

REPORT

**Voluntary Remediation Program
Monitoring Plan
Fashion Care/Executive Care Site
HSI No. 10786
2211 Savoy Drive
DeKalb County
Chamblee, Georgia**

**Project Number
2015.0058.01**

**Report Date:
April 7, 2015**



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UNITED CONSULTING





April 7, 2015

Robin S. Futch, PG, PMP
Compliance Officer
Response and Remediation Program
Land Protection Branch, GA EPD
2 Martin Luther King Jr. Drive
Suite 1054 East
Atlanta, GA 30334-9000

RE: Voluntary Remediation Program
Monitoring Plan
Fashion Care/Executive Care Site
HSI No. 10786
2211 Savoy Drive, Chamblee, Georgia
DeKalb County
Project No. 2015.0058.01

Dear Ms. Futch:

This Voluntary Remediation Program Monitoring Plan for the Fashion Care/Executive Care Site, HSI No. 10786, 2211 Savoy Drive, Chamblee, Georgia, DeKalb County; is being submitted on behalf of John F. Rowan, Sr. Item IV Trust. Assessment and corrective action has been conducted on this Site to bring it into compliance with the VRP, and documentation is provided in the VRP Compliance Status Report (CSR) dated April 7, 2014, submitted to the Georgia Environmental Protection Division. The VRP CSR petitions for removal of the Site from the HSI. This Monitoring Plan is to provide post-VRP CSR monitoring of select exposure pathways to confirm the conclusions drawn in the VRP CSR.

The substantive work described in this report was performed under the direction of Leonard J. Diprima, Jr., P.G. Please contact Mr. Diprima if you have any questions or comments regarding the information contained herein.

Sincerely,

UNITED CONSULTING

Leonard J. Diprima, Jr., P.G.
Project Manager/Senior Environmental Specialist

Russell C. Griebel, P.G., C.P.G.
Executive Vice President

Cc: Catherine Norris, Trust Representative
Scott Hitch, Esq., Burr & Forman LLP, Trust Counsel

LJD/RCG/tl

SharePoint: 2015.0058.02

Voluntary Remediation Program Monitoring Plan



Image Courtesy of Google Earth

***Fashion Care/Executive Care Site
HSI No. 10786
2211 Savoy Drive, Chamblee, DeKalb County, Georgia***

**Prepared For
John F. Rowan, Sr. Item IV Trust
PO Box 197, Carmel Valley, CA 93924**

Prepared by



625 Holcomb Bridge Road
Norcross, Georgia 30071

Project No. 2015.0058.01

April 7, 2015

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1.0 BACKGROUND

United Consulting has prepared this Voluntary Remediation Program (VRP) Monitoring Plan for the Fashion Care Site (Site/Fashion Care), Hazardous Site Inventory (HSI) No. 10786, located at 2211 Savoy Drive, Chamblee, DeKalb County, Georgia, on behalf of the John F. Rowan, Sr. Item IV Trust (Trust), the previous owner of the property and responsible party under the VRP. At the time this Monitoring Plan was prepared, the Site remains listed on the HSI. The Site location is presented on Figure 1.

Figure 2 shows the Fashion Care property and surrounding properties. The Fashion Care/former Trust property currently has a single, one-story building that contains a dry cleaner on the west side with on-site cleaning, and a vacant space on the east side. A dry cleaner has been located in the building since the building was constructed in the 1960's. The east side of the building has contained various retail and restaurant businesses. The remainder of the property is paved with asphalt.

Parcel 18-343-13-005, street address 4306 North Peachtree Road, Chamblee, Georgia is immediately to the west, and is owned by Mr. H.A. Rowan of Southern Automatic Company. The property has a single, one-story building that contains a dentist office, a beauty shop, and other retail stores. The remainder of the property is paved with asphalt.

Parcel 18-343-13-001, street address 4308 North Peachtree Road, Chamblee, Georgia is immediately to the east, and is owned by Mr. Marvin Hewatt of Georgia-Alabama Commercial Investments, LLC. The property has a single, one-story building that contains a gas station (UST Facility I.D. No. 900341*1; EZ-Serve Site). The remainder of the property is paved with asphalt and concrete.

Parcel 18-333-02-023, has no street address and is immediately to the east. It is owned by Asl Limited Partnership of Boca Raton, Florida; and is wooded, undeveloped property. The south side of the parcel is bordered by Nancy Creek.

A historical release of tetrachloroethene (PCE) and its degradation products to soil from dry cleaner operations conducted at the Fashion Care dry cleaner property was identified in 2004. As a result, a Hazardous Sites Response Act (HSRA) Program Release Notification was submitted to the Georgia Environmental Protection Division (EPD) HSRA Program on March 24, 2004. The EPD listed the property/Site on the Georgia HSI on July 29, 2004 for a release of regulated constituents to soil. On June 30, 2006 the EPD issued a HSRA CSR Call-in Letter to the Trust requiring the assessment of soil and groundwater related to the historical release. The constituents of interest (COI), established during the HSRA investigation and approved by the HSRA Program, and later by the VRP, are PCE and its regulated degradation constituents, and are listed in Table 1. Table 1 also provides a list of other constituents identified but not associated with the Fashion Care release.

During the course of addressing the release of dry cleaner constituents under the HSRA Program and VRP, the Trust (owner at the time) required the current dry cleaner tenant to discontinue the use of PCE in their operation and replaced the PCE dry cleaning machine in May 2009 with a non-chlorinated solvent based dry cleaning machine. No PCE remains on the Site and the last additional suspected source of release, a leaking sanitary sewer collection sump that was part of the original building construction in the rear of the building, has been twice cleaned and resealed.

On July 9, 2010 the Trust entered the Site into the VRP with the submittal of a VRP CAP, which was approved with comments by the EPD in December 2, 2010. Since EPD approval of the VRP CAP and entry into the VRP, site evaluation and corrective actions under the VRP have progressed steadily, and updates of the progress have been documented in Semiannual Status Reports beginning June 2, 2011 through the last report submitted December 19, 2014.

During the course of the HSRA and VRP assessments conducted for soil, groundwater, surface water, sediment and soil vapor; impacts associated with the release of PCE were identified on the following properties. Each of these properties was originally entered into the VRP as part of the Site as a “qualifying property”, as defined by the Voluntary Remediation Program Act (Act).

- Fashion Care property, 2211 Savoy Drive, Chamblee, Georgia (Parcel 18-343-13-002) – Soil, groundwater and potential soil vapor impacts were identified.
- Southern Automatic Company property, 4306 North Peachtree Road, Chamblee, Georgia (Parcel 18-343-13-005) – Soil, groundwater and the potential for soil vapor impacts were identified.
- Asl Limited Partnership property, no street address and immediately to the east bordering Nancy Creek (Parcel 18-333-02-023) – Groundwater, surface water and the potential for soil vapor impacts were identified.
- Georgia-Alabama Commercial Investments, LLC property, 4308 North Peachtree Road, Chamblee, Georgia (Parcel 18-343-13-001) – Groundwater and the potential for soil vapor impacts were identified.

Each of these properties were also found to be impacted by a release of petroleum from gas station underground storage tank (UST) systems located on the Georgia-Alabama Commercial Investments, LLC property (UST Facility I.D. No. 900341*1; EZ-Serve Site). This petroleum release underwent remediation through the EPD Underground Storage Tank Management Program (UST Program) and received a “no further action required” status. A dual-phase extraction system was operated to recover free-phase gasoline on the property. The dissolved phase gasoline constituents have migrated off the property to the south and west. The remediation system was not designed to address the groundwater plume, and the plume of petroleum constituents has comingled with the dissolved-phase chlorinated solvent plume originating from the Trust property.

As part of the assessment of the release under the VRP, the horizontal and vertical extent of the soil impacts were delineated. Figure 3 shows the extent of impacted soil relative to Type 3/4 non-residential Risk Reduction Standards (RRS) and Type 5 RRS. The majority of soil above non-residential RRS is present beneath the concrete slab of the existing building and on the Fashion Care property. A small area of impacted soil is projected to be on the adjacent Southern Automatic Company property based upon the soil sample control. Soil impacts extend vertically to the water table in much of this area. The soil remedy established under the VRP is a Type 5 solution using engineering and institutional controls to mitigate the potential exposure pathways. The existing concrete building slab and surrounding asphalt paving provides a cap for the impacted soil, and the maintenance of the cap and health and safety requirements associated with future construction or utility work/worker exposure is assured through the use of Uniform Environmental Covenants (UECs) that have been established for the Fashion Care/Parcel #5 and Southern Automatic Company properties.

The horizontal and vertical extent of groundwater impacts from the dry cleaner release were delineated under the VRP. The most recent set of groundwater data collected from the Site was in April 2014, and is depicted on Figure 3 relative to Type 1 and 3 RRS and Type 5 RRS. The plume extends southwest from the Fashion Care property source area toward and intersecting with Nancy Creek bordering the Asl Limited Partnership property. Impacted groundwater is present on portions of the Fashion Care, Southern Automatic Company, Asl Limited Partnership and the Georgia-Alabama Commercial Investments properties. The plume was determined to be confined vertically to the water table aquifer, which is perched upon a dense, dry silt layer that is at least ten feet thick across the Site.

Numerous rounds of surface water samples were collected from Nancy Creek along the length of the groundwater plume's intersection with the creek. The COI have not been identified in any of the SW samples collected to date. In addition, sediment samples collected in this area also did not detect any of the COI.

The potential receptor for groundwater impacts is Nancy Creek. Due to the depth to groundwater across the Site, on average 10 feet or more below grade, direct contact by potential construction or utility workers was determined not to be a potential completed pathway for exposure. Surface water sampling and fate and transport modeling of the release have indicated that the groundwater plume is not predicted to be a potential completed pathway for exposure. This will be confirmed by the VRP Monitoring Program, and recalibration of the fate and transport model will be performed using the additional data collected. The proposed VRP Monitoring Program is presented below.

2.0 PREVIOUS FATE AND TRANSPORT MODELING

Contaminant transport modeling was conducted to evaluate the potential for additional exposure pathways to arise, and for known exposure pathways to become complete at levels that could impact potential receptors above regulatory limits. The known receptors are the portions of the properties that have been impacted by the migration of the groundwater contaminant plume, and Nancy Creek, which receives discharge from the plume. A detailed Contaminant Transport Modeling Report describing the contaminant transport modeling and findings was presented in the VRP Compliance Status Report dated April 7, 2015.

Contaminant transport was evaluated using the following steps:

- Modeling of the transfer of soil contamination to the groundwater flow system by modeling the transfer of contaminant mass to the groundwater system with a soil flushing calculation.
- Groundwater modeling of flow and contaminant transport for the Site. Three-dimensional groundwater flow was simulated using MODFLOW 2000 (Harbaugh et al, 2000).
- The computer code used to simulate contaminant transport was MT3DMS (Zheng and Wang, 1999). MT3DMS is a code for simulating transport of contaminants in three dimensions and uses the outputs from MODFLOW to calculate simulated transport in groundwater.
- Contaminant transport modeling was conducted in three distinct steps. The first step was to model distribution of total dissolved VOCs in the groundwater. The second step was to model the anticipated maximum concentration of PCE in the future, as this compound is the most prevalent compound at the Site with the lowest ISWQS. The third step was to evaluate the likely relative concentrations of the daughter products of PCE decay at the time of the maximum future PCE concentration at the Site, and then compare these concentrations to the appropriate environmental standards. In order to understand the maximum expected concentration of each of the daughter products at the time of maximum PCE concentration, a simulation using BIOCHLOR22 was performed.
- In order to evaluate the potential for PCE and/or its degradation products to be present in Nancy Creek above ISWQS, a groundwater to surface water mixing calculation was performed. The concentrations for PCE, TCE, DCE and VC in groundwater predicted in the previously modeled sections were then blended based on modeled groundwater discharge and the volume of flow in Nancy Creek at the Site at 7Q10 conditions.

Based on the modeling exercises completed, the plume will likely remain stable or decrease over the next 60 years. The plume generally appears to migrate down the axis of the Nancy Creek valley on the northern side of the creek. Generally, the overall plume distribution appears to be monitored adequately by the existing well network. Given these observations, the following conclusions/recommendations were made:

- The predicted plume footprint does not expand substantially beyond the existing monitoring well network;
- As the source area is depleted, the center of maximum plume concentration will slowly migrate and continue to degrade as it migrates toward Nancy Creek;
- The maximum modeled concentration of PCE is predicted to discharge to Nancy Creek approximately 41 years after the source remediation effort conducted in 2008;
- Mixing calculations for the predicted maximum concentrations of PCE and daughter products in Nancy Creek indicate that ISWQS will not be exceeded; and
- No other receptors for the groundwater plume are present within the existing or predicted footprint of the VOC plume at the Site.

The execution of this groundwater and surface water sampling plan, followed by an update of the fate and transport modeling using the additional data, will be used to confirm the exposure pathway predictions above.

3.0 MONITORING PLAN

Based upon the assessment and fate and transport modeling of the dry cleaner COI release on the Fashion Care property, it has been determined that groundwater and surface water monitoring should be conducted at the Site to confirm potential receptors identified during these activities will not be exposed to the COI in the future.

3.1 Groundwater and Surface Water Monitoring

In order to confirm the predicted exposure trends for the Site, a limited groundwater and surface water sampling plan is to be initiated, and the data acquired will be input into the contaminant transport model to confirm the current results.

Sampling will be conducted using the following network of existing monitoring wells and surface water locations for two consecutive annual sampling events. The locations are shown on Figure 4 and monitoring well construction logs are attached.

- Monitoring Wells: FMW-4, FMW-6, FMW-9, FMW-12, and FMW-16
- Surface Water Locations: SW-1, SW-2 and SW-3.

Samples will be collected for Target Compound List (TCL) volatile organic compounds (VOCs), and sample results will be evaluated for the site-specific VOC list previously approved under the VRP and provided in Table 1. At the conclusion of the second sampling event, the data acquired will be input into a fate and transport model to confirm the current results. Annual monitoring reports will be submitted to the EPD VRP. The second annual monitoring report will also present the results of the fate and transport modeling with recommendations based upon the results.

It is noted that should a detection of COI be found in surface water during the implementation of the VRP Monitoring Plan, the Surface Water Corrective Action Plan presented in the Semiannual Status Report dated July 2, 2014, and approved by the EPD, will be implemented. No constituents associated with the release of PCE at the Site have been identified in Nancy Creek to date.

The annual sampling events will be conducted in early December of each year, to begin the year this Plan is approved. December has been chosen based upon ease of accessibility to the monitoring well locations on the Asl Limited Partnership property due to heavy undergrowth. Reporting of the sampling results is presented in Section 3.3 below.

3.1.1 Groundwater Sampling

Monitoring wells FMW-4, FMW-6, FMW-9, FMW-12, and FMW-16, will be sampled for Target Compound List (TCL) volatile organic compounds (VOCs) and analyzed by Method 8260B. Prior to sampling, groundwater elevation measurements will be collected from all the monitoring wells on the Site. This data will be used to construct a potentiometric surface map of the water table (upper water bearing zone) representative of the sampling event.

Groundwater sampling was conducted in accordance with USEPA Region 4 Field Branches Quality System and Technical Procedures in effect at the time of sampling. Sampling will be conducted using a peristaltic pump and the low flow/low stress method. Field measurements of pH, conductivity, dissolved oxygen, oxidation-reduction potential and temperature will be collected until all parameters have stabilized within approximately 10 percent for three consecutive readings. When this stabilization point is reached, samples will be collected for TCL VOCs using the pipette method. A groundwater sampling data sheet will be completed for each monitoring well sampled to record the conditions under which the sampling was conducted, procedures followed, measurements recorded, and other pertinent information. The groundwater sampling data sheet will be provided in the Annual Report submitted to the EPD.

Groundwater samples will be secured in an ice-filled cooler and hand delivered to the laboratory for analysis. Laboratory work orders, and chain-of-custody documents, which include information on project name and number, sampler(s) signature, project manager's name, sample matrix, sample identification/station ID number, date and time of sample collection, total number of containers per sample station, requested analyses and number of containers per analyses per sample station, preservatives, and any other pertinent comments for the laboratory, will be placed within each cooler for delivery.

3.1.2 Surface Water Sampling

Surface Water Locations SW-1, SW-2 and SW-3, will be sampled for TCL VOCs and analyzed by Method 8260B. Three surface water sampling locations were established to consistently evaluate the effect of the groundwater plume intersecting Nancy Creek. The locations are shown on Figure 4 and are described as follows:

- SW-1, located upgradient and outside the area where the groundwater plume intersects Nancy Creek;
- SW-2, located downstream of SW-1 and within the area where the groundwater plume intersects Nancy Creek; and
- SW-3, located downstream of SW-2 and within the area of highest impacts where the groundwater plume intersects Nancy Creek.

Surface water elevation measurements will be collected at each sample location based on an established elevation reference point for each location. This data will be used in the construction of the potentiometric surface map representative of the sampling event.

The sampling will proceed from the downstream location to the upstream location. Sampling will be conducted using a pre-cleaned stream sampler that extends on a pole up to reach out into the stream, or other appropriate method. Samples will then be transferred to the sample containers (40 ml vials w/ preservative) provided by the laboratory. This will be done for safety reasons due to the height of the stream bank on the Asl Limited Partnership property side of the stream. The samples will be collected from mid-depth in the center of the stream. A surface water sampling

data sheet will be completed for each sample location to record the conditions under which the sampling was conducted, procedures followed, measurements recorded, and other pertinent information. The sampling data sheet will be provided in the Annual Report submitted to the EPD.

Surface water samples will be secured in an ice-filled cooler and hand delivered to the laboratory for analysis. Laboratory work orders and chain-of-custody documents, which include information on project name and number, sampler(s) signature, project manager's name, sample matrix, sample identification/station ID number, date and time of sample collection, total number of containers per sample station, requested analyses and number of containers per analyses per sample station, preservatives, and any other pertinent comments for the laboratory, will be placed within each cooler for delivery.

3.2 Fate and Transport Modeling

Contaminant transport modeling will be conducted after receiving the second annual round of groundwater and surface water sample results. Modeling will be conducted to evaluate the potential for additional exposure pathways to arise, and for known exposure pathways to become complete at levels that could impact potential receptors above regulatory limits. Modeling conducted in 2015 and provided in the VRP CSR dated April 7, 2015, indicated that no receptors would be impacted above regulatory limits. The known receptors are the portions of the properties that have been impacted by the migration of the groundwater contaminant plume and Nancy Creek, which receives discharge from the plume.

Contaminant transport will be evaluated using the following steps, or alternate method approved by the EPD in advance:

- Modeling of the transfer of soil contamination to the groundwater flow system by modeling the transfer of contaminant mass to the groundwater system with a soil flushing calculation.
- Groundwater modeling of flow and contaminant transport for the Site. Three-dimensional groundwater flow will be simulated using MODFLOW 2000 (Harbaugh et al, 2000) or current version.
- MT3DMS (Zheng and Wang, 1999) computer code will be used to simulate contaminant transport. MT3DMS is a code for simulating transport of contaminants in three dimensions and uses the outputs from MODFLOW to calculate simulated transport in groundwater.
- Contaminant transport modeling will be conducted in three distinct steps. The first step will model the distribution of total dissolved VOCs in the groundwater. The second step will model the anticipated maximum concentration of PCE in the future, as this compound is the most prevalent compound at the Site with the lowest ISWQS. The third step will evaluate the likely relative concentrations of the daughter products of PCE

decay at the time of the maximum future PCE concentration at the Site, and then compare these concentrations to the appropriate environmental standards. In order to understand the maximum expected concentration of each of the daughter products at the time of maximum PCE concentration, a simulation using BIOCHLOR22 will be performed.

- In order to evaluate the potential for PCE and or its degradation products to be present in Nancy Creek above ISWQS, a groundwater to surface water mixing calculation will be performed. The concentrations for PCE, TCE, DCE and VC in groundwater predicted in the previous modeled sections will be blended based on modeled groundwater discharge and the volume of flow in Nancy Creek at the Site at 7Q10 conditions.

Based on the modeling exercises completed, the plume will be evaluated relative to:

- The predicted plume's footprint potential to expand substantially beyond the existing monitoring well network;
- As the source area is depleted, will the plume continue to degrade as it migrates toward Nancy Creek;
- When the maximum modeled concentration of PCE is predicted to discharge to Nancy Creek;
- Based upon the mixing calculations for the predicted maximum concentrations of PCE and daughter products to enter Nancy Creek, will ISWQS be exceeded; and
- Are any other receptors for the groundwater plume present within the existing or predicted footprint of the VOC plume at the Site?

These results will then be compared to the modeling results provided in the Contaminant Transport Modeling Report in the VRP CSR dated April 7, 2015, to determine if the monitoring of the Site should be continued, or if a proposal should be provided to EPD to end the VRP Monitoring Plan.

3.3 Annual Reporting

Two annual reports will be prepared and submitted to the EPD following the annual sampling events. The first Annual Monitoring Report will be submitted within three weeks following receipt of the laboratory data report. The report will:

- Summarize the field activities conducted;
- Tabulate the current and previous sample results, and compare the results to applicable regulatory standards approved for the Site for groundwater and surface water;

- Present the current laboratory results on a Site map showing the extent of the groundwater plume and surface water detections relative to regulatory standards and provide maps from previous events;
- Present a current potentiometric surface map based upon the current sampling event measurements collected, and provide maps from previous events;
- Provide graphs of concentration vs. time of the current and previous results from individual monitoring wells sampled;
- Provide laboratory data reports and sampling data sheets completed for the sampling event; and
- Provide narrative that evaluates the information presented.

The second Annual Monitoring Report will be submitted within six weeks following receipt of the laboratory data report. The additional time will be utilized to conduct the fate and transport modeling described in Section 3.2. Fate and transport modeling will be conducted using the data acquired from the two annual sampling events. The report will include the same information provided in the first Annual Monitoring Report, and:

- Text, tables and figures that describe the fate and transport modeling of the data;
- Provide an evaluation of the modeling results relative to the previous modeling results conducted in 2014;
- Provide an evaluation of current and future exposure pathways as described in Section 3.2; and
- Provide a recommendation on ending or continuing the VRP Monitoring Plan based upon the results and evaluation of the past two years of data and fate and transport model predictions.

3.4 Termination of Plan

This VRP Monitoring Plan is currently scheduled to be implemented for a two-year period to confirm if the exposure pathway conclusions drawn in the VRP CSR submitted April 7, 2014 are confirmed. The full data set acquired during the two-year monitoring period will be evaluated as described in the previous Sections of this Plan. Based upon the results of this evaluation, a recommendation will be made to EPD to terminate this Plan and conclude that all activities for the Site under the VRP are complete, or to make alternative recommendations to further evaluate the exposure pathways.

Should the conclusions drawn in the Annual Monitoring Report submitted following the second annual sampling event confirm the exposure pathway evaluations presented in the VRP CSR, and the EPD agrees with this conclusion; all the monitoring wells remaining on the Site that are part of the VRP will be properly abandoned in accordance with EPD abandonment requirements in effect at that time. A letter report will be submitted to the EPD following abandonment to confirm that this task has been completed to conclude all Site activities.

TABLES

Table 1
Constituents of Interest
 Fashion Care/Executive Care VRP Site (HSI #10786)
 2211 Savoy Drive, Chamblee, Georgia

Drycleaner Related Constituents
Tetrachloroethene (PCE)
cis-1, 2-Dichloroethene
trans-1, 2-Dichloroethene
1, 1-Dichloroethene (1,1-DCE)
Trichloroethene (TCE)
Vinyl Chloride (VC)
NON-COI IDENTIFIED
Petroleum Related Constituents
1, 1-Dichloroethane
1,2-Dibromoethane (EDB)
2-Butanone (MEK)
2-Hexanone
4-Methyl-2-pentanone (MIBK)
Benzene
Toluene
Ethylbenzene
Total Xylenes
Cyclohexane
Isopropylbenzene
Methylcyclohexane
MTBE
Styrene
Fumigant-Insecticide
1,2 Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Chlorobenzene
Laboratory Artifact and/or Naturally Occurring
Acetone

FIGURES

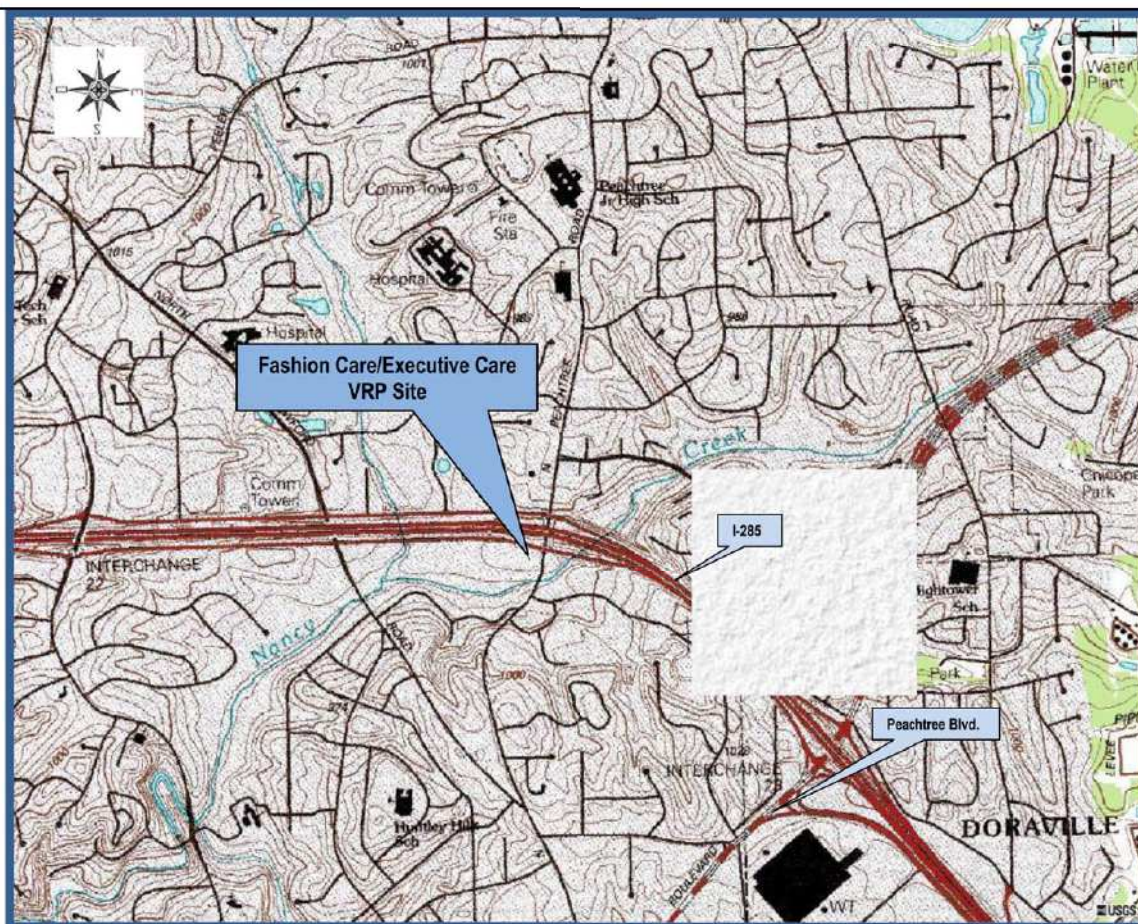



Image courtesy of the U.S. Geological Survey

SCALE: NTS	DATE: 4-2-15	PROJECT NO: 2015.0058.02	TITLE: SITE LOCATION MAP FASHION CARE/EXECUTIVE CARE VRP SITE 2211 SAVOY DRIVE, CHAMBLEE, GEORGIA	FIG. 1
PREPARED: VPV	CHECKED:	REVISIONS:		
CLIENT: ROWAN TRUST			 <i>We're here for you</i> UNITED CONSULTING 625 Holcomb Bridge Road Norcross, Georgia 30071 770-209-0029 Fax 582-2900 www.unitedconsulting.com Copyright © United Consulting Group, Ltd.	

[illegible]

FIG. 2

CLIENT: ROMAN TRUST	SCALE: P = 1/60'	DATE: 4-2-15	PROJECT NO: 2005.0058.02	TITLE: TAX PARCEL MAP FASHION CARE/EXECUTIVE CARE VPP SITE 221 SAVOT DRIVE, CHAMBLEE, GEORGIA
		CHECKED:	REVISIONS:	
PREPARED BY VPP		<div>  <div> <p><i>We have you</i></p> <p>UNITED CONSULTING</p> </div> </div>		
825 Hickory Bluff Road Norcross, Georgia 30071 770-494-0009 Fax 770-494-0000 Email: info@unitedconsulting.com Website: www.unitedconsulting.com				

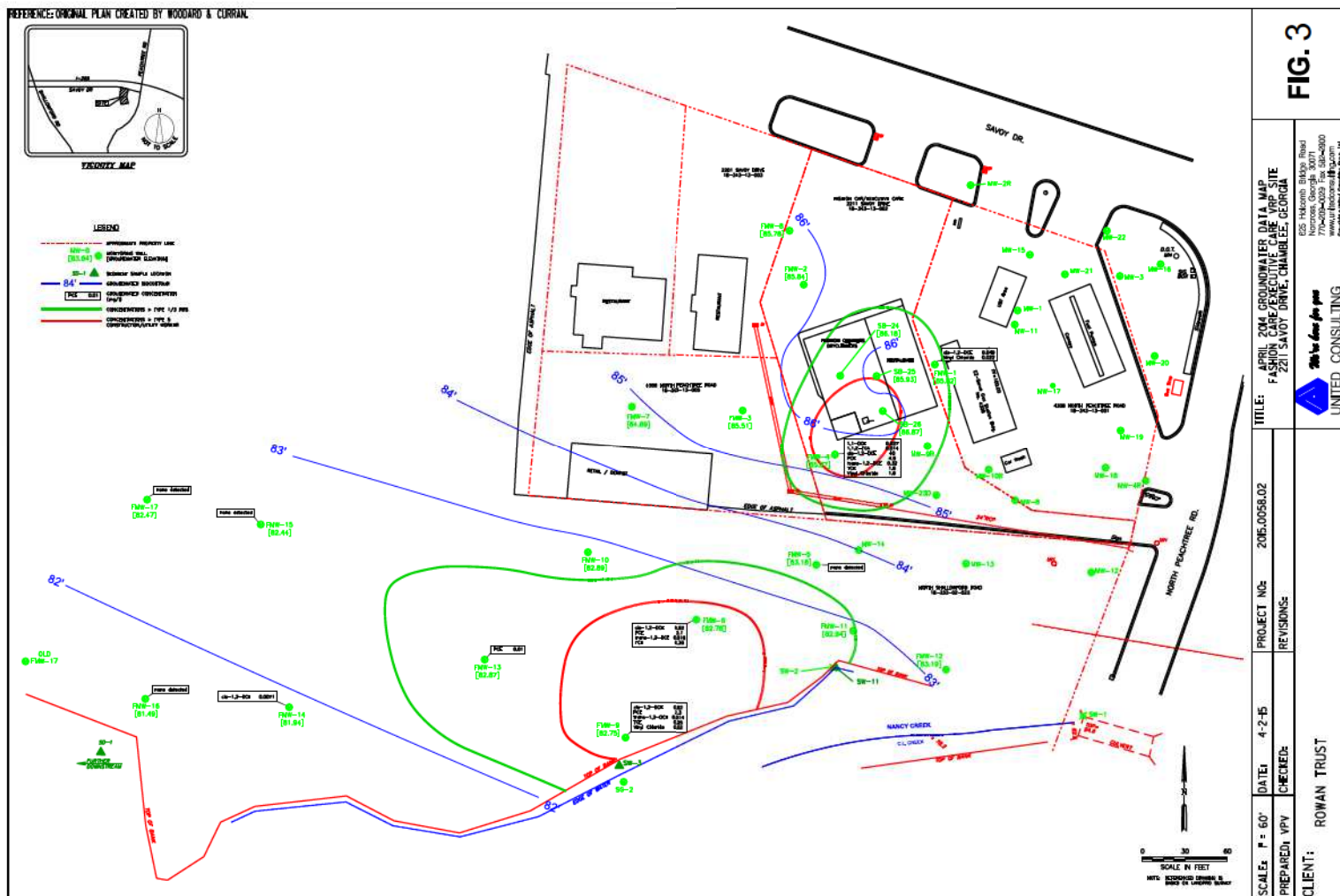

[illegible]

FIG. 3

LE: APRIL 2014 GROUNDWATER DATA MAP
FASHION CARE/EXECUTIVE CARE VRP SITE
221 SAVOY DRIVE, CHAMBLEE, GEORGIA

 *20+ yrs done for you*
UNITED CONSULTING

625 Holcomb Bridge Road
Norcross, Georgia 30071
770-429-0259 Fax 770-4000
www.floodcon.com

PROJECT NO: 2015.0058.02

4-2-15

SCALE: $\mu = 60^\circ$



REVISIONS:

REF

PREPARED: VPV

ROWAN TRUST

APPROPRIATE PROPERTY LINK

SWW-6		HEAVYWEIGHT WELL DRILLING IN LONG-TERM MONITORING PROGRAM
SWW-8		HEAVYWEIGHT WELL NOT INCLUDED IN LONG-TERM MONITORING PROGRAM
SWW-1		SUPPLY WIRE SAMPLE LOCATION LONG-TERM MONITORING PROGRAM

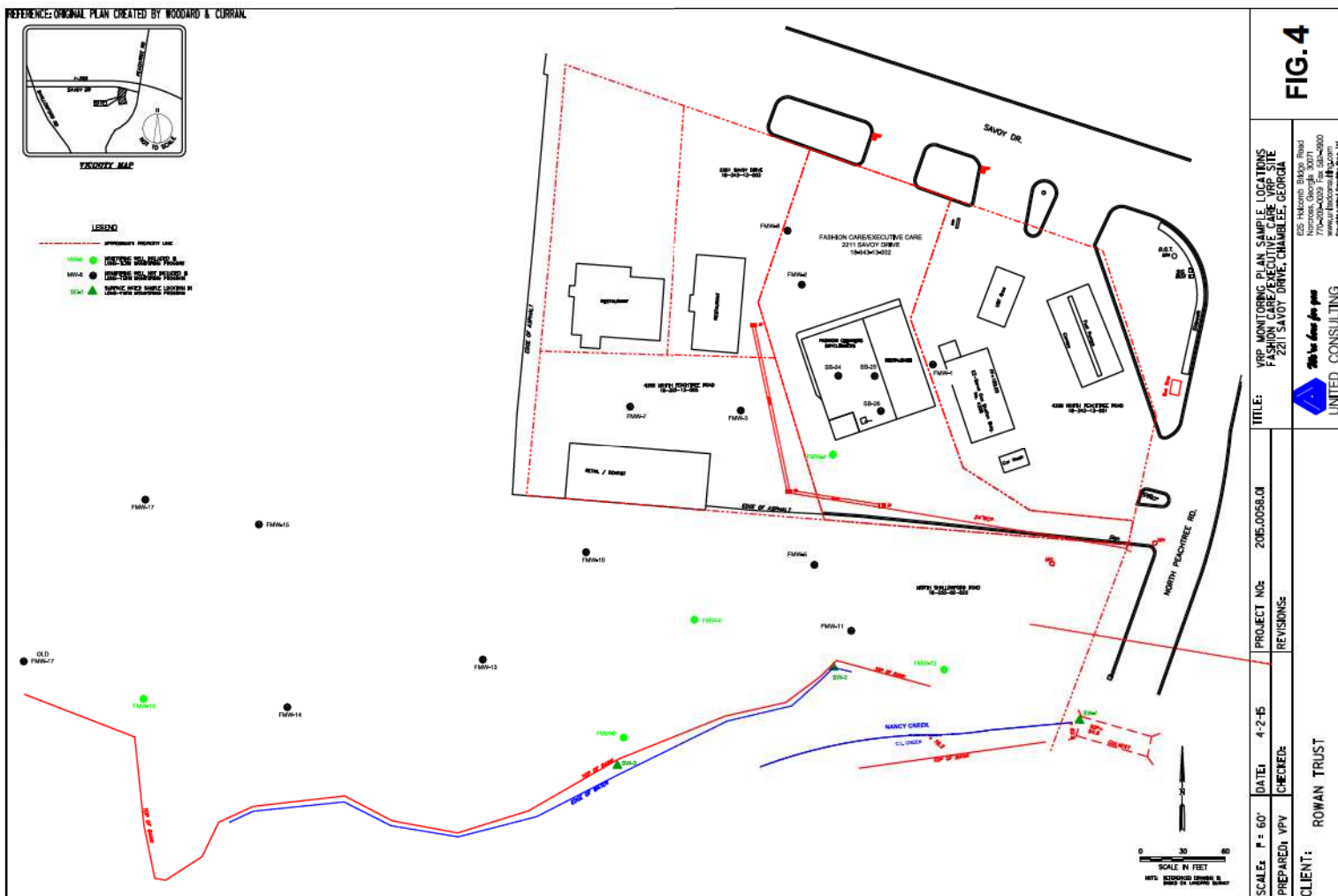


FIG. 4

FILE: VRP MONITORING PLAN SAMPLE LOCATIONS
CASHIOW CAVE/EXECUTIVE CAVE VRP SITE

PROJECT NO: 2015.0058.01

DATE: 4-2-15

SCALE $\Gamma = 60^\circ$

PREPARED: VPV	CHECKED: _____
---------------	----------------

FASHION CARE/EXECUTIVE CARE VAP SITE
221 SAVOY DRIVE, CHAMBLEE, GEORGIA
800-444-4444, 404-444-4444

We're here for you
225 Hickman Bridge Road
Norcross, Georgia 30071
770-293-0029 Fax 582-2900
www.acehardware.com

MONITORING WELL CONSTRUCTION LOGS



MONITOR WELL LOG - FLUSH MOUNT

	Constr. Start	Constr. Finish
Time	1000	1150
Date	9/4/08	9/4/08

Well ID	FMW-4
Project No.	08096
Geol./Eng.	Joe King/L. Diprima
Driller	Atlas Geo Sampling

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<p align="center">Top cap and lock <i>Ground surface</i></p>	
<p>Concrete pad and <u>8</u> -inch diameter, flush-mounted manhole Drainage gravel</p> <p><u>7 1/4</u> -inch diameter borehole</p> <p>Sch 40 PVC riser pipe material <u>2</u> -inch diameter riser pipe <u>15</u> -ft. long riser pipe</p> <p align="center">Type Grout Type 1 A Portland</p> <p align="center">Type Seal Pure Gold Bentonite Med Chip</p> <p>Sch 40 PVC Screen Material <u>2</u> -inch diameter screen <u>0.010</u> -inch screen slot size <u>10</u> -ft. long screen</p> <p align="center">Type Sandpack Type 1 Filter Sand 20/30 Wash</p> <p><u>.5</u> -ft. long well plug/point</p>	<p>Depth to top of riser pipe: <u>0</u> ft. bgs</p> <p>Depth to top of grout seal: <u>.5</u> ft. bgs</p> <p>Depth to top of seal: <u>2</u> ft. bgs</p> <p>Depth to top of sandpack: <u>8</u> ft. bgs</p> <p>Depth to top of screen: <u>10</u> ft. bgs</p> <p>Depth to bottom of screen: <u>20</u> ft. bgs</p> <p>Depth to bottom of well plug/point: <u>20.5</u> ft. bgs</p> <p>Depth to bottom of borehole: <u>20.5</u> ft. bgs</p>

MONITOR WELL LOG - STICKUP

	Constr. Start	Constr. Finish
Time	1545	1710
Date	9/4/08	9/4/08

Well ID	FMW-6
Project No.	8096
Oversight:	Joe King/L. Diprima
Driller:	Atlas GEO Sampling

5 -ft. long protective casing with lock

Top cap

Height of top of riser pipe: 3.05 ft. ags

Ground surface

2 -ft. x 2 -ft. x 2 -ft. concrete pad and -inch diam. or square protective casing

7/4 -inch diameter borehole

Sch 40 PVC riser pipe material

2 -inch diameter riser pipe

8.55 -ft. long riser pipe

Type 1A Portland type grout

-lb. bags x bags = lbs.

+ type of water

Pure Gold Bentonite Med Chip type seal

-lb. bags or buckets x bags or buckets

= lbs. + type of water

Sch 40 PVC screen material

2 -inch diameter screen

0.010 -inch screen slot size

10 -ft. long screen

Type 1 Filter Sand 20/30 Wash type sandpack

-lb. bags x bags = lbs.

placement

0.25 -ft. long sump

0.25 -ft. long well plug/point

Depth to top of seal: 1 ft. bgs

Depth to top of sandpack: 3 ft. bgs

Depth to top of screen: 5.5 ft. bgs

Depth to bottom of screen: 15.5 ft. bgs

Depth to bottom of sump: 15.75 ft. bgs

Depth to bottom of well plug/point: 16 ft. bgs

Depth to bottom of borehole: 16 ft. bgs

NOT TO SCALE

MONITOR WELL LOG - STICKUP

	Constr. Start	Constr. Finish
Time	1400	1445
Date	11/25/08	11/25/08

Well ID	FMW-9
Project No.	8096
Oversight:	Joe King/L. Diprima
Driller:	Atlas GEO Sampling

5 -ft. long protective casing with lock

Top cap

Ground surface

2 -ft. x 2 -ft. x 2 -ft. concrete pad

and -inch diam. or square protective casing

7 1/4 -inch diameter borehole

Sch 40 PVC riser pipe material

2 -inch diameter riser pipe

9.7 -ft. long riser pipe

Type 1A Portland type grout

-lb. bags x bags = lbs.

+ type of water

Pure Gold Bentonite Med Chip type seal

-lb. bags or buckets x bags or buckets

= lbs. + type of water

Sch 40 PVC screen material

2 -inch diameter screen

0.010 -inch screen slot size

10 -ft. long screen

Type 1 Filter Sand 20/30 Wash type sandpack

-lb. bags x bags = lbs.

placement

0.25 -ft. long sump

0.25 -ft. long well plug/point

Height of top of riser pipe: 3.7 ft. ags

Depth to top of seal: 1 ft. bgs

Depth to top of sandpack: 3 ft. bgs

Depth to top of screen: 6 ft. bgs

Depth to bottom of screen: 16 ft. bgs

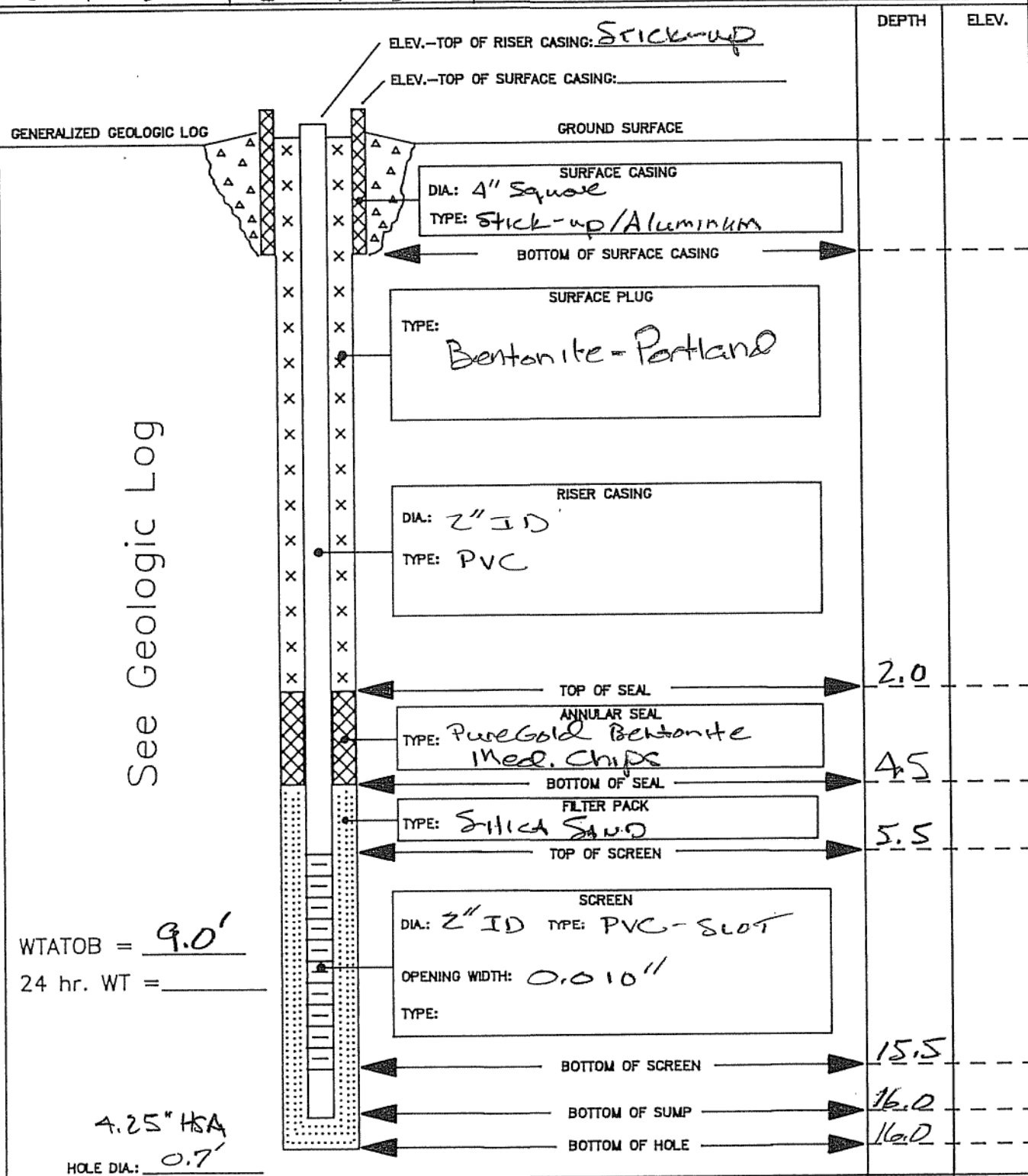
Depth to bottom of sump: 16.25 ft. bgs

Depth to bottom of well plug/point: 16.5 ft. bgs

Depth to bottom of borehole: 16.5 ft. bgs

NOT TO SCALE

MONITORING WELL		PROJECT <u>FASHION CARE</u>	WELL NO. <u>FMW-12</u>
SITE <u>08096</u>		LOCATION <u>2211 SAVOY DR. CHAMBLEE, GA</u>	
BEGUN <u>3-17-10</u>	COMPLETED <u>3-17-10</u>	CONSTRUCTED BY <u>ARLAS</u>	



See Geologic Log

WTATOB = 9.0'
24 hr. WT = _____

4.25" H&A
HOLE DIA: 0.7'

MONITORING WELL		PROJECT	WELL NO.
SITE		LOCATION	
08096		2211 Savoy Dr, Chamblee, GA	
BEGUN	COMPLETED	CONSTRUCTED BY	
6-15-10	6-15-10	Atlas	

GENERALIZED GEOLOGIC LOG		DEPTH	ELEV.
<p>ELEV.-TOP OF RISER CASING: _____</p> <p>ELEV.-TOP OF SURFACE CASING: _____</p> <p>GROUND SURFACE</p> <p>SURFACE CASING</p> <p>DIA: 4" Square</p> <p>TYPE: Stick-up Aluminum</p> <p>BOTTOM OF SURFACE CASING</p> <p>SURFACE PLUG</p> <p>TYPE: Bentonite-Portland</p> <p>RISER CASING</p> <p>DIA: 2" ID</p> <p>TYPE: PVC</p> <p>TOP OF SEAL</p> <p>ANNULAR SEAL</p> <p>TYPE: Bentonite Chips - Med</p> <p>BOTTOM OF SEAL</p> <p>FILTER PACK</p> <p>TYPE: Silica Sand</p> <p>TOP OF SCREEN</p> <p>SCREEN</p> <p>DIA: 2" ID</p> <p>TYPE: Slot</p> <p>OPENING WIDTH: 0.010"</p> <p>TYPE: PVC</p> <p>BOTTOM OF SCREEN</p> <p>BOTTOM OF SUMP</p> <p>BOTTOM OF HOLE</p>		<p>2.5</p> <p>4.5</p> <p>6.5</p> <p>11.5</p> <p>12.0</p>	

See Geologic Log

WTATOB = ~6.0'

24 hr. WT = _____

HOLE DIA: 4.25 KA