


FOREWORD

This report was prepared by Emerald, Inc., of Sumter, South Carolina, for HR Developers regarding the Kenny's Auto site located at 700 Saluda Avenue in Columbia, South Carolina. The contents of this report are confidential and intended for the use of the client only.

Ronny L. Lowder of Emerald, Inc. conducted the assessment and prepared this report. Any questions or comments concerning this report should be directed to Ronny L. Lowder at the offices of Emerald, Inc., 214 West Liberty Street, Sumter, South Carolina, or telephone (803) 773-5454.



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1.0 INTRODUCTION AND OBJECTIVE

A Phase I Environmental Site Assessment (ESA) was conducted on the Kenny's Auto site in July 2006. The conclusions found four environmental concerns associated with the site or nearby properties. The four concerns are listed as follows:

1. The site contains one underground storage tank formerly used for heating oil for a cardboard incinerator used by Winn Dixie during the time they occupied the site (approximately 1948 thru the early 1980s). Although the tank is exempt from registration and regulation due to the on-site consumption exemption, there were no records available to show that the tank had been permanently closed and a site assessment for soil quality had been conducted previously. Therefore, the quality of the soil and/or groundwater beneath the tank is unknown. In addition, the service bays for the Kenny's Auto site formerly contained two or three below ground hydraulic lifts. No records were available for review showing proper closure of such lifts.
2. The Kenny's Auto building contains approximately 7500 square feet of 12" x 12" vinyl floor tile along with the mastik underneath. The floor tile and mastik are suspect materials for asbestos.
3. There are three known gasoline contaminated sites within a 0.5 mile radius of the subject site. All three are located upgradient from the subject site and present an environmental concern to the subject site.
4. Master's Cleaners, located southwest of the subject site, has been

in the same area for at least 40 years. The site uses petroleum solvent and/or Perchloroethylene in its daily operations. Although the site is listed in the Drycleaning Restoration Trust Fund, the current status of the soil and/or groundwater beneath the Master's Cleaners site is unknown. Such presents potential environmental concern to the subject site via groundwater flow in the area.

As a result, a Phase II ESA with soil and groundwater sampling was recommended for the site and approved by HR Developers, LLC. The SCDHEC Bureau of Water issued Temporary Monitoring Well Approval (copy in Appendix E) numbered 02764 and dated August 2, 2006, to install up to twenty (20) temporary groundwater monitoring wells at the site.

The objective of the Phase II ESA was to collect soil and/or groundwater samples across the property to determine if any hazardous materials had either been released to the surface during the life of the facility which may have affected the quality of the soil and/or groundwater, or whether any hazardous materials may have migrated to the Kenny's Auto site (four parcels) via groundwater migration.

2.0 SITE ASSESSMENT

2.1 Sample Collection

On August 4, 2006, Emerald, Inc. personnel collected a total of sixteen (16) samples from sixteen (16) borings placed across the Kenny's Auto site. The location of each boring is shown on the site map found in Appendix A. The borings numbered GP-1 through GP-8 were placed along the northern and northeastern boundary where groundwater samples were collected to see if any petroleum contaminants had migrated to the subject site from any of the three off-site petroleum contaminated sites. This is designated on the map as

Area 1. Borings numbered GP-9 through GP-12 are located along the western side of the property between Kenny's Auto and Saluda Avenue. This group is designated as Area 2 and the primary focus was for any migration from Master's Cleaners and/or petroleum from petroleum contaminated sites. Area 3 contains two borings numbered GP-13 and GP-14 which are near the underground storage tank for heating oil. Area 4 contains two borings numbered GP-15 and GP-16 placed around the two aboveground storage tanks containing used oil and used antifreeze. Using direct push technology, a Geoprobe® rod was pushed to a maximum of 12 feet below ground surface at four foot intervals. Depending upon the area of concern, either a soil or groundwater sample was collected for analysis. (The primary focus in Areas 1 and 2 was on the potential migration from off-site sources onto the subject site; therefore, groundwater samples were collected in these areas. (In Areas 3 and 4, possible contamination would be from on-site sources.) Therefore, soil samples were screened with a photoionization detector (PID) in the field and selected for laboratory analysis. Appendix B contains a copy of the Field Activity Log for all the borings at the Kenny's Auto site.

All samples were placed in laboratory prepared glass bottles and/or jars, labeled, placed on ice, and shipped under the proper chain-of-custody to Test America, Inc. in Orlando, Florida for analysis. A copy of the chain-of-custody is located in Appendix C.

2.2 Laboratory Analysis of Samples

Each sample was analyzed for possible contaminants including petroleum and other volatile organics. The analyses included BTEX, Naphthalene, MTBE, PAHs, TPH-DRO, and VOCs (volatile organic compounds).

The analytical results from the laboratory are shown in Table I and Appendix D. The units of measure are in metric with the English conversions as follows:

MG/KG - Parts per million (solid)
UG/KG- Parts per billion (solid)
MG/L - Parts per million (liquid)
UG/L - Parts per billion (liquid)

Results are discussed in the following section.

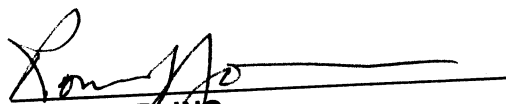
3.0 SUMMARY AND CONCLUSIONS

The objective of this assessment was to investigate the soil and/or groundwater quality beneath the Kenny's Auto site located at 700 Saluda Avenue in Columbia, South Carolina, as of August 4, 2006. Using the site map in Appendix A as a reference for the boring locations, the following is a summary of the findings during this assessment (Table I and Appendix D contain the analytical results):

1. Area 1 (Borings GP-1 thru GP-8) - Borings numbered GP-1, GP-3, and GP-6 have levels of BTEX in groundwater above the SCDHEC reporting limits ($5 \mu\text{g/l}$). In particular, both GP-1 and GP-6 had levels of Benzene above the established Risk Based Screening Level (RBSL) for Benzene, which is $5 \mu\text{g/l}$. Benzene is typically indicative of gasoline products.
2. Area 2 (Borings GP-9 thru GP-12) - Boring GP-9 contained low levels of Acetone and Benzene (below $5 \mu\text{g/l}$) in groundwater. GP-10 contained low levels of 1,2-Dichloroethane, Acetone, Naphthalene, Toluene, and Total Xylenes in groundwater. However, GP-10 also contained levels of Benzene (47.2) above its RBSL. GP-11 contained low levels of Acetone and Benzene (below $5 \mu\text{g/l}$) in groundwater. GP-12 did not contain any levels of VOCs above detection limits. Again, the Benzene level is typically indicative of gasoline products.

3. Area 3 (Borings GP-13 thru GP-14) - These two borings were placed in the vicinity of the UST formerly used for heating oil. Both borings showed levels of petroleum contaminants in the soil which are indicative of contamination from petroleum products, specifically heating oil or diesel range products.
4. Area 4 (Borings GP-15 thru GP-16) - These two borings were placed around the two ASTs for used oil and used antifreeze. The soil sample collected from GP-16 was indicative of petroleum products, specifically used oil due to the levels of PAHs found in the soil.

In summary, the Kenny's Auto site has soil contamination from on-site sources including heating oil/diesel and used oil. The groundwater contamination from gasoline appears to be from off-site sources due to the topographic elevations in the area as per the USGS topographic map found in Appendix F. This is not confirmed and could only be determined through additional assessment. The extent of both the soil and ground contamination from petroleum products is unknown.


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