



November 11, 2016

Ms. Dianne Robertson
Village of Thiensville
250 Elm Street
Thiensville, WI 53092

Subject: Additional Site Investigation Needed
Riemer's Flowers (Former Dry Cleaner), 136 N. Main Street, Thiensville, WI
DNR BRRTS # 02-46-560053
FID # 246166250

Dear Ms. Robertson:

The Department of Natural Resources (DNR) has reviewed the March 10, 2016, *Soil and Groundwater Monitoring – Status Update* document for the Subject site, as submitted by Moraine Environmental Inc., your environmental consultant. This letter is to inform you of additional work necessary to complete site investigation requirements. We request that within 60 days of this letter, you or your consultant provide a written response regarding the necessary work and a schedule for completion of the work.

Soil Investigation

Delineation of tetrachloroethene (PCE) west of monitoring well MW-1 is incomplete. Figure B.2.a of the March 2015 closure request (Pre-Remedial Soil Contamination figure) indicates impacts in the Main Street right-of-way (ROW). Impacts in this ROW must either be delineated through soil sample collection or an explanation given as to why soil impacts in this area do not warrant additional investigation. Impacts to the north of MW-1 are delineated by boring B-9 soil samples, therefore any impact contour should not extend to encompass the B-9 location in figures submitted.

Groundwater Investigation

Although sampling data from temporary monitoring wells have assisted in identifying areas of impacts to site groundwater, the installation of NR 141 compliant monitoring wells is necessary to obtain multiple rounds of data for trend analysis, groundwater flow characterization and ultimately a closure decision. Vertical delineation of the plume is also necessary considering the type of contaminants and site conditions. Please install a monitoring well south of the current building near the former TW-7 well location. Also install a monitoring well and a piezometer in the area of TW-13. The piezometer should be screened to assist in vertical delineation of contamination and determining a groundwater gradient. Soil samples should be collected above the water table and in the upper 4 feet during well installation and should be logged, field screened and analyzed for volatile organic compounds (VOCs). A minimum of two quarters of groundwater samples should be collected from all onsite investigation wells and analyzed for VOCs.

In the closure request of April 1, 2015 it was stated that the potable well for the former building at 136 North Main Street was to be abandoned as part of site development. It was also stated that the high-capacity well located on the 128-134 North Main Street property would be operated for the new building constructed at that location. In the December 16, 2013 *Site Investigation Work Plan*, submitted by Moraine to the DNR, it was stated that there was a second potable well on the 128-134 North Main Street property near the high capacity well. Please provide the status of all current or former known potable wells onsite. Collect a water sample from any potable wells onsite and analyze for VOCs, documenting sampling procedures used. For any potable or high-capacity wells that were abandoned, appropriate documentation should be submitted to the DNR prior to case closure.

Vapor Investigation

The most recent information provided indicates PCE, trichloroethylene (TCE) and vinyl chloride (VC) concentrations are over state standards in groundwater beneath the onsite building. In order to determine if a vapor risk is present in this area, sub-slab vapor sampling must be conducted beneath the onsite building. Although a vapor barrier was installed below the new building, sub-slab vapor sampling is necessary to ascertain whether this form of vapor mitigation is adequate or necessary to address potential vapor migration from the impacted groundwater below the building. Please follow ch. NR 716, Wis. Adm. Code regarding vapor assessment. Refer to DNR guidance documents RR-800 and RR-986 regarding vapor sampling plans and techniques. Include a description of all underground utilities located onsite and map their locations on applicable figures.

Summary

The information provided to satisfy the above requirements may dictate additional investigation activities not described in this letter. Once the site investigation is completed, a determination will need to be made as to what additional remediation may be required prior to site closure.

Please submit a work plan for DNR approval regarding the above-requested work scope, detailing sampling plans, locations, procedures and schedule.

We appreciate your efforts to restore the environment at this site. If you have any questions concerning the site or this letter, please contact me at (414) 263-8369, or by email at adam.mcilheran@wisconsin.gov.

Sincerely,


Adam McIlheran
Project Manager - Hydrogeologist
Remediation & Redevelopment Program

cc: Thomas Ryan, Moraine Environmental, Inc. 766 Tower Drive, Fredonia, WI 53021

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