this study.

4.5 Historical Use Information on Adjoining Properties

The objective of consulting historical sources is to develop a history of the previous uses of the surrounding properties in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the Subject Properties.

The data referenced in Section 4.4 indicates the existing structures within this subdivision were built between 2006 to 2008. The adjacent property to the west is farm land.

5.0 SITE RECONNAISSANCE

The purpose of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the Subject Properties.

5.1 Methodology and Limiting Conditions

The site reconnaissance of the Subject Properties was performed by Mr. Robert Stickney, P.E. on September 24, 2009. The walk-through survey included a criss-cross pattern over the property and a visual survey from property borders and public roads of the adjacent properties.

5.2 General Site Setting

The Subject Property is located on the western side of Hawks Landing Drive as shown in Figure 2. The Property is currently is vacant and covered with grass vegetation and covers an area of 3.29 acres. The ground surface has a moderate to steep slope to the north with a total relief of 50 feet across the Property. The highest elevation of the Property is near the southeast property corner. The slope of the ground surface has an average 3 horizontal to 1 vertical slope (20 to 25 percent). A large diameter walnut tree is located at the base of this slope where there is an apparent wet weather spring outlet. The stormwater runoff flows to the north off of the property to Arrington Creek.

There are no indications of any materials that would indicate a recognized environmental concern and there are no signs of distressed vegetation.

5.3 Utilities

Utilities serving this property include the following;

Water	Milcrofton Utility District
Electric	Middle Tennessee Electric Membership Corporation

Photos 9 and 10 show the two ground mounted electric transformers on the Subject Property. The Middle Tennessee Electric Membership Corporation owns all transformers in this area. None of their transformers contain any PCB containing oils.

5.4 Solid Waste Disposal

Not Applicable.

5.5 Sewage Discharge

Not Applicable.

5.6 Surface Water Drainage

Surface water on the Property flows toward the north off of the Property where it then flows into Arrington Creek.

6.0 INTERVIEWS

6.1 Interview with Owner

No contact information for Gerald and Diane Kole was provided to AG & E.

6.2 Interviews with Occupants

The Subject Property is vacant.

6.3 Interviews with Local Government Officials

No government officials were contacted for this study.

6.4 Interviews with Others

At the time of this study, other individuals were not available for interview.

7.0 FINDINGS

The findings of this study have revealed no historical recognized environmental conditions associated with this Property.

8.0 OPINION

It is our professional opinion that no environmental concerns are present on or adjacent to the Subject Properties.

9.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527 for the 3.29 acre parcel of land located at 5525 Hawks Landing Drive. The Subject Property is identified as Tax Map 109, Parcel 043.17 in Arrington, Williamson County, Tennessee.

We are aware of no circumstances on the Subject Property or the immediately surrounding area that has identified any recognized environmental concerns.

10.0 DEVIATIONS

This Phase I Environmental Site Assessment complies with ASTM E1527-05.

11.0 ADDITIONAL SERVICES

No additional services beyond the scope of ASTM E1527-05 were conducted as a part of this assessment.