



May 6, 2008

Mr. James Richmond  
Maryland Department of the Environment  
Oil Control Program  
1800 Washington Boulevard, Suite 620  
Baltimore, MD 21230-1719

- *Engineering*
- *Remediation*
- *Consulting*

**Re: Supplemental Work Plan Addendum  
Green Valley Citgo  
11791 Fingerboard Road  
Monrovia, Maryland  
MDE Case # 2005-0834-FR**

Dear Mr. Hill:

Environmental Alliance, Inc. (Alliance), on behalf of Carroll Independent Fuel Company (CIFIC) is submitting a work plan addendum to the Site Conceptual Model and Supplemental Work Plan that was submitted to Maryland Department of the Environment (MDE) on May 7, 2007, and was approved by the MDE in a directive dated June 27, 2007.

Based on the information collected since the initial work plan, a change in the shallow well construction and installation is proposed. During the installation of the soil vapor extraction points (SV-1 through SV-3) in May and June 2007, the soils in the vicinity of the potential source area (tank field) were continuously logged and screened. Due to the subsurface geology, the split spoon sampling was ineffective (minimal split spoon recovery) and the soil sampling results indicate that concentrations were not detected above standards. Therefore, a modification to the soil boring installation scope of work is proposed in order to further evaluate groundwater impacts and not soil, as originally proposed.

### **SUBSURFACE INVESTIGATION WORK PLAN ADDENDUM**

The proposed addendum to the work plan included mobilization with an air rig to install the four proposed shallow monitoring wells to a maximum depth of 60-feet below grade surface (bgs). The monitoring wells will be drilled to a sufficient depth to intercept first groundwater beneath the site. In order to properly seal off the top portion of the overburden, to prevent caving, the upper portion of the monitoring wells will be constructed using steel casing. The air rotary drill rig will first be equipped with a nominal twelve-inch drill bit to drill a twelve-inch borehole to a depth between eight and ten feet below ground surface (bgs). Eight-inch diameter, 3/8-inch thick steel casing will be fitted with a drive shoe and installed to the total depth of the initial borehole.

*Maryland Office: 1035 Benfield Boulevard, Suite I, Millersville, MD 21108 410-729-9000 410-729-9001 Fax*

*Corporate Office: 1812 Newport Gap Pike Wilmington, DE 19808 302-995-7544 302-995-0941 Fax www.envalliance.com*

Grout will then be tremie grouted/pumped into the annulus between the eight-inch steel casing and the borehole to grade.

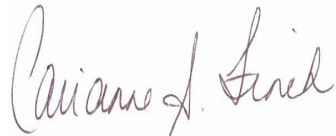
After allowing the grout to set at least 12-hours, a nominal eight-inch drill bit will be used to drill to the first water bearing zone (estimated total depth of 60 feet bgs). The monitoring wells will be left as open boreholes within the bedrock to allow for the collection of groundwater and for potential future geophysical logging events. The actual monitoring well construction depths will be based upon depth to bedrock, depth to where first groundwater was encountered, and soil boring lithology evaluated in the field. The completed monitoring wells will be finished with locking well caps and bolt-down watertight flushmount manholes as required by COMAR.

Once the groundwater sampling and geophysical logging event is completed, Alliance will evaluate the need to convert each eight-inch open borehole monitoring well to a four-inch PVC monitoring well. Should the wells be completed with PVC casing the well screen will be based on the location of the water bearing zone and an appropriate amount of four-inch PVC screen would be placed at the bottom of the borehole and intersect the water table interface. Four-inch PVC casing would be placed in the rest of the borehole and will stop at the top of the steel casing. A proper seal will be developed around the four-inch PVC monitoring well.

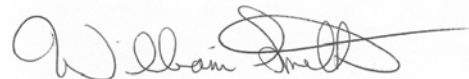
Recommendations for further investigation steps or corrective action will be developed and presented to MDE for approval as necessary to continue the investigation work plan and/or implement potential interim actions while the full site characterization is being completed.

If you have any questions or if further information is required please contact the undersigned at (410) 729-9000. Thank you for your time.

Sincerely,  
**ENVIRONMENTAL ALLIANCE, INC.**



Carianne A. Finch  
Maryland Operation Manager/Engineer



William Smith  
Principal Geologist

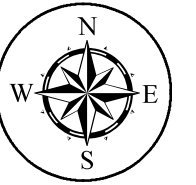
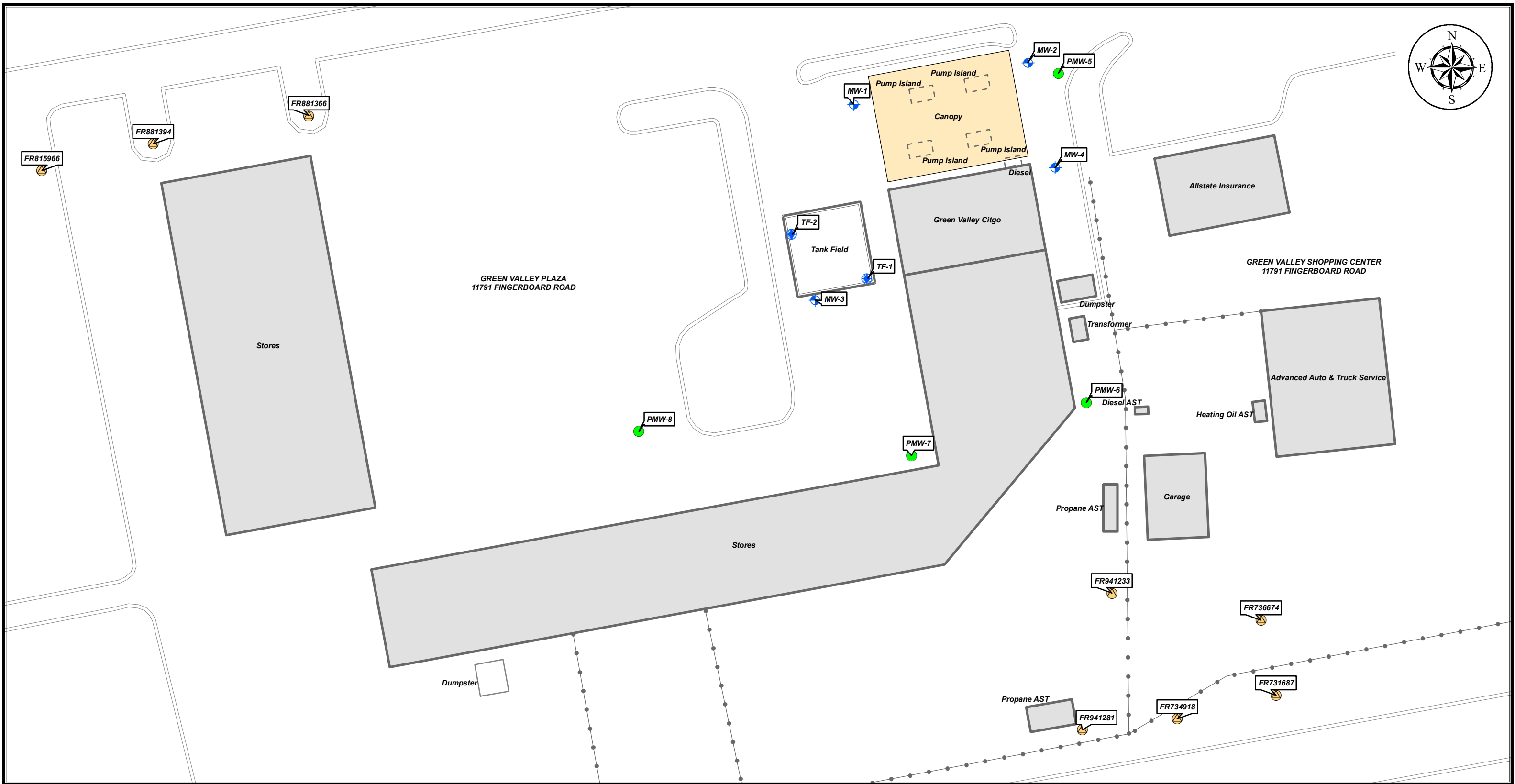
**ATTACHMENTS:**

**Figure 1:** Proposed Monitoring Well Location Map

C: Ms. Yolande Norman, MDE – Oil Control (2 copies and CD)  
Ms. Susan Bull, MDE – Oil Control  
Mr. George Keller, Frederick County Health Department  
Mr. Samir Andrawos, Timbercrest Ltd.

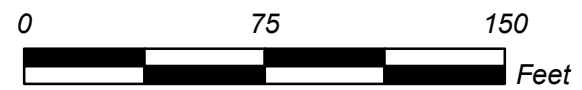
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**FIGURE**



**Legend**

- Monitoring Well
- Observation Well
- Proposed Monitoring Well
- Curb
- Fence
- Building
- Canopy
- Dumpster
- Pump
- Tank Field



1 inch equals 60 feet



Environmental Alliance, Inc.

1035 Benefield Boulevard, Ste 1 - Millersville, MD 21108  
 Phone: (410) 729-9000 - Fax: (410) 729-9001

**GREEN VALLEY CITGO**  
 11791 FINGERBOARD ROAD  
 MONROVIA, MARYLAND

**PROPOSED WELL LOCATION MAP**

|                  |                                       |                       |                        |
|------------------|---------------------------------------|-----------------------|------------------------|
| DRAWN BY:<br>AGG | FILE NAME:<br>1953-Area Map<br>(4-06) | SCALE:<br>SEE DRAWING | FIGURE NO:<br><b>1</b> |
| APPROVED BY:     | PROJECT NO:<br>1953                   | DATE:<br>4/10/07      |                        |