THIRD SEMIANNUAL VOLUNTARY REMEDIATION PROGRAM PROGRESS REPORT FOR THE COLUMBIA COUNTY CAR CARE CENTER PROPERTY MARTINEZ, COLUMBIA COUNTY, GEORGIA HSI NO. 10394

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THE INFORMATION CONTAINED IN THIS DOCUMENT TITLED "THIRD SEMIANNUAL VOLUNTARY REMEDIATION PROGRAM PROGRESS REPORT FOR THE COLUMBIA COUNTY CAR CARE CENTER PROPERTY MARTINEZ, COLUMBIA COUNTY, GEORGIA HSI No. 10394" IS CONFIDENTIAL AND IS INTENDED FOR THE EXCLUSIVE USE OF 5C WASHINGTON ROAD, LLC AND ITS DESIGNEES

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## ABBREVIATIONS

5C	Columbia County Car Care Center
bgs	below ground surface
CAS	Chemical Abstracts Service
cis-1,2-DCE	cis-1,2-dichloroethene
COC	Constituent of Concern
CSR	Compliance Status Report
CSM	Conceptual Site Model
EPA	United States Environmental Protection Agency
EPD	Georgia Environmental Protection Division
HSI	Hazardous Site Inventory
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
Peachtree	Peachtree Environmental
PCE	tetrachloroethene
PID	photoionization detector
RRS	Risk Reduction Standard
TCE	trichloroethene
USGS	United States Geological Survey
VIRP	Voluntary Investigation and Remediation Plan
VISL	Vapor Intrusion Screening Level
VRP	Voluntary Remediation Program
VOC	volatile organic compound

## 1.0 INTRODUCTION AND BACKGROUND

#### 1.1 INTRODUCTION

**PEACHTREE ENVIRONMENTAL** (Peachtree) is submitting this Third Semiannual Voluntary Remediation Program (VRP) Progress Report for the Columbia County Car Care Center (5C) property (Hazardous Site Inventory [HSI] No. 10394) located at 4014 Washington Road, in Martinez, Columbia County, Georgia (the "VRP Property") on behalf of Dr. Harinderjit Singh and 5C Washington Road, LLC (the "Applicant"). This report describes activities conducted at the VRP Property since the Second Semiannual VRP Progress Report submitted in August 2014.

#### 1.2 VRP PROPERTY DESCRIPTION

The VRP Property consists of one parcel of land (Parcel ID No. 079 133) totaling approximately 1.78 acres. The VRP Property has a latitude coordinate of 33°30'36.09" North and a longitude coordinate of 83°06'11.25" West. A VRP Property Location / United States Geological Survey (USGS) Topographic Map is included as **Figure 1**.

The VRP Property is developed with two one-story buildings and is currently utilized as an automobile repair facility, commercially known as Performance Plus Transmission, and an automobile window repair facility.

The surrounding properties are listed below:

- North Washington Road with commercial strip mall property (restaurant and retail establishments);
- East Commercial property (former Blockbuster Video);
- South Commercial strip mall property (restaurant and retail establishments); and
- West Columbia Square Shopping Center (including the former Vogue Cleaners)

A VRP Property Layout Map showing soil boring and monitoring well locations is provided as **Figure 2**.

#### 1.3 VRP PROPERTY HISTORY

The VRP Property has operated as various retail automobile repair facilities dating back to 1988. Automotive repair activities performed on the VRP Property have ranged from transmission and engine repair to routine maintenance and oil change operations.

The VRP Property was sub-listed with the adjacent former Vogue Cleaners on the HSI database as Site No. 10394 on February 3, 2000 due to a release of tetrachloroethene (PCE) at Vogue Cleaners. PCE has not been used at the VRP Property. However, in a 1996 Notification of Regulated Waste Activity Form submitted to the United States Environmental Protection Agency (EPA) by Performance Plus Transmission, the auto repair shop located on the VRP Property, erroneously included the waste code for PCE. In a May 2007 subsequent affidavit, Mr. Glenn Tanner, the owner and operator of Performance Plus Transmission, provided the clarification that the business had never used or stored PCE or any chlorinated solvents on the VRP Property.

Descriptions of previous assessments conducted at the VRP Property and of significant regulatory correspondence are provided in the following Sections.

## 1.3.1 February 2007 Limited Subsurface Investigation

On February 9, 2007, J. Dunaway & Co performed a limited subsurface investigation to assess whether a source of PCE was originating from the VRP Property. J. Dunaway & Co advanced five soil borings (SB-1 through SB-5) in an area of PCE-impacted soil that had previously been identified on the western portion of the VRP Property during the former Vogue Cleaners' CSR investigation in 1999. PCE was detected at concentrations ranging from 0.054 milligrams per kilogram (mg/kg) to 8.33 mg/kg in the soil samples collected by J. Dunaway & Co.

## 1.3.2 August 2012 Soil and Groundwater Sampling

In August 2012, Peachtree initiated a limited soil and groundwater investigation at the VRP Property. The investigation consisted of the following:

- The collection of groundwater samples from the seven existing on-site monitoring wells (MW-5D, MW-5DD, MW-10, MW-10D, MW-11D, MW-15, and MW-15D) for analysis of volatile organic compounds (VOCs) by EPA Method 8260B.
- The installation of one monitoring well (PMW-1) and subsequent collection of a groundwater sample for analysis of VOCs by EPA Method 8260B.
- Advancement of eight direct-push soil borings (DP-1 through DP-8). Soil samples with significant photoionization detector (PID) field readings were submitted to the laboratory for analysis of VOCs by EPA Method 8260B.

## 1.3.3 VRP Milestones

In February 2013, a Voluntary Investigation and Remediation Plan (VIRP) and VRP Application were submitted for the VRP Property utilizing data collected in August 2012. The Georgia Environmental Protection Division (EPD) approved the VRP Application in August 2013. The First Semiannual VRP Progress Report was due in February 2014. Peachtree submitted the report in May 2014 with EPD concurrence. The Second Semiannual VRP Progress Report was due, and was submitted, in August 2014. The Third Semiannual VRP Progress Report is due in February 2015, and is hereby submitted.

#### 2.0 PRELIMINARY CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) has been developed for the VRP Property. The CSM is utilized to:

- Integrate technical data from various sources;
- Support the selection of sample locations;
- Identify data gaps/needs; and
- Evaluate risks to human health and the environment.

The following provides a description of the various factors (surface/sub-surface setting, regulated substances, known or suspected source areas, contaminant migration pathways, and soil and groundwater impacts) considered during the development of the CSM.

#### 2.1 SURFACE AND SUB-SURFACE SETTING

#### 2.1.1 Surface Setting

The VRP Property contains two single-story garage-style buildings, both constructed of cinder block and situated on a concrete slab. The parking lot and driveway are paved with asphalt. Grassed and landscaped areas are present to the north and east of the on-site buildings. The VRP Property is designated for commercial/retail use.

#### 2.1.2 Subsurface Setting

The VRP Property is situated on the western side of a broad ridge top. The ridge is dissected to the west by Reed Creek, a north-flowing tributary to the Savannah River, and to the east by numerous named and unnamed tributaries to the Savannah River. Reed Creek is approximately 0.5 miles west of the VRP Property and the Savannah River is approximately 6 miles to the east of the VRP Property.

The VRP Property lies along the geologic and physiographic boundary known as the Fall Line. Geologically, the Fall Line is the contact between the Cretaceous and younger sediments of the Coastal Plain Physiographic Province to the south and the older, crystalline rocks of the Piedmont Province to the north. Several stream characteristics change as they flow south across the Fall Line: rapids and shoals are common near the geologic contact, floodplains are considerably wider on the younger sediments, and the frequency of stream meanders increases.

The gently undulating surface of the Washington Slope District of the Piedmont Province occurs north of the Fall Line. Streams in this district occupy broad, shallow valleys with long gentle side slopes separated by broad, rounded divides (Clark and Zisa, 1976). The Fall Line Hills District of the Coastal Plain Province occurs south of the Fall Line and is highly dissected with little level land except marshy floodplains and their better drained, narrow stream terraces (Clark and Zisa, 1976).

Bedrock in nearby portions of the Washington Slope District, and underlying the unconsolidated sediments of the Fall Line Hills, is an imbricate complex of coarse-grained biotitic metagraywackes, pebbly mudstones, semischists, and thin beds of chert (Higgins et al., 1988). The bedrock is covered by unconsolidated saprolite, alluvium, and soil, collectively referred to as regolith, and occurs at depths of approximately 85 to 110 feet below ground surface (bgs) in the area. The bedrock and its regolith are the uppermost subsurface units in the Washington Slope District. South of the Fall Line, the bedrock and regolith are overlain by unconsolidated sediments of the Coastal Plain, except where removed by erosion along stream valleys, such as Reed Creek to the west of the VRP Property. The Coastal Plain sediments consist of undifferentiated Cretaceous strata overlain by white to cream, buff, and gray, medium- to coarse-grained, cross-bedded, fossiliferous, kaolinitic sand of the Huber Formation of Paleocene and Eocene age (Buie, 1978).

Soil beneath the VRP Property consists of the Wagram loamy sand (NRCS, 2014), a deep, well-drained, very gently sloping soil that forms from marine sediments, such as the Huber Formation, and occurs on broad ridge tops (USDA, 1981). The contact between the Wagram loamy sand and the adjacent Bibb silt loam, a deep, poorly drained, nearly level soil that forms from alluvial sediments on floodplains, coincides with the western boundary of the VRP Property (NRCS, 2014). Further west, soils along Reed Creek consist of Cecil sandy clay loam. The Cecil soil formed from residuum weathered from Piedmont Province metamorphic bedrock (USDA, 1981).

Based on the topographic setting of the VRP Property, the soils present beneath the site, and published geologic maps of the area, it appears that the VRP Property is located over Coastal Plain sediments. Crystalline rock of the Piedmont Province occurs beneath the Coastal Plain sediments and at the ground surface in areas of lower elevations, such as the valley of Reed Creek to the west. The Fall Line, the contact between the Coastal Plain sediment and bedrock of the Piedmont Province, is overlain by the alluvium-derived soil (Bibb silt loam) west of the VRP Property.

Shallow groundwater occurs under water table (unconfined) conditions beneath the VRP Property. Historical depths to groundwater at the VRP Property are summarized in **Table 1**.

#### 2.2 KNOWN OR SUSPECTED SOURCE AREAS

The VRP Property has operated as an automobile repair facility dating back to 1988. Chlorinated solvents were not used on the Property, and 5C maintains that the listing of chlorinated solvents on a 1996 Notification of Regulated Waste Activity Form was an error based on a clarification from the owner of the establishment at that time.

Based on previous investigations, knowledge of how the area was developed, and the results of the August 2012 subsurface investigation, Peachtree understands from reliable sources that PCE-impacted soil from the Vogue Cleaners site was used to fill in low areas near the VRP Property's western boundary with Columbia Square Shopping Center during 1988 pre-

construction grading activities. The suspected source areas (Vogue Cleaners and on-site impacted fill/soils) are depicted on **Figure 2**.

#### 2.3 REGULATED SUBSTANCES

As previously discussed in **Section 1.3.2**, Peachtree conducted a soil and groundwater investigation at the VRP Property in August 2012. The most recent groundwater sampling event was performed in July 2014. Based on the 2012 soil and 2014 groundwater data, the following regulated substances were detected above the laboratory reporting limit in soil and/or groundwater and are the Constituents of Concern (COCs) at the VRP Property:

- PCE (Chemical Abstracts Service [CAS] No. 127184) soil and groundwater;
- trichloroethene (TCE) (CAS No. 79016) soil only; and
- cis-1,2-dichloroethene (cis-1,2-DCE) (CAS No. 156592) soil only

#### 2.3.1 Regulated Substances in Soil

PCE, TCE, and cis-1,2-DCE were detected in soil above the laboratory reporting limit during Peachtree's August 2012 investigation, with only PCE detected above the Type 1 Risk Reduction Standard (RRS). The regulated substances detected in soil during Peachtree's August 2012 investigation and the respective Type 1 RRSs are provided below:

REGULATED CONSTITUENT	HIGHEST DETECTED CONCENTRATION (MG/KG)	SOIL SAMPLE (DEPTH)	TYPE 1 RRS (MG/KG)	
PCE	19	DP-7 (0-2 feet bgs)	0.5	
TCE	0.090	DP-3 (3 feet bgs)	0.5	
cis-1,2-DCE	3.6	DP-3 (5 feet bgs)	7.0	
Notes: Bolded constituents exceed Type 1 RBS				

The August 2012 soil analytical results and soil RRSs are summarized in **Table 2**, along with the soil analytical results for the COCs from the J. Dunaway & Co February 2007 investigation. The August 2012 soil sample locations and extent of PCE detected in soil at depths less than 2 feet bgs and greater than 2 feet bgs are shown in **Figure 3** and **Figure 4**, respectively. The extent of TCE and cis-1,2-DCE in soil are not graphically displayed as the extent of their distribution is less than that of PCE.

Peachtree anticipates performing soil excavation within the area of impact. Soil confirmation samples will be collected from the excavation sidewalls as well as in locations outside the excavation where historical soil samples indicated constituent impacts over

Type 1 RRS. The details of these proposed activities are discussed further in the Preliminary Remediation Plan in **Section 4.0**.

## 2.3.2 Regulated Substances in Groundwater

PCE and cis-1,2-DCE have been detected in groundwater at the VRP Property above the laboratory reporting limits; however, PCE is the only regulated substance that has been detected in groundwater above the Type 1 RRS. Historically, the maximum concentration of PCE detected in groundwater at the VRP Property was 250 micrograms per liter ( $\mu$ g/L), which was detected in a groundwater sample collected from monitoring well PMW-1 in August 2012, with 6.0  $\mu$ g/L in monitoring well MW-11D (2013) as the only other concentration detected above the Type 1 RRS. In addition, PCE was detected slightly above the Type 1 RRS in the duplicate sample collected from monitoring well PMW-1 in July 2014; however, the duplicate sample is not considered to be part of the primary data set. The analytical results for the groundwater samples collected at the Property since August 2012 are summarized in **Table 3**.

### 2.4 EXPOSURE PATHWAYS

**Figure 5** presents the key features of the VRP Property, including the location of cross sections A-A' and B-B'. **Figure 6** and **Figure 7** present the preliminary CSM via cross sections A-A' and B-B'.

The VRP Property is developed with two one-story buildings with concrete slabs currently utilized as an automobile repair facility and automobile window repair facility. The VRP Property has been utilized as an automobile repair facility dating back to 1988 and is anticipated to be used as such in the future. The adjacent properties are used for commercial (retail and restaurant) purposes.

Currently, direct exposure does not occur to contaminated soil because the VRP Property is covered by buildings and by asphalt pavement, except for some small landscaped traffic islands along Washington Road and along the eastern property boundary. Regulated substances in soil may leach to groundwater, although the potential for leaching is greatly reduced by the concrete slabs and asphalt soil covers. The concrete and asphalt covers also preclude erosion or runoff of the impacted soil by stormwater, as well as incidental ingestion or inhalation of wind-borne soil particles.

There is no current exposure to regulated substances in groundwater. The VRP Property receives its potable water from the Columbia County Water Utility. Regulated substances in groundwater may migrate off-site to surface water. The nearest surface water body to the VRP Property is Reed Creek approximately 0.5 mile to the west; however, delineation of impacted soil and groundwater does not indicate that regulated substances have migrated that distance.

Using the EPA Vapor Intrusion Screening Level (VISL) calculator and the historical PCE concentration of 250  $\mu$ g/L, the carcinogenic risk associated with vapor intrusion of PCE into the buildings at the VRP Property is calculated to be 3.8 x 10<sup>-6</sup>, which is less than the EPD's 1 x 10<sup>-5</sup> threshold. The non-carcinogenic Hazard Quotient is 1.0, equal to the EPD's threshold.

Furthermore, the maximum concentration of PCE in groundwater at the VRP Property was below detection limits during the most recent sampling event (July 2014). Therefore, although vapor intrusion is potentially a complete pathway, the risk associated with this pathway does not exceed acceptable levels.

## 2.4.1 Current Land Use

Current on-site receptors at the VRP Property potentially include site workers, customers, utility workers, construction workers, and trespassers. Currently, site workers, customers, and trespassers are not exposed to soil, as the VRP Property is covered by buildings and by asphalt parking areas, except for some small landscaped traffic islands along Washington Road and along the eastern property boundary. There is no on-going construction or utility work at the VRP Property requiring construction- or utility-worker receptors.

Groundwater exposure is not a current pathway because the VRP Property receives its potable water from the Columbia County Water Utility. Off-site receptors in the area also receive their drinking water from the Columbia County Water Utility. Direct contact to shallow groundwater is precluded by the on-site buildings and asphalt parking areas.

Current site workers and customers may be exposed to regulated substances by inhalation of vapors intruding into on-site buildings. However, the risk associated with potential vapor intrusion does not exceed the EPD's thresholds. Therefore, although vapor intrusion is potentially a complete pathway, the risk associated with this pathway does not exceed acceptable levels.

## 2.4.2 Future Land Use

The VRP Property is likely to remain a commercial automobile repair facility or similar commercial operation in the future, and the current exposure pathways will remain the same. Future site workers, customers, and trespassers are not expected to be exposed to soil, as the property will likely remain covered by buildings and by asphalt pavement. However, if there is new construction or utility work in the future, construction- or utility-worker receptors may be exposed to soil.

The VRP Property and off-site receptors will likely continue to receive their potable water from the Columbia County Water Utility in the future. Future off-site receptors in the area will also receive their drinking water from the Columbia County Water Utility. However, it is understood that the EPD considers all groundwater a potential future source of drinking water, so future exposure to groundwater by site workers, customers, utility workers, construction workers, and off-site receptors has been considered. Therefore, the complete exposure pathways for future land use are as follows:

- Soil Exposure Future Construction Workers
- Soil Exposure Future Utility Workers
- Groundwater Exposure Future Site Workers

- Groundwater Exposure Future Customers
- Groundwater Exposure Future Utility Workers
- Groundwater Exposure Future Construction Workers
- Groundwater Exposure Future Off-Site Receptors

### 2.4.3 Ecological Receptors

Since the VRP Property is covered by buildings and by asphalt pavement, there are no viable ecological habitats on the VRP Property. The soil covers prevent migratory species such as birds from coming into contact with impacted soil, and there is no surface water on the VRP Property.

The VRP Property is located in the Sand Hills ecoregion of the Southeastern Plains of Georgia (Georgia DNR, 2014), a narrow, rolling to hilly, highly dissected belt stretching across the state from Augusta to Columbus. Many of the droughty, low-nutrient soils of the Sand Hills formed in thick beds of sand, although soils in some areas contain more loamy and clayey horizons. On the drier sites, turkey oak and longleaf pine are dominant, while shortleaf-loblolly pine forests and other oak-pine forests are common throughout the region. However, other than the small landscaped traffic islands along Washington Road and along the eastern property boundary, there is no vegetation on the VRP Property.

Due to the lack of ecological habitats and lack of exposure of contaminated media to migratory species, there are no complete pathways for ecological receptors.

#### 3.0 SEMIANNUAL GROUNDWATER MONITORING ACTIVITIES

Semiannual groundwater monitoring has not been conducted at the VRP Property since July 2014. The July 2014 groundwater monitoring activities were reported in the Second Semiannual VRP Progress Report submitted to the EPD in August 2014

#### 4.0 PRELIMINARY REMEDIATION PLAN

Types 1 through 4 RRS have been calculated for the substances detected in soil and in groundwater. These calculations were provided in the First Semiannual VRP Progress Report and are not repeated here. Although calculations have been provided for Types 2 through 4 RRS, the Applicant intends on remediating soil and groundwater to Type 1 RRS, unless technically impracticable.

PCE was historically detected in groundwater at the VRP Property in excess of the Type 1 RRS at monitoring wells PMW-1 and MW-11D. The results of the July 2014 groundwater sampling demonstrated that both monitoring wells MW-11D and PMW-1 had achieved compliance with the Type 1 RRS.

Based on the August 2012 soil analytical results, Peachtree has determined that PCE on the VRP Property exceeds the Type 1 RRS in a small area with an approximate surface area of 30 feet by 30 feet, and extends vertically to an approximate depth of 6 feet bgs.

Peachtree proposes to excavate impacted soils in excess of applicable RRS. Excavated material will be placed directly into transportation vehicles (i.e., dump trucks or trailers) or a roll-off box for off-site disposal. As stated above, the current estimated extent of the excavation area is 30 feet by 30 feet by 6 feet. Confirmation soil samples will be collected along the sidewalls at a frequency of one sample for every 20 linear feet of sidewall and at the bottom of the excavation, at an approximate frequency of one sample for every 500 square feet. The excavation will proceed further if post-excavation analytical testing results exceed the applicable RRS, with additional verification samples collected following over-excavation (i.e., any soils exceeding the applicable RRS will be remediated). In the instance that excavation proceeds to the shallow, surficial water table, no further vertical excavation will occur. Currently, Peachtree estimates approximately 200 cubic yards (or 300 tons) of soil will be excavated from the VRP Property. The estimated area requiring excavation is illustrated on **Figure 8**.

At the successful conclusion of excavation and confirmation sampling, Peachtree will be preparing a final Compliance Status Report (CSR) for 5C.

A monthly summary of Professional Engineer/Geologist hours expended as part of the initial application and this semiannual progress report is included as **Appendix A**.

#### 5.0 CERTIFICATION

"I certify that I am a qualified groundwater scientist who has received a baccalaureate or post graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by me or by a subordinate working under my direction."

Steven W. Hart, P.G. Georgia Registration No. 660

#### 6.0 **REFERENCES**

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TABLES

#### Columbia County Car Care Center 4014 Washington Road, Martinez, Columbia County, Georgia HSI No. 10394

#### TABLE 1

#### Summary of Groundwater Level Measurements

Monitoring Well ID	Date	Top of Casing Elevation (feet)	Total Well Depth (feet)	Depth to Groundwater (feet)	Water Level Elevation (feet)
MW-5D	10/15/13	265.66	36.60	7.41	358.25
	07/02/14	303.00		7.72	357.94
MW-5DD	10/15/13	265 70	70.54	1.72	363.98
	07/02/14	305.70	70.51	2.57	363.13
MW-10	10/15/13	NS	13.89	6.81	NS
	07/02/14			6.77	NS
MW-10D	10/15/13	364.37	28.04	6.06	358.31
	07/02/14			5.97	358.40
MW-11D	10/15/13	265.91	32.75	7.30	358.51
	07/02/14	303.01		7.51	358.30
MW-15	10/15/13	365.57	13.75	7.38	358.19
	07/02/14			7.37	358.20
MW-15D	10/15/13	005 54	28.79	7.00	358.54
	07/02/14	303.34		7.02	358.52
PMW-1	10/15/13	205 40	20.72	7.45	357.97
	07/02/14	505.42		7.62	357.80

#### NOTES:

Top of casing elevations based on survey data collected by Williams/Genesis

NS - Well not surveyed at time of water level measurement

#### Columbia County Car Care Center 4014 Washington Road, Martinez, Columbia County, Georgia HSI No. 10394

#### TABLE 2

#### Summary of Soil Analytical Results for COCs

Sample Location	Sample Depth (feet)	Sample Date	cis-1,2-DCE (mg/kg)	PCE (mg/kg)	TCE (mg/kg)
SB-1-1	1.5	02/13/07	<0.00472	0.558	<0.00472
SB-1-2	6	02/13/07	<0.00500	0.0540	<0.00500
SB-2-1	1.5	02/13/07	0.00750	8.330	<0.00464
SB-2-2	5.5	02/13/07	<0.00476	4.360	<0.00476
SB-3-1	1.5	02/13/07	0.0207	0.642	0.00860
SB-3-2	6	02/13/07	<0.186	0.205	<0.186
SB-4-1	1.5	02/13/07	<0.00541	2.020	<0.00541
SB-4-2	6	02/13/07	<0.186	<0.186	<0.186
SB-5-1	1	02/13/07	0.00758	3.580	<0.00566
SB-5-2	5.5	02/13/07	<0.00394	0.105	<0.00394
DP-1	0-2	08/30/12	<0.0063	3.2	<0.0063
DP-1	3	08/30/12	<0.0090	0.58	<0.0090
DP-1	5	08/30/12	<0.0066	<0.0066	<0.0066
DP-2	0-2	08/30/12	<0.0059	0.048	<0.0059
DP-2	5	08/30/12	<0.0030	0.24	<0.0030
DP-2	6	08/30/12	<0.0026	0.027	<0.0026
DP-3	0-2	08/30/12	0.035	0.46	<0.014
DP-3	3	08/30/12	1.7	1.1	0.090
DP-3	5	08/30/12	3.6	8.0	0.053
DP-3	6	08/30/12	0.024	0.13	<0.0064
DP-4	0-2	08/30/12	<0.0029	0.0037	<0.0029
DP-4	5	08/30/12	0.0084	0.088	<0.0034
DP-5	0-2	08/30/12	0.012	0.11	<0.0077
DP-5	3	08/30/12	0.052	2.0	0.020
DP-5	6	08/30/12	<0.0088	0.025	<0.0088
DP-6	0-2	08/30/12	<0.0056	1.7	<0.0056
DP-6	5	08/30/12	0.010	0.086	<0.0085
DP-7	0-2	08/30/12	0.0090	19	<0.0082
DP-7	5	08/30/12	0.012	0.098	<0.0085
DP-8	0-2	08/30/12	<0.0067	0.10	<0.0067
DP-8	3	08/30/12	0.062	2.5	0.031
DP-8	6	08/30/12	<0.0068	0.16	<0.0068
	Type 1 RRS		7	0.5	0.5

#### NOTES:

Bolded value indicates concentration is above Type 1 RRS

#### Columbia County Car Care Center 4014 Washington Road, Martinez, Columbia County, Georgia HSI No. 10394

#### TABLE 3

#### Summary of Groundwater Analytical Results for COCs

Monitoring Well ID	Sample Date	cis-1,2-DCE (μg/L)	PCE (µg/L)
	08/29/12	<5.0	<5.0
MW-5D	10/15/13	<5.0	<5.0
	07/02/14	<5.0	<5.0
	08/29/12	<5.0	<5.0
MW-5DD	10/15/13	<5.0	<5.0
	07/02/14	<5.0	<5.0
	08/29/12	<5.0	<5.0
MW-10	10/15/13	<5.0	<5.0
	07/02/14	<5.0	<5.0
	08/29/12	<5.0	<5.0
MW-10D	10/15/13	<5.0	<5.0
	07/02/14	<5.0	<5.0
	08/29/12	<5.0	6.5
MW-11D	10/15/13	<5.0	6.0
MW-11D	07/02/14	<5.0	<5.0
	08/29/12	<5.0	<5.0
MW-15	10/15/13	<5.0	<5.0
	07/02/14	<5.0	<5.0
	08/29/12	<5.0	<5.0
MW-15D	10/15/13	<5.0	<5.0
	07/02/14	<5.0	<5.0
	08/30/12	<5.0	250
	10/15/13	17	<5.0
PMW-1	10/15/13 (duplicate)	<5.0	<5.0
	07/02/14	<5.0	<5.0
	07/02/14 (duplicate)	12	6.6
Type 1 RRS		70	5

#### NOTES:

Bolded value indicates concentration is above Type 1 RRS



# FIGURES













![](_page_27_Figure_0.jpeg)

![](_page_28_Figure_0.jpeg)

![](_page_29_Figure_0.jpeg)

# SUMMARY OF PROFESSIONAL HOURS

APPENDIX A

![](_page_30_Picture_2.jpeg)

#### COLUMBIA COUNTY CAR CARE CENTER 3RD SEMIANNUAL VRP PROGRESS REPORT MARTINEZ, COLUMBIA COUNTY, GEORGIA MARCH 2015

#### APPENDIX A

#### MONTHLY SUMMARY AND DESCRIPTION OF PROFESSIONAL HOURS

Quantita	Unite	Time Desired - Description of Astivities	Hours
Quantity	Units	Time Period + Description of Activities	Subtotal
		September 1 to September 30, 2014	
		Project Management -	
0.50	Hours	Project Director (Steven W. Hart, P.G.)	0.50
		October 1 to October 31, 2014	
		Project Management -	
0.00	Hours	Project Director (Steven W. Hart, P.G.) November 1 to November 30, 2014	0.00
		Project Management -	
0.00	Hours	Project Director (Steven W, Hart, P.G.)	0.00
0.00	TIOUIS	December 1 to December 31, 2014	0.00
		Project Management -	
0.00	Hours	Project Director (Steven W. Hart, P.G.)	0.00
		January 1 to January 31, 2015	
		Project Management -	
0.00	Hours	Project Director (Steven W. Hart, P.G.)	0.00
		February 1 to February 28, 2015	
		Project Management -	
0.00	Hours	Project Director (Steven W. Hart, P.G.)	0.00
		March 1 to March 15, 2015	
		<b>-</b> • • •	
		Project Management -	
1.00	Hours	Project Director (Steven W. Hart, P.G.)	1.00

MONTHLY HOURS TOTAL => 1.50