REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IV

EPA ID: ALSFN0407057 **Site Name:** APAC **State ID:** 69416

Alias Site Names:

City: TUSCALOOSA **County or Parish:** TUSCALOOSA **State:** AL

Refer to Report Dated: 09/30/1999 **Report Type:** PRELIMINARY ASSESSMENT 001

Report Developed by: STATE

DECISION:

- [X] **1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:**
  - [X] **1a. Site does not qualify for further remedial site assessment under CERCLA (No Further Remedial Action Planned - NFRAP)**
  - [ ] **1b. Site may qualify for action, but is deferred to:**
- [ ] **2. Further Assessment Needed Under CERCLA:**
  - **2a. Priority:** [ ] **Higher** [ ] **Lower**
  - **2b. Other: (recommended action)** NFRAP (No Futher Remedial Action Planned

DISCUSSION/RATIONALE:

Groundwater has elevated levels of arsenic, chromium, and lead; however, there are no primary targets. Surface soil does not exceed industrial RBCs. No primary targets exist for surface water or direct soil exposure pathways.

Site Decision Made by:

Signature: Annie M. Godfrey **Date:** 02/02/2000

EPA Form # 9100-3

FROM:

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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MONTGOMERY, ALABAMA 36130-1463

PRELIMINARY ASSESSMENT
FOR
APAC, INC.

CERCLIS NO.
EPA ID NO. 7057

ADEM FORM 194 7/99

SITE: APAC
BREAK: 1.8
OTHER: Vol. 1

PRELIMINARY ASSESSMENT
APAC INC
TUSCALOOSA, TUSCALOOSA CO. , ALABAMA
EPA ID ALD
CERCLIS NBR

Prepared By
John Glaze
Alabama Department of Environmental Management
Site Assessment Unit
of
Land Division

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REFERENCES

Date:	*September 30, 1999*
Prepared by:	*John Glaze* *Site Assessment Unit* *ADEM - Land Division*
Site:	*APAC Inc.* *Tuscaloosa, Tuscaloosa Co., Alabama*
EPA ID NBR	*ALD*
CERCLIS NBR	

1. INTRODUCTION

Under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA), and a cooperative agreement between the U. S. Environmental Protection Agency, and the Alabama 3Department of Environmental Management (ADEM), a Preliminary Assessment (PA) was conducted at the APAC Facility in Tuscaloosa, Alabama. The purpose of this investigation was to collect information concerning conditions at the site sufficient to assess the threat posed to human health and the environment, and to determine the need for additional investigation under CERCLA/SARA or other action. The scopes of the investigation included a review of available file information, a comprehensive target survey, and an off and on site reconnaissance on August 8, 1999.

2. LOCATION, SITE DESCRIPTION, HISTORY AND WASTE CHARACTERISTICS

2.1 Location

The APAC Facility (AF), is located at 5356 Martin Luther King Blvd/ Moody Swamp Road, in Tuscaloosa Alabama. The geographic coordinates are 33° 09' 43" North Latitude and 87° 35' 17" West Longitude. To reach the site take I-59/20 west from Birmingham, Alabama. Go ~ 50 miles to exit 71B and turn right on 359/69. Go ~ 1/4 mile to exit 1 and turn left on thirty fifth street. Go ~ 1.3 miles to Martin Luther King Blvd, and turn left. Go ~ 1.6 miles and AF will be on your right. (Ref. 1,5,14)

The climate of Tuscaloosa County is considered to be humid subtropical with an average annual rainfall of approximately 52 inches. The average temperature in the summer is 81° and in the winter is 47°. Approximately 20 of the 52 inches of rain per year runs off into the streams. (Ref. 3)

2.2 Site Description

AF is located in an industrial area ~ 2 miles southwest of Tuscaloosa Alabama. The site slopes ~ 2 degrees to the southwest. A ditch forms the southern boundary of the site and funnels surface water runoff ~ 2640 feet to the southwest into Cypress Creek. Cypress Creek flows ~ 9 miles south into the Black Warrior River. The Black Warrior River flows south and forms the remainder of the 15 mile surface water pathway. Presently the site consist of ~ 10 acres covered with gravel and sand. All facilities at site have been removed. The site map (Ref. 1) shows the facilities at the site prior to the removal of the plant facilities. A gravel pit lake forms the north boundary of the site, and forest borders the site to the east and west. There are no public drinking water wells within 4 miles or

surface water intakes within 15 miles of the site. The nearest residence is ~ 2640 feet to the east, and the nearest school is ~ 9504 feet to the northeast of the site. The site contains 3 monitoring wells installed as part of the work performed by QORE Inc.. No stressed vegetation was observed at the site during the site visit. The perimeter of the site is fenced. (Ref. 1, 4, 13)

s2.3 History and Waste Characteristics

The property was purchased by J. P. and W. D. McGiffert in ~ 1990 from the W. P. Collins family. Over the years the site has been occupied by the Curtis Concrete Co. and Southeastern Asphalt Co.. (dates unknown). In 1980 the site was leased to APAC Inc.. APAC operated an asphalt plant at the site until ~ 1997. In 1998 APAC removed all facilities at the site and TTL Inc. was employed to perform a preliminary assessment at the site. Based on this assessment APAC employed QORE Inc. to further ascertain the impact to human health and the environment at the site Based on the data from these onsite assessments, the surficial ground water has been impacted with As, Pb, and Cr in concentrations above MCL's and the surficial soils have been impacted with As in concentrations above residential RBC's. To date no response action has occurred. (Ref. 2,11,12,13,14)

3. GROUND WATER PATHWAY

3.1 Hydrogeologic Setting

Geologic units exposed in Tuscaloosa County range from Cambrian to Holocene in age and are sedimentary in origin. The county contains areas of the three following physiographic provinces: the Valley and Ridge, the Cumberland Plateau, and the East Gulf Coastal Plain. Geologic units exposed in the Valley and Ridge province of Tuscaloosa County range from Cambrian to Pennsylvanian in age and include, from oldest to youngest, the Conasauga Formation, Copper Ridge Dolomite, Chickamauga Limestone, Red Mountain Formation, Frog Mountain Sandstone, Chattanooga Shale, Fort Payne Chert, Tuscumbia Limestone, Floyd Shale, Parkwood Formation, and the Pottsville Formation (lower part). The geologic unit exposed in the Cumberland Plateau province of Tuscaloosa County is the Pottsville Formation (upper part), which is Pennsylvanian in age. Geologic units exposed in the East Gulf Coastal Plain province of Tuscaloosa County range from Late Cretaceous to Holocene in age and include, from oldest to youngest, the Coker, Gordo, Eutaw Formation, and Alluvial and terrace deposits . (Ref. 3)

The geologic unit that outcrops in the vicinity of the site is Alluvial and low terrace deposits. The Alluvial deposits are present along the flood plain of the Black Warrior River and consist of clay, silt, sand, and gravel. The Alluvial deposits range in thickness from 30 to 60 feet and are underlain by the Coker Formation. The APAC site is not located in an area that is underlain by limestone or other types of rocks that are susceptible to karst development. (Ref. 3)

The groundwater aquifers of Tuscaloosa County include the Eutaw aquifer, the Gordo aquifer, the Coker aquifer, the Pottsville aquifer, and the Watercourse aquifer. The source of recharge for these aquifers is rainfall. The majority of the rainfall runs off during and directly after a rain event or is returned to the atmosphere by evaporation and transpiration. A small amount infiltrates to serve as aquifer recharge. (Ref. 3)

The APAC site is located in the recharge area of the Watercourse aquifer. The Watercourse aquifer is not a major aquifer in Tuscaloosa County, but significant quantities of water can be acquired in wells located in the flood plains of major streams. In the vicinity of the site the Watercourse aquifer overlies and recharges the Coker aquifer. The Coker aquifer is composed of very fine to course grained sand, sandy clay, and gravel, and ranges in thickness from 0 to 1,000 feet. The Coker

aquifer is a major aquifer in Tuscaloosa County and will yield 1 to 2 million gallons per day to an individual well. (Ref. 3)

No active public water supply wells or springs are located within four miles of the site. Due to the rural nature of the area near the site domestic wells are possible within four miles of the site. (Ref. 3)

3.2 Ground Water Targets

The Tuscaloosa Water Authority supplies the drinking water for the population within 4 miles of the site. All drinking water is supplied by a surface water intake on Lake Tuscaloosa ~ 10 miles upgradient north of the site. There are no known private wells within 4 miles of the site. (Ref. 2, 3, 6, 11, 14)

3.3 Ground Water Conclusions

A release of possible hazardous substances to the groundwater is suspected for the following reasons: 1.) Analytical data from on site monitoring wells reveal elevated levels of As, Pb, and Cr in the shallow residuum groundwater. There are no primary targets. The table below illustrates the elevated levels of As, Pb, and Cr as compared to the their MCL's.

Well Number	*Findings mg/L*	*MCL's mg/L*
MW-1	Pb - .022	Pb - .015
	Cr - .11	Cr - .100
MW-2	Pb - .0083	Pb - .015
	Cr - .031	Cr - .100
MW-3	As - .077	As - .050
	Pb - .060	Pb - .015
	Cr - .23	Cr - .100

4. SURFACE WATER PATHWAY

4.1 Hydrologic Setting

The Site is situated in southeastern Tuscaloosa County in what is considered to be the Alluvial Plain district of the East Gulf Coastal Plain physiographic section. The Alluvial Plain district consists of broad flat flood plains along the Tombigbee, Black Warrior, and Sipsey Rivers. The surface elevation at the site is approximately 130 feet AMSL. (Ref. 3)

Surface water drainage from the site appears to be to the west into Cypress Creek. Cypress Creek flows approximately 9 miles to the south into the Black Warrior River. The Black Warrior River comprises the remainder of the 15-mile surface water pathway from the site. Cypress Creek is not listed in the ADEM Admin. Code R. 335-6-11-.02 with a use classification; however, it is noted in the Regulations that segments not listed should be designated as fish and wildlife. The section of the Black Warrior River along the 15-mile surface water pathway from the site is listed with a use classification of fish and wildlife, and has a seven day two year low flow rate of 298 cfs and a seven day ten year low flow rate of 96 cfs. Low flow data for Cypress Creek was not available .There are no known surface water intakes used for public drinking water located along the 15-mile surface water pathway from the site. (Ref. 3,8,10)

4.2 Surface Water Targets

There are no known surface water intakes located within 15 downstream miles of the site. The population within the target area is served by the Tuscaloosa Water Authority surface water intake on Lake Tuscaloosa ~10 miles upgradient from the site. There are no known private drinking water wells within the target area. Cypress Creek and the Black Warrior River are designated with a fish and wildlife classification. There are ~ 6 miles of wetlands within the target area. The table below list the aquatic species that may utilize the surface water pathway within the specified target areas. (Ref. 1,7,8,910,14)

Common Name	*Listing*	*Distribution in Alabama*
Southern Clubshell Mussel	Endangered	Known in Tuscaloosa Co.
Dark Pigtoe Mussel	Endangered	Known in Tuscaloosa Co.
Ovate Clubshell Mussel	Endangered	Known in Tuscaloosa Co.
Inflated Heelsplitter Mussel	Threatened	Known in Tuscaloosa Co.
Pocketbook Mussel	Threatened	Known in Tuscaloosa Co.
Flattened Musk Turtle	Threatened	Known in Tuscaloosa Co.

4.3 Surface Water Conclusion

A release of possible hazardous substances into the surface water pathway is not suspected for the following reasons: 1.) Analytical data from on site surficial soil sampling (0-6") indicates no significant elevated levels of possible hazardous substances above Industrial RBC's. 2.) The distance to the PPE in Cypress Creek (~1/2 mile). There are no primary targets.

5 SOIL EXPOSURE AND AIR PATHWAY

5.1 Physical Conditions

The Soil Conservation Service (SCS) classifies soils at the site as pits. Soils in this map unit consist of areas from which the original soils have been removed. The original soils at the site most likely were classified as Cahaba sandy loam. The soils in this classification are deep, well drained soils that occur on terraces along large streams of the Coastal Plain. These soils have a dark yellowish brown sandy loam surface layer. The upper portion of the subsoil consists of a yellowish red clay loam, and the lower portion of the subsoil consists of a yellowish red sandy clay loam. The underlying material consist of a yellowish, red mottled loamy sand. The permeability of these soils is moderate, and the slopes range from 0 to 4 percent (Ref. 3)

5.2 Soil and Air Targets

AF is presently inactive with no workers on site. There are no nearby residences at this site. The nearest residence is approximately 2640 feet upgradient to the east of the site. The nearest school is approximately 9504 feet upgradient to the northeast of the site. The total population within a 4-mile radius of the site is 45,764. (Ref. 2,14)

The population information given below was obtained from a map house count utilizing the USGS Quadrangle maps. According to Alabama 1990 census records, the persons per household is 2.55.

The total population within the target area has been broken down into sub-populations that live within each specified distance radius from the site. (Ref.2, 4,14)

	POPULATION
0 to ¼ mile	0
1/4 to ½ mile	23
1/2 to 1 mile	41
1 to 2 miles	9,543
2 to 3 miles	17,548
3 to 4 miles	18,609
TOTAL POPULATION	

It is not known if the AF Site is a critical habitat for any of the federally endangered terrestrial species, but the table below list the species that may utilize the land located within the specified target limits. (Ref. 9)

Common Name	***Listing***	***Distribution in Alabama***
Red Cockaded Woodpecker	Endangered	Known in Tuscaloosa Co.

5.3 Soil Exposure and Air Pathway Conclusion

A direct soil exposure threat through incidental ingestion or dermal adsorption is not suspected for the following reasons: 1.) Analytical data from onsite surficial soil samples indicate no significant elevated levels of possible hazardous substances above Industrial RBC's 2.) No nearby residences. 3.) No workers onsite. 4.) The site is fenced. There are no primary targets.

A release via the air pathway is not suspected for the following reasons: 1.) During the site reconnaissance no odors or air borne particulates were detected to indicate a possible release of atmospheric contaminants. 2.) No documentation of any atmospheric releases has been located. There are no primary targets.

6. SUMMARY AND CONCLUSIONS

A release of possible hazardous substances to the groundwater is suspected for the following reasons: 1.) Analytical data from on site monitoring wells reveal elevated levels of As, Pb, and Cr in the shallow residuum groundwater. There are no primary targets.

A release of possible hazardous substances into the surface water pathway is not suspected for the following reasons: 1.) Analytical data from on site surficial soil sampling (0-6") indicates no significant elevated levels of possible hazardous substances above Industrial RBC's. 2.) The distance to the PPE in Cypress Creek (~1/2 mile). There are no primary targets.

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Based on the lack of potential for constituents at this site to impact target populations, ADEM recommends the site be placed in category of no further remedial action planned with respect to CERCLA. Further evaluation of the site at the state level is recommended.

REFERENCES

1. Glaze, John B., ADEM, Land Division, Hazardous Waste Branch, Site Assessment Unit, Site Map of APAC INC.

2. Glaze, John B., ADEM, Land Division, Hazardous Waste Branch, Site Assessment Unit, On Site Reconnaissance Trip Report.

3. Gibson, Joe, ADEM, Ground Water Branch, Water Division, Hydrogeologic Report for APAC INC., August 26, 1999.

4. Demographic Profile, 1990 Census Alabama Counties and Cities, Alabama Data Center.

5. U. S. EPA, Standard Operating Procedure to determine Lat. And Long. Coordinates, 1991, Calculations worksheet for APAC INC.

6. Alabama Department of Environmental Management, Federal Reporting Data System (FRDS-II), Public Water Supply Summary, for Tuscaloosa Water and Sewer.

7 Atkins and Pearman, Low-Flow and Flow-Duration Characteristics of Alabama Streams, USGS , Water Resources Investigations Report 93-4186, 1994.

8. Federal Emergency Management Agency, Flood Insurance Rate Maps, Tuscaloosa County, Alabama. Panel Number 010201 0265 B.

9 State of Alabama, Department of Conservation and Natural Resources, Alabama federally Listed Endangered/Threatened Species, June, 1999.

10. Alabama Department of Environmental Management; Water Division - Water Quality Program, 1993, Water Use Classification for Interstate and Intrastate Waters, Chapters 6-11.

11. Glaze, John B., ADEM, Land Division, Hazardous Waste Branch, Site Assessment Unit, Telephone conversations with Perry Acklin, Tuscaloosa Water and Sewer.

12. TTL INC., 12-98, QORE INC., 6-99, QORE INC., 10-99, APAC INC. Assessment RPT's.

13. Glaze, John B., ADEM, Land Division, Hazardous Waste Branch, Site Assessment Unit, Selected Photo Documentation of APAC INC.

14 U.S.G.S. 7.5-Minute Series Topographic Quadrangle Maps of Alabama: Tuscaloosa 71, Coker 69, Englewood 70, and Fosters 69.

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S3	18327	1,3-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,4-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Dichlorodifluoromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,1-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,2-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,1-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		cis-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		trans-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,3-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		2,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,1-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		cis-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		trans-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Ethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Hexachlorobutadiene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		Isopropylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		4-Isopropyltoulene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Methyl-tert-butyl ether	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Methylene chloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Naphthalene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509

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Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S3	18327	n-Propylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Styrene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Tetrachloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Toluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,2,3-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		1,1,1-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,1,2-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Trichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Trichlorofluoromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		1,2,3-Trichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,2,4-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,3,5-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Vinyl chloride	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		Total Xylenes	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509

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Sampler	: JI/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S4	18328	Acenaphthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Acenaphthlene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Anthracenee	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Aniline	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Azobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzidine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzoic Acid	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Benzo(a)anthracene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzo(b)fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzo(k)fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzo(g,h,i)perylene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzo(a)pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Benzyl alcohol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Butyl benzyl phthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		4-Chloroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		1-Chloronaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2-Chloronaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		4-Chloro-3-methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		2-Chlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Chrysene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330

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Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S4	18328	Dibenz(a,h)anthracene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Dibenzofuran	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Di-n-butylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		1,3-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		1,4-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		1,2-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.070	EPA 8270	JLB	04/20/99/1330
		2,4-Dichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		2,6-Dichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Diethylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2,4-Dimethylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Dimethylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		2,4-Dinitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		2,4-Dinitrotoluene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2,6-Dinitrotoluene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Di-n-octylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Fluorene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Hexachlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Hexachlorobutadiene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Hexachlorocyclopentadiene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Hexachloroethane	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Isophorone	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2-Methylnaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330

Analytical Systems, Inc.
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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S4	18328	3-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		4-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Naphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		3-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		4-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Nitrobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2-Nitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		4-Nitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		N-Nitrosodimethylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		N-Nitrosodiphenylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Pentachlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Phenanthrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		Phenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1330
		2,4,5-Trichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		2,4,6-Trichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1330
		Diesel Range Organics	24.5	mg/Kg	5.0	EPA 8015	JLB/MRH	04/21/99/1156
		Arsenic	23.1	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	62.8	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	ND	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	ND	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S4	18328	Benzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Bromobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Bromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Bromodichloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Bromoform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Bromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		n-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		sec-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		tert-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Carbon tetrachloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Chlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Chloroethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		Chloroform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Chloromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		2-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		4-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Dibromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,2-Dibromo-3-Chloropropane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		1,2-Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,2-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S4	18328	1,3-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,4-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Dichlorodifluoromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,1-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,2-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,1-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		cis-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		trans-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,3-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		2,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,1-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		cis-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		trans-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Ethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Hexachlorobutadiene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		Isopropylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		4-Isopropyltoulene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Methyl-tert-butyl ether	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Methylene chloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Naphthalene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S4	18328	n-Propylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Styrene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Tetrachloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Toluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,2,3-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		1,1,1-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,1,2-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Trichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Trichlorofluoromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		1,2,3-Trichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,2,4-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		1,3,5-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536
		Vinyl chloride	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1536
		Total Xylenes	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1536

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S5	18329	Acenaphthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Acenaphthlene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Anthracenee	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Aniline	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Azobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzidine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzoic Acid	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Benzo(a)anthracene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzo(b)fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzo(k)fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzo(g,h,i)perylene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzo(a)pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Benzyl alcohol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Butyl benzyl phthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		4-Chloroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		1-Chloronaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2-Chloronaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		4-Chloro-3-methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		2-Chlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Chrysene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S5	18329	Dibenz(a,h)anthracene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Dibenzofuran	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Di-n-butylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		1,3-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		1,4-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		1,2-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.070	EPA 8270	JLB	04/20/99/1257
		2,4-Dichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		2,6-Dichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Diethylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2,4-Dimethylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Dimethylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		2,4-Dinitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		2,4-Dinitrotoluene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2,6-Dinitrotoluene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Di-n-octylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Fluorene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Hexachlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Hexachlorobutadiene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Hexachlorocyclopentadiene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Hexachloroethane	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Isophorone	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2-Methylnaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257

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Laboratory Report

Client : Qore Property Sciences
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Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S5	18329	3-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		4-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Naphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		3-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		4-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Nitrobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2-Nitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		4-Nitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		N-Nitrosodimethylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		N-Nitrosodiphenylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Pentachlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Phenanthrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		Phenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1257
		2,4,5-Trichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		2,4,6-Trichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1257
		Diesel Range Organics	36.3	mg/Kg	5.0	EPA 8015	JLB/MRH	04/21/99/1235
		Arsenic	15.5	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	153	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	74.1	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	25.5	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S6	18330	Acenaphthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Acenaphthlene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Anthracenee	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Aniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Azobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzidine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzoic Acid	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Benzo(a)anthracene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzo(b)fluoranthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzo(k)fluoranthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzo(g,h,i)perylene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzo(a)pyrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Benzyl alcohol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Butyl benzyl phthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		4-Chloroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		1-Chloronaphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2-Chloronaphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		4-Chloro-3-methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		2-Chlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Chrysene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S6	18330	Dibenz(a,h)anthracene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Dibenzofuran	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Di-n-butylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		1,3-Dichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		1,4-Dichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		1,2-Dichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.350	EPA 8270	JLB	04/20/99/1152
		2,4-Dichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		2,6-Dichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Diethylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2,4-Dimethylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Dimethylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		2,4-Dinitrophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		2,4-Dinitrotoluene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2,6-Dinitrotoluene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Di-n-octylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Fluoranthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Fluorene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Hexachlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Hexachlorobutadiene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Hexachlorocyclopentadiene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Hexachloroethane	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Isophorone	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2-Methylnaphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2-Methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S6	18330	3-Methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		4-Methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Naphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2-Nitroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		3-Nitroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		4-Nitroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Nitrobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2-Nitrophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		4-Nitrophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		N-Nitrosodimethylamine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		N-Nitrosodiphenylamine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Pentachlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Phenanthrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		Phenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Pyrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1152
		2,4,5-Trichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		2,4,6-Trichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1152
		Arsenic	ND	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	75.3	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	ND	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	24.9	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222

Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S6	18330	Benzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Bromobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Bromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Bromodichloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Bromoform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Bromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		n-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		sec-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		tert-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Carbon tetrachloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Chlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Chloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Chloroform	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		Chloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		2-Chlorotoluene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		4-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Dibromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2-Dibromo-3-Chloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2-Dibromomethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S6	18330	1,3-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,4-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Dichlorodifluoromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,1-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,1-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		cis-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		trans-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,3-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		2,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,1-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		cis-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		trans-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Ethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Hexachlorobutadiene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		Isopropylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		4-Isopropyltoulene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Methyl-tert-butyl ether	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Methylene chloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Naphthalene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S6	18330	n-Propylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Styrene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Tetrachloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Toluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2,3-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		1,1,1-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,1,2-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Trichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Trichlorofluoromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		1,2,3-Trichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,2,4-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		1,3,5-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631
		Vinyl chloride	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1631
		Total Xylenes	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1631

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Laboratory Report

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		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S7	18331	Acenaphthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Acenaphthlene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Anthracenee	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Aniline	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Azobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzidine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzoic Acid	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Benzo(a)anthracene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzo(b)fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzo(k)fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzo(g,h,i)perylene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzo(a)pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Benzyl alcohol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Butyl benzyl phthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		4-Chloroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		1-Chloronaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2-Chloronaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		4-Chloro-3-methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		2-Chlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Chrysene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S7	18331	Dibenz(a,h)anthracene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Dibenzofuran	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Di-n-butylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		1,3-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		1,4-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		1,2-Dichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.070	EPA 8270	JLB	04/20/99/1225
		2,4-Dichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		2,6-Dichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Diethylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2,4-Dimethylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Dimethylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		2,4-Dinitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		2,4-Dinitrotoluene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2,6-Dinitrotoluene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Di-n-octylphthalate	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Fluoranthene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Fluorene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Hexachlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Hexachlorobutadiene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Hexachlorocyclopentadiene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Hexachloroethane	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Isophorone	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2-Methylnaphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S7	18331	3-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		4-Methylphenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Naphthalene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		3-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		4-Nitroaniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Nitrobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2-Nitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		4-Nitrophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		N-Nitrosodimethylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		N-Nitrosodiphenylamine	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Pentachlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Phenanthrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		Phenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Pyrene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.035	EPA 8270	JLB	04/20/99/1225
		2,4,5-Trichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		2,4,6-Trichlorophenol	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1225
		Arsenic	18.9	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	117	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	ND	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	30.3	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S7	18331	Benzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Bromobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Bromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Bromodichloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Bromoform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Bromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		n-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		sec-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		tert-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Carbon tetrachloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Chlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Chloroethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		Chloroform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Chloromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		2-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		4-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Dibromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,2-Dibromo-3-Chloropropane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		1,2-Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,2-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-
		ASI Project #	:
		Date Received	: 8-
Client Project #	: APAC	**Sample Matrix**	:
Sample Date	: 4/6/99	**Lab ID**	: Se
Sampler	: JJ/KB	**Sample ID**	: Se

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/ Anal
S7	18331	1,3-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		1,4-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		Dichlorodifluoromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		1,1-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		1,2-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		1,1-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		cis-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		trans-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		1,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		1,3-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		2,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		1,1-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/9
		cis-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		trans-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		Ethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		Hexachlorobutadiene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99
		Isopropylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		4-Isopropyltoulene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		Methyl-tert-butyl ether	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		Methylene chloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99
		Naphthalene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222

Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S7	18331	n-Propylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Styrene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Tetrachloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Toluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,2,3-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		1,1,1-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,1,2-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Trichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Trichlorofluoromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		1,2,3-Trichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,2,4-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		1,3,5-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602
		Vinyl chloride	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1602
		Total Xylenes	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1602

= Concentration is less than detection limit
:od Reference:
Methods for the Chemical Analysis of Water and Wastes. March, 1983
lard Methods for the Examination of Water and Wastewater. 19th Edition, 1995.
Methods for Evaluating Solid Waste. November, 1986, SW-846, 3rd Edition.

ved By: John L. Baker

Date: 4/21/99

This report has been prepared for

APAC, INC.
POST OFFICE BOX 818
BIRMINGHAM, ALABAMA 35201

and prepared by

QORE, Inc.
3608 7th COURT SOUTH
BIRMINGHAM, ALABAMA 35222
QORE PROJECT NO 9603

PRELIMINARY CONTAMINATION ASSESSMENT

for the

FORMER APAC TUSCALOOSA SITE
5356 MARTIN LUTHER KING BOULEVARD
TUSCALOOSA, ALABAMA

October 7, 1999

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APPENDICES

APPENDIX A: SITE LAYOUT WITH SOIL AND GROUNDWATER BORING LOCATIONS

APPENDIX B: LABORATORY ANALYTICAL REPORTS

QORE

PROPERTY SCIENCES

October 7, 1999

Alabama Department of
Environmental Management
1751 Congressman W.L. Dickinson Drive
Montgomery, Alabama 36109

Attention: Mr. John Glaze

Re: Report of Findings
Preliminary Contamination Assessment
Former APAC Tuscaloosa Facility
Tuscaloosa, Alabama
Project No: 9603A

Dear Mr. Glaze:

On behalf of APAC, Inc., QORE, Inc. has prepared this Report of Findings for the Preliminary Contamination Assessment conducted at the former location of the APAC Tuscaloosa facility. This assessment was conducted at the request of Mr. Jim Ray of APAC, Inc., to assess the presence of contamination related to the APAC asphalt plant that was in operation at the subject property from the early 1980's to 1998.

[redacted] walkover for the facility [redacted]nc. of Tuscaloosa, Alabama in December of 1998 to identify areas of environmental concern related to the former use of the property. Based on conversations with Mr. Ray of APAC and the findings of TTL's site reconnaissance, it is the understanding of QORE that the subject site was previously occupied by a hot mix asphalt plant comprised of the following: and one 200 ton hot asphalt storage bin, one control module, one office trailer, three storage trailers, one secondary containment area for above ground storage tanks. Additional areas of concern identified by Mr. Ray included an exterior storage area for slag, exterior area for truck spray-down, and a retention pond for facility runoff.

[redacted] the former APAC Tuscaloosa site located at 5356 Martin Luther King Boulevard in Tuscaloosa, Alabama. Evidence was found to indicate the presence of Arsenic and diesel range organics in soil and groundwater samples. The results of the findings of the [redacted] were reported to the ADEM which in turn recommended further investigation at the site.

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The scope of the Assessment was intended to address the possible presence of soil and/or groundwater contamination related to the APAC facility and its possible environmental impact to the site and was based on information supplied to QORE by Jim Ray of APAC. The assessment included a site reconnaissance, field sampling and laboratory analysis of soil and groundwater, a determination of environmental impact, and a recommendation of further assessment.

2.0 INTRODUCTION

[redacted]ity formerly located at 5356 Martin Luther King Boulevard in Tuscaloosa, Alabama. This report documents the field investigation activities, laboratory analyses and recommendations for further assessment.

2.1 AUTHORIZATION

Authorization to perform the assessment was given by Mr. James Ray of APAC, Inc in the form of a signed proposal acceptance sheet (PB-3823C) dated August 27, 1999.

2.2 SITE DESCRIPTION

The subject site is located in the southwest ¼ of Section 4, Township 22 South, Range 10 West of the U.S.G.S. 7.5 minute series, Tuscaloosa, Alabama, Quadrangle, topographic map. More specifically, the site is situated at 5356 Martin Luther King Boulevard in Tuscaloosa, Alabama. The topography of the site is relatively level, with a slight grade to the southwest. An approximately two acre pond occupies the northern half of the property.

[redacted] Based on published reports, the geology of the site consists of recent alluvial and low terrace deposits overlying Cretaceous deposits, which consist of the Eutaw, Gordo, and Coker formations. These formations would constitute the upper aquifer systems that could be impacted through surface contamination through infiltration and recharge. The recent overburden consists of primarily very-pale orange to greyish-orange, fine to coarse grained sands with sporadic clay and gravel lenses.

2.3 FACILITY BACKGROUND

QORE was contacted concerning possible contamination of the subject site by Mr. Jim Ray of APAC, Inc. It is the understanding of QORE that the approximately 5 acre subject property was occupied by the APAC Tuscaloosa hot mix asphalt plant from the early 1980's to 1998. Areas of environmental concern related to the APAC facility include the following: use and storage of trichloroethylene (TCE) in the on-site laboratory; operation of a hot mix asphalt plant; exterior storage of above ground fuel tanks; exterior storage of slag material; exterior spray-down of trucks; and retention pond for storage of facility runoff.

2.4 PURPOSE AND SCOPE

The purpose of this Preliminary Contamination Assessment was to determine the presence of environmental impact to the soil and groundwater related to the former operations of the APAC facility. QORE relied upon information provided by Mr. James Ray of APAC, Inc. and TTL, Inc. to prepare the scope of work for this investigation.

The assessment included a site reconnaissance, field sampling and laboratory analysis of soil and groundwater in the areas of concern listed in Section 2.3, and recommendations of further assessment.

3.0 ASSESSMENT ACTIVITIES

Field investigation and sampling activities were conducted between August 31, `1999 and September 3, 1999 by Mr. John D. Jolly, Environmental Geologist, of QORE, Inc.

3.1 SOIL ASSESSMENT

Soil samples were collected using a combination of hand augering techniques and a CME 55 drill rig as follows:

Background – For the purpose of establishing background concentrations, one soil sample (SBG1) was collected approximately 2.5 feet below land surface (bls) from an area upgradient and across the existing lake at the site. The sample was collected using hand-augering techniques. The background sample was analyzed for Arsenic (As), Lead (Pb) and Chromium (Cr).

Former Retention Pond - This area was gridded and five sampling points were randomly selected for the purposes of compositing a representative surface sample (0-6"). One boring (SB2) was advanced in the approximate center of the former retention pond to a total depth of 5 feet bls using the drill rig. Samples were collected at 2.5 feet and 5 feet bls. Each sample was analyzed for As, Pb, and Cr. In addition to the metals analysis, the samples were screened using a Photoionization Detector. The sample with the highest PID reading was analyzed for Volatile Organic Compounds (VOCs) and Semi-volatile Organic Compounds (SVOCs). Field screening was conducted as follows. From each split-spoon a representative portion of the soil was collected using field preservation methods. From the remainder of the soil in the split spoon a sample was collected and placed in a glass jar and sealed with aluminum foil for screening purposes. The split samples were given approximately 1 hour to volatilize and then be headspace tested using an H-Nu Photoionization Detector.

Former Diked Fuel Storage Area - This area was gridded and five sampling points were randomly selected for the purpose of compositing one surface sample (0-6") representative of the area. One boring (SB3) was advanced in the approximate center of the former diked fuel storage area to a total depth of 5 feet bls. Samples were collected using split spoon sampling techniques at depths of 2.5 and 5 feet bls. Each sample was analyzed for As, Pb, and Cr. In addition to the metals analysis, the samples were screened using a Photoionization Detector. The sample with the highest PID reading was analyzed for VOCs, SVOCs and PCBs.

Former Hot Mix Plant - This area was gridded and five sampling points were randomly selected for the purposes of compositing one surface sample (0-6") representative of the area. One boring (SB4) was advanced in the approximate center of the former hot mix plant to a total depth of 5 feet bls. Samples were collected using split spoon sampling techniques at depths of 2.5 and 5 feet bls. The surface sample and the 2.5 ft sample was analyzed for As, Pb, and Cr. The 5 foot sample was analyzed for 8 RCRA Metals. In addition to the metals analysis, the samples were screened using a Photoionization Detector. The sample with the highest PID reading was analyzed for VOCs and SVOCs.

Former Truck Spray-Down Area - This area was gridded and five sampling points were randomly selected for the purposes of compositing one surface sample (0-6") representative of the area. One boring (SB5) was advanced in the approximate center of the former truck spray-down area to a total depth of 5 feet bls. Samples were collected using split spoon sampling techniques at depths of 2.5 and 5 feet bls. Each sample was analyzed for As, Pb, and Cr. In addition to the metals analysis, the samples were field screened. The sample with the highest PID reading was analyzed for VOCs and SVOCs.

Former Onsite Laboratory - This area was gridded and five sampling points were randomly selected for the purposes of compositing one surface sample (0-6") representative of the area. One boring (SB6) was advanced at the approximate center of the old office location. Samples were collected at 2.5 and 5 feet bls. These samples were analyzed for As, Pb and Cr. In addition the samples were field screened. The sample which exhibited the highest organic vapor concentration was analyzed for SVOCs and VOCs.

Retention Pond Sludge Area – An area where sludge from the onsite retention pond was possibly dumped was gridded and five sampling points were randomly selected for the purposes of compositing one surface sample (0-6") representative of the area. The composite sample was analyzed for 8 RCRA Metals.

Slag - Slag material in the area of the former slag pile was sampled and analyzed for 8 RCRA Metals to determine if the slag could have been the source of onsite metals contamination.

Surface samples were not analyzed for VOCs or SVOCs because it is unlikely that such compounds would still be present in the upper 6 inches of soil. All soil borings were backfilled following the completion of sampling activities.

3.2 GROUNDWATER ASSESSMENT

In addition to the soil samples, three permanent groundwater monitoring wells were installed onsite. A total of 3 groundwater samples were collected to assess possible groundwater contamination related to former APAC operations. QORE advanced three borings to depths of approximately 30 feet BLS. The borings were extended using a CME 55 truck mounted drill rig with 6 inch hollow-stem augers, and converted to permanent monitoring wells. Monitoring Well MW-1 was placed adjacent to the former truck spray-down area. Monitoring Well MW-2 was placed on the south side of the former retention pond. Monitoring Well MW-3 was placed between the former lab and office adjacent to Moody Swamp Road. Following completion of the well construction, each well was developed and purged. Approximately 24 hours following purging, each well was sampled using disposable dual-check valve bailers. The samples were collected from the water column at a depth

of approximately 20 feet below the top of casing in each well. The groundwater samples were analyzed for VOCs, SVOCs, As, Cr, and Pb metals. Locations of monitoring wells can be found in Appendix A.

To assess the direction of groundwater flow, a relative survey of each well was conducted using a Leica Wild NA 24 survey level. [redacted]

3.3 ANALYTICAL PROTOCOL

Soil and groundwater samples were properly contained, placed on ice for cooling and submitted under chain of custody to Environmental Science Corporation in Mt. Juliet, Tennessee for analysis. A complete copy of the laboratory analytical report and chain of custody documentation is provided in Appendix B.

4.0 FINDINGS

4.1 SOIL ASSESSMENT

The following table summarizes the analytical results of soil samples collected during the Preliminary Contamination Assessment of the subject property:

Table 4.1
Detected Analytes –
Soil Assessment

SAMPLE I.D. NUMBER	SAMPLE LOCATION	RCRA METALS (mg/Kg)	SVOCS (mg/Kg)	VOCS (mg/Kg)
Slag	Former Slag Pile	0.026 – Hg 54 – Ba 3.8 – Cd 730 – Cr 8.3 – Pb 4.5 - Se	N/A	N/A
SBG1 2-5' bls	Background north side of lake	7.8 – Cr 8.4 - Pb	N/A	N/A
SB2 SURFACE, 0-6 IN	Former Retention Pond Composite	3.8 – As 11 – Cr 9.7 - Pb	N/A	N/A
SB2 2.5' bls	Former Retention Pond	6.0 – Cr 5.6 - Pb	ND	Benzene – 0.0017 Bromodichloromethane – 0.00082 1,2-Dichloropropane – 0.00095 MEK – 0.024 Toluene – 0.0016 Xylenes - 0.036
SB2 5 ' bls	Former Retention Pond	10 - Cr 2.8 - Pb	N/A	N/A

Ar BACKGROUND

SAMPLE I.D. NUMBER	SAMPLE LOCATION	RCRA METALS (mg/Kg)	SVOCS (mg/Kg)	VOCS (mg/Kg)
SB3 SURFACE, 0-6 IN	Former Diked Fuel Storage Area Composite	2.1 – As 32 – Cr 7.6 - Pb	N/A	N/A
SB3 2.5' bls	Former Diked Fuel Storage Area	12 - Cr 3.4 - Pb	N/A	N/A
SB3 5' bls	Former Diked Fuel Storage Area	6.3 - Cr 4.4 - Pb	ND	Cis-1,2-Dichloroethene – 0.00072 Trans-1,3-Dichloropropene- 0.00076
SB4 SURFACE, 0-6"	Former Hot Mix Plant Composite	2.1 – As 27 – Cr 3.9 - Pb	N/A	N/A
SB4 2.5' bls	Former Hot Mix Plant	30 - Cr 5.0 - Pb	ND	Trans-1,3-Dichloropropene- 0.00082
SB4 5' bls	Former Hot Mix Plant	9.2 – Ba 2.7 - Cr 1.1 - Pb	N/A	N/A
SB5 SURFACE, 0-6"	Former Truck Spray-Down Area Composite	1.6 – As 34 – Ba 4.4 - Pb	N/A	N/A
SB5 2.5' bls	Former Truck Spray-Down Area	7.9 - Cr 5.3 - Pb	ND	Trans-1,3-Dichloropropene- 0.00069
SB5 5' bls	Former Truck Spray-Down Area	1.3 – As 13 – Cr 5.6 - Pb	N/A	N/A
SB6 SURFACE, 0-6 IN	Former Onsite Lab Composite	0.61 – As 4.0 – Cr 2.8 - Pb	N/A	N/A
SB6 2.5' bls	Former Onsite Lab	1.7 – As 16 – Cr 13 - Pb	ND	Benzene – 0.0085 Chlorobenzene – 0.00095 1,1-Dichloroethane – 0.0021 Ethylbenzene – 0.76 Toluene – 0.12 Xylenes – 3.5
SB6 5' bls	Former Onsite Lab	1.7 – As 16 – Cr 13 - Pb	N/A	N/A
SB7 0-6" bls	Assumed Former Sludge Spread Area	0.033 – Hg 71 – Ba 0.33 – Cd 5.9 – Cr 7.5 – Pb	N/A	N/A

ND – Non Detectable, NA – Not Applicable, mg/Kg – milligrams per Kilogram

[redacted] Scenario" for most of the samples [redacted] The [redacted] was as follows: the arsenic level in sample "SB2 [redacted] It [redacted] be [redacted] that arsenic was not d[redacted] is not the source of arsenic at the [redacted]) Initia[redacted]lead. None of the [redacted] this concentration. Analysis revealed the slag sample to contain [redacted] of all other samples yielded concentrations of Total Chro[redacted]

[redacted] analyzed for SVOCs [redacted] None of the samples [redacted] established by "Region 3 RBGC - In[redacted]

[redacted] within a mile of the site and no surface water bodies [redacted] vicinity) [redacted]imal.

4.2 GROUNDWATER ASSESSMENT

The following table summarizes the findings of our April 6, 1999 Preliminary Contamination Assessment of the subject property:

Table 4.2
Detected Analytes - Groundwater Assessment

SAMPLE I.D. NUMBER	WELL LOCATION	RCRA METALS (mg/L)	SVOCS (mg/L)	VOCS (mg/L)
MW-1	North Side of Former Truck Spray-Down Area	**0.022 – Pb** 0.11 – Cr	ND	0.013 – Chloroform
MW-2	Down Gradient of Retention Pond	0.0083 – Pb 0.031 – Cr	ND	ND
MW-3	Between Former Office and Lab	**0.077 – As** **0.060 – Pb** 0.23 – Cr	ND	0.011 – Chloroform

ND – Non Detectable, mg/L – milligrams per Liter
Bolded items indicated exceedence of Industrial ISLs for groundwater.

[redacted] 0.[redacted] lead [redacted] mg/L and 0.060 mg/L, respectively, both slightly higher than the AD[redacted] low conce[redacted] levels of 0.11 mg/L, 0.031 [redacted]nd 0.23 mg/[redacted]

[redacted] samples had detectable levels [redacted] With exception of chloroform, none of the [redacted] ituents were detected at [redacted] than those set forth in "Region 3 RBGC - Water Scenario".

[redacted] concentrations of metals and semi-volatile [redacted] water and the distance to the closest receptors (no water wells within a mile of the site and no surface water bodies in the site vicinity), the possibility of impact to [redacted] minimal.

5.0 RECOMMENDATIONS

Based on [redacted] results of this contamination assessment, QORE, Inc. recommends No Further Action on the property.

6.0 ACKNOWLEDGEMENT

Should you have any questions concerning this report or its findings, please contact one of the undersigned.

Sincerely,

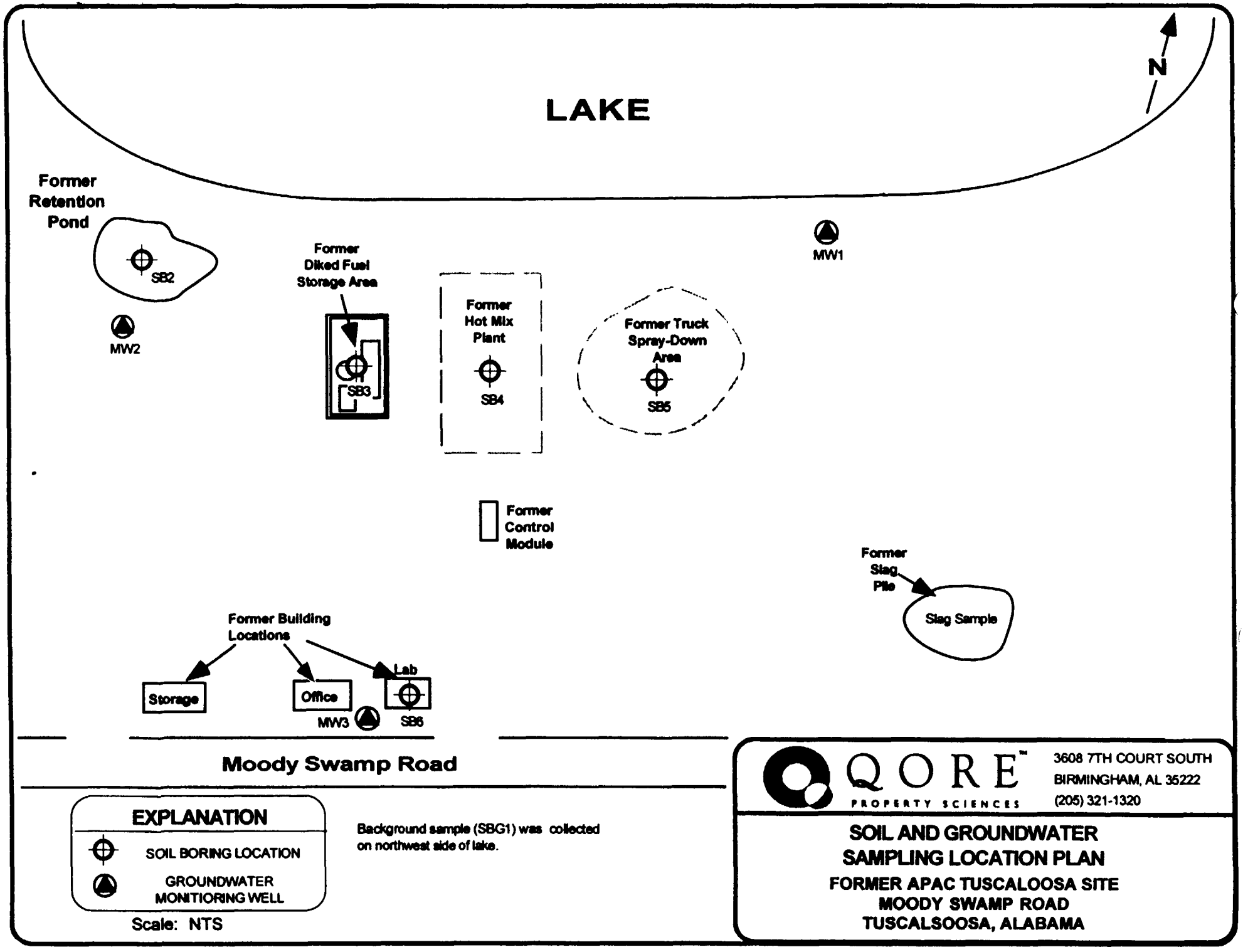
QORE, Inc.

Karen M. Boykin,
Environmental Engineer

Katrina D. Jarboe
Environmental Engineer

APPENDIX A

SOIL & GROUNDWATER
SAMPLING LOCATION PLAN
BORING LOGS


LAKE
N
Former Retention Pond
SB2
MW2
Former Diked Fuel Storage Area
SB3
Former Hot Mix Plant
SB4
Former Truck Spray-Down Area
SB5
MW1
Former Control Module
Former Slag Pile
Slag Sample
Former Building Locations
Storage
Office
Lab
MW3
SB6
Moody Swamp Road
EXPLANATION
SOIL BORING LOCATION
GROUNDWATER MONITIORING WELL
Scale: NTS
Background sample (SBG1) was collected on northwest side of lake.
QORE PROPERTY SCIENCES
3608 7TH COURT SOUTH
BIRMINGHAM, AL 35222
(205) 321-1320
SOIL AND GROUNDWATER SAMPLING LOCATION PLAN
FORMER APAC TUSCALOOSA SITE
MOODY SWAMP ROAD
TUSCALSOOSA, ALABAMA

QORE
PROPERTY SCIENCES
3608 7th Court South - Birmingham, AL 35222
Phone (205) 321-1320 Fax (205) 321-1323

BORING RECORD

JOB NAME: APAC

JOB NO: 9603A

LOCATION: Tuscaloosa, AL

ELEVATION [FT]	DEPTH [FT]	GRAPHIC LOG	SOIL-ROCK DESCRIPTION	N	S	REC	RQD	REMARKS
	0.0		CLAY, (CH), fill material with gravel, moist, black.					
	5.0							
			SILTY SANDY CLAY, (CL-ML), medium plastic, moist, brown.					
	10.0							
	15.0							
			SILTY SAND, (SM), fine grained, dark gray, wet.					Wet at 16 ft.
	20.0							
	25.0							
	30.0		Boring terminated at 30 feet.					

Drilling Method: Hollow-Stem Augers	Boring Number: MW-1
Drill Rig: CME-550	Sheet 1 of 1
Logged By: John Jolly with QORE, Inc.	Elevation:
Date: 8/31/99	Groundwater Depth: 16

QORE
PROPERTY SCIENCES
3608 7th Court South - Birmingham, AL 35222
Phone (205) 321-1320 Fax (205) 321-1323

BORING RECORD

JOB NAME: APAC

JOB NO: 9603A

LOCATION: Tuscaloosa, AL

ELEVATION [FT]	DEPTH [FT]	GRAPHIC LOG	SOIL-ROCK DESCRIPTION	N	S	REC	RQD	REMARKS
	0.0		SANDY CLAY, (SC), well rounded gravel, black.					20 ft. Screen, 10 ft. Riser.
			fine grained sand, black.					
	5.0		moist.					
			SILTY CLAY, (CL-ML), low plastic, dark gray, wet to moist.					
	10.0							
	15.0							
			low plastic, brown, wet to moist.					
	20.0							
			wet.					
			SILTY SAND, (SM), fine grain, dark gray, wet.					
	25.0							
	30.0							
			Boring terminated at 30 feet.					

Drilling Method:	**Boring Number: MW-2**
Drill Rig:	Sheet 1 of 1
Logged By:	Elevation:
Date: 8/30/99	Groundwater Depth: 22

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PROPERTY SCIENCES
3608 7th Court South - Birmingham, AL 35222
Phone (205) 321-1320 Fax (205) 321-1323

BORING RECORD

JOB NAME: APAC

JOB NO: 9603A

LOCATION: Tuscaloosa, AL

ELEVATION (FT)	DEPTH (FT)	GRAPHIC LOG	SOIL-ROCK DESCRIPTION	N	S	REC	RQD	REMARKS
	0.0		CLAY, (CH), fill with gravel, black, moist.					
	5.0		SILTY SANDY CLAY, (CL-ML), brown, moist.					
	10.0							
			SILTY SAND, (SM), fine grained, dark gray, wet.					
	15.0							
	20.0							
	25.0							
	30.0		Boring terminated at 30 feet.					

Drilling Method:	**Boring Number: MW-3**
Drill Rig:	Sheet 1 of 1
Logged By:	Elevation:
Date: 8/30/99	Groundwater Depth: 14

APPENDIX B

LABORATORY ANALYTICAL REPORTS

CHAIN OF CUSTODY

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-01

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Groundwater-APAC Tuscaloosa

Client ID : MW1 20 FT.

Collected By : John Jolly
Collection Date : 09/03/99 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Arsenic	BDL	0.0050	mg/l	6010	09/14/99	1
Lead	0.022	0.0050	mg/l	6010	09/14/99	1
Chromium	0.11	0.0020	mg/l	6010	09/14/99	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260	09/09/99	1
Benzene	BDL	0.0010	mg/l	8260	09/09/99	1
Bromodichloromethane	BDL	0.0010	mg/l	8260	09/09/99	1
Bromoform	BDL	0.0010	mg/l	8260	09/09/99	1
Bromomethane	BDL	0.0010	mg/l	8260	09/09/99	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260	09/09/99	1
Chlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260	09/09/99	1
Chloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
2-Chloroethyl vinyl ether	BDL	0.0010	mg/l	8260	09/09/99	1
Chloroform	0.013	0.0050	mg/l	8260	09/09/99	1
Chloromethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260	09/09/99	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260	09/09/99	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260	09/09/99	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260	09/09/99	1
Ethylbenzene	BDL	0.0010	mg/l	8260	09/09/99	1
2-Butanone (MEK)	BDL	0.050	mg/l	8260	09/09/99	1
Methylene Chloride	BDL	0.0050	mg/l	8260	09/09/99	1
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/l	8260	09/09/99	1
Methyl tert-butyl ether	BDL	0.050	mg/l	8260	09/09/99	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
Tetrachloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
Toluene	BDL	0.0010	mg/l	8260	09/09/99	1

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-01

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Groundwater-APAC Tuscaloosa

Client ID : MW1 20 FT.

Collected By : John Jolly
Collection Date : 09/03/99 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Isophorone	BDL	0.010	mg/l	8270	09/09/99	1
Naphthalene	BDL	0.010	mg/l	8270	09/09/99	1
Nitrobenzene	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270	09/09/99	1
Phenanthrene	BDL	0.010	mg/l	8270	09/09/99	1
Benzylbutyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Bis(2-ethylhexyl)phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Di-n-butyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Diethyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Dimethyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Di-n-octyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Pyrene	BDL	0.010	mg/l	8270	09/09/99	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270	09/09/99	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270	09/09/99	1
2-Chlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270	09/09/99	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
2-Nitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
4-Nitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
Pentachlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
Phenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
Surrogate Recovery						
Nitrobenzene-d5	100		% Rec.	8270	09/09/99	1
2-Fluorobiphenyl	110		% Rec.	8270	09/09/99	1
p-Terphenyl-d14	140		% Rec.	8270	09/09/99	1
Phenol-d5	32.		% Rec.	8270	09/09/99	1
2-Fluorophenol	39.		% Rec.	8270	09/09/99	1
2,4,6-Tribromophenol	89.		% Rec.	8270	09/09/99	1

Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
Please review all information in this report for accuracy and completeness.
Contact our office within ten days if there are any questions.

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-02

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Groundwater-APAC Tuscaloosa

Client ID : MW2 20 FT.

Collected By : John Jolly
Collection Date : 09/03/99 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Arsenic	BDL	0.0050	mg/l	6010	09/14/99	1
Lead	0.0083	0.0050	mg/l	6010	09/14/99	1
Chromium	0.031	0.0020	mg/l	6010	09/14/99	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260	09/09/99	1
Benzene	BDL	0.0010	mg/l	8260	09/09/99	1
Bromodichloromethane	BDL	0.0010	mg/l	8260	09/09/99	1
Bromoform	BDL	0.0010	mg/l	8260	09/09/99	1
Bromomethane	BDL	0.0010	mg/l	8260	09/09/99	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260	09/09/99	1
Chlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260	09/09/99	1
Chloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
2-Chloroethyl vinyl ether	BDL	0.0010	mg/l	8260	09/09/99	1
Chloroform	BDL	0.0050	mg/l	8260	09/09/99	1
Chloromethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260	09/09/99	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260	09/09/99	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260	09/09/99	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260	09/09/99	1
Ethylbenzene	BDL	0.0010	mg/l	8260	09/09/99	1
2-Butanone (MEK)	BDL	0.050	mg/l	8260	09/09/99	1
Methylene Chloride	BDL	0.0050	mg/l	8260	09/09/99	1
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/l	8260	09/09/99	1
Methyl tert-butyl ether	BDL	0.050	mg/l	8260	09/09/99	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
Tetrachloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
Toluene	BDL	0.0010	mg/l	8260	09/09/99	1

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-02

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Groundwater-APAC Tuscaloosa

Client ID : MW2 20 FT.

Collected By : John Jolly
Collection Date : 09/03/99 11:00

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Isophorone	BDL	0.010	mg/l	8270	09/09/99	1
Naphthalene	BDL	0.010	mg/l	8270	09/09/99	1
Nitrobenzene	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270	09/09/99	1
Phenanthrene	BDL	0.010	mg/l	8270	09/09/99	1
Benzylbutyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Bis(2-ethylhexyl)phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Di-n-butyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Diethyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Dimethyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Di-n-octyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Pyrene	BDL	0.010	mg/l	8270	09/09/99	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270	09/09/99	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270	09/09/99	1
2-Chlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270	09/09/99	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
2-Nitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
4-Nitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
Pentachlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
Phenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
Surrogate Recovery						
Nitrobenzene-d5	110		% Rec.	8270	09/09/99	1
2-Fluorobiphenyl	100		% Rec.	8270	09/09/99	1
p-Terphenyl-d14	90.		% Rec.	8270	09/09/99	1
Phenol-d5	21.		% Rec.	8270	09/09/99	1
2-Fluorophenol	30.		% Rec.	8270	09/09/99	1
2,4,6-Tribromophenol	85.		% Rec.	8270	09/09/99	1

Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-03

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Groundwater-APAC Tuscaloosa

Client ID : MW3 20 FT.

Collected By : John Jolly
Collection Date : 09/03/99 12:44

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Arsenic	0.077	0.0050	mg/l	6010	09/14/99	1
Lead	0.060	0.0050	mg/l	6010	09/14/99	1
Chromium	0.23	0.0020	mg/l	6010	09/14/99	1
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260	09/09/99	1
Benzene	BDL	0.0010	mg/l	8260	09/09/99	1
Bromodichloromethane	BDL	0.0010	mg/l	8260	09/09/99	1
Bromoform	BDL	0.0010	mg/l	8260	09/09/99	1
Bromomethane	BDL	0.0010	mg/l	8260	09/09/99	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260	09/09/99	1
Chlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260	09/09/99	1
Chloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
2-Chloroethyl vinyl ether	BDL	0.0010	mg/l	8260	09/09/99	1
Chloroform	0.011	0.0050	mg/l	8260	09/09/99	1
Chloromethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260	09/09/99	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260	09/09/99	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260	09/09/99	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260	09/09/99	1
Di-isopropyl ether	BDL	0.0010	mg/l	8260	09/09/99	1
Ethylbenzene	BDL	0.0010	mg/l	8260	09/09/99	1
2-Butanone (MEK)	BDL	0.050	mg/l	8260	09/09/99	1
Methylene Chloride	BDL	0.0050	mg/l	8260	09/09/99	1
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/l	8260	09/09/99	1
Methyl tert-butyl ether	BDL	0.050	mg/l	8260	09/09/99	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260	09/09/99	1
Tetrachloroethene	BDL	0.0010	mg/l	8260	09/09/99	1
Toluene	BDL	0.0010	mg/l	8260	09/09/99	1

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-03

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Groundwater-APAC Tuscaloosa

Client ID : MW3 20 FT.

Collected By : John Jolly
Collection Date : 09/03/99 12:44

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Isophorone	BDL	0.010	mg/l	8270	09/09/99	1
Naphthalene	BDL	0.010	mg/l	8270	09/09/99	1
Nitrobenzene	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodimethylamine	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270	09/09/99	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270	09/09/99	1
Phenanthrene	BDL	0.010	mg/l	8270	09/09/99	1
Benzylbutyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Bis(2-ethylhexyl)phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Di-n-butyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Diethyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Dimethyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Di-n-octyl phthalate	BDL	0.010	mg/l	8270	09/09/99	1
Pyrene	BDL	0.010	mg/l	8270	09/09/99	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270	09/09/99	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270	09/09/99	1
2-Chlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270	09/09/99	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
2-Nitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
4-Nitrophenol	BDL	0.010	mg/l	8270	09/09/99	1
Pentachlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
Phenol	BDL	0.010	mg/l	8270	09/09/99	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270	09/09/99	1
Surrogate Recovery						
Nitrobenzene-d5	98.		% Rec.	8270	09/09/99	1
2-Fluorobiphenyl	98.		% Rec.	8270	09/09/99	1
p-Terphenyl-d14	84.		% Rec.	8270	09/09/99	1
Phenol-d5	22.		% Rec.	8270	09/09/99	1
2-Fluorophenol	30.		% Rec.	8270	09/09/99	1
2,4,6-Tribromophenol	67.		% Rec.	8270	09/09/99	1

Leslie Newton
Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-05

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Soil-APAC Tuscaloosa

Client ID : SB2 SURFACE 0-6 IN.

Collected By : John Jolly
Collection Date : 09/03/99 14:00

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Arsenic	3.8	0.25	mg/kg	6010	09/13/99	1
Chromium	11.	0.10	mg/kg	6010	09/13/99	1
Lead	9.7	0.25	mg/kg	6010	09/13/99	1

Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-06

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Soil-APAC Tuscaloosa

Client ID : SB6 SURFACE 0-6 IN.

Collected By : John Jolly
Collection Date : 09/03/99 14:15

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Arsenic	0.61	0.25	mg/kg	6010	09/13/99	1
Chromium	4.0	0.10	mg/kg	6010	09/13/99	1
Lead	2.8	0.25	mg/kg	6010	09/13/99	1

Leslie Newton
Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-07

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Soil-APAC Tuscaloosa

Client ID : SBG1 2-5 FT.

Collected By : John Jolly
Collection Date : 09/03/99 14:35

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Arsenic	BDL	0.50	mg/kg	6010	09/13/99	1
Chromium	7.8	0.10	mg/kg	6010	09/13/99	1
Lead	8.4	0.25	mg/kg	6010	09/13/99	1

Leslie Newton
Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 23,1999

ESC Sample # : L1686-08

Project : GROEBAL-APAC

Date Received : September 08, 1999

Description : Soil-APAC Tuscaloosa

Client ID : SB7 SURFACE 0-6 IN.

Collected By : John Jolly
Collection Date : 09/03/99 14:45

Parameter	Result	Det. Limit	Units	Method	Date	Dilution
Mercury	0.033	0.010	mg/kg	7470	09/09/99	1
Arsenic	BDL	0.50	mg/kg	6010	09/13/99	1
Barium	71.	0.10	mg/kg	6010	09/13/99	1
Cadmium	0.33	0.10	mg/kg	6010	09/13/99	1
Chromium	5.9	0.10	mg/kg	6010	09/13/99	1
Lead	7.5	0.25	mg/kg	6010	09/13/99	1
Selenium	BDL	0.50	mg/kg	6010	09/13/99	1
Silver	BDL	0.50	mg/kg	6010	09/13/99	1

Leslie Newton, ESC Representative

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Slag Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 11:24

ESC Sample # : L1479-01
Project : GROEBAL-APAC
Client ID : ASPHALT PLANT

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	98.		%	160.3	09/03/99	1
Mercury	0.026	0.010	mg/kg	7470	09/07/99	1
Arsenic	BDL	0.51	mg/kg	6010	09/04/99	1
Barium	54.	0.10	mg/kg	6010	09/04/99	1
Cadmium	3.8	0.10	mg/kg	6010	09/04/99	1
Chromium	730	0.10	mg/kg	6010	09/04/99	1
Lead	8.3	0.26	mg/kg	6010	09/04/99	1
Selenium	4.5	0.26	mg/kg	6010	09/04/99	1
Silver	BDL	0.10	mg/kg	6010	09/04/99	1

Leslie Newton
Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 13:41

ESC Sample # : L1479-03
Project : GROEBAL-APAC
Client ID : SB4 SURFACE, 0-6"

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	99.		%	160.3	09/03/99	1
Arsenic	2.1	0.25	mg/kg	6010	09/04/99	1
Chromium	27.	0.10	mg/kg	6010	09/04/99	1
Lead	3.9	0.25	mg/kg	6010	09/04/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 13:55

ESC Sample # : L1479-02
Project : GROEBAL-APAC
Client ID : SB3 SURFACE, 0-6 I

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	97.		%	160.3	09/03/99	1
Arsenic	2.1	0.26	mg/kg	6010	09/04/99	1
Chromium	32.	0.10	mg/kg	6010	09/04/99	1
Lead	7.6	0.26	mg/kg	6010	09/04/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 11:15

ESC Sample # : L1479-04
Project : GROEBAL-APAC
Client ID : SB5 SURFACE, 0-6 I

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	100		%	160.3	09/03/99	1
Arsenic	1.6	0.25	mg/kg	6010	09/04/99	1
Chromium	34.	0.10	mg/kg	6010	09/04/99	1
Lead	4.4	0.25	mg/kg	6010	09/04/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 14:09

ESC Sample # : L1479-05
Project : GROEBAL-APAC
Client ID : SB2 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	93.		%	160.3	09/03/99	1
Arsenic	BDL	0.54	mg/kg	6010	09/04/99	1
Chromium	6.0	0.11	mg/kg	6010	09/04/99	1
Lead	5.6	0.27	mg/kg	6010	09/04/99	1
Volatile Organics						
Acetone	BDL	0.038	mg/kg	8260	09/04/99	.7
Benzene	0.0017	0.00075	mg/kg	8260	09/04/99	.7
Bromodichloromethane	0.00082	0.00075	mg/kg	8260	09/04/99	.7
Bromoform	BDL	0.00075	mg/kg	8260	09/04/99	.7
Bromomethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
Carbon tetrachloride	BDL	0.00075	mg/kg	8260	09/04/99	.7
Chlorobenzene	BDL	0.00075	mg/kg	8260	09/04/99	.7
Chlorodibromomethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
Chloroethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
2-Chloroethyl vinyl ether	BDL	0.00075	mg/kg	8260	09/04/99	.7
Chloroform	BDL	0.0038	mg/kg	8260	09/04/99	.7
Chloromethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,2-Dichlorobenzene	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,3-Dichlorobenzene	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,4-Dichlorobenzene	BDL	0.00075	mg/kg	8260	09/04/99	.7
Dichlorodifluoromethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,1-Dichloroethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,2-Dichloroethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,1-Dichloroethene	BDL	0.00075	mg/kg	8260	09/04/99	.7
cis-1,2-Dichloroethene	BDL	0.00075	mg/kg	8260	09/04/99	.7
trans-1,2-Dichloroethene	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,2-Dichloropropane	0.00095	0.00075	mg/kg	8260	09/04/99	.7
cis-1,3-Dichloropropene	BDL	0.00075	mg/kg	8260	09/04/99	.7
trans-1,3-Dichloropropene	BDL	0.00075	mg/kg	8260	09/04/99	.7
Di-isopropyl ether	BDL	0.00075	mg/kg	8260	09/04/99	.7
Ethylbenzene	0.024	0.00075	mg/kg	8260	09/04/99	.7
2-Butanone (MEK)	BDL	0.038	mg/kg	8260	09/04/99	.7
Methylene Chloride	BDL	0.0038	mg/kg	8260	09/04/99	.7
4-Methyl-2-pentanone (MIBK)	BDL	0.038	mg/kg	8260	09/04/99	.7
Methyl tert-butyl ether	BDL	0.038	mg/kg	8260	09/04/99	.7
1,1,2,2-Tetrachloroethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
Tetrachloroethene	BDL	0.00075	mg/kg	8260	09/04/99	.7

Leslie Newton
Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 14:09

ESC Sample # : L1479-05

Project : GROEBAL-APAC

Client ID : SB2 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Toluene	0.0016	0.00075	mg/kg	8260	09/04/99	.7
1,1,1-Trichloroethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
1,1,2-Trichloroethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
Trichloroethene	BDL	0.00075	mg/kg	8260	09/04/99	.7
Trichlorofluoromethane	BDL	0.00075	mg/kg	8260	09/04/99	.7
Vinyl chloride	BDL	0.00075	mg/kg	8260	09/04/99	.7
Xylenes, Total	0.036	0.0022	mg/kg	8260	09/04/99	.7
Surrogate Recovery						
Toluene-d8	75.		% Rec.	8260	09/04/99	.7
Dibromofluoromethane	110		% Rec.	8260	09/04/99	.7
4-Bromofluorobenzene	95.		% Rec.	8260	09/04/99	.7
Base/Neutral Extractables						
Acenaphthene	BDL	3.5	mg/kg	8270	09/03/99	10
Acenaphthylene	BDL	3.5	mg/kg	8270	09/03/99	10
Anthracene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzidine	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(a)anthracene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(b)fluoranthene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(k)fluoranthene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(g,h,i)perylene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(a)pyrene	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-chloroethoxy)methane	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-chloroethyl)ether	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-chloroisopropyl)ether	BDL	3.5	mg/kg	8270	09/03/99	10
4-Bromophenyl-phenylether	BDL	3.5	mg/kg	8270	09/03/99	10
2-Chloronaphthalene	BDL	3.5	mg/kg	8270	09/03/99	10
4-Chlorophenyl-phenylether	BDL	3.5	mg/kg	8270	09/03/99	10
Chrysene	BDL	3.5	mg/kg	8270	09/03/99	10
Dibenz(a,h)anthracene	BDL	3.5	mg/kg	8270	09/03/99	10
3,3-Dichlorobenzidine	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dinitrotoluene	BDL	3.5	mg/kg	8270	09/03/99	10
2,6-Dinitrotoluene	BDL	3.5	mg/kg	8270	09/03/99	10
Fluoranthene	BDL	3.5	mg/kg	8270	09/03/99	10
Fluorene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachlorobenzene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachloro-1,3-butadiene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachlorocyclopentadiene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachloroethane	BDL	3.5	mg/kg	8270	09/03/99	10

Leslie Newton
Leslie Newton, ESC Representative

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BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 14:09

ESC Sample # : L1479-05
Project : GROEBAL-APAC
Client ID : SB2 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Indeno(1,2,3-cd)pyrene	BDL	3.5	mg/kg	8270	09/03/99	10
Isophorone	BDL	3.5	mg/kg	8270	09/03/99	10
Naphthalene	BDL	3.5	mg/kg	8270	09/03/99	10
Nitrobenzene	BDL	3.5	mg/kg	8270	09/03/99	10
n-Nitrosodimethylamine	BDL	3.5	mg/kg	8270	09/03/99	10
n-Nitrosodiphenylamine	BDL	3.5	mg/kg	8270	09/03/99	10
n-Nitrosodi-n-propylamine	BDL	3.5	mg/kg	8270	09/03/99	10
Phenanthrene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzylbutyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-ethylhexyl)phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Di-n-butyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Diethyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Dimethyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Di-n-octyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Pyrene	BDL	3.5	mg/kg	8270	09/03/99	10
1,2,4-Trichlorobenzene	BDL	3.5	mg/kg	8270	09/03/99	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.5	mg/kg	8270	09/03/99	10
2-Chlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dichlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dimethylphenol	BDL	3.5	mg/kg	8270	09/03/99	10
4,6-Dinitro-2-methylphenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dinitrophenol	BDL	3.5	mg/kg	8270	09/03/99	10
2-Nitrophenol	BDL	3.5	mg/kg	8270	09/03/99	10
4-Nitrophenol	BDL	3.5	mg/kg	8270	09/03/99	10
Pentachlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
Phenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4,6-Trichlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
Surrogate Recovery						
Nitrobenzene-d5	39.		% Rec.	8270	09/03/99	10
2-Fluorobiphenyl	34.		% Rec.	8270	09/03/99	10
p-Terphenyl-d14	65.		% Rec.	8270	09/03/99	10
Phenol-d5	37.		% Rec.	8270	09/03/99	10
2-Fluorophenol	35.		% Rec.	8270	09/03/99	10
2,4,6-Tribromophenol	47.		% Rec.	8270	09/03/99	10

Leslie Newton
Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 14:25

ESC Sample # : L1479-06

Project : GROEBAL-APAC

Client ID : SB2 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	85.		%	160.3	09/03/99	1
Arsenic	BDL	0.59	mg/kg	6010	09/04/99	1
Chromium	10.	0.12	mg/kg	6010	09/04/99	1
Lead	2.8	0.29	mg/kg	6010	09/04/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 15:20

ESC Sample # : L1479-07

Project : GROEBAL-APAC

Client ID : SB3 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	97.		%	160.3	09/03/99	1
Arsenic	BDL	0.52	mg/kg	6010	09/04/99	1
Chromium	12.	0.10	mg/kg	6010	09/04/99	1
Lead	3.4	0.26	mg/kg	6010	09/04/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
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3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 15:32

ESC Sample # : L1479-08
Project : GROEBAL-APAC
Client ID : SB3 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	99.		%	160.3	09/03/99	1
Arsenic	BDL	0.50	mg/kg	6010	09/04/99	1
Chromium	6.3	0.10	mg/kg	6010	09/04/99	1
Lead	4.4	0.25	mg/kg	6010	09/04/99	1
Volatile Organics						
Acetone	BDL	0.035	mg/kg	8260	09/03/99	.7
Benzene	BDL	0.00071	mg/kg	8260	09/03/99	.7
Bromodichloromethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
Bromoform	BDL	0.00071	mg/kg	8260	09/03/99	.7
Bromomethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
Carbon tetrachloride	BDL	0.00071	mg/kg	8260	09/03/99	.7
Chlorobenzene	BDL	0.00071	mg/kg	8260	09/03/99	.7
Chlorodibromomethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
Chloroethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
2-Chloroethyl vinyl ether	BDL	0.00071	mg/kg	8260	09/03/99	.7
Chloroform	BDL	0.0035	mg/kg	8260	09/03/99	.7
Chloromethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,2-Dichlorobenzene	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,3-Dichlorobenzene	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,4-Dichlorobenzene	BDL	0.00071	mg/kg	8260	09/03/99	.7
Dichlorodifluoromethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,1-Dichloroethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,2-Dichloroethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,1-Dichloroethene	BDL	0.00071	mg/kg	8260	09/03/99	.7
cis-1,2-Dichloroethene	0.00072	0.00071	mg/kg	8260	09/03/99	.7
trans-1,2-Dichloroethene	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,2-Dichloropropane	BDL	0.00071	mg/kg	8260	09/03/99	.7
cis-1,3-Dichloropropene	BDL	0.00071	mg/kg	8260	09/03/99	.7
trans-1,3-Dichloropropene	0.00076	0.00071	mg/kg	8260	09/03/99	.7
Di-isopropyl ether	BDL	0.00071	mg/kg	8260	09/03/99	.7
Ethylbenzene	BDL	0.00071	mg/kg	8260	09/03/99	.7
2-Butanone (MEK)	BDL	0.035	mg/kg	8260	09/03/99	.7
Methylene Chloride	BDL	0.0035	mg/kg	8260	09/03/99	.7
4-Methyl-2-pentanone (MIBK)	BDL	0.035	mg/kg	8260	09/03/99	.7
Methyl tert-butyl ether	BDL	0.035	mg/kg	8260	09/03/99	.7
1,1,2,2-Tetrachloroethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
Tetrachloroethene	BDL	0.00071	mg/kg	8260	09/03/99	.7

Leslie Newton, ESC Representative

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Det. Limit - Estimated Quantitation Limit(EQL)

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Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 15:32

ESC Sample # : L1479-08
Project : GROEBAL-APAC
Client ID : SB3 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Toluene	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,1,1-Trichloroethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
1,1,2-Trichloroethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
Trichloroethene	BDL	0.00071	mg/kg	8260	09/03/99	.7
Trichlorofluoromethane	BDL	0.00071	mg/kg	8260	09/03/99	.7
Vinyl chloride	BDL	0.00071	mg/kg	8260	09/03/99	.7
Xylenes, Total	BDL	0.0021	mg/kg	8260	09/03/99	.7
Surrogate Recovery						
Toluene-d8	91.		% Rec.	8260	09/03/99	.7
Dibromofluoromethane	100		% Rec.	8260	09/03/99	.7
4-Bromofluorobenzene	98.		% Rec.	8260	09/03/99	.7
Polychlorinated Biphenyls						
PCB 1016	BDL	0.20	mg/kg	8082	08/31/99	1
PCB 1221	BDL	0.20	mg/kg	8082	08/31/99	1
PCB 1232	BDL	0.40	mg/kg	8082	08/31/99	1
PCB 1242	BDL	0.20	mg/kg	8082	08/31/99	1
PCB 1248	BDL	0.20	mg/kg	8082	08/31/99	1
PCB 1254	BDL	0.20	mg/kg	8082	08/31/99	1
PCB 1260	BDL	0.20	mg/kg	8082	08/31/99	1
Base/Neutral Extractables						
Acenaphthene	BDL	3.3	mg/kg	8270	09/03/99	10
Acenaphthylene	BDL	3.3	mg/kg	8270	09/03/99	10
Anthracene	BDL	3.3	mg/kg	8270	09/03/99	10
Benzidine	BDL	3.3	mg/kg	8270	09/03/99	10
Benzo(a)anthracene	BDL	3.3	mg/kg	8270	09/03/99	10
Benzo(b)fluoranthene	BDL	3.3	mg/kg	8270	09/03/99	10
Benzo(k)fluoranthene	BDL	3.3	mg/kg	8270	09/03/99	10
Benzo(g,h,i)perylene	BDL	3.3	mg/kg	8270	09/03/99	10
Benzo(a)pyrene	BDL	3.3	mg/kg	8270	09/03/99	10
Bis(2-chlorethoxy)methane	BDL	3.3	mg/kg	8270	09/03/99	10
Bis(2-chloroethyl)ether	BDL	3.3	mg/kg	8270	09/03/99	10
Bis(2-chloroisopropyl)ether	BDL	3.3	mg/kg	8270	09/03/99	10
4-Bromophenyl-phenylether	BDL	3.3	mg/kg	8270	09/03/99	10
2-Chloronaphthalene	BDL	3.3	mg/kg	8270	09/03/99	10
4-Chlorophenyl-phenylether	BDL	3.3	mg/kg	8270	09/03/99	10
Chrysene	BDL	3.3	mg/kg	8270	09/03/99	10
Dibenz(a,h)anthracene	BDL	3.3	mg/kg	8270	09/03/99	10

Leslie Newton
Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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ENVIRONMENTAL
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Tax I.D. 62-0814289

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Mr. John Jolly
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3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 15:32

ESC Sample # : L1479-08

Project : GROEBAL-APAC

Client ID : SB3 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
3,3-Dichlorobenzidine	BDL	3.3	mg/kg	8270	09/03/99	10
2,4-Dinitrotoluene	BDL	3.3	mg/kg	8270	09/03/99	10
2,6-Dinitrotoluene	BDL	3.3	mg/kg	8270	09/03/99	10
Fluoranthene	BDL	3.3	mg/kg	8270	09/03/99	10
Fluorene	BDL	3.3	mg/kg	8270	09/03/99	10
Hexachlorobenzene	BDL	3.3	mg/kg	8270	09/03/99	10
Hexachloro-1,3-butadiene	BDL	3.3	mg/kg	8270	09/03/99	10
Hexachlorocyclopentadiene	BDL	3.3	mg/kg	8270	09/03/99	10
Hexachloroethane	BDL	3.3	mg/kg	8270	09/03/99	10
Indeno(1,2,3-cd)pyrene	BDL	3.3	mg/kg	8270	09/03/99	10
Isophorone	BDL	3.3	mg/kg	8270	09/03/99	10
Naphthalene	BDL	3.3	mg/kg	8270	09/03/99	10
Nitrobenzene	BDL	3.3	mg/kg	8270	09/03/99	10
n-Nitrosodimethylamine	BDL	3.3	mg/kg	8270	09/03/99	10
n-Nitrosodiphenylamine	BDL	3.3	mg/kg	8270	09/03/99	10
n-Nitrosodi-n-propylamine	BDL	3.3	mg/kg	8270	09/03/99	10
Phenanthrene	BDL	3.3	mg/kg	8270	09/03/99	10
Benzylbutyl phthalate	BDL	3.3	mg/kg	8270	09/03/99	10
Bis(2-ethylhexyl)phthalate	BDL	3.3	mg/kg	8270	09/03/99	10
Di-n-butyl phthalate	BDL	3.3	mg/kg	8270	09/03/99	10
Diethyl phthalate	BDL	3.3	mg/kg	8270	09/03/99	10
Dimethyl phthalate	BDL	3.3	mg/kg	8270	09/03/99	10
Di-n-octyl phthalate	BDL	3.3	mg/kg	8270	09/03/99	10
Pyrene	BDL	3.3	mg/kg	8270	09/03/99	10
1,2,4-Trichlorobenzene	BDL	3.3	mg/kg	8270	09/03/99	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.3	mg/kg	8270	09/03/99	10
2-Chlorophenol	BDL	3.3	mg/kg	8270	09/03/99	10
2,4-Dichlorophenol	BDL	3.3	mg/kg	8270	09/03/99	10
2,4-Dimethylphenol	BDL	3.3	mg/kg	8270	09/03/99	10
4,6-Dinitro-2-methylphenol	BDL	3.3	mg/kg	8270	09/03/99	10
2,4-Dinitrophenol	BDL	3.3	mg/kg	8270	09/03/99	10
2-Nitrophenol	BDL	3.3	mg/kg	8270	09/03/99	10
4-Nitrophenol	BDL	3.3	mg/kg	8270	09/03/99	10
Pentachlorophenol	BDL	3.3	mg/kg	8270	09/03/99	10
Phenol	BDL	3.3	mg/kg	8270	09/03/99	10
2,4,6-Trichlorophenol	BDL	3.3	mg/kg	8270	09/03/99	10
Surrogate Recovery						
Nitrobenzene-d5	49.		% Rec.	8270	09/03/99	10

Leslie Newton
Leslie Newton, ESC Representative

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Det. Limit - Estimated Quantitation Limit(EQL)

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September 10,1999

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Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 15:32

ESC Sample # : L1479-08

Project : GROEBAL-APAC

Client ID : SB3 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
2-Fluorobiphenyl	39.		% Rec.	8270	09/03/99	10
p-Terphenyl-d14	65.		% Rec.	8270	09/03/99	10
Phenol-d5	36.		% Rec.	8270	09/03/99	10
2-Fluorophenol	35.		% Rec.	8270	09/03/99	10
2,4,6-Tribromophenol	40.		% Rec.	8270	09/03/99	10

Leslie Newton, ESC Representative

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September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 15:58

ESC Sample # : L1479-09

Project : GROEBAL-APAC

Client ID : SB4 DEPTH 2.5''

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	95.		%	160.3	09/03/99	1
Arsenic	BDL	0.53	mg/kg	6010	09/07/99	1
Chromium	30.	0.10	mg/kg	6010	09/07/99	1
Lead	5.0	0.26	mg/kg	6010	09/07/99	1
Volatile Organics						
Acetone	BDL	0.037	mg/kg	8260	09/03/99	.7
Benzene	BDL	0.00074	mg/kg	8260	09/03/99	.7
Bromodichloromethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
Bromoform	BDL	0.00074	mg/kg	8260	09/03/99	.7
Bromomethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
Carbon tetrachloride	BDL	0.00074	mg/kg	8260	09/03/99	.7
Chlorobenzene	BDL	0.00074	mg/kg	8260	09/03/99	.7
Chlorodibromomethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
Chloroethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
2-Chloroethyl vinyl ether	BDL	0.00074	mg/kg	8260	09/03/99	.7
Chloroform	BDL	0.0037	mg/kg	8260	09/03/99	.7
Chloromethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,2-Dichlorobenzene	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,3-Dichlorobenzene	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,4-Dichlorobenzene	BDL	0.00074	mg/kg	8260	09/03/99	.7
Dichlorodifluoromethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,1-Dichloroethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,2-Dichloroethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,1-Dichloroethene	BDL	0.00074	mg/kg	8260	09/03/99	.7
cis-1,2-Dichloroethene	BDL	0.00074	mg/kg	8260	09/03/99	.7
trans-1,2-Dichloroethene	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,2-Dichloropropane	BDL	0.00074	mg/kg	8260	09/03/99	.7
cis-1,3-Dichloropropene	BDL	0.00074	mg/kg	8260	09/03/99	.7
trans-1,3-Dichloropropene	0.00082	0.00074	mg/kg	8260	09/03/99	.7
Di-isopropyl ether	BDL	0.00074	mg/kg	8260	09/03/99	.7
Ethylbenzene	BDL	0.00074	mg/kg	8260	09/03/99	.7
2-Butanone (MEK)	BDL	0.037	mg/kg	8260	09/03/99	.7
Methylene Chloride	BDL	0.0037	mg/kg	8260	09/03/99	.7
4-Methyl-2-pentanone (MIBK)	BDL	0.037	mg/kg	8260	09/03/99	.7
Methyl tert-butyl ether	BDL	0.037	mg/kg	8260	09/03/99	.7
1,1,2,2-Tetrachloroethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
Tetrachloroethene	BDL	0.00074	mg/kg	8260	09/03/99	.7

Leslie Newton
Leslie Newton, ESC Representative

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Collection Date : 08/31/99 15:58

ESC Sample # : L1479-09
Project : GROEBAL-APAC
Client ID : SB4 DEPTH 2.5''

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Toluene	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,1,1-Trichloroethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
1,1,2-Trichloroethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
Trichloroethene	BDL	0.00074	mg/kg	8260	09/03/99	.7
Trichlorofluoromethane	BDL	0.00074	mg/kg	8260	09/03/99	.7
Vinyl chloride	BDL	0.00074	mg/kg	8260	09/03/99	.7
Xylenes, Total	BDL	0.0022	mg/kg	8260	09/03/99	.7
Surrogate Recovery						
Toluene-d8	92.		% Rec.	8260	09/03/99	.7
Dibromofluoromethane	110		% Rec.	8260	09/03/99	.7
4-Bromofluorobenzene	100		% Rec.	8260	09/03/99	.7
Base/Neutral Extractables						
Acenaphthene	BDL	3.5	mg/kg	8270	09/03/99	10
Acenaphthylene	BDL	3.5	mg/kg	8270	09/03/99	10
Anthracene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzidine	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(a)anthracene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(b)fluoranthene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(k)fluoranthene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(g,h,i)perylene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzo(a)pyrene	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-chlorethoxy)methane	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-chloroethyl)ether	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-chloroisopropyl)ether	BDL	3.5	mg/kg	8270	09/03/99	10
4-Bromophenyl-phenylether	BDL	3.5	mg/kg	8270	09/03/99	10
2-Chloronaphthalene	BDL	3.5	mg/kg	8270	09/03/99	10
4-Chlorophenyl-phenylether	BDL	3.5	mg/kg	8270	09/03/99	10
Chrysene	BDL	3.5	mg/kg	8270	09/03/99	10
Dibenz(a,h)anthracene	BDL	3.5	mg/kg	8270	09/03/99	10
3,3-Dichlorobenzidine	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dinitrotoluene	BDL	3.5	mg/kg	8270	09/03/99	10
2,6-Dinitrotoluene	BDL	3.5	mg/kg	8270	09/03/99	10
Fluoranthene	BDL	3.5	mg/kg	8270	09/03/99	10
Fluorene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachlorobenzene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachloro-1,3-butadiene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachlorocyclopentadiene	BDL	3.5	mg/kg	8270	09/03/99	10
Hexachloroethane	BDL	3.5	mg/kg	8270	09/03/99	10

Leslie Newton
Leslie Newton, ESC Representative

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Project : GROEBAL-APAC

Client ID : SB4 DEPTH 2.5''

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Indeno(1,2,3-cd)pyrene	BDL	3.5	mg/kg	8270	09/03/99	10
Isophorone	BDL	3.5	mg/kg	8270	09/03/99	10
Naphthalene	BDL	3.5	mg/kg	8270	09/03/99	10
Nitrobenzene	BDL	3.5	mg/kg	8270	09/03/99	10
n-Nitrosodimethylamine	BDL	3.5	mg/kg	8270	09/03/99	10
n-Nitrosodiphenylamine	BDL	3.5	mg/kg	8270	09/03/99	10
n-Nitrosodi-n-propylamine	BDL	3.5	mg/kg	8270	09/03/99	10
Phenanthrene	BDL	3.5	mg/kg	8270	09/03/99	10
Benzylbutyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Bis(2-ethylhexyl)phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Di-n-butyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Diethyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Dimethyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Di-n-octyl phthalate	BDL	3.5	mg/kg	8270	09/03/99	10
Pyrene	BDL	3.5	mg/kg	8270	09/03/99	10
1,2,4-Trichlorobenzene	BDL	3.5	mg/kg	8270	09/03/99	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.5	mg/kg	8270	09/03/99	10
2-Chlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dichlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dimethylphenol	BDL	3.5	mg/kg	8270	09/03/99	10
4,6-Dinitro-2-methylphenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4-Dinitrophenol	BDL	3.5	mg/kg	8270	09/03/99	10
2-Nitrophenol	BDL	3.5	mg/kg	8270	09/03/99	10
4-Nitrophenol	BDL	3.5	mg/kg	8270	09/03/99	10
Pentachlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
Phenol	BDL	3.5	mg/kg	8270	09/03/99	10
2,4,6-Trichlorophenol	BDL	3.5	mg/kg	8270	09/03/99	10
Surrogate Recovery						
Nitrobenzene-d5	52.		% Rec.	8270	09/03/99	10
2-Fluorobiphenyl	44.		% Rec.	8270	09/03/99	10
p-Terphenyl-d14	58.		% Rec.	8270	09/03/99	10
Phenol-d5	49.		% Rec.	8270	09/03/99	10
2-Fluorophenol	50.		% Rec.	8270	09/03/99	10
2,4,6-Tribromophenol	46.		% Rec.	8270	09/03/99	10

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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 16:10

ESC Sample # : L1479-10

Project : GROEBAL-APAC

Client ID : SB4 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	90.		%	160.3	09/03/99	1
Mercury	BDL	0.022	mg/kg	7470	09/07/99	1
Arsenic	BDL	0.56	mg/kg	6010	09/07/99	1
Barium	9.2	0.11	mg/kg	6010	09/07/99	1
Cadmium	BDL	0.56	mg/kg	6010	09/07/99	1
Chromium	2.7	0.11	mg/kg	6010	09/07/99	1
Lead	1.1	0.28	mg/kg	6010	09/07/99	1
Selenium	BDL	0.56	mg/kg	6010	09/07/99	1
Silver	BDL	0.56	mg/kg	6010	09/07/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 16:31

ESC Sample # : L1479-11

Project : GROEBAL-APAC

Client ID : SB5 DEPTH 2.5''

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	96.		%	160.3	09/03/99	1
Arsenic	BDL	0.52	mg/kg	6010	09/07/99	1
Chromium	7.9	0.10	mg/kg	6010	09/07/99	1
Lead	5.3	0.26	mg/kg	6010	09/07/99	1
Volatile Organics						
Acetone	BDL	0.032	mg/kg	8260	09/03/99	.61
Benzene	BDL	0.00064	mg/kg	8260	09/03/99	.61
Bromodichloromethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
Bromoform	BDL	0.00064	mg/kg	8260	09/03/99	.61
Bromomethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
Carbon tetrachloride	BDL	0.00064	mg/kg	8260	09/03/99	.61
Chlorobenzene	BDL	0.00064	mg/kg	8260	09/03/99	.61
Chlorodibromomethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
Chloroethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
2-Chloroethyl vinyl ether	BDL	0.00064	mg/kg	8260	09/03/99	.61
Chloroform	BDL	0.0032	mg/kg	8260	09/03/99	.61
Chloromethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,2-Dichlorobenzene	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,3-Dichlorobenzene	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,4-Dichlorobenzene	BDL	0.00064	mg/kg	8260	09/03/99	.61
Dichlorodifluoromethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,1-Dichloroethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,2-Dichloroethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,1-Dichloroethene	BDL	0.00064	mg/kg	8260	09/03/99	.61
cis-1,2-Dichloroethene	BDL	0.00064	mg/kg	8260	09/03/99	.61
trans-1,2-Dichloroethene	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,2-Dichloropropane	BDL	0.00064	mg/kg	8260	09/03/99	.61
cis-1,3-Dichloropropene	BDL	0.00064	mg/kg	8260	09/03/99	.61
trans-1,3-Dichloropropene	0.00069	0.00064	mg/kg	8260	09/03/99	.61
Di-isopropyl ether	BDL	0.00064	mg/kg	8260	09/03/99	.61
Ethylbenzene	BDL	0.00064	mg/kg	8260	09/03/99	.61
2-Butanone (MEK)	BDL	0.032	mg/kg	8260	09/03/99	.61
Methylene Chloride	BDL	0.0032	mg/kg	8260	09/03/99	.61
4-Methyl-2-pentanone (MIBK)	BDL	0.032	mg/kg	8260	09/03/99	.61
Methyl tert-butyl ether	BDL	0.032	mg/kg	8260	09/03/99	.61
1,1,2,2-Tetrachloroethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
Tetrachloroethene	BDL	0.00064	mg/kg	8260	09/03/99	.61

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 16:31

ESC Sample # : L1479-11

Project : GROEBAL-APAC

Client ID : SB5 DEPTH 2.5''

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Toluene	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,1,1-Trichloroethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
1,1,2-Trichloroethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
Trichloroethene	BDL	0.00064	mg/kg	8260	09/03/99	.61
Trichlorofluoromethane	BDL	0.00064	mg/kg	8260	09/03/99	.61
Vinyl chloride	BDL	0.00064	mg/kg	8260	09/03/99	.61
Xylenes, Total	BDL	0.0019	mg/kg	8260	09/03/99	.61
Surrogate Recovery						
Toluene-d8	92.		% Rec.	8260	09/03/99	.61
Dibromofluoromethane	100		% Rec.	8260	09/03/99	.61
4-Bromofluorobenzene	100		% Rec.	8260	09/03/99	.61
Base/Neutral Extractables						
Acenaphthene	BDL	3.4	mg/kg	8270	09/03/99	10
Acenaphthylene	BDL	3.4	mg/kg	8270	09/03/99	10
Anthracene	BDL	3.4	mg/kg	8270	09/03/99	10
Benzidine	BDL	3.4	mg/kg	8270	09/03/99	10
Benzo(a)anthracene	BDL	3.4	mg/kg	8270	09/03/99	10
Benzo(b)fluoranthene	BDL	3.4	mg/kg	8270	09/03/99	10
Benzo(k)fluoranthene	BDL	3.4	mg/kg	8270	09/03/99	10
Benzo(g,h,i)perylene	BDL	3.4	mg/kg	8270	09/03/99	10
Benzo(a)pyrene	BDL	3.4	mg/kg	8270	09/03/99	10
Bis(2-chlorethoxy)methane	BDL	3.4	mg/kg	8270	09/03/99	10
Bis(2-chloroethyl)ether	BDL	3.4	mg/kg	8270	09/03/99	10
Bis(2-chloroisopropyl)ether	BDL	3.4	mg/kg	8270	09/03/99	10
4-Bromophenyl-phenylether	BDL	3.4	mg/kg	8270	09/03/99	10
2-Chloronaphthalene	BDL	3.4	mg/kg	8270	09/03/99	10
4-Chlorophenyl-phenylether	BDL	3.4	mg/kg	8270	09/03/99	10
Chrysene	BDL	3.4	mg/kg	8270	09/03/99	10
Dibenz(a,h)anthracene	BDL	3.4	mg/kg	8270	09/03/99	10
3,3-Dichlorobenzidine	BDL	3.4	mg/kg	8270	09/03/99	10
2,4-Dinitrotoluene	BDL	3.4	mg/kg	8270	09/03/99	10
2,6-Dinitrotoluene	BDL	3.4	mg/kg	8270	09/03/99	10
Fluoranthene	BDL	3.4	mg/kg	8270	09/03/99	10
Fluorene	BDL	3.4	mg/kg	8270	09/03/99	10
Hexachlorobenzene	BDL	3.4	mg/kg	8270	09/03/99	10
Hexachloro-1,3-butadiene	BDL	3.4	mg/kg	8270	09/03/99	10
Hexachlorocyclopentadiene	BDL	3.4	mg/kg	8270	09/03/99	10
Hexachloroethane	BDL	3.4	mg/kg	8270	09/03/99	10

Leslie Newton
Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 16:31

ESC Sample # : L1479-11

Project : GROEBAL-APAC

Client ID : SB5 DEPTH 2.5''

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Indeno(1,2,3-cd)pyrene	BDL	3.4	mg/kg	8270	09/03/99	10
Isophorone	BDL	3.4	mg/kg	8270	09/03/99	10
Naphthalene	BDL	3.4	mg/kg	8270	09/03/99	10
Nitrobenzene	BDL	3.4	mg/kg	8270	09/03/99	10
n-Nitrosodimethylamine	BDL	3.4	mg/kg	8270	09/03/99	10
n-Nitrosodiphenylamine	BDL	3.4	mg/kg	8270	09/03/99	10
n-Nitrosodi-n-propylamine	BDL	3.4	mg/kg	8270	09/03/99	10
Phenanthrene	BDL	3.4	mg/kg	8270	09/03/99	10
Benzylbutyl phthalate	BDL	3.4	mg/kg	8270	09/03/99	10
Bis(2-ethylhexyl)phthalate	BDL	3.4	mg/kg	8270	09/03/99	10
Di-n-butyl phthalate	BDL	3.4	mg/kg	8270	09/03/99	10
Diethyl phthalate	BDL	3.4	mg/kg	8270	09/03/99	10
Dimethyl phthalate	BDL	3.4	mg/kg	8270	09/03/99	10
Di-n-octyl phthalate	BDL	3.4	mg/kg	8270	09/03/99	10
Pyrene	BDL	3.4	mg/kg	8270	09/03/99	10
1,2,4-Trichlorobenzene	BDL	3.4	mg/kg	8270	09/03/99	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.4	mg/kg	8270	09/03/99	10
2-Chlorophenol	BDL	3.4	mg/kg	8270	09/03/99	10
2,4-Dichlorophenol	BDL	3.4	mg/kg	8270	09/03/99	10
2,4-Dimethylphenol	BDL	3.4	mg/kg	8270	09/03/99	10
4,6-Dinitro-2-methylphenol	BDL	3.4	mg/kg	8270	09/03/99	10
2,4-Dinitrophenol	BDL	3.4	mg/kg	8270	09/03/99	10
2-Nitrophenol	BDL	3.4	mg/kg	8270	09/03/99	10
4-Nitrophenol	BDL	3.4	mg/kg	8270	09/03/99	10
Pentachlorophenol	BDL	3.4	mg/kg	8270	09/03/99	10
Phenol	BDL	3.4	mg/kg	8270	09/03/99	10
2,4,6-Trichlorophenol	BDL	3.4	mg/kg	8270	09/03/99	10
Surrogate Recovery						
Nitrobenzene-d5	56.		% Rec.	8270	09/03/99	10
2-Fluorobiphenyl	52.		% Rec.	8270	09/03/99	10
p-Terphenyl-d14	70.		% Rec.	8270	09/03/99	10
Phenol-d5	51.		% Rec.	8270	09/03/99	10
2-Fluorophenol	49.		% Rec.	8270	09/03/99	10
2,4,6-Tribromophenol	51.		% Rec.	8270	09/03/99	10

Leslie Newton

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 16:45

ESC Sample # : L1479-12

Project : GROEBAL-APAC

Client ID : SB5 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	79.		%	160.3	09/03/99	1
Arsenic	1.3	0.32	mg/kg	6010	09/07/99	1
Chromium	13.	0.13	mg/kg	6010	09/07/99	1
Lead	5.6	0.32	mg/kg	6010	09/07/99	1

Leslie Newton
Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 17:08

ESC Sample # : L1479-13
Project : GROEBAL-APAC
Client ID : SB6 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	86.		%	160.3	09/03/99	1
Arsenic	1.7	0.29	mg/kg	6010	09/07/99	1
Chromium	16.	0.12	mg/kg	6010	09/07/99	1
Lead	13.	0.29	mg/kg	6010	09/07/99	1
Volatile Organics						
Acetone	BDL	0.048	mg/kg	8260	09/04/99	.82
Benzene	0.0085	0.00095	mg/kg	8260	09/04/99	.82
Bromodichloromethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
Bromoform	BDL	0.00095	mg/kg	8260	09/04/99	.82
Bromomethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
Carbon tetrachloride	BDL	0.00095	mg/kg	8260	09/04/99	.82
Chlorobenzene	0.00095	0.00095	mg/kg	8260	09/04/99	.82
Chlorodibromomethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
Chloroethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
2-Chloroethyl vinyl ether	BDL	0.00095	mg/kg	8260	09/04/99	.82
Chloroform	BDL	0.0048	mg/kg	8260	09/04/99	.82
Chloromethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,2-Dichlorobenzene	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,3-Dichlorobenzene	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,4-Dichlorobenzene	BDL	0.00095	mg/kg	8260	09/04/99	.82
Dichlorodifluoromethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,1-Dichloroethane	0.0021	0.00095	mg/kg	8260	09/04/99	.82
1,2-Dichloroethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,1-Dichloroethene	BDL	0.00095	mg/kg	8260	09/04/99	.82
cis-1,2-Dichloroethene	BDL	0.00095	mg/kg	8260	09/04/99	.82
trans-1,2-Dichloroethene	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,2-Dichloropropane	BDL	0.00095	mg/kg	8260	09/04/99	.82
cis-1,3-Dichloropropene	BDL	0.00095	mg/kg	8260	09/04/99	.82
trans-1,3-Dichloropropene	BDL	0.00095	mg/kg	8260	09/04/99	.82
Di-isopropyl ether	BDL	0.00095	mg/kg	8260	09/04/99	.82
Ethylbenzene	0.76	0.00095	mg/kg	8260	09/04/99	.82
2-Butanone (MEK)	BDL	0.048	mg/kg	8260	09/04/99	.82
Methylene Chloride	BDL	0.0048	mg/kg	8260	09/04/99	.82
4-Methyl-2-pentanone (MIBK)	BDL	0.048	mg/kg	8260	09/04/99	.82
Methyl tert-butyl ether	BDL	0.048	mg/kg	8260	09/04/99	.82
1,1,2,2-Tetrachloroethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
Tetrachloroethene	BDL	0.00095	mg/kg	8260	09/04/99	.82

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
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REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999
Description : Soil Sample - Project 9603A
Sample Location : TUSCALOOSA
Collected By : John Jolly
Collection Date : 08/31/99 17:08

ESC Sample # : L1479-13
Project : GROEBAL-APAC
Client ID : SB6 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Toluene	0.12	0.00095	mg/kg	8260	09/04/99	.82
1,1,1-Trichloroethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
1,1,2-Trichloroethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
Trichloroethene	BDL	0.00095	mg/kg	8260	09/04/99	.82
Trichlorofluoromethane	BDL	0.00095	mg/kg	8260	09/04/99	.82
Vinyl chloride	BDL	0.00095	mg/kg	8260	09/04/99	.82
Xylenes, Total	3.5	0.0029	mg/kg	8260	09/04/99	.82
Surrogate Recovery						
Toluene-d8	99.		% Rec.	8260	09/04/99	.82
Dibromofluoromethane	80.		% Rec.	8260	09/04/99	.82
4-Bromofluorobenzene	100		% Rec.	8260	09/04/99	.82
Base/Neutral Extractables						
Acenaphthene	BDL	3.8	mg/kg	8270	09/03/99	10
Acenaphthylene	BDL	3.8	mg/kg	8270	09/03/99	10
Anthracene	BDL	3.8	mg/kg	8270	09/03/99	10
Benzidine	BDL	3.8	mg/kg	8270	09/03/99	10
Benzo(a)anthracene	BDL	3.8	mg/kg	8270	09/03/99	10
Benzo(b)fluoranthene	BDL	3.8	mg/kg	8270	09/03/99	10
Benzo(k)fluoranthene	BDL	3.8	mg/kg	8270	09/03/99	10
Benzo(g,h,i)perylene	BDL	3.8	mg/kg	8270	09/03/99	10
Benzo(a)pyrene	BDL	3.8	mg/kg	8270	09/03/99	10
Bis(2-chlorethoxy)methane	BDL	3.8	mg/kg	8270	09/03/99	10
Bis(2-chloroethyl)ether	BDL	3.8	mg/kg	8270	09/03/99	10
Bis(2-chloroisopropyl)ether	BDL	3.8	mg/kg	8270	09/03/99	10
4-Bromophenyl-phenylether	BDL	3.8	mg/kg	8270	09/03/99	10
2-Chloronaphthalene	BDL	3.8	mg/kg	8270	09/03/99	10
4-Chlorophenyl-phenylether	BDL	3.8	mg/kg	8270	09/03/99	10
Chrysene	BDL	3.8	mg/kg	8270	09/03/99	10
Dibenz(a,h)anthracene	BDL	3.8	mg/kg	8270	09/03/99	10
3,3-Dichlorobenzidine	BDL	3.8	mg/kg	8270	09/03/99	10
2,4-Dinitrotoluene	BDL	3.8	mg/kg	8270	09/03/99	10
2,6-Dinitrotoluene	BDL	3.8	mg/kg	8270	09/03/99	10
Fluoranthene	BDL	3.8	mg/kg	8270	09/03/99	10
Fluorene	BDL	3.8	mg/kg	8270	09/03/99	10
Hexachlorobenzene	BDL	3.8	mg/kg	8270	09/03/99	10
Hexachloro-1,3-butadiene	BDL	3.8	mg/kg	8270	09/03/99	10
Hexachlorocyclopentadiene	BDL	3.8	mg/kg	8270	09/03/99	10
Hexachloroethane	BDL	3.8	mg/kg	8270	09/03/99	10

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
Please review all information in this report for accuracy and completeness.
Contact our office within ten days if there are any questions.

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 17:08

ESC Sample # : L1479-13

Project : GROEBAL-APAC

Client ID : SB6 DEPTH 2.5'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Indeno(1,2,3-cd)pyrene	BDL	3.8	mg/kg	8270	09/03/99	10
Isophorone	BDL	3.8	mg/kg	8270	09/03/99	10
Naphthalene	BDL	3.8	mg/kg	8270	09/03/99	10
Nitrobenzene	BDL	3.8	mg/kg	8270	09/03/99	10
n-Nitrosodimethylamine	BDL	3.8	mg/kg	8270	09/03/99	10
n-Nitrosodiphenylamine	BDL	3.8	mg/kg	8270	09/03/99	10
n-Nitrosodi-n-propylamine	BDL	3.8	mg/kg	8270	09/03/99	10
Phenanthrene	BDL	3.8	mg/kg	8270	09/03/99	10
Benzylbutyl phthalate	BDL	3.8	mg/kg	8270	09/03/99	10
Bis(2-ethylhexyl)phthalate	BDL	3.8	mg/kg	8270	09/03/99	10
Di-n-butyl phthalate	BDL	3.8	mg/kg	8270	09/03/99	10
Diethyl phthalate	BDL	3.8	mg/kg	8270	09/03/99	10
Dimethyl phthalate	BDL	3.8	mg/kg	8270	09/03/99	10
Di-n-octyl phthalate	BDL	3.8	mg/kg	8270	09/03/99	10
Pyrene	BDL	3.8	mg/kg	8270	09/03/99	10
1,2,4-Trichlorobenzene	BDL	3.8	mg/kg	8270	09/03/99	10
Acid Extractables						
4-Chloro-3-methylphenol	BDL	3.8	mg/kg	8270	09/03/99	10
2-Chlorophenol	BDL	3.8	mg/kg	8270	09/03/99	10
2,4-Dichlorophenol	BDL	3.8	mg/kg	8270	09/03/99	10
2,4-Dimethylphenol	BDL	3.8	mg/kg	8270	09/03/99	10
4,6-Dinitro-2-methylphenol	BDL	3.8	mg/kg	8270	09/03/99	10
2,4-Dinitrophenol	BDL	3.8	mg/kg	8270	09/03/99	10
2-Nitrophenol	BDL	3.8	mg/kg	8270	09/03/99	10
4-Nitrophenol	BDL	3.8	mg/kg	8270	09/03/99	10
Pentachlorophenol	BDL	3.8	mg/kg	8270	09/03/99	10
Phenol	BDL	3.8	mg/kg	8270	09/03/99	10
2,4,6-Trichlorophenol	BDL	3.8	mg/kg	8270	09/03/99	10
Surrogate Recovery						
Nitrobenzene-d5	57.		% Rec.	8270	09/03/99	10
2-Fluorobiphenyl	49.		% Rec.	8270	09/03/99	10
p-Terphenyl-d14	71.		% Rec.	8270	09/03/99	10
Phenol-d5	51.		% Rec.	8270	09/03/99	10
2-Fluorophenol	44.		% Rec.	8270	09/03/99	10
2,4,6-Tribromophenol	59.		% Rec.	8270	09/03/99	10

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. John Jolly
Ground Engineering & Testing Servic
3608 7th Court St. South
Birmingham, AL 35222

September 10,1999

Date Received : September 02, 1999

Description : Soil Sample - Project 9603A

Sample Location : TUSCALOOSA

Collected By : John Jolly
Collection Date : 08/31/99 17:20

ESC Sample # : L1479-14

Project : GROEBAL-APAC

Client ID : SB6 DEPTH 5.0'

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dilute
Total Solids	84.		%	160.3	09/03/99	1
Arsenic	1.4	0.30	mg/kg	6010	09/07/99	1
Chromium	17.	0.12	mg/kg	6010	09/07/99	1
Lead	11.	0.30	mg/kg	6010	09/07/99	1

Leslie Newton, ESC Representative

Results listed are dry weight basis.
BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:
AIHA - 09227, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:
Please review all information in this report for accuracy and completeness.
Contact our office within ten days if there are any questions.

Chain of Custody
Page 1 of 2

Ground Engineering - Birmingham Al
3608 7th Court St. South
Birmingham, AL 35222-

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
FAX (615) 758-5859

Report to: **Mr. John Jolly**		Project name: **APAC - Tuscaloosa**	
Phone: **(205)-321-1320**	Project #: [redacted] 9609A	P.O.#:	
FAX: **(205)-321-1323**	Facility ID#:	Industry: Asphalt Plant	
Collected by (print) John Jolly	County (Soil) Tuscaloosa	State: AL	
Collected by (signature):	Rush? (Lab MUST Be Notified) ___ <24 hr ....200% ___ 24-48 hr ....100% ___ 48-72 hr 50%	Date Results Needed: 9/9/99 FAX? ___ No X Yes	

Sample Location/ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	2.) SVOC's-4oz Gls Clr No Pres-1	4.) VOC 8260-40ml-Gls Amb, HCL + ENCORE-2	6.) Solids, Total-250ml-HDPE No Pres-1	Remarks/Contaminant	Sample # (lab only)
SLAG	Comp	OT	Surface	8/31/99	11:24	2			SS	8 RCRA Metals	[redacted]
SB3 Surface	Comp	SS	0"-6"	8/31/99	13:55	2			Z	As, Pb, Cr, ONLY	[redacted]
SB4 Surface	Comp	SS	0"-6"	8/31/99	13:41	2			Z	As, Pb, Cr only	[redacted]
SB5 Surface	Comp	SS	0"-6"	8/31/99	11:15	2			Z	As Pb Cr only	[redacted]
SB2 2.5'	Grab	SS	2.5'	8/31/99	14:09	6	X	X	4V	As, Pb, Cr only	[redacted]
SB2 5.0'	Grab	SS	5.0'	8/31/99	14:25	2			Z	As, Pb, Cr only	[redacted]
SB3 2.5	Grab	SS	2.5'	8/31/99	15:20	11				As, Pb, Cr only	[redacted]
SB3 5.0	Grab	SS	5.0	8/31/99	15:32	11	X	X	4V	As, Pb, Cr only	[redacted]
SB4 2.5'	Grab	SS	2.5'	8/31/99	15:58	10	X	X	4	As, Pb, Cr only	[redacted]

*Matrix: **SS** - Soil **GW** - Groundwater **TW** - Treated Groundwater **WW** - WasteWater **WS** - Water Sample **WO** - Waste Oil **DW** - Drinking Water **SL** - Sludge **SD** - Sediment **OT** - Other SLAG

Remarks: 1.) As (I), Ba (I), Cd (I), Cr (I), Pb (I), Hg, Se (I), Ag (I)

Used field Pres method for VOCs

Relinquished by: (Signature)	Date: 9/1/99	Time: 10:30	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	
Relinquished by: (Signature)	Date:	Time:	[redacted]	

A[illegible]e billi[illegible]rmat | [illegible]alysis [illegible]erva[illegible] [illegible]onta[illegible]

Chain of Custody
Page 2 of 2

Ground Engineering - Birmingham Al
3608 7th Court St. South
Birmingham, AL 35222-

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
FAX (615) 758-5859

Report to: **Mr. John Jolly**		Project name: **APAC - Tuscaloosa**	
Phone: **(205)-321-1320**	Project #: [redacted] 9609A	P.O.#:	
FAX: **(205)-321-1323**	Facility ID#:	Industry: Asphalt Plant	
Collected by (print) John Jolly	County (Soil) Tuscaloosa	State: **AL**	
Collected by (signature):	Rush? (Lab MUST Be Notified) ___ <24 hr ....200% ___ 24-48 hr ....100% ___ 48-72 hr 50%	Date Results Needed: 9/9/99 FAX? ___No X Yes	

Sample Location/ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Metals	VOCs	SVOCs				Remarks/Contaminant	Sample # (lab only)
SB3 5.0	Grab	SS	5.0'	8/31/99	15:32	11							PCBs	[redacted]
SB4 5.0	Grab	SS	5'	8/31/99	16:10	10	X				X		8 RCRA metals	[redacted]
SB5 2.5'	Grab	SS	2.5'	8/31/99	16:37	10	X		X		X		As, Pb, Cr, only	[redacted]
SB5 5.0'	Grab	SS	5.0'	8/31/99	16:45	10	X				X		As, Pb, Cr, only	[redacted]
SB6 2.5'	Grab	SS	2.5'	8/31/99	17:08	11	X		X		X		As, Pb, Cr, only	[redacted]
SB6 5.0'	Grab	SS	5.0'	8/31/99	17:20	9	X				X		As, Pb, Cr, only	[redacted]

*Matrix: **SS** - Soil **GW** - Groundwater **TW** - Treated Groundwater **WW** - WasteWater **WS** - Water Sample **WO** - Waste Oil **DW** - Drinking Water **SL** - Sludge **SD** - Sediment **OT** - Other_____

Remarks:
Run PCBs on SB3-5.0' only
Used field Pres method for VOCs

Relinquished by: (Signature)	Date: 9/1/99	Time: 10:30	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	[redacted]
Relinquished by: (Signature)	Date:	Time:	[redacted]	

QORE Property Sciences
3608 7th Ct S
Birmingham, AL 35222

Al... billi... rmati...

...nalys... ntair... eser...

A	As
B	Cr
C	Pb
D	VOCs
E	SVOCs
F	8 RCRA METALS
G	

Ch... Cust...
Page ___ of ___

Prepared by:
ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (800) 767-5859
FAX (615) 758-5859

Report to: John Jolly
Project name: APAC Tuscaloosa
Phone: 2053211320
FAX:
Project #: 9603A
Location: Tuscaloosa, AL
Collected by: John Jolly
Site/Facility ID#:
P.O.#:
Collected by (signature):

Rush? (Lab MUST Be Notified) Date Results Needed
___ <24 hr 200%
___ 24-48 hr 100%
___ 48-72 hr 50%
FAX? ___No ___Yes

Remarks:

CoCode: Groebal (lab use only)
Template/Prelogin
Cooler #: 16048 8/25/99
Shipped Via: OC

Client ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	A	B	C	D	E	F	G	Remarks/Contaminant	Sample # (lab only)
MW1	Grab	GW	20'	9/3/99	13:30	6	X	X	X	X	X			1B, 2V, 3M, 1VB	L1686-01
MW2				9/3/99	11:00									1B, 2V, 3M	-02
MW3				9/3/99	12:44										-03
SB2 Surface	Comp	SS	0"-6"	9/3/99	14:00		X	X	X					1SS	-04
SB6 Surface	Comp	SS	0"-6"	9/3/99	14:15		X	X	X						-05
SBG1	Grab	SS	2.5'	9/3/99	14:35		X	X	X						-06
SB7 Surface	Comp	SS	0"-6"	9/3/99	14:45							X			-0
															-07 Trip Blank

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____		Condition: (lab use only)	
	9/7/99	9:36					
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp:	Bottles Received:		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/8/99	Time: 10:30	pH Checked: Yes No	NCF: Yes No

PHOTO LOG

1. North view of APAC entrance.
2. Southeast view of former retention pond.
3. East view of former fuel storage area.
4. Southwest view of former bldg's 2, 3, and 4.
5. South view of former hot mix plant.
6. Southeast view of former truck wash down area
7. Southwest view of former slag area.
8. South view of former bldg 5.
9. West view of lake.

POOR LEGIBILITY

PORTIONS OF THIS DOCUMENT MAY BE UNREADABLE, DUE TO THE QUALITY OF THE ORIGINAL

2

1

3

4

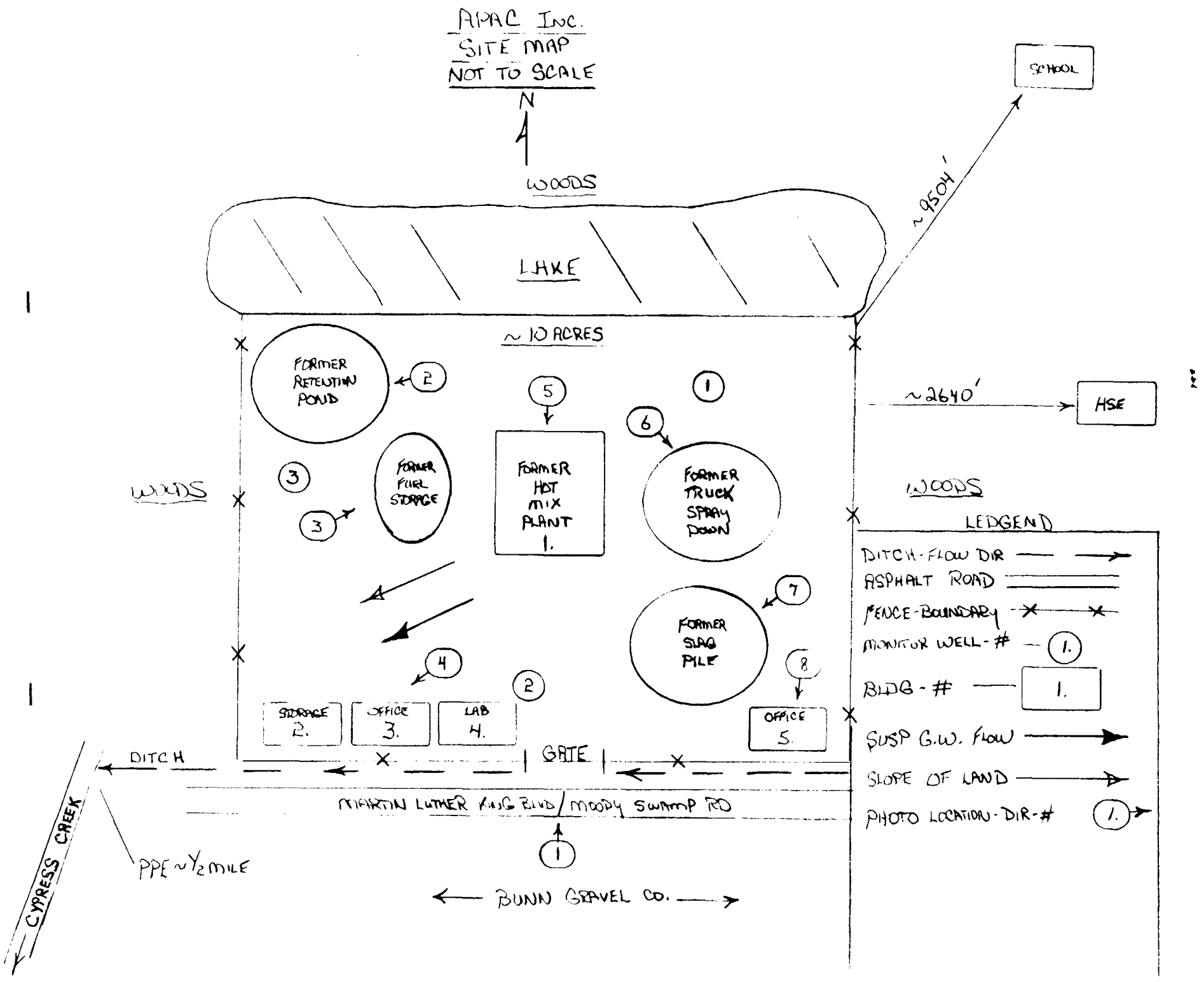
5

6

7

8

9


APAC INC.
SITE MAP
NOT TO SCALE
N
WOODS
LAKE
~ 10 ACRES
SCHOOL
~ 950'
~ 2640'
HSE
WOODS
WOODS
FORMER RETENTION POND
FORMER FUEL STORAGE
FORMER HOT MIX PLANT 1.
FORMER TRUCK SPRAY DOWN
FORMER SLAG PILE
STORAGE 2.
OFFICE 3.
LAB 4.
OFFICE 5.
GATE
DITCH
MARTIN LUTHER KING BLVD / MOODY SWAMP RD
BUNN GRAVEL CO.
CYPRESS CREEK
PPE ~ 1/2 MILE
LEDGEND
DITCH - FLOW DIR
ASPHALT ROAD
FENCE - BOUNDARY
MONITOR WELL - #
BLDG - #
SUSP G.W. FLOW
SLOPE OF LAND
PHOTO LOCATION - DIR - #

Site Inspection Checklist
Site Assessment Unit - Land Division

Date: 8-16-99 Location: 5356 MARTIN LUTHER KING BLVD TUSCALOOSA AL
Site Name: APAC INC. Investigator: JOHN GLAZE
Site Contact (name): JOHN GLAZE Phone #: 334-271-2999

Directions to Site: TAKE I 59/20 WEST FROM B'HAM. GO ~ 50 MILES TO EXIT 71B AND GO NORTH. GO ~ 1/4 MILE TO EXIT 1 AND GO WEST. GO ~ 1.3 MILES AND TURN LEFT ON MARTIN LUTHER KING BLVD (FORMERLY MOODY SWAMP ROAD). GO ~ 1.6 MILES AND LOOK FOR APAC SIGN ON FENCE ON YOUR RIGHT.

Condition of Site: ABANDONED ASPHALT PLANT. ALL FACILITIES HAVE BEEN LEVELED. SITE IS ~ 10 ACRES. SITE IS FENCED. NO VISIBLE RELEASES.

Is this an active release: Yes ☐ No ☒

Number of Drums:
Condition of Drums (Circle one): Good Fair Poor N/A
Describe:

Number of Tanks:
Condition of Tanks(Circle one): Good Fair Poor N/A
Describe:

Size of spill:

Distance to nearest: Residence ~1/3 MILE Business ~1/3 MILE School ~ 1 3/4 MILES

Distance to Surface Water: ~1/4 MILE CYPRESS CREEK - ONSITE LAKE

Public Water Available: Yes ☒ No ☐ 100% SURFACE WATER INTAKE FROM LAKE TUSCALOOSA ~ 10 MILES NORTH OF SITE.

Action taken at site: MET WITH JOHN JOLLY (QORE ENV) JAMES RAY (APAC) AND PROPERTY OWNER DAVID McGIFFERT. DISCUSSED PLAN OF ACTION AND INSPECTED SITE. APAC RENTED THE LAND FROM OWNER OF LAND TO RUN AN ASPHALT PLANT. TTL INC AND QORE SCREENING ASSESSMENTS REVEALED POSSIBLE As, Pb, Cr AND SVOC (NAPHALENE) CONTAMINATION.

Recommendation of further actions: RECOMMENDED QORE ENV PERFORM ONSITE ASSESSMENT AND ADEM PERFORM OFFSITE ASSESSMENT. ACTION AT SITE WILL BE REEVALUATED AFTER ASSESSMENTS COMPLETED.

Initial purpose of inspection (circle one): (CERCLA) AHSCF RCRA OTHER

Additional Comments: APAC WANTS NFRAP LTR FROM STATE

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 ♦ 1400 COLISEUM BLVD. 36110-2059
MONTGOMERY, ALABAMA 36130-1463
WWW.ADEM.STATE.AL.US
(334) 271-7700

JAMES W. WARR
DIRECTOR

DON SIEGELMAN
GOVERNOR

Facsimiles (334)
Administration 271-7950
Air 279-3044
Land 279-3050
Water 279-3051
Groundwater 270-5631
Field Operations 272-8131
Laboratory 277-6718

August 26, 1999

MEMORANDUM

TO: Stephen A. Cobb, Chief
Hazardous Waste Branch
Land Division

FROM: Joseph L. Gibson, Hydrogeologist
Groundwater Branch
Water division

RE: Preliminary Assessment - Groundwater
APAC, Inc.
Tuscaloosa, Tuscaloosa County, Alabama

The following groundwater report was prepared through a search of literature and information available to the Groundwater Branch. The author has not conducted a site reconnaissance and the findings in this report have not been field verified.

LOCATION

The APAC, Inc. site is located in southwestern Tuscaloosa, Tuscaloosa County, Alabama (Figure 1). The United States Geological Survey's (USGS) 7.5 Minute Quadrangle Map entitled Tuscaloosa, Alabama shows the location of the site to be in the the southwest ¼ of Section 4 Township 22 South, Range 10 West (Figure 2). The latitude and longitude have been determined by GPS to be 33° 09' 43" North Latitude and 87° 35' 17" West Longitude.

TOPOGRAPHY AND SURFACE WATER

The Site is situated in southeastern Tuscaloosa County in what is considered to be the Alluvial Plain district of the East Gulf Coastal Plain physiographic section. The Alluvial Plain district consists of broad flat flood plains along the Tombigbee, Black Warrior, and Sipsey Rivers (DeJarnette and Crownover, 1987). The surface elevation at the site is approximately 130 feet MSL.

Surface water drainage from the site appears to be to the west into Cypress Creek. Cypress Creek flows approximately 9 miles to the south into the Black Warrior River. The Black Warrior River comprises the remainder of the 15-mile surface water pathway from the site. Cypress Creek is not listed in the ADEM Admin. Code R. 335-6-11-.02 with a use classification; however, it is noted in the Regulations that segments not listed should be designated as fish and wildlife. The section of the Black Warrior River along the 15-mile surface water pathway from the site is listed with a use classification of fish and wildlife, and has a seven day two year low flow rate of 298 cfs and a seven day ten year low flow rate of 96 cfs. Low flow data for Cypress Creek was not available (Hayes, 1978). There are no known surface water intakes used for public drinking water located along the 15-mile surface water pathway from the sites.

SOILS

The Soil Conservation Service (SCS) classifies soils at the site as pits (Figure 4). Soils in this map unit consist of areas from which the original soils have been removed. The original soils at the site most likely were classified as Cahaba sandy loam. The soils in this classification are deep, well drained soils that occur on terraces along large streams of the Coastal Plain. These soils have a dark yellowish brown sandy loam surface layer. The upper portion of the subsoil consists of a yellowish red clay loam, and the lower portion of the subsoil consists of a yellowish red sandy clay loam. The underlying material consist of a yellowish, red mottled loamy sand. The permeability of these soils is moderate, and the slopes range from 0 to 4 percent (Johnson, 1981).

GEOLOGY

Geologic units exposed in Tuscaloosa County range from Cambrian to Holocene in age and are sedimentary in origin. The county contains areas of the three following physiographic provinces: the Valley and Ridge, the Cumberland Plateau, and the East Gulf Coastal Plain. Geologic units exposed in the Valley and Ridge province of Tuscaloosa County range from Cambrian to Pennsylvanian in age and include, from oldest to youngest, the Conasauga Formation, Copper Ridge Dolomite, Chickamauga Limestone, Red Mountain Formation, Frog Mountain Sandstone, Chattanooga Shale, Fort Payne Chert, Tuscumbia Limestone, Floyd Shale, Parkwood Formation, and the Pottsville Formation (lower part). The geologic unit exposed in the Cumberland Plateau province of Tuscaloosa County is the Pottsville Formation (upper part), which is Pennsylvanian in age. Geologic units exposed in the East Gulf Coastal Plain province of Tuscaloosa County range from Late Cretaceous to Holocene in age and include, from oldest to youngest, the Coker, Gordo, Eutaw Formation, and Alluvial and terrace deposits (Hunter and Moser, 1990).

The geologic unit that outcrops in the vicinity of the site is Alluvial and low terrace deposits (Szabo, et al., 1988). The Alluvial deposits are present along the flood plain of the Black Warrior River and consist of clay, silt, sand, and gravel. The Alluvial deposits range in thickness from 30 to 60 feet and are underlain by the Coker Formation (DeJarnette and Crownover, 1987). The APAC site is not located in an area that is underlain by limestone or other types of rocks that are susceptible to karst development.

HYDROGEOLOGY

The groundwater aquifers of Tuscaloosa County include the Eutaw aquifer, the Gordo aquifer, the Coker aquifer, the Pottsville aquifer, and the Watercourse aquifer (Moore, 1992). The source of recharge for these aquifers is rainfall. The majority of the rainfall runs off during and directly after a rain event or is returned to the atmosphere by evaporation and transpiration. A small amount infiltrates to serve as aquifer recharge (DeJarnette and Crownover, 1987).

The APAC site is located in the recharge area of the Watercourse aquifer (Moore, 1992). The Watercourse aquifer is not a major aquifer in Tuscaloosa County, but significant quantities of water can be acquired in wells located in the flood plains of major streams. In the vicinity of the site the Watercourse aquifer overlies and recharges the Coker aquifer. The Coker aquifer is composed of very fine to course grained sand, sandy clay, and gravel, and ranges in thickness from 0 to 1,000 feet. The Coker aquifer is a major aquifer in Tuscaloosa County and will yield 1 to 2 million gallons per day to an individual well (DeJarnette and Crownover, 1987).

No active public water supply wells or springs are located within four miles of the site (ADEM GPS Data). Due to the rural nature of the area near the site domestic wells are possible within four miles of the site.

CLIMATE

The climate of Tuscaloosa County is considered to be humid subtropical with an average annual rainfall of approximately 52 inches. The average temperature in the summer is 81° and in the winter is 47° (Hunter and Moser, 1990). Approximately 20 of the 52 inches of rain per year runs off into the streams (Knight and Davis, 1980)

cc: Fred Mason, Chief, Hydrogeology Unit
Jymalyn Redmond, Chief, Site Assessment Unit
John Glaze, Site Assessment Unit

SELECTED REFERENCES

DeJarnette, Sydney S., and Crownover, J. E., 1987, Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama; Area 6, United States Geological Survey, Water Resources Investigation Report 87-4113.

Johnson, Kenneth W., 1981, Soil Survey of Tuscaloosa County, Alabama, United States Department of Agriculture, Soil Conservation Service.

Hayes, Eugene C., 1978, 7-Day Low Flows and Flow Duration of Alabama Streams Through 1973, Geological Survey of Alabama, Bulletin 113.

Hunter, Jonathan A., and Moser, P. H., 1990, Ground-Water Availability in Tuscaloosa County, Alabama, Geological Survey of Alabama, Special Map 219.

Moore, James D., 1992, Aquifers in Alabama, Geological Survey of Alabama, Special Map 231.

Knight, Alfred L., and Davis, M. E., 1980, Surface Water Availability, Tuscaloosa County, Alabama, Geological Survey of Alabama, Map 139.

Szabo, M. W., Osborne, W. e., and Copeland, C. W. Jr., 1988, Geologic Map of Alabama, Geological Survey of Alabama, Special Map 220 Northwest Sheet.

GROUNDWATER ROUTE WORKSHEET REQUIREMENTS

Route Characteristics

Aquifer of concern	Watercourse
Gross Precipitation	52 inches
Net Precipitation	6 inches (from HRS)
Depth to Aquifer	0 to 25 feet
Slope	Approximately 0 to 4 percent
Permeability of Unsaturated Zone	1.4×10^{-2} To 1.4×10^{-3} cm/sec.
Is the Site Susceptible to Karst	No

TARGETS

Groundwater use — There are no water supply wells located within four miles of the site. Private water supply wells are possible within a 4-mile radius of the site.

Distance to nearest well – None within four miles.

APAC, Inc.

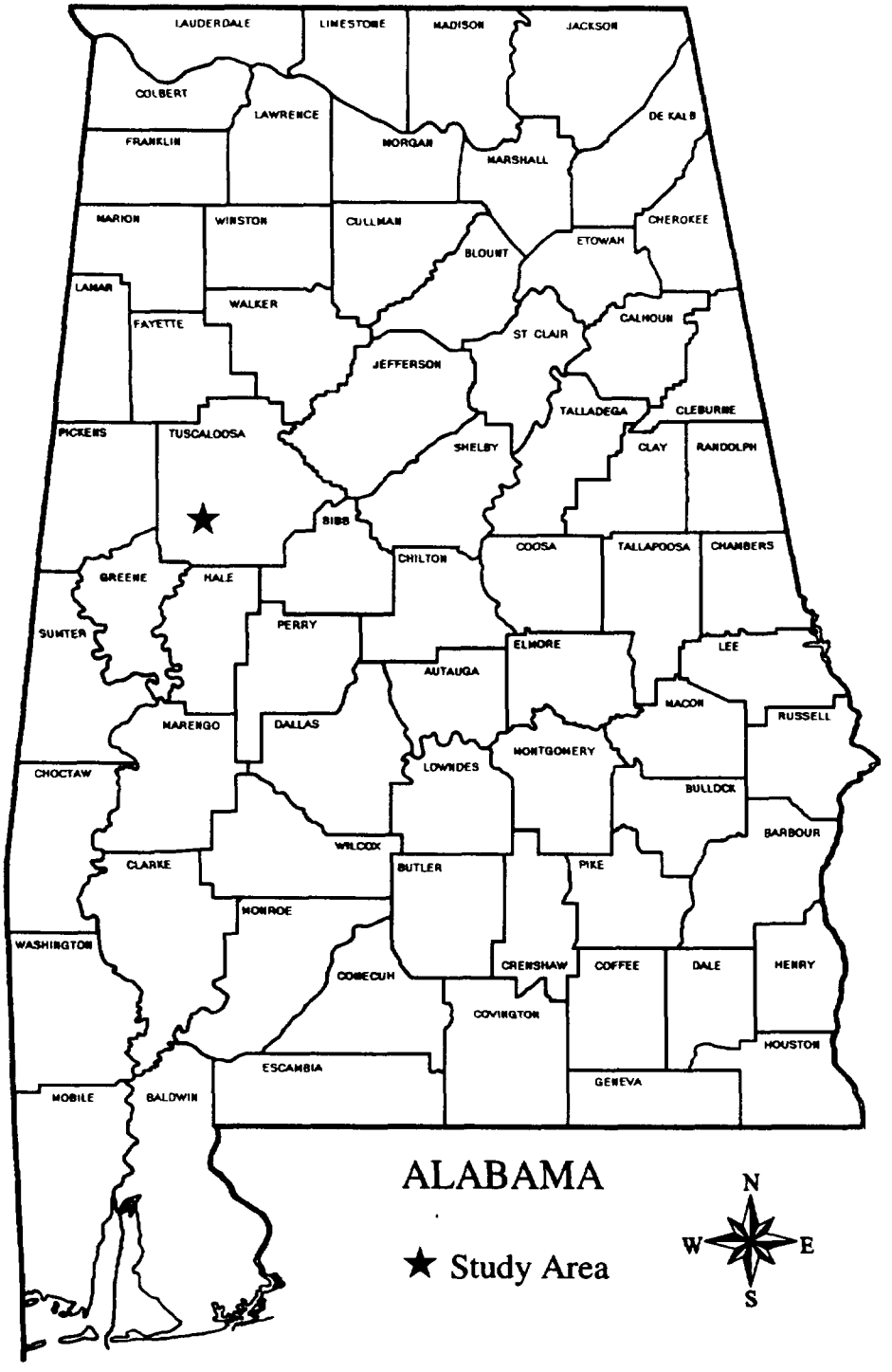
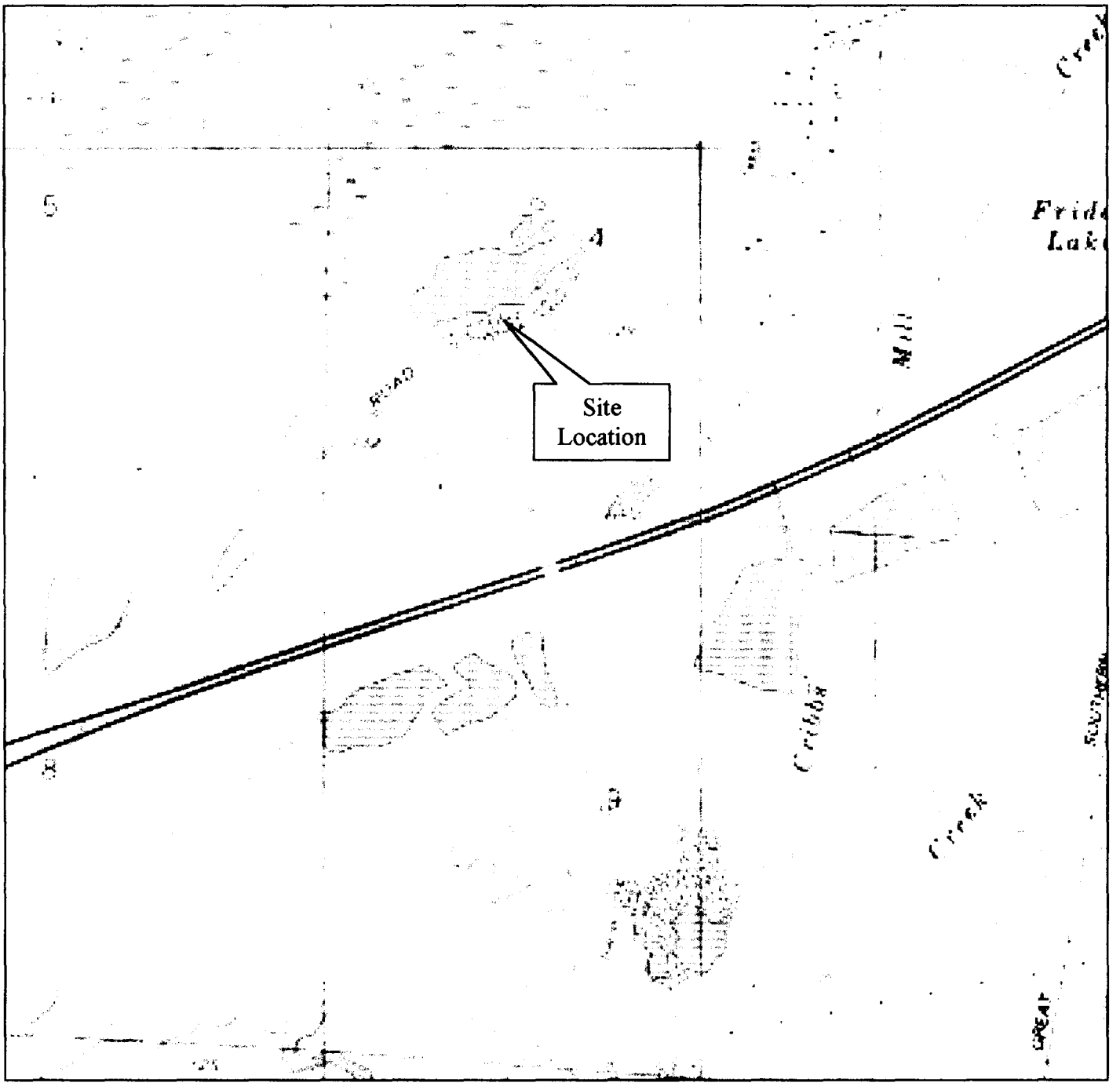


Figure 1

Site Location Map



Feet

0 1,000 2,000 3,000

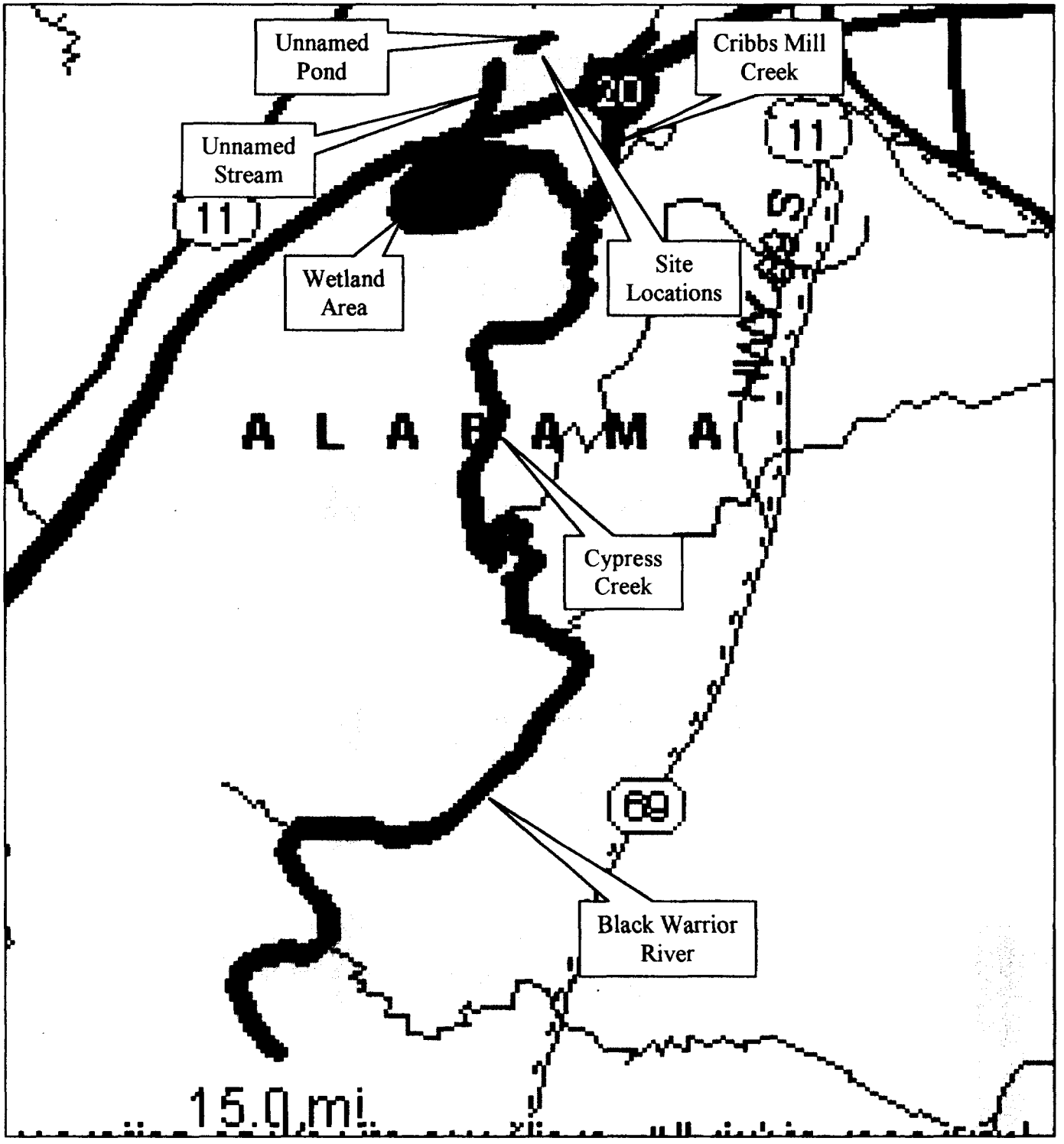
APAC, Inc.
Tuscaloosa, Tuscaloosa County, Alabama

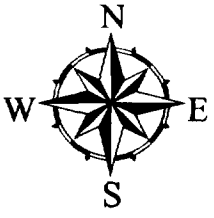
N
W E
S

Tuscaloosa, Alabama
U. S.G.S. Topographic Map 1971
Photo Revised 1983

Figure 2

1[illegible] Mile Surface Water Pathw[illegible]
APAC Site

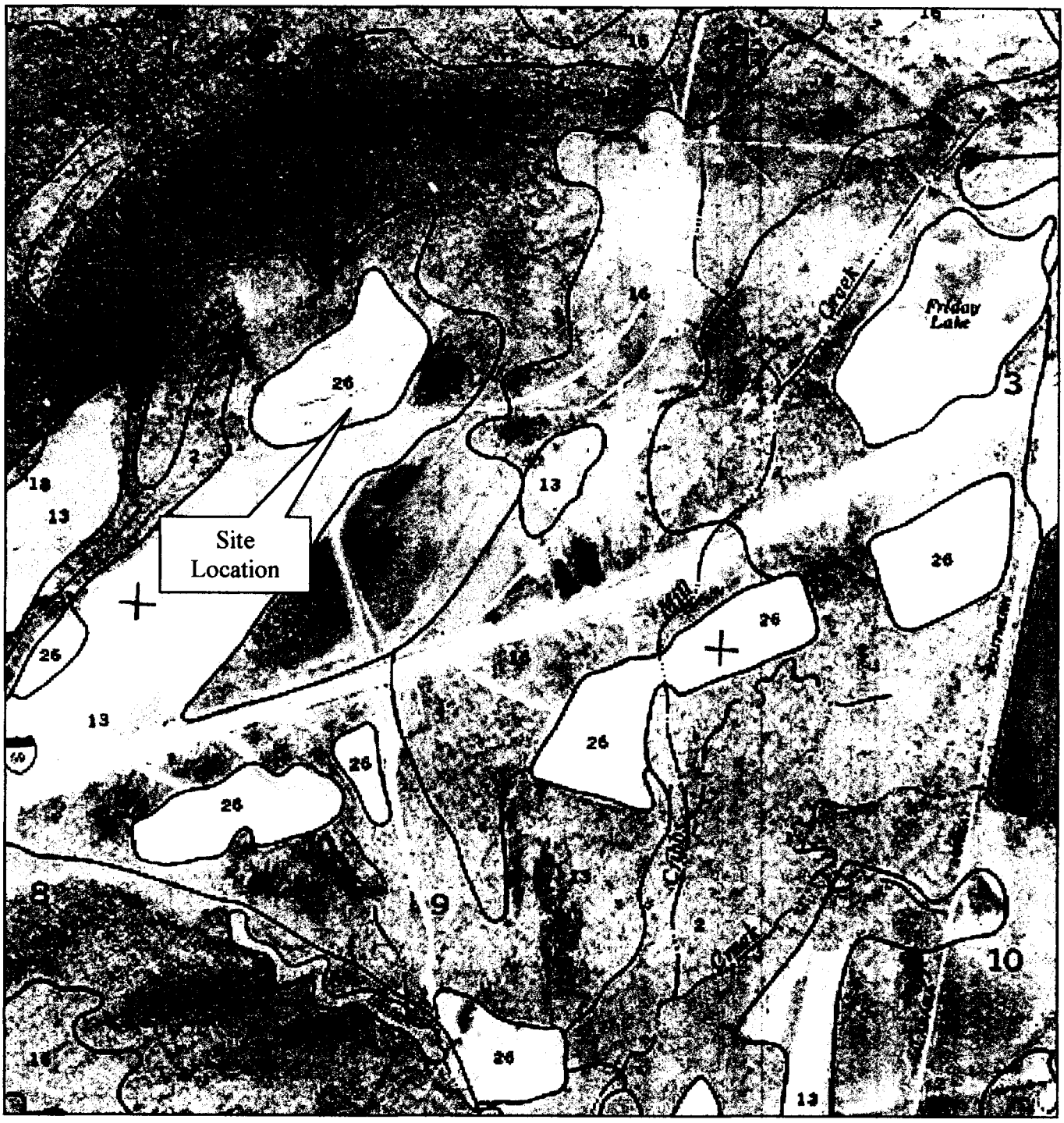




Base Map – Streets 2000
Microsoft Corporation 1988 - 1999

Figure 3

Soil Types Mapped at the APAC Site



13 - Cahaba sandy loam
26 - pits

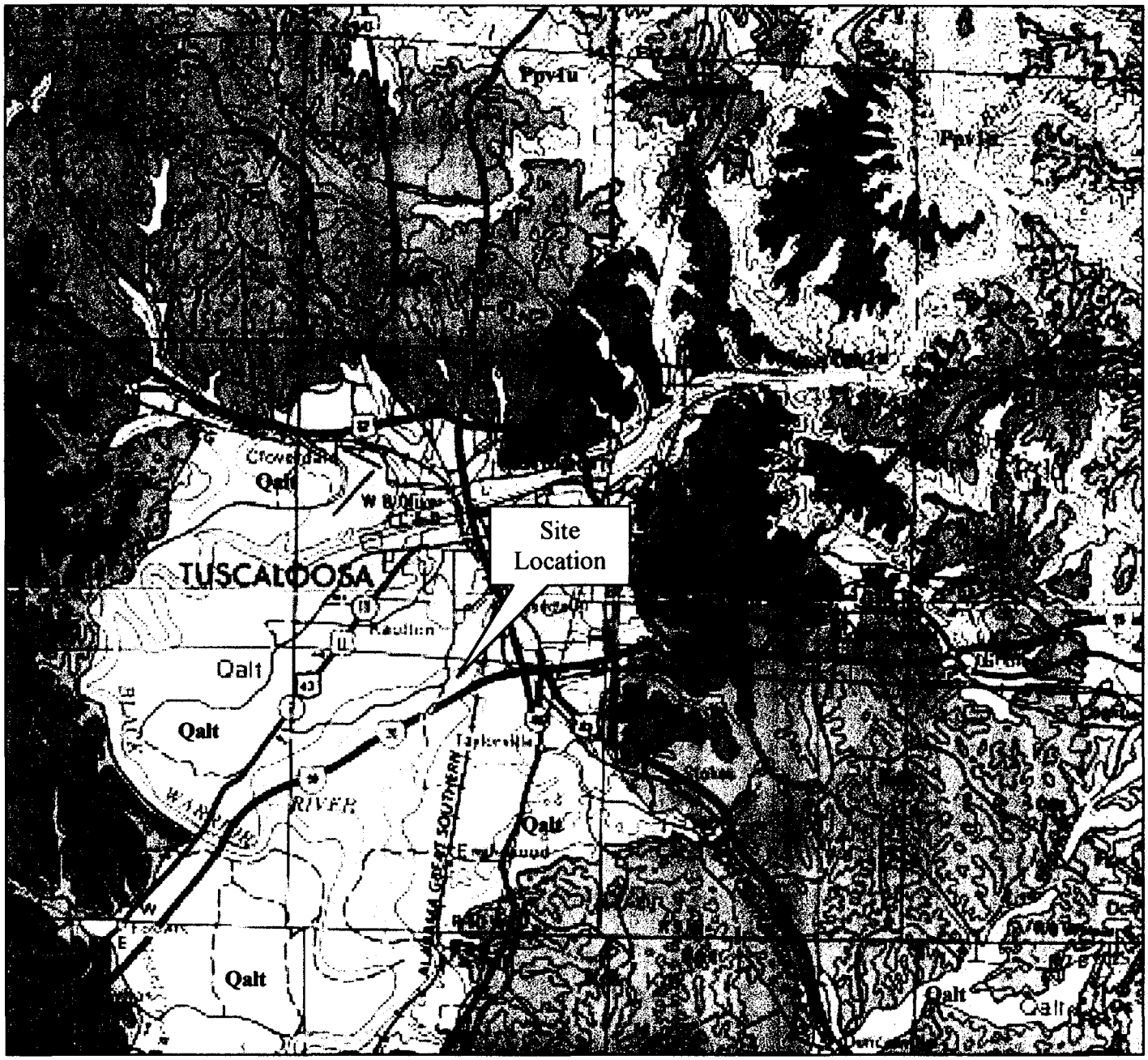
Feet
0 1000 2000 3000 4000

N
W E
S

U.S. Department of Agriculture
Soil conservation Service
Tuscaloosa County, Alabama
Sheet # 79

Figure 4

Geologic Units Near APAC, Inc.



Qalt - Alluvial and low terrace deposits

Qt - High terrace deposits

Kck - Coker Formation

Ppv1u - Pottsville Formation (upper part)

Miles

0 1 2 3 4

N W E S

Geologic Map of Alabama
Northwest Sheet 1988
Michael W. Szabo, W.E. Osborne,
and Charles W. Copeland Jr.
Geological Survey of Alabama Special Map 220

Figure 5

Table 1. Selected Population and Housing Characteristics: 1990
Tuscaloosa County, Alabama

The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991. The user should note that there are limitations to many of these data. Please refer to the technical documentation provided with Summary Tape File 1A for a further explanation on the limitations of the data.

Total population	150,522
SEX	
Male	72,645
Female	77,877
AGE	
Under 5 years	9,647
5 to 17 years	26,018
18 to 20 years	13,035
21 to 24 years	13,347
25 to 44 years	45,090
45 to 54 years	13,777
55 to 59 years	6,201
60 to 64 years	6,328
65 to 74 years	9,868
75 to 84 years	5,510
85 years and over	1,701
Median age	30.6
Under 18 years	35,665
Percent of total population	23.7
65 years and over	17,079
Percent of total population	11.3
HOUSEHOLDS BY TYPE	
Total households	55,354
Family households (families)	37,355
Married-couple families	28,653
Percent of total households	51.8
Other family, male householder	1,508
Other family, female householder	7,194
Nonfamily households	17,999
Percent of total households	32.5
Householder living alone	14,272
Householder 65 years and over	4,795
Persons living in households	141,179
Persons per household	2.55
GROUP QUARTERS	
Persons living in group quarters	9,343
Institutionalized persons	3,574
Other persons in group quarters	5,769
RACE AND HISPANIC ORIGIN	
White	109,398
Black	39,377
Percent of total population	26.2
American Indian, Eskimo, or Aleut	253
Percent of total population	0.2
Asian or Pacific Islander	1,264
Percent of total population	0.8
Other race	230
Hispanic origin (of any race)	948
Percent of total population	0.6

Total housing units	58,740
OCCUPANCY AND TENURE	
Occupied housing units	55,354
Owner occupied	34,023
Percent owner occupied	61.5
Renter occupied	21,331
Vacant housing units	3,386
For seasonal, recreational, or occasional use	306
Homeowner vacancy rate (percent)	1.3
Rental vacancy rate (percent)	5.2
Persons per owner-occupied unit	2.72
Persons per renter-occupied unit	2.27
Units with over 1 person per room	1,920
UNITS IN STRUCTURE	
1-unit, detached	35,253
1-unit, attached	1,033
2 to 4 units	5,160
5 to 9 units	2,763
10 or more units	7,078
Mobile home, trailer, other	7,453
VALUE	
Specified owner-occupied units	24,705
Less than $50,000	8,552
$50,000 to $99,999	12,646
$100,000 to $149,999	2,299
$150,000 to $199,999	648
$200,000 to $299,999	393
$300,000 or more	167
Median (dollars)	62,100
CONTRACT RENT	
Specified renter-occupied units paying cash rent	19,513
Less than $250	9,514
$250 to $499	9,195
$500 to $749	667
$750 to $999	93
$1,000 or more	44
Median (dollars)	254
RACE AND HISPANIC ORIGIN OF HOUSEHOLDER	
Occupied housing units	55,354
White	42,004
Black	12,709
Percent of occupied units	23.0
American Indian, Eskimo, or Aleut	90
Percent of occupied units	0.2
Asian or Pacific Islander	478
Percent of occupied units	0.9
Other race	73
Hispanic origin (of any race)	290
Percent of occupied units	0.5

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2
LI USING ENGINEER'S SCALE (1/60)

SITE NAME: APAC SITE CERCLIS #: _____

AKA: _____ SSID: _____

ADDRESS: 5356 MARTIN LUTHER KING BLVD (FORMERY MOODY SWAMP ROAD)

CITY: TUSCALOOSA STATE: AL ZIP CODE: _____

SITE REFERENCE POINT: CENTER OF SITE

USGS QUAD MAP NAME: TUSCALOOSA TOWNSHIP: ____ N/S RANGE: ____ E/W

SCALE: 1:24,000 MAP DATE: 1971 (REVISED 1981) SECTION: ____1/4 ____1/4 ____1/4

MAP DATUM: 1927 1983 (CIRCLE ONE) MERIDIAN: _____

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy):

LONGITUDE: 87 ° 30 ' 00 " LATITUDE: 33 ° 07 ' 30 "

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 87 ° 35 ' 00 " LATITUDE: 33 ° 07 ' 30 "

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRID LINE TO SITE REF POINT: 403

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

A x 0.3304 = 133 . 151 "

C) EXPRESS IN MINUTES AND SECONDS (1'= 60"): 2 ' 13 . 15 "

D) ADD TO STARTING LATITUDE: ____ ° 2 ' 13 . 15 " + 33 ' 07 . 30 =

SITE LATITUDE: 33 ° 09 ' 43 . 15 "

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP)

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 52

B) MULTIPLY (A) BY 0.3304 TO CONVERT TO SECONDS:

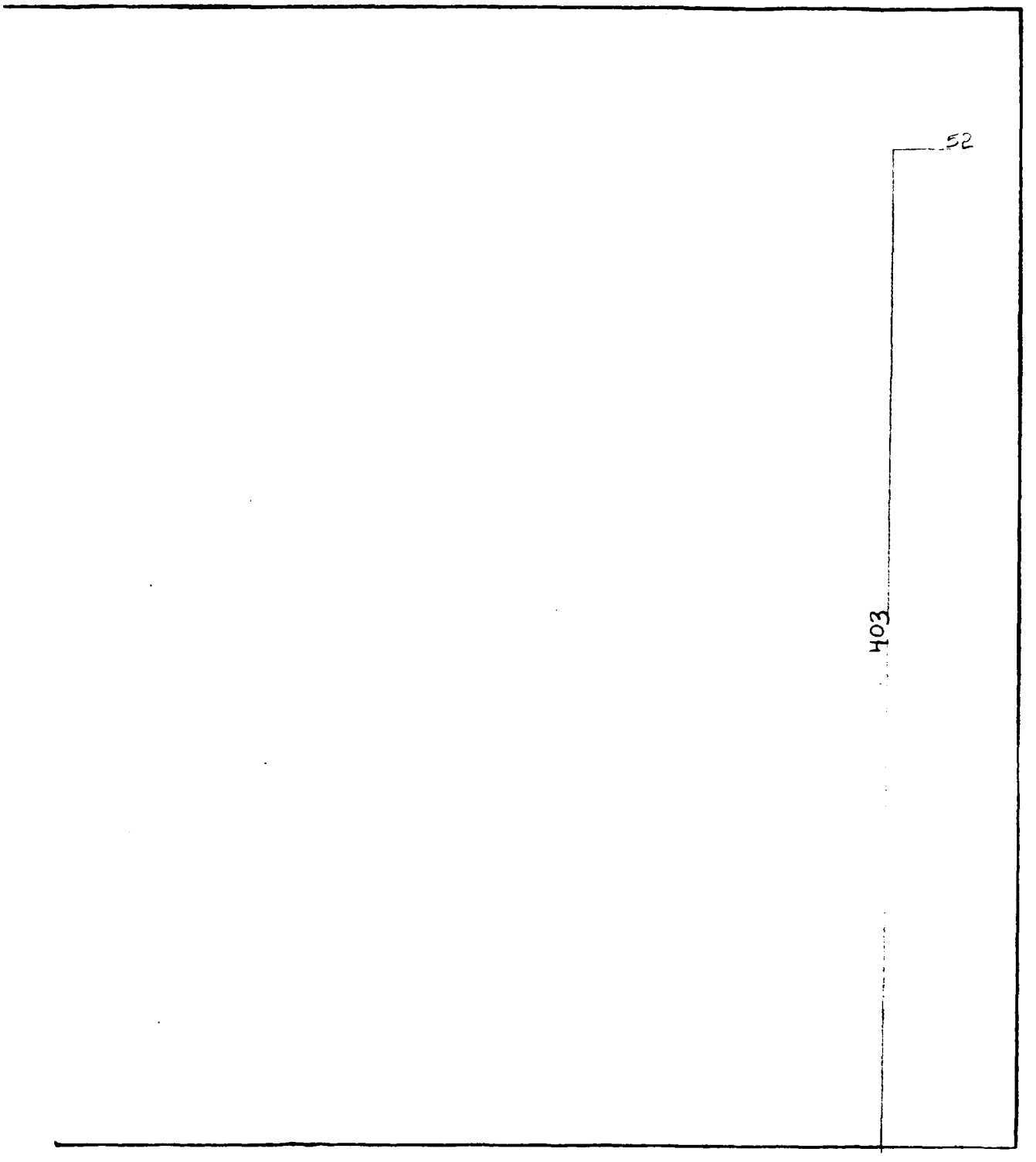
A x 0.3304 = 17 . 18 "

C) EXPRESS IN MINUTES AND SECONDS (1'= 60"): 0 ' 17 . 18 "

D) ADD TO STARTING LONGITUDE: 87 ° 35 ' 00 . 00 " + 0 ' 17 . 18 =

SITE LONGITUDE: 87 ° 35 ' 17 . 18 "

INVESTIGATOR: JOHN GLAZE DATE: 8-18-99



SITE NAME: APAC NUMBER:

MAP NAME: TUSCALOOSA SCALE: 1:24,000 DATUM: 1927

COORDINATES OF LOWER RIGHT HAND CORNER OF 2.5 MINUTE GRID

LATITUDE 33 ° 07 ' 30 " LONGITUDE 87 ° 35 ' 00 "

PWS ID1:	AL
PWS ID2:	0001313
PWS TYPE:	C
ACTIVITY FLAG:	A
SYSTEM BEGIN-YY:	75
SYSTEM BEGIN-MM:	06
DEACT-YY:	00
DEACT-MM:	00
POP SERVED:	109,500
PCT SURFACE:	100
PCT GROUND:	000
PCT PUR SURFACE:	000
PCT PUR GROUND:	000
SYSTEM NAME:	TUSCALOOSA WATER & SEWER
ADDRLINE1:	MR. PERRY A. ACKLIN, MANAGER
ADDRLINE2:	1125 RIVER RD NE
CITY:	TUSCALOOSA
STATE:	AL
ZIP:	35404
ZIP2:	1056
PHONE AREA CODE:	205
PHONE EXT 1:	349
PHONE EXT 2:	0247
EMERGENCY AREA CODE:	205
EMERGENCY EXT 1:	349
EMERGENCY EXT 2:	0204
SERVICE CONNECTIONS:	36,500
SEASON BEGIN-MM:	00
SEASON BEGIN-DD:	00
SEASON END-MM:	00
SEASON END-DD:	00
OWNER TYPE:	4
REGULATING ENTITY:	S
USERID:	TSD
DATESTAMP:	12/04/98
TIMESTAMP:	07:21:05.79
CROSS CONNECT:	Y
SAMPLING PLAN:	Y
AC PIPE:	
REQUIRED COMPLIANCE SAMPLES:	0100
REQUIRED RAW SAMPLES:	0000
LAB ID:	30130
LAB NAME:	Tuscaloosa Water Dept Laboratory
TURBIDITY MONITORING REQUIRED:	Y
FLOURIDE MONITORING REQUIRED:	Y

Table 2.—*7-day low flows at gaging stations*—Continued

Station no.	Stream and locality	Drainage area (sq mi)	Period of record (climatic years)	7-day average flow of period, in cfs, and year of occurrence	Estimated 10-year 7-day low flow in cfs and cfsm	Estimated 2-year 7-day low flow in cfs and cfsm	Location of gaging station
02462000	Valley Creek near Oak Grove, Ala.	145	1955-58	97.3 (1954)	—[22]	—[22]	In NW¼ sec. 25, T. 18 S., R. 6 W., at County Highway Bridge, 1,000 ft downstream from Raccoon Branch, and 1.5 miles east of Oak Grove, Jefferson County.
02462600	Blue Creek near Oakman, Ala.	5.7	1961-65	0.0 (1960-64)	0.0	0.0	In S½ sec. 33, T. 17 S., R. 9 W., Tuscaloosa County, at State Highway 69, 2 miles upstream from McDuff Spring Branch, and 14 miles southwest of Oakman, Walker County.
02462800	Davis Creek below Abernant, Ala.	45.2	1958-72	0.1 (1957)	0.2 .004	0.9 .020	In SE¼ sec. 12, T. 20 S., R. 7 W., at County Highway Bridge, 0.2 mile downstream from Lye Branch, and 2 miles northwest of Abernant, Tuscaloosa County.
02463000	Yellow Creek near Tuscaloosa, Ala.	24.2	1952-54	4.9 (1952)	3.0[23] .124	6.4[23] .264	In NE¼ sec. 16, T. 20 S., R. 9 W., at County Highway Bridge, 8 miles upstream from mouth, and 8 miles northeast of Tuscaloosa, Tuscaloosa County. Since 1953, site in backwater from Nicol Dam.
02463200	Hurricane Creek near Cedar Cove, Ala.	29.0	1959-60	2.6 (1959)	0.4 .014	0.8 .028	In NW¼ sec. 18, T. 21 S., R. 7 W., at County Highway Bridge, half a mile downstream from North Fork Hurricane Creek, and 3 miles north of Cedar Cove, Tuscaloosa County.
02463500	Hurricane Creek near Holt, Ala.	108	1954-69	2.0 (1954)	3.0 .028	6.1 .056	In S½ sec. 14, T. 21 S., R. 9 W., at State Highway 116, half a mile downstream from Cottondale Creek, and 2¾ miles southeast of Holt, Tuscaloosa County.
02464000	North River near Samantha, Ala.	219	1940-54 1970-73	0.1 (1954)	1.2 .005	5.6 .026	In SW¼ sec. 16, T. 18 S., R. 10 W., at County Highway Bridge, 1¼ miles upstream from Cripple Creek, and 4 miles north of Samantha, Tuscaloosa County.
02464500	North River near Tuscaloosa, Ala.	366	1953-68	9.7 (1954)	13 .036	23 .063	In NW¼ sec. 35, T. 19 S., R. 10 W., at State Highway 69, 1,000 ft upstream from Tierce Creek, and 10 miles north of Tuscaloosa, Tuscaloosa County.
02465000	Black Warrior River at Tuscaloosa, Ala.	4,828	1896-02 1930-73	46.0 (1952)	96[1] .020	298[1] .062	In SW¼ sec. 15, T. 21 S., R. 10 W., at vertical-lift bridge on U. S. Highway 82, at Tuscaloosa, Tuscaloosa County, and three-quarters of a mile upstream from Oliver Lock & Dam.
			1930-60	46.0 (1952)	87[24] .018	209[24] .043	
			1963-73	433 (1968)	634[25] .131	1,080[25] .224	
02465200	Lake Creek near Northport, Ala.	3.25	1958-70	0.0 (1963)	0.1[26] .031	1.4[26] .431	In NE¼ sec. 28, T. 20 S., R. 11 W., 300 ft upstream from dam forming Tuscaloosa County Lake, and 9 miles northwest of Northport, Tuscaloosa County. Lake outflow is gaged.
02465205	Jay Creek near Coker, Ala.	3.56	1965-68	0.2 (1966)	.19 .053	.32 .090	In NW¼ sec. 16, T. 21 S., R. 11 W., on downstream side of two 12 ft culverts, about 1.6 mi southwest of Coker on County Hwy 2, Tuscaloosa

Table 4.—*Duration of flow and average flow at gaging stations*—Continued

Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct
North River near Tuscaloosa, Ala., 1951-68										**Average discharge, 527 cfs**							**Station number 02464500**		
0	0.00	0	5844	100.0	9	60.00	408	4543	77.7	18	510.0	297	1488	25.5	27	4400	33	93	1.5
1	9.00	13	5844	100.0	10	77.00	435	4135	70.8	19	650.0	287	1191	20.4	28	5600	21	60	1.0
2	11.00	32	5831	99.8	11	97.00	292	3700	63.3	20	830.0	234	904	15.5	29	7100	18	39	.6
3	14.00	75	5799	99.2	12	120.00	407	3408	58.3	21	1100.0	108	670	11.5	30	9000	13	21	.3
4	18.00	119	5724	97.9	13	160.00	278	3001	51.4	22	1300.0	165	562	9.6	31	11000	4	8	.1
5	23.00	141	5605	95.9	14	200.00	304	2723	46.6	23	1700.0	111	397	6.8	32	14000	1	4	.0
6	30.00	258	5464	93.5	15	250.00	356	2419	41.4	24	2100.0	87	286	4.9	33	18000	1	3	.0
7	38.00	332	5206	89.1	16	320.00	303	2063	35.3	25	2700.0	59	199	3.4	34	23000	2	2	.0
8	48.00	331	4874	83.4	17	410.00	272	1760	30.1	26	3500.0	47	140	2.4					
Black Warrior River at Tuscaloosa, Ala., 1894-1902, 1928-73										**Average discharge, 7,724 cfs**							**Station number 02465000[1]**		
0	0.00	0	18992	100.0	9	300.00	506	17757	93.5	18	3100.0	1097	8966	47.2	27	32000	309	927	4.8
1	37.00	7	18992	100.0	10	390.00	709	17251	90.8	19	4000.0	1128	7869	41.4	28	42000	240	618	3.2
2	48.00	13	18985	100.0	11	500.00	820	16542	87.1	20	5200.0	1200	6741	35.5	29	55000	146	378	1.9
3	62.00	23	18972	99.9	12	650.00	937	15722	82.8	21	6800.0	1080	5541	29.2	30	71000	119	232	1.2
4	81.00	59	18949	99.8	13	840.00	990	14785	77.8	22	8800.0	936	4461	23.5	31	92000	69	113	.5
5	100.00	197	18890	99.5	14	1100.00	1183	13795	72.6	23	11000.0	1073	3525	18.6	32	120000	29	44	.2
6	140.00	204	18693	98.4	15	1400.00	1209	12612	66.4	24	15000.0	589	2452	12.9	33	150000	13	15	.0
7	180.00	294	18489	97.4	16	1800.00	1237	11403	60.0	25	19000.0	560	1863	9.8	34	200000	2	2	.0
8	230.00	438	18195	95.8	17	2400.00	1200	10166	53.5	26	25000.0	376	1303	6.9					
Black Warrior River at Tuscaloosa, Ala., 1896-1960										**Average discharge, 7,558 cfs**							**Station number 02465000[2]**		
0	0.00	0	14244	100.0	9	300.00	485	13022	91.4	18	3100.0	700	6356	44.6	27	32000	234	727	5.1
1	37.00	7	14244	100.0	10	390.00	675	12537	88.0	19	4000.0	763	5656	39.7	28	42000	183	493	3.4
2	48.00	13	14237	100.0	11	500.00	770	11862	83.3	20	5200.0	864	4893	34.4	29	55000	117	310	2.1
3	62.00	23	14224	99.9	12	650.00	835	11092	77.9	21	6800.0	770	4029	28.3	30	71000	94	193	1.3
4	81.00	59	14201	99.7	13	840.00	707	10257	72.0	22	8800.0	693	3259	22.9	31	92000	61	99	.6
5	100.00	197	14142	99.3	14	1100.00	795	9550	67.0	23	11000.0	738	2566	18.0	32	120000	27	38	.2
6	140.00	203	13945	97.9	15	1400.00	801	8755	61.5	24	15000.0	431	1828	12.8	33	150000	10	11	.0
7	180.00	292	13742	96.5	16	1800.00	795	7954	55.8	25	19000.0	393	1397	9.8	34	200000	1	1	
8	230.00	428	13450	94.4	17	2400.00	803	7159	50.3	26	25000.0	277	1004	7.0					
Black Warrior River at Tuscaloosa, Ala., 1962-73										**Average discharge, 7,959 cfs**							**Station number 02465000[3]**		
0	0.00	0	4383	100.0	9	300.00	21	4370	99.7	18	3100.0	357	2454	56.0	27	32000	72	185	4.2
1	37.00	0	4383	100.0	10	390.00	34	4349	99.2	19	4000.0	345	2097	47.8	28	42000	54	113	2.5
2	48.00	0	4383	100.0	11	500.00	50	4315	98.4	20	5200.0	313	1752	40.0	29	55000	26	59	1.3
3	62.00	0	4383	100.0	12	650.00	63	4265	97.3	21	6800.0	298	1439	32.8	30	71000	24	33	.7
4	81.00	0	4383	100.0	13	840.00	264	4182	95.4	22	8800.0	234	1141	26.0	31	92000	7	9	.2
5	100.00	0	4383	100.0	14	1100.00	347	3918	89.4	23	11000.0	316	907	20.7	32	120000	1	2	.0
6	140.00	1	4383	100.0	15	1400.00	367	3571	81.5	24	15000.0	149	591	13.5	33	150000	1	1	.0
7	180.00	2	4382	100.0	16	1800.00	369	3204	73.1	25	19000.0	161	442	10.1	34	200000			
8	230.00	10	4380	99.9	17	2400.00	361	2835	64.7	26	25000.0	96	281	6.4					
Lake Creek near Northport, Ala., 1966-70										**Average discharge, 7.16 cfs**							**Station number 02465200**		
0	0.00	33	4748	100.0	9	1.50	84	4495	94.7	18	11.0	203	749	15.8	27	79	4	10	.2
1	0.20	1	4715	99.3	10	1.80	312	4411	92.9	19	13.0	231	546	11.5	28	98	2	6	.1
2	0.30	72	4714	99.3	11	2.30	385	4099	86.3	20	17.0	106	315	6.6	29	120	2	4	.0
3	0.40	1	4642	97.8	12	2.90	372	3714	78.2	21	21.0	70	209	4.4	30	150		2	.0
4	0.50	4	4641	97.7	13	3.60	501	3342	70.4	22	26.0	58	139	2.9	31	190		2	.0
5	0.60	7	4637	97.7	14	4.40	536	2841	59.8	23	33.0	24	81	1.7	32	240	1	2	.0
6	0.80	16	4630	97.5	15	5.50	710	2305	48.5	24	41.0	33	57	1.2	33	300	1	1	.0
7	0.90	35	4614	97.2	16	6.90	450	1595	33.6	25	51.0	7	24	0.5	34				
8	1.20	84	4579	96.4	17	8.60	396	1145	24.1	26	63.0	7	17	0.4					
Jay Creek near Coker, Ala., 1963-68										**Average discharge, 5.86 cfs**							**Station number 02465205**		
0	0.00	0	1827	100.0	9	1.50	75	879	48.1	18	8.8	54	204	11.2	27	53	3	13	.7
1	0.20	48	1827	100.0	10	1.80	88	804	44.0	19	11.0	30	150	8.2	28	65	3	10	.5
2	0.30	51	1779	97.4	11	2.20	91	716	39.2	20	13.0	30	120	6.6	29	79	2	7	.3
3	0.40	139	1728	94.6	12	2.70	73	625	34.2	21	16.0	29	90	4.9	30	97	2	5	.2
4	0.50	243	1589	87.0	13	3.30	72	552	30.2	22	20.0	11	61	3.3	31	120	1	3	.1
5	0.70	70	1346	73.7	14	4.00	77	480	26.3	23	24.0	14	50	2.7	32	140	2	2	.1
6	0.80	205	1276	69.8	15	4.90	80	403	22.1	24	29.0	9	36	2.0	33				
7	1.00	97	1071	58.6	16	5.90	60	323	17.7	25	36.0	10	27	1.5	34				
8	1.20	95	974	53.3	17	7.20	59	263	14.4	26	44.0	4	17	0.9					
Big Sandy Creek at Duncanville, Ala., 1956-60										**Average discharge, 79.7 cfs**							**Station number 02465400**		
0	0.00	0	1461	100.0	9	52.00	76	761	52.1	18	140.0	19	166	11.4	27	360	6	26	1.7
1	22.00	51	1461	100.0	10	58.00	67	685	46.9	19	150.0	32	147	10.1	28	400	7	20	1.3
2	25.00	19	1410	96.5	11	65.00	70	618	42.3	20	170.0	25	115	7.9	29	450	5	13	.8
3	27.00	58	1391	95.2	12	72.00	71	548	37.5	21	190.0	15	90	6.2	30	500	2	8	.5
4	30.00	142	1333	91.2	13	80.00	76	477	32.6	22	210.0	15	75	5.1	31	560		6	.4
5	34.00	144	1191	81.5	14	89.00	90	401	27.4	23	230.0	10	60	4.1	32	620	3	6	.4
6	38.00	96	1047	71.7	15	99.00	50	311	21.3	24	260.0	7	50	3.4	33	690	2	3	.2
7	42.00	121	951	65.1	16	110.00	44	261	17.9	25	290.0	8	43	2.9	34	770	1	1	.0
8	47.00	69	830	56.8	17	120.00	51	217	14.9	26	320.0	9	35	2.4					
Fivemile Creek near Greensboro, Ala., 1954-72										**Average discharge, 71.6 cfs**							**Station number 02465500**		
0	0.00	0	6575	100.0	9	4.30	386	6164	93.7	18	49.0	433	2295	34.9	27	550	35	105	1.5
1	0.50	3	6575	100.0	10	5.70	419	5778	87.9	19	64.0	416	1862	28.3	28	720	28	70	1.0
2	0.70	5	6572	100.0	11	7.40	464	5359	81.5	20	84.0	352	1446	22.0	29	950	17	42	.6
3	0.90	7	6567	99.9	12	9.70	424	4895	74.4	21	110.0	281	1094	16.6	30	1200	11	25	.3
4	1.10	11	6560	99.8	13	13.00	467	4471	68.0	22	140.0	303	813	12.4	31	1600	6	14	.2
5	1.50	22	6549	99.6	14	17.00	421	4004	60.9	23	190.0	193	510	7.8	32	2100	2	8	.1
6	1.90	53	6527	99.3	15	22.00	415	3583	54.5	24	250.0	91	317	4.8	33	2800	5	6	.0
7	2.50	111	6474	98.5	16	29.00	406	3168	48.2	25	320.0	78	226	3.4	34	3700	1	1	.0
8	3.30	199	6363	96.8	17	37.00	467	2762	42.0	26	420.0	43	148	2.3					

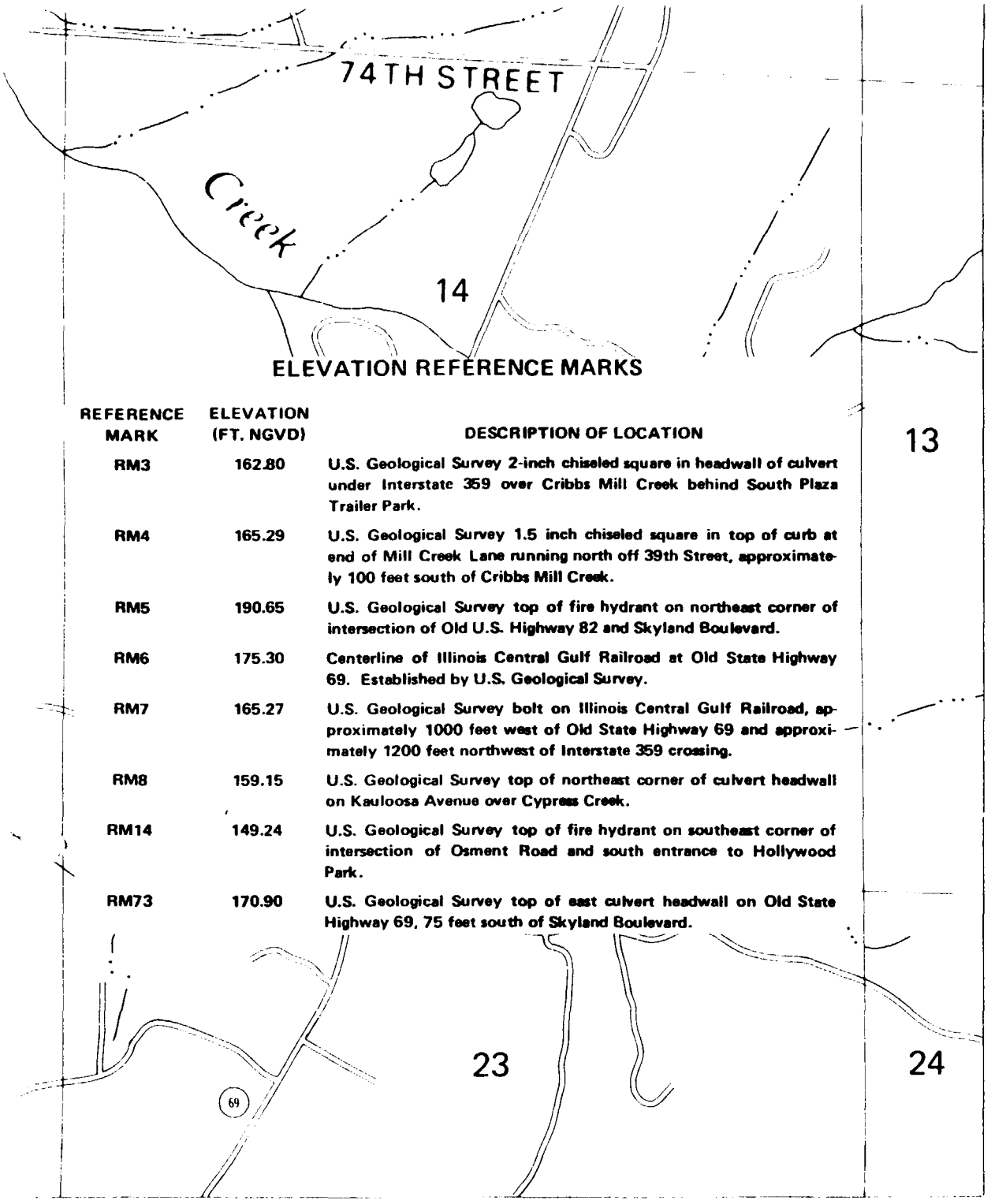
Table 4.—*Duration of flow and average flow at gaging stations*—Continued

Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct
Black Warrior River near Eutaw, Ala., 1932-55, 1956-57									
0	0.00	0	8400	100.0	9	1000.00	446	6762	80.5
1	203.00	7	8400	100.0	10	1200.00	465	6316	75.2
2	250.00	23	8393	99.9	11	1500.00	517	5851	69.7
3	300.00	85	8370	99.6	12	1900.00	402	5334	63.5
4	370.00	167	8285	98.6	13	2300.00	380	4932	58.7
5	450.00	218	8118	96.6	14	2800.00	334	4552	54.2
6	550.00	353	7900	94.0	15	3400.00	408	4218	50.2
7	680.00	378	7547	89.8	16	4100.00	441	3810	45.4
8	830.00	407	7169	85.3	17	5100.00	353	3369	40.1
Prairie Creek near Gallion, Ala., 1940-52									
0	0.00	2	4383	100.0	9	5.60	291	3917	89.4
1	0.40	3	4381	100.0	10	7.80	295	3626	82.7
2	0.60	3	4378	99.9	11	11.00	332	3331	76.0
3	0.80	4	4375	99.8	12	15.00	398	2999	68.4
4	1.10	11	4371	99.7	13	21.00	265	2601	59.3
5	1.50	64	4360	99.5	14	29.00	316	2336	53.3
6	2.10	16	4296	98.0	15	40.00	392	2020	46.1
7	2.90	106	4280	97.7	16	56.00	319	1628	37.1
8	4.00	257	4174	95.2	17	78.00	265	1309	29.9
Tombigbee River near Coatopa, Ala., 1928-73									
0	0.00	0	16436	100.0	9	390.00	7	16413	99.9
1	50.00	8	16436	100.0	10	510.00	16	16406	99.8
2	65.00	2	16428	100.0	11	660.00	55	16390	99.7
3	84.00	3	16426	99.9	12	850.00	168	16335	99.4
4	110.00	0	16423	99.9	13	1100.00	305	16167	98.4
5	140.00	2	16423	99.9	14	1400.00	625	15862	96.5
6	180.00	0	16421	99.9	15	1800.00	968	15237	92.7
7	230.00	2	16421	99.9	16	2400.00	1154	14269	86.8
8	300.00	6	16419	99.9	17	3100.00	1255	13115	79.8
Sucarnoochee River at Livingston, Ala., 1938-73									
0	0.00	0	12784	100.0	9	230.00	868	7547	59.0
1	50.00	79	12784	100.0	10	280.00	769	6679	52.2
2	61.00	116	12705	99.4	11	340.00	857	5910	46.2
3	73.00	261	12589	98.5	12	420.00	641	5053	39.5
4	89.00	816	12328	96.4	13	500.00	694	4412	34.5
5	110.00	914	11512	90.1	14	610.00	563	3718	29.1
6	130.00	1144	10598	82.9	15	740.00	484	3155	24.7
7	160.00	1034	9454	74.0	16	900.00	395	2671	20.9
8	190.00	873	8420	65.9	17	1100.00	302	2276	17.8

Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct
Average discharge, 8,858 cfs					**Station number 02466000**				
18	6200.0	395	3016	35.9	27	38000	170	389	4.6
19	7600.0	380	2621	31.2	28	46000	115	219	2.6
20	9200.0	304	2241	26.7	29	56000	47	104	1.2
21	11000.0	383	1937	23.1	30	69000	23	57	.6
22	14000.0	236	1554	18.5	31	84000	16	34	.4
23	17000.0	213	1318	15.7	32	100000	12	18	.2
24	21000.0	208	1105	13.2	33	130000	3	6	.0
25	25000.0	258	897	10.7	34	150000	3	3	.0
26	31000.0	250	639	7.6					
Average discharge, 238 cfs					**Station number 02466500**				
18	110.0	182	1044	23.8	27	2100	55	110	2.5
19	150.0	150	862	19.7	28	3000	24	55	1.2
20	210.0	120	712	16.2	29	4100	14	31	.7
21	290.0	103	592	13.5	30	5700	7	17	.3
22	410.0	84	489	11.2	31	8000	3	10	.2
23	570.0	95	405	9.2	32	11000	5	7	.1
24	790.0	90	310	7.1	33	15000		2	.0
25	1100.0	51	220	5.0	34	21000	2	2	.0
26	1500.0	59	169	3.9					
Average discharge, 22,050 cfs					**Station number 02467000[17]**				
18	4000.0	1338	11860	72.2	27	41000	773	3028	18.4
19	5200.0	1265	10522	64.0	28	52000	742	2255	13.7
20	6700.0	1010	9257	56.3	29	68000	781	1513	9.2
21	8600.0	845	8247	50.2	30	88000	438	732	4.4
22	11000.0	927	7402	45.0	31	110000	218	294	1.7
23	14000.0	1016	6475	39.4	32	150000	60	76	.4
24	19000.0	704	5459	33.2	33	190000	16	16	.0
25	24000.0	832	4755	28.9	34	250000			
26	31000.0	895	3923	23.9					
Average discharge, 745 cfs					**Station number 02467500**				
18	1300.0	331	1974	15.4	27	7500	24	58	.4
19	1600.0	298	1643	12.9	28	9100	12	34	.2
20	1900.0	385	1345	10.5	29	11000	7	22	.1
21	2400.0	277	960	7.5	30	13000	8	15	.1
22	2900.0	236	683	5.3	31	16000	3	7	.0
23	3500.0	156	447	3.5	32	20000	2	4	.0
24	4200.0	125	291	2.3	33	24000	1	2	.0
25	5100.0	69	166	1.3	34	29000	1	1	
26	6200.0	39	97	0.8					

Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct
Alamuchee Creek near Cuba, Ala., 1954-67									
0	0.00	0	4748	100.0	9	13.00	510	3020	63.6
1	1.80	12	4748	100.0	10	17.00	334	2510	52.9
2	2.30	22	4736	99.7	11	22.00	313	2176	45.8
3	3.00	94	4714	99.3	12	28.00	242	1863	39.2
4	3.80	159	4620	97.3	13	35.00	275	1621	34.1
5	4.90	180	4461	94.0	14	45.00	238	1346	28.3
6	6.20	361	4281	90.2	15	58.00	252	1108	23.3
7	8.00	439	3920	82.6	16	75.00	188	856	18.0
8	10.00	461	3481	73.3	17	96.00	158	668	14.1
Chickasaw Bogue near Linden, Ala., 1944-46, 1965-73									
0	0.00	0	3652	100.0	9	4.50	212	2976	81.5
1	0.30	0	3652	100.0	10	6.40	198	2764	75.7
2	0.40	0	3652	100.0	11	9.00	241	2566	70.3
3	0.60	8	3652	100.0	12	13.00	159	2325	63.7
4	0.80	98	3644	99.8	13	18.00	151	2166	59.3
5	1.20	94	3546	97.1	14	25.00	163	2015	55.2
6	1.60	162	3452	94.5	15	35.00	222	1852	50.7
7	2.30	153	3290	90.1	16	49.00	271	1630	44.6
8	3.20	161	3137	85.9	17	69.00	231	1359	37.2
Kinterbish Creek near York, Ala., 1954-67									
0	0.00	0	4748	100.0	9	14.00	376	4103	86.4
1	1.80	6	4748	100.0	10	18.00	497	3727	78.5
2	2.30	14	4742	99.9	11	23.00	490	3230	68.0
3	3.00	19	4728	99.6	12	30.00	408	2740	57.7
4	3.90	43	4709	99.2	13	39.00	392	2332	49.1
5	5.00	88	4666	98.3	14	51.00	352	1940	40.9
6	6.50	102	4578	96.4	15	65.00	321	1588	33.4
7	8.40	133	4476	94.3	16	84.00	289	1267	26.7
8	11.00	240	4343	91.5	17	110.00	212	978	20.6
Tuckabum Creek near Butler, Ala., 1954-68, 1969-70									
0	0.00	0	5479	100.0	9	2.40	123	5358	97.8
1	0.10	3	5479	100.0	10	3.30	118	5235	95.5
2	0.20	2	5476	99.9	11	4.80	261	5117	93.4
3	0.30	1	5474	99.9	12	6.80	432	4856	88.6
4	0.40	10	5473	99.9	13	9.60	558	4424	80.7
5	0.60	3	5463	99.7	14	14.00	482	3866	70.6
6	0.80	13	5460	99.7	15	19.00	576	3384	61.8
7	1.20	5	5447	99.4	16	28.00	433	2808	51.3
8	1.70	84	5442	99.3	17	39.00	426	2375	43.3

Class	Cfs	Total	Accum	Perct	Class	Cfs	Total	Accum	Perct
Average discharge, 68.0 cfs					**Station number 02468000**				
18	120.0	136	510	10.7	27	1100	13	26	.5
19	160.0	79	374	7.9	28	1500	4	13	.2
20	200.0	65	295	6.2	29	1900	4	9	.1
21	260.0	48	230	4.8	30	2400	2	5	.1
22	330.0	39	182	3.8	31	3100	1	3	.0
23	420.0	37	143	3.0	32	4000		2	.0
24	540.0	42	106	2.2	33	5100		2	.0
25	700.0	20	64	1.3	34	6500	2	2	.0
26	890.0	18	44	0.9					
Average discharge, 317 cfs					**Station number 02468500**				
18	97.0	223	1128	30.9	27	2100	46	154	4.2
19	140.0	165	905	24.8	28	2900	44	108	2.9
20	190.0	141	740	20.3	29	4100	29	64	1.7
21	270.0	128	599	16.4	30	5700	21	35	.9
22	380.0	98	471	12.9	31	8000	12	14	.3
23	530.0	71	373	10.2	32	11000	1	2	.0
24	740.0	51	302	8.3	33	16000		1	.0
25	1000.0	56	251	6.9	34	22000	1	1	.0
26	1500.0	41	195	5.3					
Average discharge, 103 cfs					**Station number 02469000**				
18	140.0	211	766	16.1	27	1400	15	39	.8
19	180.0	192	555	11.7	28	1800	16	24	.5
20	240.0	83	363	7.6	29	2400	3	8	.1
21	300.0	82	280	5.9	30	3100	2	5	.1
22	390.0	54	198	4.2	31	4000	1	3	.0
23	510.0	40	144	3.0	32	5100		2	.0
24	660.0	29	104	2.2	33	6600		2	.0
25	850.0	18	75	1.6	34	8500	2	2	.0
26	1100.0	18	57	1.2					
Average discharge, 123 cfs					**Station number 02469500**				
18	56.0	411	1949	35.6	27	1300	34	79	1.4
19	80.0	347	1538	28.1	28	1900	28	45	.8
20	110.0	335	1191	21.7	29	2700	9	17	.3
21	160.0	302	856	15.6	30	3800	5	8	.1
22	230.0	190	554	10.1	31	5400	1	3	.0
23	330.0	119	364	6.6	32	7700		2	.0
24	460.0	67	245	4.5	33	11000	2	2	.0
25	660.0	55	178	3.2	34				
26	940.0	44	123	2.2					



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
RM3	162.80	U.S. Geological Survey 2-inch chiseled square in headwall of culvert under Interstate 359 over Cribbs Mill Creek behind South Plaza Trailer Park.
RM4	165.29	U.S. Geological Survey 1.5 inch chiseled square in top of curb at end of Mill Creek Lane running north off 39th Street, approximately 100 feet south of Cribbs Mill Creek.
RM5	190.65	U.S. Geological Survey top of fire hydrant on northeast corner of intersection of Old U.S. Highway 82 and Skyland Boulevard.
RM6	175.30	Centerline of Illinois Central Gulf Railroad at Old State Highway 69. Established by U.S. Geological Survey.
RM7	165.27	U.S. Geological Survey bolt on Illinois Central Gulf Railroad, approximately 1000 feet west of Old State Highway 69 and approximately 1200 feet northwest of Interstate 359 crossing.
RM8	159.15	U.S. Geological Survey top of northeast corner of culvert headwall on Kauloosa Avenue over Cypress Creek.
RM14	149.24	U.S. Geological Survey top of fire hydrant on southeast corner of intersection of Osment Road and south entrance to Hollywood Park.
RM73	170.90	U.S. Geological Survey top of east culvert headwall on Old State Highway 69, 75 feet south of Skyland Boulevard.

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

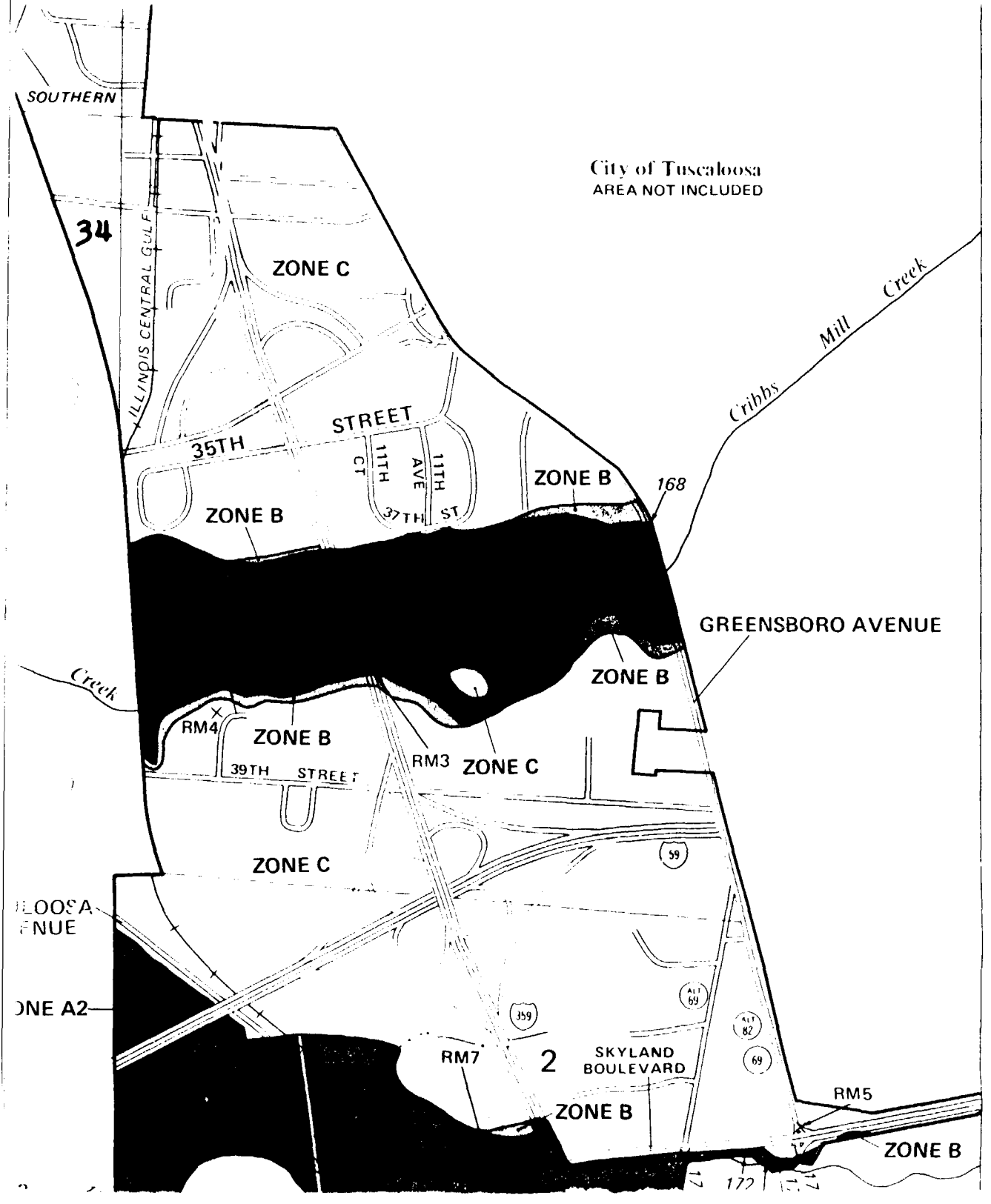
TUSCALOOSA COUNTY, ALABAMA
(UNINCORPORATED AREAS)

PANEL 265 OF 400
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
010201 0265 B

EFFECTIVE DATE:
JANUARY 20, 1982

federal emergency management agency
federal insurance administration



500-Year Flood Boundary	
100-Year Flood Boundary	ZONE B
Zone Designations* With Date of Identification e.g., 12/2/74	
100-Year Flood Boundary	ZONE B
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

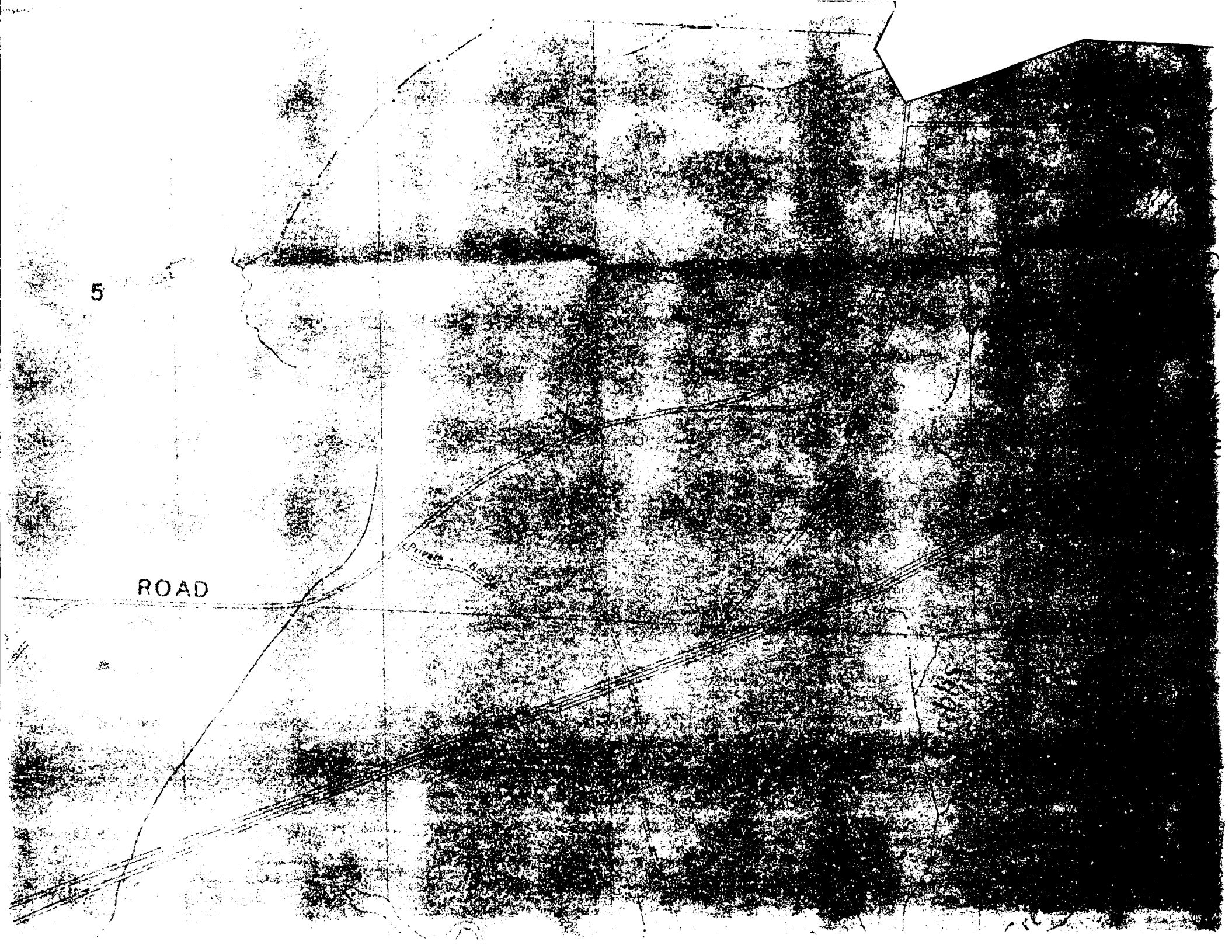
*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or


5
ROAD
Private Road

ALABAMA'S FEDERALLY LISTED SPECIES (BY COUNTY)

Date of List: June 1999

This office (Daphne Field Office - USFWS) is currently updating this list and, therefore, it may be incomplete and is provided strictly for informational purposes, at this time, and does not constitute any form of Section 7 consultation. We recommend that this office is contacted for updated, site specific information prior to project activities. To be certain of occurrence, surveys should be conducted by qualified biologists to determine if a federally protected species occurs within a project area.

Key to codes on list:
E - Endangered
T - Threatened
CH - Critical Habitat Designated
C - Candidate Species
PT - Proposed Threatened
PE - Proposed Endangered
(P) - Possible Occurrence

Autauga	E -	Wood stork *Mycteria americana*
	E -	Alabama canebrake pitcher plant *Sarracenia rubra alabamensis*
	T -	Price's potato bean *Apios priceana*
Baldwin	ECH -	Alabama beach mouse *Peromyscus polionotus ammobates*
	ECH -	Perdido Key beach mouse *Peromyscus polionotus trissylepsis*
	E -	Red-cockaded woodpecker *Picoides borealis*
	T -	Piping plover *Charadrius melodus*
	T -	Bald eagle *Haliaeetus leucocephalus*
	E -	Alabama red-bellied turtle *Pseudemys alabamensis*
	T -	Loggerhead sea turtle *Caretta caretta*
	T -	Gulf sturgeon *Acipenser oxyrinchus desotoi*
	PE -	Alabama sturgeon *Scaphirhynchus suttkusi*
	E -	Heavy pigtoe mussel *Pleurobema taitianum*
	T -	Inflated heelsplitter mussel *Potamilus inflatus*
	T -	Flatwoods salamander *Ambystoma cingulatum* (P)
	T -	Green sea turtle *Chelonia mydas* (P)
	E -	Kemp's ridley *Lepidochelys kempii* (P)
	T -	Eastern indigo snake *Drymarchon corais couperi* (P)
Barbour	E -	Wood stork *Mycteria americana*
Bibb	E -	Red-cockaded woodpecker *Picoides borealis*
	E -	Cahaba shiner *Notropis cahabae*
	T -	Goldline darter *Percina aurolineata*
	T -	Orange-nacre mucket mussel *Lampsilis perovalis*
	T -	Inflated heelsplitter mussel *Potamilus inflatus*

Shelby	E -	Gray bat *Myotis grisescens*
	E -	Indiana bat *Myotis sodalis*
	E -	Cahaba shiner *Notropis cahabae*
	T -	Goldline darter *Percina aurolineata*
	T -	Painted rocksnail *Leptoxis taeniata*
	E -	Tulotoma snail *Tulotoma magnifica*
	E -	Southern acornshell mussel *Epioblasma othcaloogensis*
	T -	Fine-lined pocketbook mussel *Lampsilis altilis*
	T -	Orange-nacre mucket mussel *Lampsilis perovalis*
	T -	Alabama moccasinshell mussel *Medionidus acutissimus*
	E -	Cylindrical lioplax (snail) *Lioplax cyclostomaformis*
	E -	Flat pebblesnail *Lepyrium showalteri*
	T -	Round rocksnail *Leptoxis ampla*
St. Clair	E -	Tulotoma snail *Tulotoma magnifica*
	E -	Southern acornshell mussel *Epioblasma othcaloogensis*
	E -	Triangular kidneyshell mussel *Ptychobranchus greeni*
	E -	Ovate clubshell mussel *Pleurobema perovatum*
	E -	Southern pigtoe mussel *Pleurobema georgianum*
	T -	Fine-lined pocketbook mussel *Lampsilis altilis*
	E -	Upland combshell mussel *Epioblasma metastriata*
	E -	Alabama leather flower *Clematis socialis*
Sumter	E -	Ovate clubshell mussel *Pleurobema perovatum*
	T -	Inflated heelsplitter mussel *Potamilus inflatus*
	E -	Stirrup shell mussel *Quadrula stapes*
	T -	Gopher tortoise *Gopherus polyphemus*
Talladega	E -	Red-cockaded woodpecker *Picoides borealis*
	T -	Fine-lined pocketbook mussel *Lampsilis altilis*
	E -	Coosa moccasinshell mussel *Medionidus parvulus*
	E -	Tulotoma snail *Tulotoma magnifica*
	T -	Painted rocksnail *Leptoxis taeniata*
	T -	Lacy elimia (snail) *Elimia crenatella*
Tallapoosa	E -	Red-cockaded woodpecker *Picoides borealis*
	T -	Fine-lined pocketbook mussel *Lampsilis altilis*
Tuscaloosa	E -	Red-cockaded woodpecker *Picoides borealis*
	T -	Flattened musk turtle *Sternotherus depressus*
	E -	Southern clubshell mussel *Pleurobema decisum*
	E -	Dark pigtoe mussel *Pleurobema furvum*
	E -	Ovate clubshell mussel *Pleurobema perovatum*
Tuscaloosa	T -	Inflated heelsplitter mussel *Potamilus inflatus*
(cont)	T -	Fine-lined pocketbook mussel *Lampsilis altilis*
Walker	T -	Flattened musk turtle *Sternotherus depressus*

ALABAMA

FEDERALLY LISTED ENDANGERED / THREATENED SPECIES

current as of 15 June 1999

TAXA	STATUS	COMMON / SCIENTIFIC NAMES	DISTRIBUTION
Mammals (7)		(See note on bottom of page 7)	
	E	Red wolf* *Canis rufus*	Extirpated
	E	Florida panther* *Felis concolor coryi*	Extirpated
	E	Gray bat *Myotis grisescens*	Tennessee Valley, Shelby and Conecuh Counties
	E CH	Indiana bat *Myotis sodalis*	Tennessee Valley, Jackson County
	E CH	Alabama beach mouse *Peromyscus polionotus ammobates*	Coastal, Baldwin county
	E CH	Perdido Key beach mouse *Peromyscus polionotus trissyllepsis*	Coastal, Baldwin county
	E CH	West Indian (Florida) manatee *Trichechus manatus*	Coastal waters
Birds (8)	E	Ivory-billed woodpecker* *Campephilus principalis*	Extirpated
	T	Piping Plover *Charadrius melodus*	Coastal beaches and islands
	E CH	American peregrine falcon *Falco peregrinus anatum*	Statewide
	T	Bald Eagle *Haliaeetus leucocephalus*	Statewide
	E	Wood stork *Mycteria americana*	Statewide
	E	Eskimo curlew	Possible migrant

TAXA	STATUS	COMMON / SCIENTIFIC NAMES	DISTRIBUTION
		Ptilimnium nodosum	Counties
	T	Kral's water-plantain *Sagittaria secundifolia*	Cherokee, DeKalb and Winston Counties
	E	Green pitcher plant *Sarracenia oreophila*	Cherokee, DeKalb, Etowah, Jackson, and Marshall Counties
	E	Alabama canebrake pitcher-plant *Sarracenia rubra alabamensis*	Autauga, Chilton, Elmore Counties
	E	American chaffseed*? *Schwalbea americana*	Mobile, Baldwin, Geneva Counties
	T	Alabama streak-sorus fern *Thelypteris pilosa* var. *alabamensis*	Winston County
	E	Relict trillium *Trillium reliquum*	Henry, Lee, Bullock Counties
	E	Tennessee yellow-eyed grass *Xyris tennesseensis*	Bibb, Calhoun and Franklin Counties

Total Animal Species: 88, not including 5 species of whales
Total Plant Species: 20

Status:
- * = Not believed to occur in Alabama
- E = Endangered
- T = Threatened
- T(SA) = Threatened because of Similarity of Appearance
- CH = Critical Habitat has been designated

NOTE: There are 5 endangered species of whales found in coastal waters of the southeastern states. These include the finback whale *Balaenoptera physalus*, the humpback whale *Megaptera novaeangliae*, the right whale *Balaena glacialis*, the sei whale *Balaenoptera borealis*, and the sperm whale *Physeter catodon*. It is possible, though unlikely, that they could appear in Alabama coastal waters.

TAXA	STATUS	COMMON / SCIENTIFIC NAMES	DISTRIBUTION
Crustacea (1)	E	Alabama cave shrimp *Palaemonias alabamae*	Madison County
Insecta (1)	E	American burying beetle* *Nicrophorus americanus*	Statewide
Plants (20)	T	Little amphianthus *Amphianthus pusillus*	Chambers and Randolph Counties
	T	Price's potato-bean *Apios priceana*	Autauga, Madison and Marshall Counties
	E	Rock cress *Arabis perstellata* var. *perstellata*	Bibb County
	E	Morefield's leather flower *Clematis morefieldii*	Madison County
	E	Alabama leather flower *Clematis socialis*	St. Clair and Cherokee Counties
	E	Leafy prairie-clover *Dalea foliosa*	Colbert, Franklin, Morgan, Lawrence, Jefferson Counties
	T	Eggert's sunflower *Helianthus eggertii*	Blount County
	E	Gentian pinkroot *Spigelia gentianoides*	Bibb County
	T	Lyrate bladder-pod *Lesquerella lyrata*	Colbert, Franklin and Lawrence Counties
	E	Pondberry *Lindera melissifolia*	Wilcox County
	T	Mohr's Barbara's buttons *Marshallia mohrii*	Bibb, Calhoun, Cherokee, Cullman, Walker, Etowah Counties
	T	American hart's-tongue fern *Asplenium scolopendrium* var. *americanum*	Morgan and Jackson Counties
	E	Harperella	Cherokee, DeKalb and Tuscaloosa

TAXA	STATUS	COMMON / SCIENTIFIC NAMES	DISTRIBUTION
		Numenius borealis	
	E	Red-cockaded woodpecker *Picoides borealis*	Statewide
	E	Bachman's warbler* *Vermivora bachmanii*	Probably extirpated
Reptiles (10)	T (SA)	American Alligator *Alligator mississippiensis*	Southern half of the state
	T	Loggerhead sea turtle *Caretta caretta*	Coastal waters, nests on Alabama beaches
	T	Green sea turtle *Chelonia mydas*	Coastal waters, nests on Alabama beaches
	E CH	Leatherback sea turtle *Dermochelys coriacea*	Coastal waters
	T	Eastern indigo snake *Drymarchon corais couperi*	Extreme southern counties
	E CH	Hawksbill sea turtle *Eretmochelys imbricata*	Coastal waters
	T	Gopher tortoise *Gopherus polyphemus*	Choctaw, Mobile, and Washington Counties (western population only is listed)
	E	Kemp's (Atlantic) Ridley sea turtle *Lepidochelys kempii*	Coastal waters
	E	Alabama red-bellied turtle *Pseudemys alabamensis*	Mobile, Baldwin, and Monroe Counties
	T	Flattened musk turtle *Sternotherus depressus*	Upper Black Warrior River system
Amphibians (2)	T	Flatwoods salamander* *Ambystoma cingulatum*	Probably extirpated
	T	Red Hills salamander *Phaeognathus hubrichti*	Butler, Crenshaw, Conecuh, Covington and Monroe Counties

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Water Division - Water Quality Program

Chapter 335-6-11
Water Use Classifications
For Interstate and Intrastate Waters

Table of Contents

335-6-11-.01 The Use Classification System
335-6-11-.02 Use Classifications

335-6-11-.01 The Use Classification System

(1) Use classifications utilized by the State of Alabama are as follows:

Public Water Supply	PWS
Swimming and Other Whole Body Water-Contact Sports	S
Shellfish Harvesting	SH
Fish and Wildlife	F&W
Agricultural and Industrial Water Supply	A&I
Industrial Operations	IO
Navigation	N
Outstanding Alabama Water	OAW

(2) Use classifications apply water quality criteria adopted for particular uses based on existing utilization, uses reasonably expected in the future, and those uses not now possible because of correctable pollution but which could be made if the effects of pollution were controlled or eliminated. Of necessity, the assignment of use classifications must take into consideration the physical capability of waters to meet certain uses.

(3) Those use classifications presently included in the standards are reviewed informally by the Department's staff as the need arises, and the entire standards package, to include the use classifications, receives a formal review at least once each three years. Efforts currently underway through local 201 planning projects will provide additional technical data on certain streams in the State, information on treatment alternatives, and applicability of various management techniques, which, when available, will hopefully lead to new decisions regarding use classifications. Of particular interest are those segments which are currently classified for any usage which has an associated degree of quality

criteria considered to be less than that applicable to a classification of "Fish and Wildlife." As rapidly as it can be demonstrated that new classifications are feasible on these segments from an economic and technological viewpoint, based on the information being generated pursuant to staff studies and the planning efforts previously outlined, such improvement will be sought.

(4) Although it is not explicitly stated in the classifications, it should be understood that the use classification of "Shellfish Harvesting" is only applicable in the coastal area and, therefore, is included only in the Mobile River Basin and the Perdido-Escambia River Basin. It should also be noted that with the exception of those segments in the "Public Water Supply" classification, every segment, in addition to being considered acceptable for its designated use, is also considered acceptable for any other use with a less stringent associated criteria.

(5) Not all waters are included by name in the use classifications since it would be a tremendous administrative burden to list all stream segments in the State. In addition, in virtually every instance where a segment is not included by name, the Department has no information or stream data upon which to base a decision relative to the assignment of a particular classification. An effort has been made, however, to include all major stream segments and all segments which, to the Department's knowledge, are currently recipients of point source discharges. Those segments which are not included by name will be considered to be acceptable for a "Fish and Wildlife" classification unless it can be demonstrated that such a generalization is inappropriate in specific instances.

Author: James E. McIndoe
Statutory Authority: Code of Alabama 1975, §§22-22-9, 22-22A-5, 22-22A-6, 22-22A-8.
History: Originally Adopted: May 5, 1967; Amended: June 19, 1967; Amended: April 1, 1970; Amended: October 16, 1972; Amended: September 17, 1973; Amended: May 30, 1977; Amended: December 19, 1977; Amended: February 4, 1981; Amended: April 5, 1982; Amended: December 11, 1985; Amended: March 26, 1986.

(14) THE WARRIOR RIVER BASIN

INTRASTATE WATERS

Stream	From	To	Classification
WARRIOR RIVER	TOMBIGBEE RIVER	Five miles upstream from Big Prairie Creek	S/F&W
WARRIOR RIVER	Five miles upstream from Big Prairie Creek	Eight miles upstream from Big Prairie Creek	PWS/S/F&W
WARRIOR RIVER	Eight miles upstream from Big Prairie Creek	Warrior Lock and Dam	S/F&W
WARRIOR RIVER	Warrior Lock and Dam	Oliver Lock and Dam	F&W
WARRIOR RIVER	Oliver Lock and Dam	Hurricane Creek	F&W[1]
WARRIOR RIVER	Hurricane Creek	Bankhead Lock and Dam	S/F&W[1]
WARRIOR RIVER	Bankhead Lock and Dam	Junction of Locust and Mulberry Forks	PWS/S/F&W
Locust Fork	Junction of Locust and Mulberry Forks	Jefferson County Highway 61 (Maxine)	PWS/S/F&W
Locust Fork	Jefferson County Highway 61 (Maxine)	U. S. Highway 31	F&W
Locust Fork	U. S. Highway 31	County road between Hayden and County Line	PWS/F&W
Locust Fork	County road between Hayden and County Line	Its source	F&W
Mulberry Fork	Junction of Locust and Mulberry Forks	Burnt Cane Creek (9 miles below Cordova)	PWS/S/F&W
Mulberry Fork	Burnt Cane Creek (9 miles below Cordova)	Frog Ague Creek (Cordova)	PWS/F&W

[1] Applicable dissolved oxygen level below existing impoundments is 4.0 mg/l.

SPECIAL PROJECTS
TELEPHONE CONVERSATION RECORD

Date: 8-16-99

Time: ~1400 HRS

Conversation with: PERRY ACKLIN 1-205-349-0247

Regarding: PUBLIC WATER SUPPLY FOR AREA SURROUNDING APAC SITE

Facility or Company: APAC INC.

Summary: ACCORDING TO MR. ACKLIN OF THE TUSCALOOSA WATER AUTHORITY (ED LOVE FILTER PLANT - 1125 RIVER RD., TUS. AL. 35404-1056) 100% OF THE PUBLIC DRINKING WATER IS TAKEN FROM A SURFACE WATER INTAKE FROM LAKE TUSCALOOSA ~ 10 miles TO THE NORTH OF THE SITE. LAKE TUSCALOOSA DOES NOT RECIEVE ANY SURFACE WATER RUNOFF FROM THE SITE. THERE ARE NO PUBLIC WATER WELLS WITHIN 15 MILES OF THE SITE USED FOR DRINKING WATER. DRINKING WATER SUPPLY HAS HAD NO REPORTED PROBLEMS WITH CHEMICAL, OR BIOLOGICAL CONTAMINATION. THERE ARE NO KNOWN PRIVATE DRINKING WATER WELLS WITHIN TARGET DISTANCE FROM THE SITE.

Signature: _____

File: _____

TTL, Inc. PRACTICING IN THE GEOSCIENCES

4250 Lomac Street • Montgomery, AL 36106-2886 • Telephone 334-244-0766 • Telefax 334-244-6668

December 29,1998

Mr David McGiffert
M2-Partnership
P.O. Box 20559
Tuscaloosa, AL 35402-0559

Re: Phase II Investigation
APAC Site
Moody Swamp Road

Dear Mr. McGiffert:

Laura Whitaker and I performed a site walkover at the former APAC site on Moody Swamp Road on December 9, 1998. Jim Ray of Ashland Chemical Company, parent company of APAC, accompanied us on the walkover. As discussed with you on December 14, 1998, TTL observed areas and discussed past operational practices that are potential environmental liabilities. Summarized below are recommendations for additional work that should be performed before a report is prepared for this site.

1. The area around the laboratory should be tested for trichloroethylene (TCE) and breakdown constituents. Soil and ground water samples should be collected outside the door and window and around the dumpster and septic tank, if present. Mr. Ray was unsure if there was a septic tank near the lab. Three or four borings will be augered to ground water, depending on the location of the septic tank, if present. Two soil samples and one groundwater sample will be analyzed from each borehole for volatile organic compounds (VOCs) using Methods 8260 in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW 846.

2. Soil and ground water samples should be collected around the former containment dike for the fuel storage tanks. Recycled used oil, liquid asphalt, diesel fuel, No. 2 fuel oil, and hot oil were stored in the containment dike. Because recycled used oil has been stored at the site, samples should be analyzed for VOCs, Semi-volatile organic compounds (SVOCs), metals, and Polychlorinated biphenyls (PCBs). Samples will be collected from 4 boreholes augered around the former containment dike. Soil samples will be scanned using a Photoionization Detector. Two soil samples will be analyzed from each borehole. A ground-water sample will be collected from one borehole on each side of the containment dike.

3. Baghouse dust and sludge from the wet scrubber ponds has been spread in the northwestern corner and potentially in the northeastern corner of the site. Samples of the baghouse dust and sludge should be collected and analyzed for heavy metals, unless APAC can provide results of previous analyses. Two boreholes will be augered in each area to determine the thickness of the sludge and dust and to collect composite samples. One composite sample from each area will be analyzed.

4. Slag from a steel mill was stored in stockpiles in the central part of the site. Samples of soil from beneath the former slag pile areas should be collected for analyses for heavy metals. The slag storage area will have to be identified by APAC personnel familiar with on-site operations. One composite sample will be collected from land surface to about 1 foot BLS.

S:\PENELETTER\apac.wpd

5. On December 9, APAC had not completed clean up at the site. There were a number a 5 gallon buckets with asphalt emulsions and used oil, discarded battenes, tires, old road signs, waste wood and concrete, empty 55-gallon plastic drums on the east and west ends of the site and in the area of the cold feed bins in the north central part of the site. The liquid in the south and east ends of the wet scrubber ponds were covered with oil. All of these areas need to be cleaned up and a subsequent site visit should be made to verify that these materials have been removed and to determine whether additional sampling is necessary.

6. The truck beds were washed out with diesel fuel, Quick Release, and Black Magic. APAC personnel familiar with operations on site should identify areas where trucks were washed. Soil and ground water samples should be collected for analyses for VOCs and SVOCs. For this cost estimate, a maximum of two soil samples and one groundwater sample is estimated.

7. There was a former branch office building in the central part of the site along the southern property boundary that may have had a septic tank. The building was removed when the existing branch office was placed at the site. We understand that you have given APAC the option to leave the existing branch office building. Any septic tanks on site that will not be used (i.e. tanks associated with the former branch office, control room, etc.) should be removed. TTL should observe removal of the abandoned septic tanks and collect samples for VOCs. For this cost estimate, a maximum of two samples is estimated.

8. In the northeastern part of the property, there was an access road pushed to the pond. There were a number of 55 gallon drums floating in the pond, several of which were tied together. The drums may have been part of a pier structure. Mr. Ray was not aware of APAC using the drums or the pond. Based on information you provided, the drums were probably from a former dredging operation on site before APAC leased the property, therefore, APAC is not responsible for removal. The drums should be removed from the pond and properly disposed.

9. There were several of the concrete structures (i.e. scale housing, containment base, wet scrubber ponds) remaining at the site. You need to discuss with APAC whether you want to have these structures removed.

Estimated costs for Phase II assessment as outlined in work tasks 1 through 7 above is $28,000 to $30,000. Please call after your review of this proposal to discuss a schedule for implementation. TTL appreciates the opportunity to work with you on this project.

Sincerely,
TTL, Inc.

Ashley C. Cousins, P.E., CHMM

cc: Jim Ray, Ashland Chemical Company

ACC/pa

This report has been prepared for

APAC, INC.
POST OFFICE BOX 818
BIRMINGHAM, ALABAMA 35201

and prepared by

QORE, Inc.
3608 7th COURT SOUTH
BIRMINGHAM, ALABAMA 35222
QORE PROJECT NO 9603

PHASE II ENVIRONMENTAL SITE ASSESSMENT

for the

FORMER APAC TUSCALOOSA SITE
5356 MARTIN LUTHER KING BOULEVARD
TUSCALOOSA, ALABAMA

May 6, 1999

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APPENDIX A: SITE LAYOUT WITH SOIL AND GROUNDWATER BORING LOCATIONS
APPENDIX B: LABORATORY ANALYTICAL REPORTS

CELEBRATING 30 YEARS

QORE

PROPERTY SCIENCES

May 6, 1999

Alabama Department of
Environmental Management
1751 Congressman W.L. Dickinson Drive
Montgomery, Alabama 36109

Attention: Mr. Fred Mason

Re: Report of Findings
Phase II Environmental Site Assessment
Former APAC Tuscaloosa Facility
Tuscaloosa, Alabama
Project No: 9603

Dear Mr. Mason:

Per request of Mr. Joe Kelley of the Alabama Department of Environmental Management and on behalf of APAC, Inc., QORE, Inc. has prepared this Report of Findings for the Phase II Environmental Site Assessment (ESA) conducted at the former location of the APAC Tuscaloosa facility. This assessment was conducted at the request of Mr. Jim Ray of APAC, Inc., to assess the presence of contamination related to the APAC asphalt plant that was in operation at the subject property from the early 1980's to 1998.

1.0 EXECUTIVE SUMMARY

A Phase I ESA walkover for the facility was performed by TTL, Inc. of Tuscaloosa, Alabama in December of 1998 to identify areas of environmental concern related to the former use of the property. Based on conversations with Mr. Ray of APAC and the findings of TTL's site reconnaissance, it is the understanding of QORE that the subject site was previously occupied by a hot mix asphalt plant comprised of the following: one 200 ton hot asphalt storage bin, one control module, one office trailer, three storage trailers, one secondary containment area for above ground storage tanks. Additional areas of concern identified by Mr. Ray included an exterior storage area for slag, exterior area for truck spray-down, and a retention pond for facility runoff.

QORE conducted a Phase II Environmental Site Assessment of the former APAC Tuscaloosa site located at 5356 Martin Luther King Boulevard in Tuscaloosa, Alabama. The scope of the Assessment was intended to address the possible presence of soil and/or groundwater contamination related to the APAC facility and its possible environmental impact to the site and was based on information supplied to QORE by Jim Ray of APAC and TTL, Inc. The assessment included a site reconnaissance, field

sampling and laboratory analysis of soil and groundwater, a determination of environmental impact, and a recommendation of further assessment.

Based on the methodologies described in this report, evidence was found to indicate the presence of Arsenic and Naphthalene in soil and groundwater samples in quantities exceeding ADEM's Risk Based initial screening levels (ISLs) for industrial sites. Diesel range organics (DROs) were also detected in several of the soil samples submitted to the analytical laboratory. A Naphthalene concentration of 9.13 ug/L and an Arsenic concentration of 0.222 ug/L were detected in the groundwater sample collected in the vicinity of the former above ground tank storage area. An Arsenic concentration of 0.115 ug/L was found in the groundwater sample collected in the vicinity of the former truck spray-down area. DROs ranging in concentration from 24.5 to 220 mg/kg were detected in five of the seven composite samples submitted to the laboratory, with the highest concentration found in the vicinity of the former AST storage area.

Naphthalene and DRO constituents found in the soil and groundwater are believed to be related to spills/releases from the former AST diesel fuel storage area and from diesel "rinsing" of trucks in the former spray-down area. A possible source of Arsenic and metals in the soil and groundwater include residual heavy metals resulting from the refining process during asphalt production. It is also the understanding of QORE, Inc. that a concrete plant formerly operated from the property. Thus, cement kiln dust (CKD) is a possible source of Arsenic and other heavy metals. Further inquiry into possible sources of Arsenic contamination will be conducted during future site investigation. Detectable levels of arsenic in the background sample indicate that Arsenic may be naturally occurring in low concentrations in the area.

2.0 INTRODUCTION

QORE conducted a Phase II Assessment of the APAC Tuscaloosa facility formerly located at 5356 Martin Luther King Boulevard in Tuscaloosa, Alabama. This report documents the field investigation activities, laboratory analyses and recommendations for further assessment.

2.1 AUTHORIZATION

Authorization to perform the assessment was given by Mr. James Ray of APAC, Inc.

2.2 SITE DESCRIPTION

The subject site is located in the southwest ¼ of Section 4, Township 22 South, Range 10 West of the U.S.G.S. 7.5 minute series, Tuscaloosa, Alabama, Quadrangle, topographic map. More specifically, the site is situated at 5356 Martin Luther King Boulevard in Tuscaloosa, Alabama. The topography of the site is relatively level, with a slight grade to the southwest. An approximately two acre pond occupies the northern half of the property.

From the regional geological literature and local well data, it is assumed that the groundwater in the area of the subject site flows in a southwesterly direction. Based on published reports, the geology of the site consists of recent alluvial and low terrace deposits overlying Cretaceous deposits, which consist of the Eutaw, Gordo, and Coker formations. These formations would constitute the upper aquifer systems that could be impacted through surface contamination through infiltration and recharge. The recent

overburden consists of primarily very-pale orange to greyish-orange, fine to coarse grained sands with sporadic clay and gravel lenses. Groundwater in the area is anticipated to be near the surface and could act as either a collection and storage unit or a pathway for contaminants into lower formations depending on the rate of flow and soil permeability.

2.3 FACILITY BACKGROUND

QORE was contacted concerning possible contamination of the subject site by Mr. Jim Ray of APAC, Inc. It is the understanding of QORE that the approximately 5 acre subject property was occupied by the APAC Tuscaloosa hot mix asphalt plant from the early 1980's to 1998. Areas of environmental concern related to the APAC facility include the following: use and storage of trichloroethylene (TCE) in the on-site laboratory; operation of a hot mix asphalt plant; exterior storage of above ground fuel tanks; exterior storage of slag material; exterior spray-down of trucks; and retention pond for storage of facility runoff.

2.4 PURPOSE AND SCOPE

The purpose of this Phase II ESA was to determine the presence of environmental impact to the soil and/or groundwater related to the former operations of the APAC facility. QORE relied upon information provided by Mr. James Ray of APAC, Inc. and TTL, Inc. to prepare the scope of work for this investigation.

The assessment included a site reconnaissance, field sampling and laboratory analysis of soil and groundwater in the areas of concern listed in Section 2.3, and recommendations of further assessment.

3.0 ASSESSMENT ACTIVITIES

Field investigation and sampling activities were conducted on April 6, 1999 by Mr. John D. Jolly, Environmental Geologist, and Ms. Karen M. Boykin, Environmental Engineer, of QORE, Inc.

3.1 SOIL ASSESSMENT

QORE collected a total of seven soil samples during our Phase II Assessment. This included six, near-surface composite soil samples collected around each of the following areas on the site: the former facility laboratory, former AST containment dike, fuel and oil storage tanks, wet scrubber ponds in the northwestern property corner, hot mix plant, the slag storage pile, and the former truck bed spray-down area. In addition, one up-gradient sample was collected to determine background levels. Soil samples were collected using hand-augering and split-spooning techniques and typically taken at approximately 2 feet BLS. All down-hole drilling and augering equipment was decontaminated between each successive borehole to minimize the possibility of cross-contamination. Based on location, samples were analyzed for VOCs, SVOCs and RCRA metals. Locations of the soil sample locations are shown in Appendix A.

3.2 GROUNDWATER ASSESSMENT

In addition to the soil samples, limited groundwater sampling was performed. A total of 4 groundwater samples were collected to assess possible groundwater contamination related to former APAC operations. QORE advanced four borings to depths of approximately 20 feet BLS. The borings were extended using a CME 55 truck mounted drill rig with 6 inch flight augers. One boring was advanced

on the down-gradient side of the former plant, along Moody Swamp Road. Another boring was extended down-gradient of the former hot mix plant and the fuel storage tank areas. A third boring was placed just down-gradient of the former lab area. The last boring was placed slightly down-gradient of the former location of the slag storage pile. Groundwater samples were collected from each borehole directly through the augers. The four water samples will be analyzed for VOCs, SVOCs, and RCRA metals. Locations of borings advanced for the collection of groundwater samples can be found in Appendix A.

3.3 ANALYTICAL PROTOCOL

Soil and groundwater samples were properly contained, placed on ice for cooling and submitted under chain of custody to Analytical Systems, Inc. of Birmingham, Alabama for analysis. A complete copy of the laboratory analytical report and chain of custody documentation is provided in Appendix B.

4.0 FINDINGS

4.1 SOIL ASSESSMENT

The following table summarizes the findings of our April 6, 1999 Phase II Assessment of the subject property:

Table 4.1
Analytical Results - Soil Assessment
April 6, 1999

SAMPLE I.D. NUMBER	SAMPLE LOCATION	RCRA METALS (mg/Kg)	SVOCS (mg/Kg)	VOCS (mg/Kg)	DRO (mg/Kg)
S-1	Vicinity of Former Hot Mix Plant	**88.8 – As** 139 – Ba 20.8 - Pb	ND	ND	62.2
S-2	Vicinity of Former ASTs	**53.4 – As** 78.5 – Ba 25.5 - Pb	ND	ND	220
S-3	Vicinity of Former Retention Pond	**40.8 – As** 32.7 – Ba 30.3 - Pb	ND	ND	NA
S-4	Vicinity of Former Truck Spray-Down Area	23.1 – As 62.8 – Ba	ND	ND	24.5
S-5	Vicinity of Former Laboratory	15.5 – As 153 – Ba 74.1 - Cr 25.5 - Pb	ND	ND	36.3
S-6	Vicinity of Former Slag Pile	75.3 – Ba 24.9 – Pb	ND	ND	NA
S-7	Up-gradient of Former Facility	18.9 – As 117 – Ba 30.3 - Pb	ND	ND	NA

ND – Non Detectable, NA – Not Applicable. Bolded items indicated exceedence of Industrial ISLs for soils.

As indicated in the above referenced table, Arsenic concentrations above ADEMs Industrial ISLs for soil were found in the vicinity of the former hot mix plant, the former location of the ASTs and the former retention pond. A chromium concentration of 74.1 mg/L was detected in the soil sample collected in the vicinity of the former laboratory.

Arsenic contamination in the soil may have resulted from the refining process during asphalt production. However, it is also the understanding of QORE, Inc. that a concrete plant formerly operated from the property. Thus, cement kiln dust (CKD) is a possible source of arsenic and other heavy metal contamination.

4.2 GROUNDWATER ASSESSMENT

The following table summarizes the findings of our April 6, 1999 Phase II Assessment of the subject property:

Table 4.2
Analytical Results - Groundwater Assessment
April 6, 1999

SAMPLE I.D. NUMBER	SAMPLE LOCATION	RCRA METALS ~~(ug/L)~~	SVOCS (ug/L)	VOCS (ug/L)
GW-1	Down-Gradient of Former Hot Mix Plant/ ASTs	**0.222 – As** 0.55 - Ba	**9.13 - Naphthalene**	ND
GW-2	Down-Gradient of APAC Plant	**0.115 – As** 0.092 - Ba	ND	ND
GW-3	Down-Gradient of Laboratory	ND	ND	ND
GW-4	Down-Gradient of Slag Storage Area	ND	ND	ND

ND – Non Detectable
Bolded items indicated exceedence of Industrial ISLs for groundwater.

As indicated in the above referenced table, arsenic concentrations above ADEMs Industrial ISLs for groundwater were found in the groundwater samples collected down-gradient of the former hot mix plant/AST areas and down-gradient of the facility. Naphthalene was detected at levels in excess of the established ISLs in the groundwater sample collected down-gradient of the hot mix plant/AST area, with a concentration of 9.13 ug/L.

As previously mentioned, possible sources of Arsenic contamination in the groundwater include resultant heavy metals from the refining process during asphalt production or leaching of metals from CKD associated with the former on-site concrete plant.

5.0 RECOMMENDATIONS

QORE, Inc. recommends a Phase III be conducted at the subject property to define the horizontal and vertical extent of contamination on the property.

6.0 ACKNOWLEDGEMENT

Should you have any questions concerning this report or its findings, please contact one of the undersigned.

Sincerely,

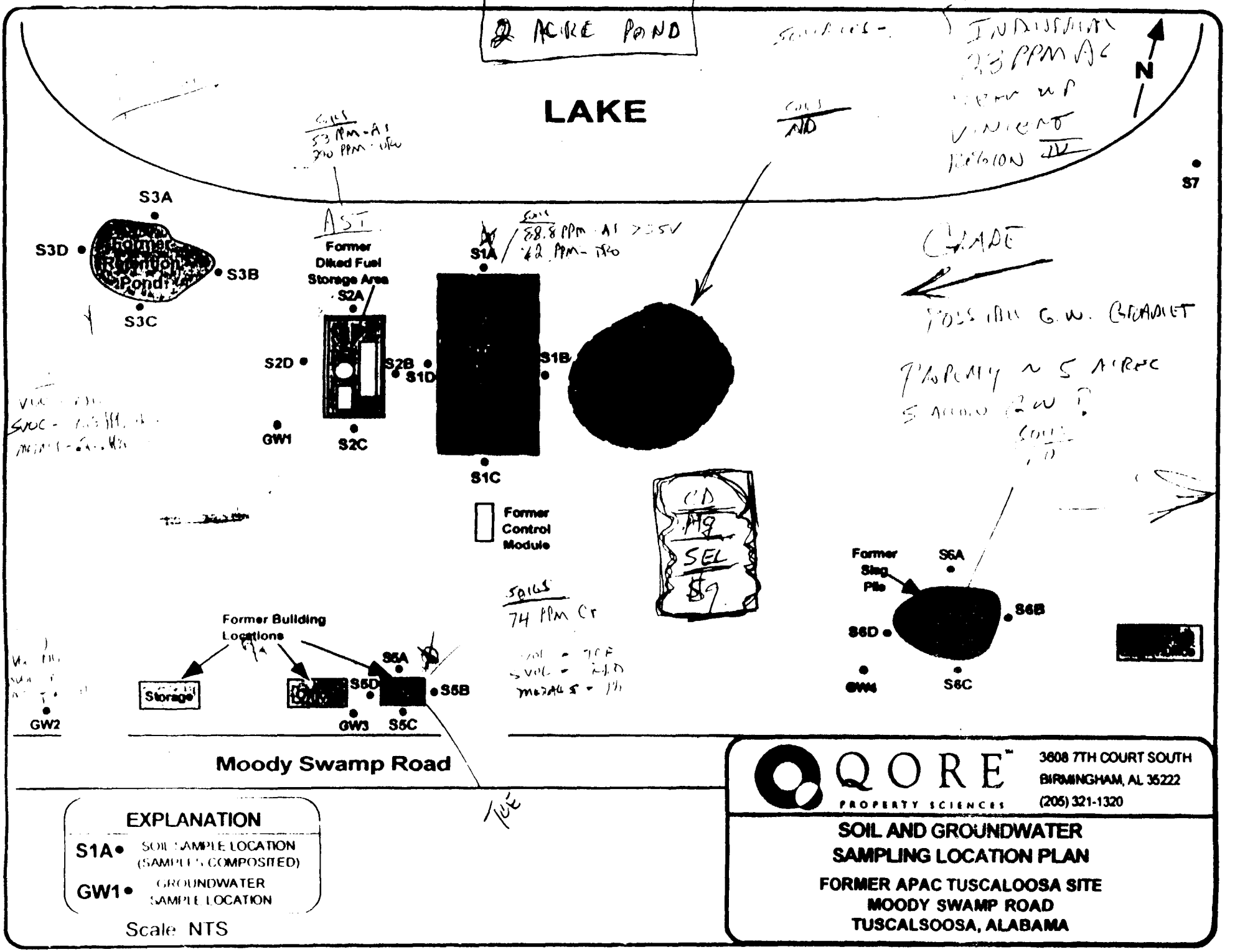
QORE, Inc.

Katrina D. Jarboe, E.I.T.
Environmental Engineer

Vernon Crockett, P.E..
Environmental Engineer

APPENDIX A

SOIL & GROUNDWATER
SAMPLING LOCATION PLAN


LAKE
N
S7
S3A
S3D
S3B
S3C
Former Retention Pond
Former Diked Fuel Storage Area
S2A
S2D
S2B
S1D
S2C
GW1
S1A
S1B
S1C
Former Control Module
Former Building Locations
Storage
S5A
S5D
S5B
S5C
GW3
GW2
Former Slag Pile
S6A
S6B
S6D
S6C
GW4
Moody Swamp Road
EXPLANATION
S1A SOIL SAMPLE LOCATION (SAMPLES COMPOSITED)
GW1 GROUNDWATER SAMPLE LOCATION
Scale NTS
QORE PROPERTY SCIENCES
3608 7TH COURT SOUTH
BIRMINGHAM, AL 35222
(205) 321-1320
SOIL AND GROUNDWATER SAMPLING LOCATION PLAN
FORMER APAC TUSCALOOSA SITE
MOODY SWAMP ROAD
TUSCALSOOSA, ALABAMA

APPENDIX B

LABORATORY ANALYTICAL REPORTS

CHAIN OF CUSTODY

Analytical Systems, Inc.
439 Industrial Lane P O Box 19667
Birmingham Alabama 35219
205.940-7724 Fax 205.940-7726

Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4005
Date Received : 8-Apr-99
Sample Matrix : Water
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-1	18332	Acenaphthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Acenaphthlene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Anthracenee	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Aniline	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Azobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzidine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzoic Acid	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Benzo(a)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzo(b)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzo(k)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzo(g,h,i)perylene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzo(a)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Benzyl alcohol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Bis(2-chloroethoxy)methane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Bis(2-chloroethyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Bis(2-chloroethoxy)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Bis(2-chloroisopropyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Bis(2-ethylhexyl)phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		4-Bromophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Butyl benzyl phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		4-Chloroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		1-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		2-Chlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		4-Chlorophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Chrysene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909

Analytical Systems, Inc.
439 Industrial Lane P.O. Box 19667
Birmingham Alabama 35219
(205) 940-7724 Fax 205/940-7726

Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Water
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-1	18332	Dibenz(a,h)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Dibenzofuran	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Di-n-butylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		1,3-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		1,4-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		1,2-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		3,3'-Dichlorobenzidine	ND	ug/L	2.0	EPA 8270	JLB	04/20/99/0909
		2,4-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		2,6-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Diethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2,4-Dimethylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Dimethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		4,6-Dinitro-2-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		2,4-Dinitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		2,4-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2,6-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Di-n-octylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Fluorene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Hexachlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Hexachlorobutadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Hexachlorocyclopentadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Hexachloroethane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Isophorone	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2-Methylnaphthalene	35.6	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Water
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-1	18332	3-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		4-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Naphthalene	9.13	ug/L 7B	1.0	EPA 8270	JLB	04/20/99/0909
		2-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		3-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		4-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Nitrobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		4-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		N-Nitrosodimethylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		N-Nitrosodi-n-propylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		N-Nitrosodiphenylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Pentachlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Phenanthrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		Phenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		1,2,4-Trichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0909
		2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0909
		Arsenic	0.222	mg/L 7n	0.01	EPA 206.2	JLB	04/14/99/1720
		Barium	0.055	mg/L 8m	0.02	EPA 208.1	JLB	04/14/99/1448
		Cadmium	ND	mg/L	0.01	EPA 213.1	MRH	04/13/99/1422
		Chromium	ND	mg/L	0.02	EPA 218.1	MRH	04/13/99/1550
		Lead	ND	mg/L	0.002	EPA 239.2	MRH	04/13/99/1505
		Mercury	ND	mg/L	0.002	EPA 245.1	JLB	04/14/99/0940
		Selenium	ND	mg/L	0.01	EPA 270.2	JLB	04/14/99/1053
		Silver	ND	mg/L	0.02	EPA 272.1	MRH	04/13/99/1627

Analytical Systems, Inc.
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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4005
Date Received : 8-Apr-99
Sample Matrix : Water
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-1	18332	Benzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Bromobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Bromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Bromodichloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Bromoform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Bromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		n-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		sec-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		tert-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Carbon tetrachloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Chlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Chloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Chloroform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Chloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		2-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		4-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Dibromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2-Dibromo-3-Chloropropane	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1626
		1,2-Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626

Analytical Systems, Inc.
439 Industrial Lane P.O. Box 19667
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(205)940-7724 Fax(205)940-7726

Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-1	18332	1,3-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,4-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Dichlorodifluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,1-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,1-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		cis-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		trans-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,3-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		2,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,1-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		cis-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		trans-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Ethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Hexachlorobutadiene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1626
		Isopropylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		4-Isopropyltoulene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Methyl-tert-butyl ether	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Methylene chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Naphthalene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1626

Analytical Systems, Inc.
439 Industrial Lane P.O. Box 19667
Birmingham Alabama 35219
(205)940-7724 Fax (205)940-7726

Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Water
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-1	18332	n-Propylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Styrene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Tetrachloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Toluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2,3-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1626
		1,2,4-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1626
		1,1,1-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,1,2-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Trichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Trichlorofluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2,3-Trichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,2,4-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		1,3,5-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Vinyl chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626
		Total Xylenes	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1626

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-2	18333	Acenaphthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Acenaphthlene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Anthracenee	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Aniline	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Azobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzidine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzoic Acid	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Benzo(a)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzo(b)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzo(k)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzo(g,h,i)perylene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzo(a)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Benzyl alcohol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Bis(2-chloroethoxy)methane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Bis(2-chloroethyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Bis(2-chloroethoxy)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Bis(2-chloroisopropyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Bis(2-ethylhexyl)phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		4-Bromophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Butyl benzyl phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		4-Chloroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		1-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		2-Chlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		4-Chlorophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Chrysene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941

Analytical Systems, Inc.
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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4005
Date Received : 8-Apr-99
Sample Matrix : Water
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-2	18333	Dibenz(a,h)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Dibenzofuran	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Di-n-butylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		1,3-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		1,4-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		1,2-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		3,3'-Dichlorobenzidine	ND	ug/L	2.0	EPA 8270	JLB	04/20/99/0941
		2,4-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		2,6-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Diethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2,4-Dimethylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Dimethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		4,6-Dinitro-2-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		2,4-Dinitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		2,4-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2,6-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Di-n-octylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Fluorene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Hexachlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Hexachlorobutadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Hexachlorocyclopentadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Hexachloroethane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Isophorone	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2-Methylnaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-2	18333	3-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		4-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Naphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		3-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		4-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Nitrobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		4-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		N-Nitrosodimethylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		N-Nitrosodi-n-propylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		N-Nitrosodiphenylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Pentachlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Phenanthrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		Phenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		1,2,4-Trichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/0941
		2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/0941
		Arsenic	ND	mg/L	0.01	EPA 206.2	JLB	04/14/99/1720
		Barium	ND	mg/L	0.02	EPA 208.1	JLB	04/14/99/1448
		Cadmium	ND	mg/L	0.01	EPA 213.1	MRH	04/13/99/1422
		Chromium	ND	mg/L	0.02	EPA 218.1	MRH	04/13/99/1550
		Lead	ND	mg/L	0.002	EPA 239.2	MRH	04/13/99/1505
		Mercury	ND	mg/L	0.002	EPA 245.1	JLB	04/14/99/0940
		Selenium	ND	mg/L	0.01	EPA 270.2	JLB	04/14/99/1053
		Silver	ND	mg/L	0.02	EPA 272.1	MRH	04/13/99/1627

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-2	18333	Benzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Bromobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Bromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Bromodichloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Bromoform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Bromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		n-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		sec-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		tert-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Carbon tetrachloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Chlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Chloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Chloroform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Chloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		2-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		4-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Dibromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2-Dibromo-3-Chloropropane	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1812
		1,2-Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-2	18333	1,3-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,4-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Dichlorodifluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,1-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,1-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		cis-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		trans-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,3-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		2,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,1-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		cis-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		trans-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Ethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Hexachlorobutadiene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1812
		Isopropylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		4-Isopropyltoulene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Methyl-tert-butyl ether	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Methylene chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Naphthalene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1812

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-2	18333	n-Propylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Styrene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Tetrachloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Toluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2,3-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1812
		1,2,4-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1812
		1,1,1-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,1,2-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Trichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Trichlorofluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2,3-Trichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,2,4-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		1,3,5-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Vinyl chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812
		Total Xylenes	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1812

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-3	18334	Acenaphthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Acenaphthlene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Anthracenee	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Aniline	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Azobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzidine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzoic Acid	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Benzo(a)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzo(b)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzo(k)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzo(g,h,i)perylene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzo(a)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Benzyl alcohol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Bis(2-chloroethoxy)methane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Bis(2-chloroethyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Bis(2-chloroethoxy)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Bis(2-chloroisopropyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Bis(2-ethylhexyl)phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		4-Bromophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Butyl benzyl phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		4-Chloroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		1-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		2-Chlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		4-Chlorophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Chrysene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-3	18334	Dibenz(a,h)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Dibenzofuran	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Di-n-butylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		1,3-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		1,4-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		1,2-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		3,3'-Dichlorobenzidine	ND	ug/L	2.0	EPA 8270	JLB	04/20/99/1015
		2,4-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		2,6-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Diethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2,4-Dimethylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Dimethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		4,6-Dinitro-2-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		2,4-Dinitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		2,4-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2,6-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Di-n-octylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Fluorene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Hexachlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Hexachlorobutadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Hexachlorocyclopentadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Hexachloroethane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Isophorone	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2-Methylnaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-3	18334	3-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		4-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Naphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		3-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		4-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Nitrobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		4-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		N-Nitrosodimethylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		N-Nitrosodi-n-propylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		N-Nitrosodiphenylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Pentachlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Phenanthrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		Phenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		1,2,4-Trichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1015
		2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1015
		Arsenic	ND	mg/L	0.01	EPA 206.2	JLB	04/14/99/1720
		Barium	ND	mg/L	0.02	EPA 208.1	JLB	04/14/99/1448
		Cadmium	ND	mg/L	0.01	EPA 213.1	MRH	04/13/99/1422
		Chromium	ND	mg/L	0.02	EPA 218.1	MRH	04/13/99/1550
		Lead	ND	mg/L	0.002	EPA 239.2	MRH	04/13/99/1505
		Mercury	ND	mg/L	0.002	EPA 245.1	JLB	04/14/99/0940
		Selenium	ND	mg/L	0.01	EPA 270.2	JLB	04/14/99/1053
		Silver	ND	mg/L	0.02	EPA 272.1	MRH	04/13/99/1627

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Water
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-3	18334	Benzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Bromobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Bromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Bromodichloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Bromoform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Bromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		n-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		sec-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		tert-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Carbon tetrachloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Chlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Chloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Chloroform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Chloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		2-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		4-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Dibromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2-Dibromo-3-Chloropropane	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1719
		1,2-Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-3	18334	1,3-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,4-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Dichlorodifluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,1-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,1-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		cis-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		trans-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,3-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		2,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,1-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		cis-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		trans-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Ethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Hexachlorobutadiene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1719
		Isopropylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		4-Isopropyltoulene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Methyl-tert-butyl ether	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Methylene chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Naphthalene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1719

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-3	18334	n-Propylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Styrene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Tetrachloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Toluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2,3-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1719
		1,2,4-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1719
		1,1,1-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,1,2-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Trichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Trichlorofluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2,3-Trichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,2,4-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		1,3,5-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Vinyl chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719
		Total Xylenes	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1719

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Laboratory Report

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		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-4	18335	Acenaphthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Acenaphthlene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Anthracenee	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Aniline	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Azobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzidine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzoic Acid	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Benzo(a)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzo(b)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzo(k)fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzo(g,h,i)perylene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzo(a)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Benzyl alcohol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Bis(2-chloroethoxy)methane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Bis(2-chloroethyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Bis(2-chloroethoxy)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Bis(2-chloroisopropyl)ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Bis(2-ethylhexyl)phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		4-Bromophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Butyl benzyl phthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		4-Chloroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		1-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2-Chloronaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		2-Chlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		4-Chlorophenyl phenyl ether	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Chrysene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-4	18335	Dibenz(a,h)anthracene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Dibenzofuran	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Di-n-butylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		1,3-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		1,4-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		1,2-Dichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		3,3'-Dichlorobenzidine	ND	ug/L	2.0	EPA 8270	JLB	04/20/99/1047
		2,4-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		2,6-Dichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Diethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2,4-Dimethylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Dimethylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		4,6-Dinitro-2-methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		2,4-Dinitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		2,4-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2,6-Dinitrotoluene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Di-n-octylphthalate	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Fluoranthene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Fluorene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Hexachlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Hexachlorobutadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Hexachlorocyclopentadiene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Hexachloroethane	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Isophorone	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2-Methylnaphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222

Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4005
Date Received : 8-Apr-99
Sample Matrix : Water
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-4	18335	3-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		4-Methylphenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Naphthalene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		3-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		4-Nitroaniline	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Nitrobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		4-Nitrophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		N-Nitrosodimethylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		N-Nitrosodi-n-propylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		N-Nitrosodiphenylamine	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Pentachlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Phenanthrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		Phenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Pyrene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		1,2,4-Trichlorobenzene	ND	ug/L	1.0	EPA 8270	JLB	04/20/99/1047
		2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA 8270	JLB	04/20/99/1047
		Arsenic	0.115	mg/L	0.01	EPA 206.2	JLB	04/14/99/1720
		Barium	0.092	mg/L	0.02	EPA 208.1	JLB	04/14/99/1448
		Cadmium	ND	mg/L	0.01	EPA 213.1	MRH	04/13/99/1422
		Chromium	ND	mg/L	0.02	EPA 218.1	MRH	04/13/99/1550
		Lead	ND	mg/L	0.002	EPA 239.2	MRH	04/13/99/1505
		Mercury	ND	mg/L	0.002	EPA 245.1	JLB	04/14/99/0940
		Selenium	ND	mg/L	0.01	EPA 270.2	JLB	04/14/99/1053
		Silver	ND	mg/L	0.02	EPA 272.1	MRH	04/13/99/1627

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-4	18335	Benzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Bromobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Bromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Bromodichloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Bromoform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Bromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		n-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		sec-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		tert-Butylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Carbon tetrachloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Chlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Chloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Chloroform	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Chloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		2-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		4-Chlorotoluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Dibromochloromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2-Dibromo-3-Chloropropane	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1746
		1,2-Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Dibromomethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-4	18335	1,3-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,4-Dichlorobenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Dichlorodifluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,1-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2-Dichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,1-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		cis-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		trans-1,2-Dichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,3-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		2,2-Dichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,1-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		cis-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		trans-1,3-Dichloropropene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Ethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Hexachlorobutadiene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1746
		Isopropylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		4-Isopropyltoulene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Methyl-tert-butyl ether	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Methylene chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Naphthalene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1746

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4005
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Water
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
GW-4	18335	n-Propylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Styrene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Tetrachloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Toluene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2,3-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1746
		1,2,4-Trichlorobenzene	ND	ug/L	5.0	EPA 8260	JLB	04/08/99/1746
		1,1,1-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,1,2-Trichloroethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Trichloroethene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Trichlorofluoromethane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2,3-Trichloropropane	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,2,4-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		1,3,5-Trimethylbenzene	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Vinyl chloride	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746
		Total Xylenes	ND	ug/L	2.0	EPA 8260	JLB	04/08/99/1746

ND = Concentration is less than detection limit
Method Reference:
EPA Methods for the Chemical Analysis of Water and Wastes. March, 1983
Standard Methods for the Examination of Water and Wastewater. 19th Edition, 1995.
Test Methods for Evaluating Solid Waste. November, 1986, SW-846, 3rd Edition.

Approved By: John L. Baker Date: 4/21/99

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CHAIN OF CUSTODY ANALYSIS REQUEST

SEND REPORT TO:

QORE Property Sciences
PO Box 130789 (35213 0789)
3608 7th Court South
Birmingham Alabama 35222

CLIENT: APAC

PROJECT: Tuscaloosa Site

SAMPLERS: John Jolly, Karen Boykin

DATE DELIVERED:

METHOD OF DELIVERY:

ANALYSIS REQUESTED

LAB ID	FIELD ID	DATE/TIME COLLECTED	SAMPLE DESCRIPTION	VOC	SVOC	RCRA METALS		
18332	GW1	4-8-99 1600	Groundwater Grab	X	X	X		
18333	GW2	11:00						
18334	GW3	1410						
18335	GW4	1500						
Indicate preservative: (a) Volatiles-HCL, (b) Metals-HNO3, (c) H2SO4 Sulfuric Acid, (d) CN-NaOH, (r) refrigerated at 4 degrees C. Indicate bottle type: (g) Glass, (p) Plastic, (voc) VOC Vial				gr	gr	gr		

Relinquished by:	Date/Time	Received in Laboratory by:	Date/Time	Remarks:
(signed) [signature]	4/8/99	(signed) Larry Baker	4/8/99	
(print) Edward Jolly	0945	(print) Larry Baker	0945	
				Special Handling:
Relinquished by:	Date/Time	Received by:	Date/Time	
(signed)		(signed)		
(print)		(print)		Invoice #

Analytical Systems, Inc.
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Birmingham Alabama 35219
(205)940-7724 Fax(205)940-7726

Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S1	18325	Acenaphthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Acenaphthlene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Anthracenee	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Aniline	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Azobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzidine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzoic Acid	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Benzo(a)anthracene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzo(b)fluoranthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzo(k)fluoranthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzo(g,h,i)perylene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzo(a)pyrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Benzyl alcohol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Butyl benzyl phthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		4-Chloroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		1-Chloronaphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2-Chloronaphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		4-Chloro-3-methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		2-Chlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Chrysene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S1	18325	Dibenz(a,h)anthracene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Dibenzofuran	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Di-n-butylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		1,3-Dichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		1,4-Dichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		1,2-Dichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.70	EPA 8270	JLB	04/20/99/1120
		2,4-Dichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		2,6-Dichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Diethylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2,4-Dimethylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Dimethylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		2,4-Dinitrophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		2,4-Dinitrotoluene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2,6-Dinitrotoluene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Di-n-octylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Fluoranthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Fluorene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Hexachlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Hexachlorobutadiene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Hexachlorocyclopentadiene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Hexachloroethane	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Isophorone	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2-Methylnaphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2-Methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S1	18325	3-Methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		4-Methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Naphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2-Nitroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		3-Nitroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		4-Nitroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Nitrobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2-Nitrophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		4-Nitrophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		N-Nitrosodimethylamine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		N-Nitrosodiphenylamine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Pentachlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Phenanthrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		Phenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Pyrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1120
		2,4,5-Trichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		2,4,6-Trichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1120
		Diesel Range Organics	62.2	mg/Kg	5.0	EPA 8015	JLB/MRH	04/21/99/1048
		Arsenic	88.8	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	139	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	ND	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	20.8	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S1	18325	Benzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Bromobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Bromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Bromodichloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Bromoform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Bromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		n-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		sec-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		tert-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Carbon tetrachloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Chlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Chloroethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		Chloroform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Chloromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		2-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		4-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Dibromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,2-Dibromo-3-Chloropropane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		1,2-Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,2-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415

Analytical Systems, Inc.
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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S1	18325	1,3-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,4-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Dichlorodifluoromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,1-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,2-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,1-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		cis-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		trans-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,3-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		2,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,1-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		cis-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		trans-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Ethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Hexachlorobutadiene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		Isopropylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		4-Isopropyltoulene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Methyl-tert-butyl ether	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Methylene chloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Naphthalene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S1	18325	n-Propylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Styrene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Tetrachloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Toluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,2,3-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		1,1,1-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,1,2-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Trichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Trichlorofluoromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		1,2,3-Trichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,2,4-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		1,3,5-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415
		Vinyl chloride	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1415
		Total Xylenes	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1415

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S2	18326	Acenaphthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Acenaphthlene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Anthracenee	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Aniline	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Azobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzidine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzoic Acid	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Benzo(a)anthracene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzo(b)fluoranthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzo(k)fluoranthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzo(g,h,i)perylene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzo(a)pyrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Benzyl alcohol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Butyl benzyl phthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		4-Chloroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		1-Chloronaphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2-Chloronaphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		4-Chloro-3-methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		2-Chlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Chrysene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S2	18326	Dibenz(a,h)anthracene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Dibenzofuran	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Di-n-butylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		1,3-Dichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		1,4-Dichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		1,2-Dichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.70	EPA 8270	JLB	04/20/99/1435
		2,4-Dichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		2,6-Dichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Diethylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2,4-Dimethylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Dimethylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		2,4-Dinitrophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		2,4-Dinitrotoluene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2,6-Dinitrotoluene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Di-n-octylphthalate	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Fluoranthene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Fluorene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Hexachlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Hexachlorobutadiene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Hexachlorocyclopentadiene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Hexachloroethane	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Isophorone	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2-Methylnaphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2-Methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435

Analytical Systems, Inc.
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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S2	18326	3-Methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		4-Methylphenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Naphthalene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2-Nitroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		3-Nitroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		4-Nitroaniline	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Nitrobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2-Nitrophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		4-Nitrophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		N-Nitrosodimethylamine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		N-Nitrosodiphenylamine	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Pentachlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Phenanthrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		Phenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Pyrene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.35	EPA 8270	JLB	04/20/99/1435
		2,4,5-Trichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		2,4,6-Trichlorophenol	ND	mg/Kg	1.75	EPA 8270	JLB	04/20/99/1435
		Diesel Range Organics	220	mg/Kg	25.0	EPA 8015	JLB/MRH	04/21/99/1342
		Arsenic	53.4	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	78.5	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	ND	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	25.5	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S2	18326	Benzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Bromobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Bromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Bromodichloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Bromoform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Bromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		n-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		sec-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		tert-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Carbon tetrachloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Chlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Chloroethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		Chloroform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Chloromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		2-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		4-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Dibromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,2-Dibromo-3-Chloropropane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		1,2-Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,2-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S2	18326	1,3-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,4-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Dichlorodifluoromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,1-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,2-Dichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,1-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		cis-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		trans-1,2-Dichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,3-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		2,2-Dichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,1-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		cis-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		trans-1,3-Dichloropropene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Ethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Hexachlorobutadiene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		Isopropylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		4-Isopropyltoulene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Methyl-tert-butyl ether	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Methylene chloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Naphthalene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442

Analytical Systems, Inc.
439 Industrial Lane P O Box 19667
Birmingham Alabama 35219
(205)940-7724 Fax:205 940-7726

Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	Report Date :	21-Apr-99
		ASI Project # :	4004
		Date Received :	8-Apr-99
Client Project #	: APAC	Sample Matrix :	Soil
Sample Date	: 4/6/99	Lab ID :	See Below
Sampler	: JJ/KB	Sample ID :	See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S2	18326	n-Propylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Styrene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Tetrachloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Toluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,2,3-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		1,1,1-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,1,2-Trichloroethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Trichloroethene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Trichlorofluoromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		1,2,3-Trichloropropane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,2,4-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		1,3,5-Trimethylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442
		Vinyl chloride	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1442
		Total Xylenes	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1442

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Laboratory Report

Client : Qore Property Sciences
3608 7th Ct. South
Birmingham, Alabama 35222
Client Project # : APAC
Sample Date : 4/6/99
Sampler : JJ/KB

Report Date : 21-Apr-99
ASI Project # : 4004
Date Received : 8-Apr-99
Sample Matrix : Soil
Lab ID : See Below
Sample ID : See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S3	18327	Acenaphthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Acenaphthlene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Anthracenee	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Aniline	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Azobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzidine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzoic Acid	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Benzo(a)anthracene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzo(b)fluoranthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzo(k)fluoranthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzo(g,h,i)perylene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzo(a)pyrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Benzyl alcohol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Bis(2-chloroethoxy)methane	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Bis(2-chloroethyl)ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Bis(2-chloroethoxy)ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		4-Bromophenyl phenyl ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Butyl benzyl phthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		4-Chloroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		1-Chloronaphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2-Chloronaphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		4-Chloro-3-methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		2-Chlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		4-Chlorophenyl phenyl ether	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Chrysene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402

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Laboratory Report

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		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S3	18327	Dibenz(a,h)anthracene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Dibenzofuran	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Di-n-butylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		1,3-Dichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		1,4-Dichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		1,2-Dichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		3,3'-Dichlorobenzidine	ND	mg/Kg	0.350	EPA 8270	JLB	04/20/99/1402
		2,4-Dichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		2,6-Dichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Diethylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2,4-Dimethylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Dimethylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		2,4-Dinitrophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		2,4-Dinitrotoluene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2,6-Dinitrotoluene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Di-n-octylphthalate	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Fluoranthene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Fluorene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Hexachlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Hexachlorobutadiene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Hexachlorocyclopentadiene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Hexachloroethane	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Isophorone	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2-Methylnaphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2-Methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402

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Laboratory Report

Client	: Qore Property Sciences 3608 7th Ct. South Birmingham, Alabama 35222	**Report Date**	: 21-Apr-99
		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	**Sample Matrix**	: Soil
Sample Date	: 4/6/99	**Lab ID**	: See Below
Sampler	: JJ/KB	**Sample ID**	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S3	18327	3-Methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		4-Methylphenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Naphthalene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2-Nitroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		3-Nitroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		4-Nitroaniline	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Nitrobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2-Nitrophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		4-Nitrophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		N-Nitrosodimethylamine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		N-Nitrosodi-n-propylamine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		N-Nitrosodiphenylamine	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Pentachlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Phenanthrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		Phenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Pyrene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		1,2,4-Trichlorobenzene	ND	mg/Kg	0.175	EPA 8270	JLB	04/20/99/1402
		2,4,5-Trichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		2,4,6-Trichlorophenol	ND	mg/Kg	0.875	EPA 8270	JLB	04/20/99/1402
		Arsenic	40.8	mg/Kg	1.0	EPA 7060	JLB	04/19/99/1355
		Barium	32.7	mg/Kg	5.0	EPA 7080	JLB	04/19/99/1540
		Cadmium	ND	mg/Kg	1.0	EPA 7130	MRH	04/15/99/1252
		Chromium	ND	mg/Kg	5.0	EPA 7190	MRH	04/15/99/1610
		Lead	30.3	mg/Kg	5.0	EPA 7420	MRH	04/15/99/1418
		Mercury	ND	mg/Kg	0.1	EPA 7470	JLB	04/19/99/1727
		Selenium	ND	mg/Kg	1.0	EPA 7740	JLB	04/19/99/1028
		Silver	ND	mg/Kg	5.0	EPA 7760	MRH	04/15/99/1445

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		ASI Project #	: 4004
		Date Received	: 8-Apr-99
Client Project #	: APAC	Sample Matrix	: Soil
Sample Date	: 4/6/99	Lab ID	: See Below
Sampler	: JJ/KB	Sample ID	: See Below

Sample ID	Lab ID	Parameter	Results	Units	Detection Limit	Method	Analyst	Date/Time Analyzed
S3	18327	Benzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Bromobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Bromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Bromodichloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Bromoform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Bromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		n-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		sec-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		tert-Butylbenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Carbon tetrachloride	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Chlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Chloroethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		Chloroform	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Chloromethane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		2-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		4-Chlorotoluene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Dibromochloromethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,2-Dibromo-3-Chloropropane	ND	mg/Kg	0.010	EPA 8260	JLB	04/16/99/1509
		1,2-Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		Dibromomethane	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509
		1,2-Dichlorobenzene	ND	mg/Kg	0.005	EPA 8260	JLB	04/16/99/1509

SITE: APAC
BREAK: 1.8
OTHER: Vol 1

EPA Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS Number:

CERCLIS Discovery Date:

1. General Site Information

Name: APAC FACILITY

Street Address: 5356 MARTIN LUTHER KING BLVD (MOODY SWAMP RD)

City: TUSCALOOSA | State: AL | Zip Code: UNK | County: TUSCALOOSA | Co. Code: UNK | Cong. Dist: UNK

Latitude: 33 • 09 • 43.2" Longitude: 87 • 35 • 17.2"

Approximate Area of Site: 10 Acres, N/A Square Ft

Status of Site: ☐ Active ☐ Not Specified ☒ Inactive ☐ NA (GW plume, etc.)

2. Owner/Operator Information

Owner: J. PRICE AND N DAVID McGIFFERT

Street Address: 2814 STILLMAN BLVD.

City: TUSCALOOSA AL. 35402

State: | Zip Code: | Telephone: 205 (759) 1521

Operator: APAC INC.

Street Address: P.O. BOX 818

City: B'HAM, AL. 35201

State: | Zip Code: | Telephone: 205 (252) 3456 EXT. 244

Type of Ownership:
- ☒ Private
- ☐ Federal Agency Name _____
- ☐ State
- ☐ Indian
- ☐ County
- ☐ Municipal
- ☐ Not Specified
- ☐ Other _____

How Initially Identified:
- ☐ Citizen Complaint
- ☐ PA Petition
- ☒ State/Local Program
- ☐ RCRA/CERCLA Notification
- ☐ Federal Program
- ☐ Incidental
- ☐ Not Specified
- ☐ Other _____

3. Site Evaluator Information

Name of Evaluator: JOHN GLAZE

Agency/Organization: ADEM

Date Prepared: 9-30-99

Street Address: 1400 COLISEUM BLVD 36110

City: MONT. | State: AL

Name of EPA or State Agency Contact: BRIAN FARRIER (EPA)

Street Address: ATLANTA FED. CTR. FORSYTH STREET

City: ATLANTA | State: GA | Telephone: (404) 562-8955

4. Site Disposition (for EPA use only)

Emergency Response/Removal Assessment Recommendation:
- ☐ Yes
- ☐ No
- Date: _____

CERCLIS Recommendation:
- ☐ Higher Priority SI
- ☐ Lower Priority SI
- ☐ NFRAP
- ☐ RCRA
- ☐ Other _____
- Date: _____

Signature:

Name (typed):

Position:

EPA **Potential Hazardous Waste Site**
Preliminary Assessment Form - Page 2 of 4

CERCLIS Number:

5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site (check all that apply):

- [x] Industrial
- [ ] Commercial
- [x] Residential
- [x] Forest/Fields
- [ ] Agriculture
- [x] Mining
- [ ] DOD
- [ ] DOE
- [ ] DOI
- [ ] Other Federal Facility _____
- [ ] Other _____

Site Setting:

- [ ] Urban
- [ ] Suburban
- [x] Rural

Years of Operation:

Beginning Year 1980

Ending Year 1997

[ ] Unknown

Type of Site Operations (check all that apply):

- [ ] Manufacturing (must check subcategory)
  - [ ] Lumber and Wood Products
  - [ ] Inorganic Chemicals
  - [ ] Plastic and/or Rubber Products
  - [ ] Paints, Varnishes
  - [ ] Industrial Organic Chemicals
  - [ ] Agricultural Chemicals (e.g., pesticides, fertilizers)
  - [ ] Miscellaneous Chemical Products (e.g., adhesives, explosives, ink)
  - [ ] Primary Metals
  - [ ] Metal Coating, Plating, Engraving
  - [ ] Metal Forging, Stamping
  - [ ] Fabricated Structural Metal Products
  - [ ] Electronic Equipment
  - [ ] Other Manufacturing
- [ ] Mining
  - [ ] Metals
  - [ ] Coal
  - [ ] Oil and Gas
  - [ ] Non-metallic Minerals
- [ ] Retail
- [ ] Recycling
- [ ] Junk/Salvage Yard
- [ ] Municipal Landfill
- [ ] Other Landfill
- [ ] DOD
- [ ] DOE
- [ ] DOI
- [ ] Other Federal Facility _____
- [ ] RCRA
  - [ ] Treatment, Storage, or Disposal
  - [ ] Large Quantity Generator
  - [ ] Small Quantity Generator
  - [ ] Subtitle D
    - [ ] Municipal
    - [ ] Industrial
  - [ ] "Converter"
  - [ ] "Protective Filer"
  - [ ] "Non- or Late Filer"
- [ ] Not Specified
- [x] Other ASPHALT PLANT

Waste Generated:

- [x] Onsite
- [ ] Offsite
- [ ] Onsite and Offsite

Waste Deposition Authorized By:

- [ ] Present Owner
- [ ] Former Owner
- [ ] Present & Former Owner
- [ ] Unauthorized
- [x] Unknown

Waste Accessible to the Public:

- [ ] Yes
- [x] No

Distance to Nearest Dwelling, School, or Workplace:

~2640 Feet

6. Waste Characteristics Information

Source Type: (check all that apply)	Source Waste Quantity: (include units)	Tier*:
[ ] Landfill		
[ ] Surface Impoundment		
[ ] Drums		
[ ] Tanks and Non-Drum Containers		
[ ] Chemical Waste Pile		
[ ] Scrap Metal or Junk Pile		
[ ] Tailings Pile		
[ ] Trash Pile (open dump)		
[ ] Land Treatment		
[x] Contaminated Ground Water Plume (unidentified source)	~10 ACRES	AREA
[ ] Contaminated Surface Water/Sediment (unidentified source)		
[x] Contaminated Soil	~10 ACRES	AREA
[ ] Other _____		
[ ] No Sources		

* C = Constituent, W = Wastestream, V = Volume, A = Area

General Types of Waste (check all that apply)

- [x] Metals
- [x] Organics
- [x] Inorganics
- [x] Solvents
- [ ] Paints/Pigments
- [ ] Laboratory/Hospital Waste
- [ ] Radioactive Waste
- [ ] Construction/Demolition Waste
- [ ] Pesticides/Herbicides
- [ ] Acids/Bases
- [ ] Oily Waste
- [ ] Municipal Waste
- [ ] Mining Waste
- [ ] Explosives
- [ ] Other _____

Physical State of Waste as Deposited (check all that apply):

- [x] Solid
- [x] Sludge
- [ ] Powder
- [x] Liquid
- [ ] Gas

EPA **Potential Hazardous Waste Site Preliminary Assessment Form - Page 3 of 4**

CERCLIS Number:

7. Ground Water Pathway

Is Ground Water Used for Drinking Water Within 4 Miles:
- [ ] Yes
- [x] No

Type of Drinking Water Wells Within 4 Miles (check all that apply):
- [ ] Municipal
- [ ] Private
- [x] None

Is There a Suspected Release to Ground Water:
- [x] Yes
- [ ] No

Have Primary Target Drinking Water Wells Been Identified:
- [ ] Yes
- [x] No

If Yes, Enter Primary Target Population: N/A People

Depth to Shallowest Aquifer: ~10 Feet

Karst Terrain/Aquifer Present:
- [ ] Yes
- [x] No

Nearest Designated Wellhead Protection Area:
- [ ] Underlies Site
- [ ] >0 - 4 Miles
- [x] None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - ¼ Mile	0
>¼ - ½ Mile	23
>½ - 1 Mile	41
>1 - 2 Miles	9543
>2 - 3 Miles	17,548
>3 - 4 Miles	18,609
Total Within 4 Miles	45,764

8. Surface Water Pathway

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):
- [x] Stream
- [x] River
- [ ] Pond
- [ ] Lake
- [ ] Bay
- [ ] Ocean
- [ ] Other DITCH

Shortest Overland Distance From Any Source to Surface Water: ~2640 Feet ____ Miles

Is There a Suspected Release to Surface Water:
- [ ] Yes
- [x] No

Site is Located in:
- [ ] Annual - 10 yr Floodplain
- [x] >10 yr - 100 yr Floodplain
- [ ] >100 yr - 500 yr Floodplain
- [ ] >500 yr Floodplain

Drinking Water Intakes Located Along the Surface Water Migration Path:
- [ ] Yes
- [x] No

Have Primary Target Drinking Water Intakes Been Identified:
- [ ] Yes
- [x] No

If Yes, Enter Population Served by Primary Target Intakes: N/A People

List All Secondary Target Drinking Water Intakes:

Name	Water Body	Flow (cfs)	Population Served
	N/A		

Total within 15 Miles ____

Fisheries Located Along the Surface Water Migration Path:
- [x] Yes CYPRESS CREEK, BLK WARRIOR RIVER
- [ ] No

Have Primary Target Fisheries Been Identified:
- [ ] Yes
- [x] No

List All Secondary Target Fisheries:

Water Body/Fishery Name	Flow (cfs)
CYPRESS CREEK (SAME)	10-100
BLK WARRIOR RIVER (SAME)	>10,000

EPA **Potential Hazardous Waste Site**
Preliminary Assessment Form - Page 4 of 4

CERCLIS Number:

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:
- [x] Yes
- [ ] No

Have Primary Target Wetlands Been Identified:
- [ ] Yes
- [x] No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles
CYPRESS CREEK	0-100	4-5 MILES

Other Sensitive Environments Located Along the Surface Water Migration Path:
- [ ] Yes
- [x] No

Have Primary Target Sensitive Environments Been Identified:
- [ ] Yes
- [x] No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type
CYPRESS CREEK	0-100	6 X FED E. OR T. SPECIES

9. Soil Exposure Pathway

Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination:
- [ ] Yes
- [x] No

If Yes, Enter Total Resident Population:

N/A People

Number of Workers Onsite:
- [x] None
- [ ] 1 - 100
- [ ] 101 - 1,000
- [ ] >1,000

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:
- [x] Yes
- [ ] No

If Yes, List Each Terrestrial Sensitive Environment:

1 X FED E OR T SPECIES
RED COCKADED WOODPECKER

10. Air Pathway

Is There a Suspected Release to Air:
- [ ] Yes
- [x] No

Enter Total Population on or Within:

Onsite	0
0 - ¼ Mile	0
> ¼ - ½ Mile	23
> ½ - 1 Mile	41
> 1 - 2 Miles	7543
> 2 - 3 Miles	17548
> 3 - 4 Miles	18609
Total Within 4 Miles	45,764

Wetlands Located Within 4 Miles of the Site:
- [x] Yes
- [ ] No

Other Sensitive Environments Located Within 4 Miles of the Site:
- [x] Yes FISHERY IN CYPRESS CREEK
- [ ] No

List All Sensitive Environments Within ½ Mile of the Site:

Distance	Sensitive Environment Type/Wetlands Area (acres)
Onsite	
0 - ¼ Mile	NONE
> ¼ - ½ Mile	

PA Scoresheets

Site Name: APAC FACILITY

CERCLIS ID No.:

Street Address: 5356 M.L.K. BLVD/~~[illegible]~~ RD

City/State/Zip: TUSCALOOSA, AL.

Investigator: JOHN GLAZE

Agency/Organization: ADEM

Street Address: 1400 COLISEUM BLVD

City/State/Zip: MONT. AL 36110

Date: 9-30-99

GENERAL INFORMATION

Site Description and Operational History:

SEE ATT. 1

Probable Substances of Concern:
(Previous investigations, analytical data)

SEE ATT. 1

ATTACHMENT 1

LOCATION, SITE DESCRIPTION, HISTORY AND WASTE CHARACTERISTICS

Location

The APAC Facility (AF), is located at 5356 Martin Luther King Blvd/ Moody Swamp Road, in Tuscaloosa Alabama. The geographic coordinates are 33° 09' 43" North Latitude and 87° 35' 17" West Longitude. To reach the site take I-59/20 west from Birmingham, Alabama. Go ~ 50 miles to exit 71B and turn right on 359/69. Go ~ 1/4 mile to exit 1 and turn left on thirty fifth street. Go ~ 1.3 miles to Martin Luther King Blvd, and turn left. Go ~ 1.6 miles and AF will be on your right.

The climate of Tuscaloosa County is considered to be humid subtropical with an average annual rainfall of approximately 52 inches. The average temperature in the summer is 81° and in the winter is 47°. Approximately 20 of the 52 inches of rain per year runs off into the streams.

Site Description

AF is located in an industrial area ~ 2 miles southwest of Tuscaloosa Alabama. The site slopes ~ 2 degrees to the southwest. A ditch forms the southern boundary of the site and funnels surface water runoff ~ 2640 feet to the southwest into Cypress Creek. Cypress Creek flows ~ 9 miles south into the Black Warrior River. The Black Warrior River flows south and forms the remainder of the 15 mile surface water pathway. Presently the site consist of ~ 10 acres covered with gravel and sand. All facilities at site have been removed. The site map (Ref. 1) shows the facilities at the site prior to the removal of the plant facilities. A gravel pit lake forms the north boundary of the site, and forest borders the site to the east and west. There are no public drinking water wells within 4 miles or surface water intakes within 15 miles of the site. The nearest residence ia ~ 2640 feet to the east, and the nearest school is ~ 9504 feet to the northeast of the site. The site contains 3 monitoring wells installed as part of the work performed by QORE Inc.. No stressed vegetation was observed at the site during the site visit. The perimeter of the site is fenced.

History and Waste Characteristics

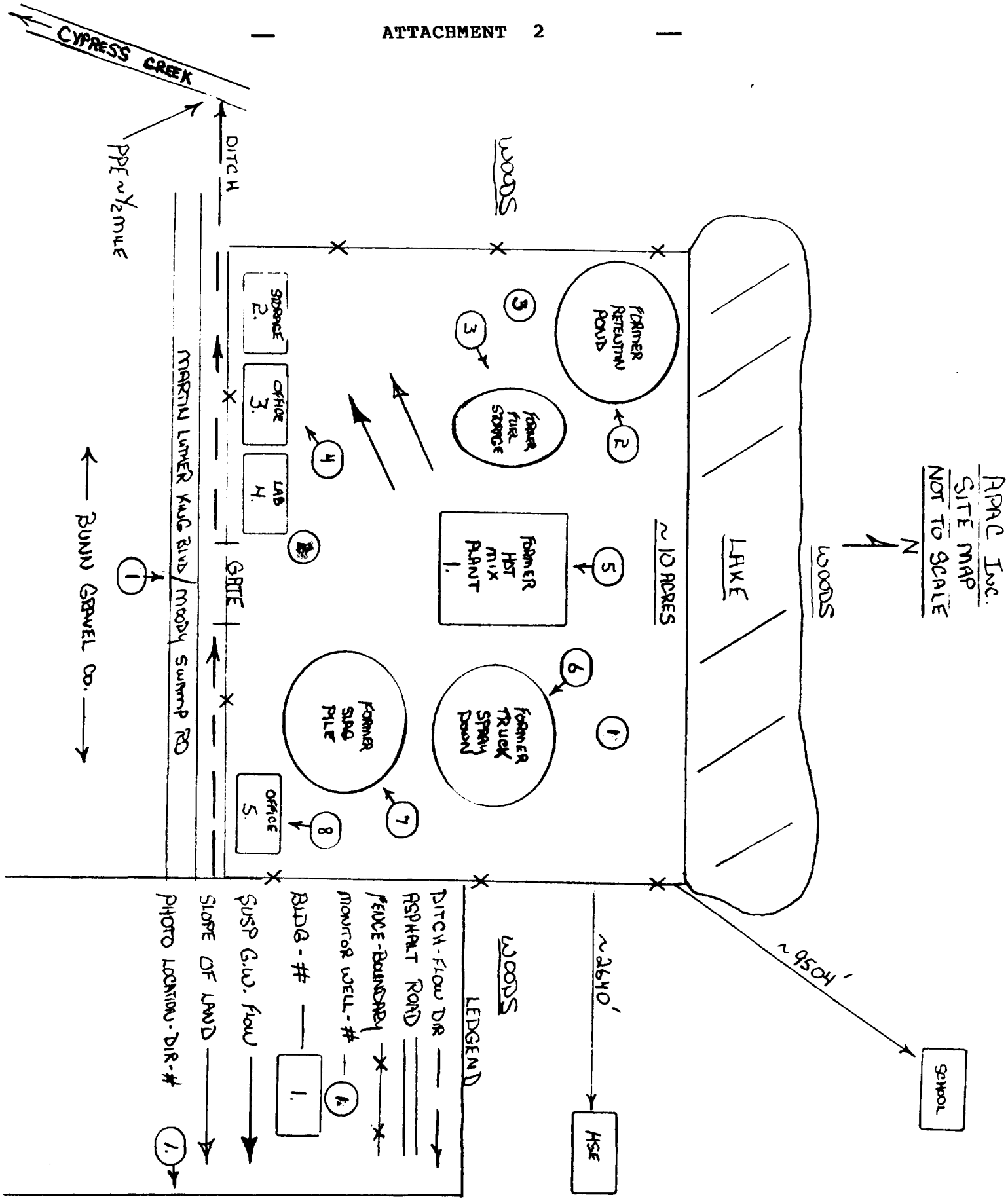
The property was purchased by J. P. and W. D. McGiffert in ~ 1990 from the W. P. Collins family. Over the years the site has been occupied by the Curtis Concrete Co. and Southeastern Asphalt Co.. (dates unknown). In 1980 the site was leased to APAC Inc.. APAC operated an asphalt plant at the site until ~ 1997. In 1998 APAC removed all facilities at the site and TTL Inc. was employed to perform a preliminary assessment at the site. Based on this assessment APAC employed QORE Inc. to further ascertain the impact to human health and the environment at the site Based on the data from these onsite assessments, the surficial ground water has been impacted with As, Pb, and Cr in concentrations above MCL's and the surficial soils have been impacted with As in concentrations above residential RBC's. To date no response action has occurred.

GENERAL INFORMATION (continued)

Site Sketch:
(Show all pertinent features, indicate sources and closest targets, indicate north)

SEE ATT. 2

ATTACHMENT 2



SOURCE EVALUATION

Source No.: 1	Source Name: CONT. SOIL	Source Waste Quantity (WQ) Calculations:
Source Description: ① ~10 ACRES = ACREAGE OF SITE POSSIBLY CONT. WITH ARSENIC		① AREA = 10 ACRES ÷ .78 = 12.8 W.Q.

Source No.: 2	Source Name: CONT. GRD WATER	Source Waste Quantity (WQ) Calculations:
Source Description: ① ~10 ACRES = ACREAGE OF SITE. POSSIBLY CONT WITH AS, PB AND CR.		① AREA = 10 ACRES ÷ .78 = 12.8 W.Q

Source No.:	Source Name:	Source Waste Quantity (WQ) Calculations:
Source Description:		

Site WC: 18

12.8 WQ + 12.8 WQ = 25 WQ

0 TO 100 WQ = 18 WC (TBL 1b)

GROUND WATER PATHWAY

Ground Water Use Description: Provide information on ground water use in the vicinity. Present the general stratigraphy, aquifers used, and distribution of private and municipal wells.

Calculations for Drinking Water Populations Served by Ground Water: Provide populations from private wells and municipal supply systems in each distance category. Show apportionment calculations for blended supply systems.

SEE ATT. 3
SEE ATT. 4

ATTACHMENT 3

GROUND WATER PATHWAY

Hydrogeologic Setting

Geologic units exposed in Tuscaloosa County range from Cambrian to Holocene in age and are sedimentary in origin. The county contains areas of the three following physiographic provinces: the Valley and Ridge, the Cumberland Plateau, and the East Gulf Coastal Plain. Geologic units exposed in the Valley and Ridge province of Tuscaloosa County range from Cambrian to Pennsylvanian in age and include, from oldest to youngest, the Conasauga Formation, Copper Ridge Dolomite, Chickamauga Limestone, Red Mountain Formation, Frog Mountain Sandstone, Chattanooga Shale, Fort Payne Chert, Tuscumbia Limestone, Floyd Shale, Parkwood Formation, and the Pottsville Formation (lower part). The geologic unit exposed in the Cumberland Plateau province of Tuscaloosa County is the Pottsville Formation (upper part), which is Pennsylvanian in age. Geologic units exposed in the East Gulf Coastal Plain province of Tuscaloosa County range from Late Cretaceous to Holocene in age and include, from oldest to youngest, the Coker, Gordo, Eutaw Formation, and Alluvial and terrace deposits .

The geologic unit that outcrops in the vicinity of the site is Alluvial and low terrace deposits. The Alluvial deposits are present along the flood plain of the Black Warrior River and consist of clay, silt, sand, and gravel. The Alluvial deposits range in thickness from 30 to 60 feet and are underlain by the Coker Formation. The APAC site is not located in an area that is underlain by limestone or other types of rocks that are susceptible to karst development.

The groundwater aquifers of Tuscaloosa County include the Eutaw aquifer, the Gordo aquifer, the Coker aquifer, the Pottsville aquifer, and the Watercourse aquifer. The source of recharge for these aquifers is rainfall. The majority of the rainfall runs off during and directly after a rain event or is returned to the atmosphere by evaporation and transpiration. A small amount infiltrates to serve as aquifer recharge.

The APAC site is located in the recharge area of the Watercourse aquifer. The Watercourse aquifer is not a major aquifer in Tuscaloosa County, but significant quantities of water can be acquired in wells located in the flood plains of major streams. In the vicinity of the site the Watercourse aquifer overlies and recharges the Coker aquifer. The Coker aquifer is composed of very fine to course grained sand, sandy clay, and gravel, and ranges in thickness from 0 to 1,000 feet. The Coker aquifer is a major aquifer in Tuscaloosa County and will yield 1 to 2 million gallons per day to an individual well.

No active public water supply wells or springs are located within four miles of the site. Due to the rural nature of the area near the site domestic wells are possible within four miles of the site.

ATTACHMENT 3

Ground Water Targets

The Tuscaloosa Water Authority supplies the drinking water for the population within 4 miles of the site. All drinking water is supplied by a surface water intake on Lake Tuscaloosa ~ 10 miles upgradient north of the site. There are no known private wells within 4 miles of the site.

Ground Water Conclusions

A release of possible hazardous substances to the groundwater is suspected for the following reasons: 1.) Analytical data from on site monitoring wells reveal elevated levels of As, Pb, and Cr in the shallow residuum groundwater. There are no primary targets. The table below illustrates the elevated levels of As, Pb, and Cr as compared to the their MCL's.

Well Number	*Findings mg/L*	*MCL's mg/L*
MW-1	Pb - .022	Pb - .015
	Cr - .11	Cr - .100
MW-2	Pb - .0083	Pb - .015
	Cr - .031	Cr - .100
MW-3	As - .077	As - .050
	Pb - .060	Pb - .015
	Cr - .23	Cr - .100

ATTACHMENT 4

There are no public water supply wells located within 4 miles of the site. Drinking water is supplied by the Tuscalooosa Water Authority from a surface water intake on Lake Tuscaloosa ~ 10 miles upgradient from the site. Private water supply, industrial, irragation, and coal degasification wells could possibly be located within a four mile radius of the site.

GROUND WATER PATHWAY CRITERIA LIST

SUSPECTED RELEASE

Yes	No	Unk	
☒	☐	☐	Are sources poorly contained?
☒	☐	☐	Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?
☒	☐	☐	Is waste quantity particularly large? 20 WC = LG
☒	☐	☐	Is precipitation heavy? YES = 53"/yr
☐	☐	☒	Is the infiltration rate high?
☐	☒		Is the site located in an area of karst terrain?
☐	☐	☒	Is the subsurface highly permeable or conductive?
☐	☒	☐	Is drinking water drawn from a shallow aquifer?
☐	☐	☒	Are suspected contaminants highly mobile in ground water?
☒	☐	☐	Does analytical or circumstantial evidence suggest ground water contamination?
☒	☐		Other criteria? ANALYTICAL DATA
☒	☐		SUSPECTED RELEASE?

PRIMARY TARGETS

Yes	No	Unk	
☐	☒	☐	Is any drinking water well nearby? NEAR = < 1/4 mi
☐	☒	☐	Has any nearby drinking water well been closed?
☐	☐	☒	Has any nearby drinking water user reported foul-tasting or foul-smelling water?
☐	☐	☒	Does any nearby well have a large drawdown or high production rate?
☐	☐	☒	Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance?
☐	☐	☒	Does analytical or circumstantial evidence suggest contamination at a drinking water well?
☐	☐	☒	Does any drinking water well warrant sampling?
☒	☐		Other criteria? NO DWT RPT'D BY TWA
☐	☒		PRIMARY TARGET(S) IDENTIFIED?

Summarize the rationale for Suspected Release (attach an additional page if necessary):

(1) ABOVE MENTIONED REASONS:

(2) ANALYTICAL DATA FROM ON SITE MW'S REVEAL ELEVATED LEVELS OF ARSENIC, CHROMIUM, AND LEAD

* NOTE: SEE ATTACHED ANALYTICALS.

Summarize the rationale for Primary Targets (attach an additional page if necessary):

THERE ARE NO PRIMARY TARGETS

GROUND WATER PATHWAY SCORESHEET

Pathway Characteristics		
Do you suspect a release (see Ground Water Pathway Criteria List, page 71)?	Yes X	No ___
Is the site located in karst terrain?	Yes ___	No X
Depth to aquifer:	~10 ft	
Distance to the nearest drinking water well:	N/A ft	

	A Suspected Release	B No Suspected Release	References
LIKELIHOOD OF RELEASE			
1. **SUSPECTED RELEASE:** If you suspect a release to ground water (see page 71), assign a score of 550. Use only column A for this pathway.	550		
2. **NO SUSPECTED RELEASE:** If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.			
LR =	550		
TARGETS			
3. **PRIMARY TARGET POPULATION:** Determine the number of people served by drinking water wells that you suspect have been exposed to a hazardous substance from the site (see Ground Water Pathway Criteria List, page 71). ___0___ people x 10 =	0		
4. **SECONDARY TARGET POPULATION:** Determine the number of people served by drinking water wells that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes ___ No X If yes, attach a page to show apportionment calculations.	2		
5. **NEAREST WELL:** If you have identified a primary target population for ground water, assign a score of 50; otherwise, assign the Nearest Well score from PA Table 2. If no drinking water wells exist within 4 miles, assign a score of zero.	2		
6. **WELLHEAD PROTECTION AREA (WHPA):** If any source lies within or above a WHPA, or if you have identified any primary target well within a WHPA, assign a score of 20; assign 5 if neither condition holds but a WHPA is present within 4 miles; otherwise assign zero.	0		
7. **RESOURCES**	5		
T =	7		
WASTE CHARACTERISTICS			
8. A. If you have identified any primary target for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.			
B. If you have NOT identified any primary target for ground water, assign the waste characteristics score calculated on page 4.	18		
WC =	18		

GROUND WATER PATHWAY SCORE: $\frac{LR \times T \times WC}{82,500}$ (Limited to a maximum of 100) **.84**

$$\frac{550 \times 7 \times 18}{82,500} = .84$$

PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	Population Value
0 to ¼ mile	0	20	1	2	5	16	52	163	521	1,633	5,214	16,326	0
> ¼ to ½ mile	23	18	1	1	3	10	32	101	323	1,012	3,233	10,121	2
> ½ to 1 mile	41	9	1	1	2	5	17	52	167	522	1,668	5,224	1
> 1 to 2 miles	9543	5	1	1	1	3	9	29	94	294	939	2,938	0
> 2 to 3 miles	17,548	3	1	1	1	2	7	21	68	212	678	2,122	0
> 3 to 4 miles	18,609	(2)	1	1	1	1	4	13	42	131	417	1,306	0
Nearest Well =		2										Score =	0

PA Table 2b: Karst Aquifers

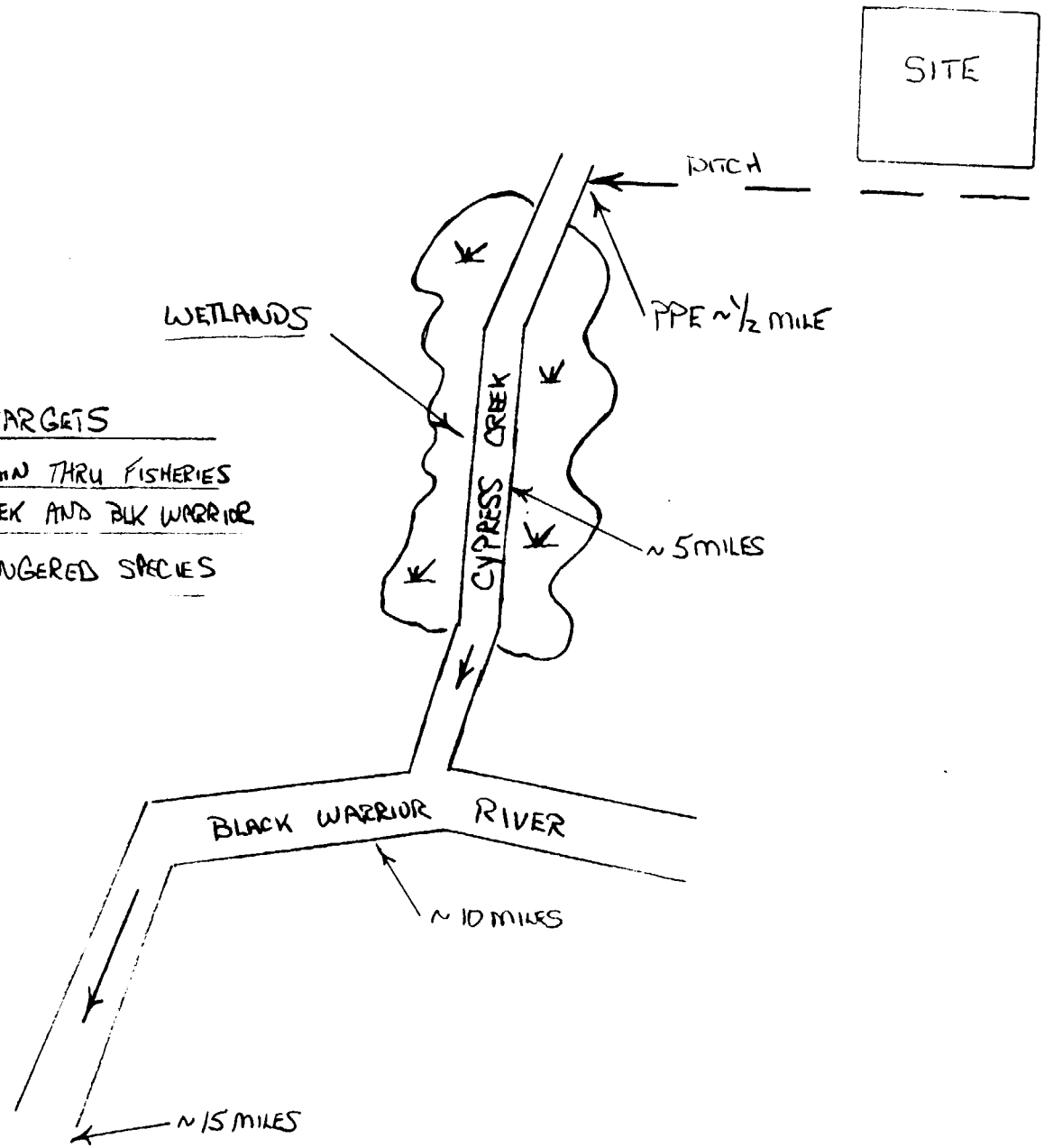
Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	Greater than 100,000	Population Value
0 to ¼ mile		20	1	2	5	16	52	163	521	1,633	5,214	16,326	
> ¼ to ½ mile		20	1	1	3	10	32	101	323	1,012	3,233	10,121	
> ½ to 1 mile		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 1 to 2 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 2 to 3 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 3 to 4 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
Nearest Well =												Score =	

SURFACE WATER PATHWAY
MIGRATION ROUTE SKETCH

Suface Water Migration Route Sketch:
(include runoff route, probable point of entry, 15-mile target distance limit, intakes, fisheries, and sensitive environments)

SEE PT. 5

SURFACE WATER PATHWAY



POTENTIAL TARGETS

1.) HUMAN FOOD CHAIN THRU FISHERIES IN CYPRESS CREEK AND BLK WARRIOR

2.) 6 X FED ENDANGERED SPECIES

3.) WETLANDS

ATTACHMENT 5

SURFACE WATER PATHWAY CRITERIA LIST

SUSPECTED RELEASE

Yes	No	Unk	
☐	☒	☐	Is surface water nearby? ~½ mile
☐	☒	☐	Is waste quantity particularly large?
☐	☒	☐	Is the drainage area large?
☒	☐	☐	Is rainfall heavy?
☐	☒	☐	Is the infiltration rate low?
☐	☒	☐	Are sources poorly contained or prone to runoff or flooding?
☐	☒	☐	Is a runoff route well defined (e.g., ditch or channel leading to surface water)?
☐	☒	☐	Is vegetation stressed along the probable run-off route?
☐	☐	☒	Are sediments or water unnaturally discolored?
☐	☐	☒	Is wildlife unnaturally absent?
☐	☒	☐	Has deposition of waste into surface water been observed?
☐	☐	☒	Is ground water discharge to surface water likely?
☐	☐	☒	Does analytical or circumstantial evidence suggest surface water contamination?
☒	☐		Other criteria? ANALYTICAL DATA
☐	☒		SUSPECTED RELEASE?

PRIMARY TARGETS

Yes	No	Unk	
☐	☒	☐	Is any target nearby? If yes:
			☐ Drinking water intake ☐ Fishery ☐ Sensitive environment
☐	☒	☐	Has any intake, fishery, or recreational area been closed?
☐	☒	☐	Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target?
☒	☐	☐	Does any target warrant sampling? If yes:
			☐ Drinking water intake ☒ Fishery ☒ Sensitive environment
☒	☐		Other criteria? NEAREST TARGETS ~½ mile AWAY
☐	☒		PRIMARY INTAKE(S) IDENTIFIED?
☐	☒		PRIMARY FISHERY(IES) IDENTIFIED?
☐	☒		PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED?

Summarize the rationale for Suspected Release (attach an additional page if necessary):

NO RELEASE IS SUSPECTED FOR THE ABOVE MENTIONED REASONS, AND ANALYTICAL DATA SHOWS NO SIGNIFICANT ELEVATED LEVELS OF HAZ. SUBSTANCES IN THE SURFICIAL SOILS, (0-6").

*SEE ATTACHED ANALYTICALS

Summarize the rationale for Primary Targets (attach an additional page if necessary):

THERE ARE NO PRIMARY TARGETS DUE TO LOW LIKELIHOOD OF EXPOSURE. POSSIBLE SECONDARY TARGETS WOULD BE THE HUMAN FOOD CHAIN THROUGH THE FISHERY IN CYPRESS CREEK AND THE 6X ENDANGERED SPECIES IN CYPRESS CREEK. CYPRESS CREEK IS ~ ½ MILES FROM THE SITE.

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 11)?	Yes ___ No X
Distance to surface water:	[illegible] ft
Flood frequency:	[illegible] yrs
What is the downstream distance to the nearest drinking water intake? N/A miles	
Nearest fishery? 1/2 miles Nearest sensitive environment? 1/2 miles	

LIKELIHOOD OF RELEASE

	A Suspected Release	B No Suspected Release	Reference
1. SUSPECTED RELEASE: If you suspect a release to surface water (see page 11), assign a score of 550. Use only column A for this pathway.			
2. NO SUSPECTED RELEASE: If you do not suspect a release to surface water, use the table below to assign a score based on distance to surface water and flood frequency. Use only column B for this pathway.		400	
LR =		400	

Distance to surface water ≤ 2,500 feet	500
Distance to surface water > 2,500 feet, and	
Site in annual or 10-year floodplain	600
Site in 100-year floodplain	400
Site in 500-year floodplain	300
Site outside 500-year floodplain	100

DRINKING WATER THREAT TARGETS

	A	B	Reference
3. Record the water body type, flow (if applicable), and number of people served by each drinking water intake within the target distance limit. If there is no drinking water intake within the target distance limit, factors 4, 5, and 6 each receive zero scores.			
4. PRIMARY TARGET POPULATION: If you suspect any drinking water intake listed above has been exposed to a hazardous substance from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the total population served. ___ people x 10 =			
5. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water intakes that you do NOT suspect have been exposed to a hazardous substance from the site, and assign the total population score from PA Table 3. Are any intakes part of a blended system? Yes ___ No ___ If yes, attach a page to show apportionment calculations.		0	
6. NEAREST INTAKE: If you have identified a primary target population for the drinking water threat (factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking water intake exists within the target distance limit, assign a score of zero.		0	
7. RESOURCES		5	
T =		5	

Intake Name	Water Body Type	Flow	People Served
		cfs	
		cfs	
		cfs	

SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT SCORESHEET

	A Suspected Release	B No Suspected Release	Reference
LIKELIHOOD OF RELEASE			
Enter Surface Water Likelihood of Release score from page 12. LR =	[redacted]	[redacted] 400	
HUMAN FOOD CHAIN THREAT TARGETS			
8. Record the water body type and flow (if applicable) for each fishery within the target distance limit. If there is no fishery within the target distance limit, assign a Targets score of 0 at the bottom of the page.	[redacted]	[redacted]	
9. PRIMARY FISHERIES: If you suspect any fishery listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the primary fisheries: _____, _____. _____, _____.	[redacted]	[redacted]	
10. SECONDARY FISHERIES			
A. If you suspect a release to surface water and have identified a secondary fishery but no primary fishery, assign a score of 210.	[redacted]	[redacted]	
B. If you do not suspect a release, assign a Secondary Fisheries score from the table below using the lowest flow at any fishery within the target distance limit.	[redacted]	[redacted] 30	
T =	[redacted]	[redacted] 30	

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

Fishery Name	Water Body Type	Flow
CYPRESS CREEK	SMALL STREAM	10-100 cfs
BLACK WARRIOR RIVER	LG RIVER	>10,000 cfs
		cfs
		cfs
		cfs

SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT SCORESHEET

	A	B	
LIKELIHOOD OF RELEASE	Documented Release	No Documented Release	Reference
Enter Surface Water Likelihood of Release score from page 12. LR =		400	

ENVIRONMENTAL THREAT TARGETS

11. Record the water body type and flow (if applicable) for each surface water sensitive environment within the target distance limit (see PA Tables 4 and 5). If there is no sensitive environment within the target distance limit, assign a Targets score of 0 at the bottom of the page.

Environmental Name	Water Body Type	Flow
CYPRESS CREEK	SM STREAM	10-100 cfs
BLACK WARRIOR RIVER	LG RIVER	>10,000 cfs
		cfs
		cfs
		cfs

12. PRIMARY SENSITIVE ENVIRONMENTS: If you suspect any sensitive environment listed above has been exposed to a hazardous substance from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate factor 13. List the primary sensitive environments:

_____, _____,
_____, _____.

13. SECONDARY SENSITIVE ENVIRONMENTS: If sensitive environments are present, but none is a primary sensitive environment, evaluate Secondary Sensitive Environments based on flow.

A. For secondary sensitive environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	Dilution Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total
10-100 cfs	1	x	6 x FED. EAR T SPEC (75) =	7.5
10-100 cfs	1	x	WETLANDS 1-2 MILES (150) =	15.0
cfs		x	=	
cfs		x	=	
cfs		x	=	

Sum = 22.5

B. If all secondary sensitive environments are located on surface water bodies with flows > 100 cfs, assign a score of 10.

N/A

T = 22.5

1.) MUSK TURTLE
2.) CLUBSHELL MUSSEL (SOUTHERN)
3.) PIGTOE MUSSEL
4.) CLUBSHELL MUSSEL (OVATE)
5.) HEELSPLITTER MUSSEL
6.) POCKETBOOK MUSSEL

SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	A Suspected Release	B No Suspected Release
14. A. If you have identified any primary target for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	[illegible]	
B. If you have NOT identified any primary target for surface water, assign the waste characteristics score calculated on page 4.	[illegible]	[illegible] 18
WC =		18

SURFACE WATER PATHWAY THREAT SCORES

Threat	Likelihood of Release (LR) Score (from page 12)	Targets (T) Score (pages 12, 14, 15)	Pathway Waste Characteristics (WC) Score – determined above	Threat Score LR x T x WC / 82,500
Drinking Water	400	5	18	[illegible] .44
Human Food Chain	400	30	18	[illegible] 2.6
Environmental	400	22.5	18	[illegible] 2.0

SURFACE WATER PATHWAY SCORE
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat)

[illegible] 5.04

SOIL EXPOSURE PATHWAY CRITERIA LIST

SUSPECTED CONTAMINATION	*RESIDENT POPULATION*			
	Yes	No	Unk	
Surficial contamination can generally be assumed.	☐	☒	☐	Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination?
	☐	☒	☐	Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator?
	☐	☒	☐	Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities?
	☐	☐	☒	Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems?
	☐	☐	☒	Does any neighboring property warrant sampling?
	☒	☐		Other criteria? SITE IS FENCED + INACTIVE
	☐	☒		RESIDENT POPULATION IDENTIFIED?

Summarize the rationale for Resident Population (attach an additional page if necessary):

THERE IS NO RESIDENT POP. WITHIN 200' OF THE SITE.
THE SITE IS FENCED AND INACTIVE AT PRESENT TIME.

SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics		
Do any people live on or within 200 ft of areas of suspected contamination?	Yes ___	No X
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination?	Yes ___	No X
Is the facility active? Yes ___ No X If yes, estimate the number of workers: ___		

	Suspected Contamination	Reference
LIKELIHOOD OF EXPOSURE		
1. SUSPECTED CONTAMINATION: Surficial contamination can generally be assumed, and a score of 550 assigned. Assign zero only if the absence of surficial contamination can be confidently demonstrated. LE =	550	
RESIDENT POPULATION THREAT TARGETS		
2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or daycare on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18). 0 people x 10 =	0	
3. RESIDENT INDIVIDUAL: If you have identified a resident population (factor 2), assign a score of 50; otherwise, assign a score of 0.	0	
4. WORKERS: Use the following table to assign a score based on the total number of workers at the facility and nearby facilities with suspected contamination:	0	

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
>1,000	15

5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Use PA Table 7 to assign a value for each terrestrial sensitive environment on an area of suspected contamination:

Terrestrial Sensitive Environment Type	Value
1 X ENDANGERED SPECIES (FED)	75

Sum = 75 — TBL 7

6. RESOURCES	5
T =	80

WASTE CHARACTERISTICS

7. Assign the waste characteristics score calculated on page 4. WC =	18

RESIDENT POPULATION THREAT SCORE: $\frac{LE \times T \times WC}{82,500}$ = 9.6

NEARBY POPULATION THREAT SCORE: 1 — 4 within 1 mile

SOIL EXPOSURE PATHWAY SCORE:
Resident Population Threat + Nearby Population Threat = 10.6

RED COCKADED WOODPECKER

AIR PATHWAY CRITERIA LIST

SUSPECTED RELEASE				PRIMARY TARGETS
Yes	No	Unk		
☐	☒	☐	Are odors currently reported?	If you suspect a release to air, evaluate all populations and sensitive environments within 1/4 mile (including those onsite) as primary targets.
☐	☒	☐	Has release of a hazardous substance to the air been directly observed?	
☐	☐	☒	Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air?	
☐	☒	☐	Does analytical or circumstantial evidence suggest a release to the air?	
☐	☒		Other criteria? _____	
☐	☒		SUSPECTED RELEASE?	

Summarize the rationale for Suspected Release (attach an additional page if necessary):

NO SUSPECTED RELEASES

NO PRIMARY TARGETS

AIR PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 21)?	Yes ___ No X
Distance to the nearest individual:	~3640 m

	A Suspected Release	B No Suspected Release	Reference
LIKELIHOOD OF RELEASE			
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550. Use only column A for this pathway.			
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500. Use only column B for this pathway.		500	
LR =		500	
TARGETS			
3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a suspected release of hazardous substances to the air. ___0___ people x 10 =			
4. SECONDARY TARGET POPULATION: Determine the number of people not suspected to be exposed to a release to air, and assign the total population score using PA Table 8.		9	
5. NEAREST INDIVIDUAL: If you have identified any Primary Target Population for the air pathway, assign a score of 50; otherwise, assign the Nearest Individual score from PA Table 8.		2	
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from a suspected release to the air.			
Sum =			
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.		.41	
8. RESOURCES		5	
T =		16.41	
WASTE CHARACTERISTICS			
9. A. If you have identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.			
B. If you have NOT identified any Primary Target for the air pathway, assign the waste characteristics score calculated on page 4.		18	
WC =		18	

AIR PATHWAY SCORE: $\frac{LR \times T \times WC}{82,500}$ = 1.8

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category: 1 to 10	11 to 20	21 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	Greater than 1,000,000	Population Value
Onsite	0	20	1	2	6	16	52	163	521	1,633	5,214	16,326	52,136	163,246	0
>0 to ¼ mile	0	20	1	1	1	4	13	41	130	408	1,303	4,081	13,034	40,811	0
>¼ to ½ mile	23	2	0	0	1	1	3	9	29	90	292	902	2,916	9,015	0
>½ to 1 mile	41	1	0	0	0	1	1	3	8	26	83	261	834	2,612	0
>1 to 2 miles	9543	0	0	0	0	0	1	1	3	8	27	83	266	833	3
>2 to 3 miles	17,548	0	0	0	0	0	1	1	1	4	12	38	120	376	4
>3 to 4 miles	18,609	0	0	0	0	0	0	1	1	2	7	23	73	229	2

Nearest Individual = 2

Score = 9

PA TABLE 9: AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	200
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value (from PA Table 6 or 9)	Product
Onsite	0.10		
0-1/4 mi	0.025		
1/4-1/2 mi	0.0064	FED E OR T SPECIES (75)	.41

Total Environments Score = .41

SITE SCORE CALCULATION

	S	S^2
GROUND WATER PATHWAY SCORE (S_{gw}):	.84	.7056
SURFACE WATER PATHWAY SCORE (S_{sw}):	5.04	25.4016
SOIL EXPOSURE PATHWAY SCORE (S_s):	10.6	112.36
AIR PATHWAY SCORE (S_a):	1.8	3.24
SITE SCORE: $\sqrt{\frac{S_{gw}^2+S_{sw}^2+S_s^2+S_a^2}{4}}$		5.944

SUMMARY

	YES	NO
1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water?	☐	☒
A. If yes, identify the well(s).		
B. If yes, how many people are served by the threatened well(s)? _____		
2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?		
A. Drinking water intake	☐	☒
B. Fishery	☐	☒
C. Sensitive environment (wetland, critical habitat, others)	☐	☒
D. If yes, identify the target(s).		
3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility?	☐	☒
If yes, identify the property(ies) and estimate the associated population(s).		
4. Are there public health concerns at this site that are not addressed by PA scoring considerations? If yes, explain:	☐	☒