

**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
INDIANAPOLIS**

**OFFICE MEMORANDUM**

Date: August 9, 2012

To: Joy Krutek  
State Cleanup Section

Thru: Steve Buckel, Chief *8-9-12*  
OLQ Science Services Branch  
Chemistry Services Section

From: Craig A. Pender *CAP 8/9/2012*  
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Chemistry Services Section

Subject: Analytical Results for Marvel Cleaners  
Fort Wayne, Allen Co., Indiana  
Site #201009100/LZ70S  
VFC Document #66496487  
Sampled: December 6 and 7, 2011, January 18, 23, and 26, 2012  
Sample Numbers: DP-12 – DP-14 (Grab Ground Water)  
DP-10 – DP-14 (Soil Samples)  
MW-1 – MW-3, DP-10 (Ground Water Samples)  
  
ENVision

The analytical results for the samples identified above have been validated according to the quality criteria contained in the Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Third Edition, and its updates. Based on the evaluation, it has been determined that the results are partially acceptable for use. Reasons that data are qualified as estimated are explained below.

General Comments:

The purpose of this event was to collect soil and ground water samples in order to define the extent of contamination. The collected samples were analyzed for Volatile Organic Compounds (VOCs).

Sampling Quality Assurance/Quality Control:

Field documentation did allow for interpretation of the data.

Field duplicate samples are used to establish the representativeness of field sampling (i.e., the homogeneity and sample variability). Field duplicates were collected from DP-13 (grab ground water sample), DP-10 (22-24) (soil sample), and MW-2 (ground water

sample). The duplicate samples for this study were in good agreement.

Field blanks (trip and/or equipment) are used to identify sample contamination resulting from sampling equipment, sample containers, chemical preservatives, and the handling and transportation of samples. The trip blank was collected for all ground water samples and nothing was detected. The equipment blank was not collected since dedicated equipment was used for all sample collection.

According to the report, soil samples were collected in accordance with EPA Method SW846-5035A. The samples were analyzed 4 days after sample collection; however, the report does not state what specific preservation method(s) in Method 5035A were utilized. Therefore, it is unknown if the samples were analyzed within technical hold times. Results, for soil samples are estimated with a low bias.

#### Laboratory Quality Assurance/Quality Control:

The laboratory performed all quality assurance/quality control (QA/QC) measures necessary to validate the analytical results for this sampling event. The data was determined to be valid. Based on the validation of the analytical results, the following comments and/or qualifications are made regarding the data:

#### **VOC Analysis (Grab Ground Water Samples)**

Grab ground water samples were analyzed for VOCs by EPA Method SW846-8260. All QA/QC criteria were satisfactorily met.

#### **VOC Analysis (Soil Samples)**

Soil samples were analyzed for VOCs by EPA Method SW846-8260. All QA/QC criteria were satisfactorily met.

#### **VOC Analysis (Ground Water Samples)**

Ground water samples were analyzed for VOCs by EPA Method SW846-8260.

Cis-1,2-Dichloroethene (cis-1,2-DCE) had a high matrix spike (MS) percent recovery and a high MS/Matrix Spike Duplicate (MSD) relative percent difference (RPD). Results for cis-1,2-DCE are biased high.

All other QA/QC criteria were satisfactorily met.

#### Conclusions:

The data are usable for the overall project goal.