

**From:** Krueger, Sarah E - DNR  
**Sent:** Tuesday, November 30, 2021 11:07 AM  
**To:** Dombrowski, Frank J  
**Cc:** Andrew G Cawrse (Andrew.Cawrse@ramboll.com); Brian Hennings (Brian.Hennings@ramboll.com); Beggs, Tauren R - DNR  
**Subject:** RE: Former We Energies Appleton MGP - Proposed Next Steps Regarding Lawrence University Property

Frank,

DNR has reviewed your proposed next steps, and while a forensic evaluation may be used as one line of evidence to help determine origin of the Naphthalene and Benzene in groundwater it should not be used by itself to exclude contamination that would otherwise be attributed to the MGP release.

An issue not necessarily resolved by forensic analysis is that PAH mixture ratios can vary from differential weathering, degradation, and transport processes of individual PAHs; in addition to subjective assumptions on origin or starting mixtures. Additionally, graphical comparisons of ratios and other interpretations of four groundwater samples will not be statistically significant.

The proposed forensic evaluation may be used as a line of evidence as to origin; however, it should not be used by itself. This email serves as your notice to proceed and DNR concurrence with the limited work plan provided on November 15, 2021 via email.

Thank you,  
Sarah

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Sarah Krueger, P.G.

Phone: (920) 510-8277

[Sarah.Krueger@wisconsin.gov](mailto:Sarah.Krueger@wisconsin.gov)

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**From:** Dombrowski, Frank J <[frank.dombrowski@wecenergygroup.com](mailto:frank.dombrowski@wecenergygroup.com)>  
**Sent:** Monday, November 15, 2021 10:29 AM  
**To:** Krueger, Sarah E - DNR <[sarah.krueger@wisconsin.gov](mailto:sarah.krueger@wisconsin.gov)>  
**Cc:** Andrew G Cawrse ([Andrew.Cawrse@ramboll.com](mailto:Andrew.Cawrse@ramboll.com)) <[Andrew.Cawrse@ramboll.com](mailto:Andrew.Cawrse@ramboll.com)>; Brian Hennings ([Brian.Hennings@ramboll.com](mailto:Brian.Hennings@ramboll.com)) <[Brian.Hennings@ramboll.com](mailto:Brian.Hennings@ramboll.com)>  
**Subject:** Former We Energies Appleton MGP - Proposed Next Steps Regarding Lawrence University Property

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Hi Sarah,

As discussed during our October 6<sup>th</sup> meeting, we have evaluated potential paths forward with regard to the contaminants observed at the Lawrence University property. Forensic analysis of the groundwater from wells at both the Appleton MGP site and Lawrence University property is proposed to determine if the impacts observed at the property may be related to the release at the former MGP site. The goals of the analyses would be to 1) evaluate whether the samples from the affected well MW-3 are similar or different from the on site and nearby water samples, and 2) to determine the nature of the potential source materials that may have affected the Lawrence University well.

Prior to the start of the field activities, an access agreement will need to be negotiated with Lawrence University. After an agreement is executed, groundwater samples will be collected from Appleton MGP monitoring wells MW-22, MW-24, and MW-12R. The sample from well MW-12R is considered representative of dissolved phase impacts within the former MGP and wells MW-22 and MW-24 are the nearest MGP site wells upgradient and downgradient of the Lawrence University property. In addition, a groundwater sample will be collected from the impacted well (MW-3) located on the Lawrence University property. The attached Figure 1 depicts these well locations. The groundwater samples will be analyzed by Alpha Analytical for the following parameters:

- Saturated hydrocarbons (e.g., alkanes) with USEPA Method 8015 Modified
- Parent and alkylated PAHs with USEPA Method 8270 Modified
- PIANO analytes (paraffins, isoparaffins, mono-aromatics, naphthenes, olefins) based on USEPA Method 8260
- Phenols with USEPA Method 8270

Following receipt of the analytical results, the data will be qualitatively evaluated by constructing and comparing PAH, Alkane, and/or PIANO ratios and bar graphs to identify similarities among the samples and similarities to known PAH source profiles. A summary of the tasks performed during sampling event, the data analysis and interpretation, figures, tables, and laboratory reports will be provided in a tech memo. Prior to starting with this work, we are requesting WDNRs concurrence the proposed plan.

We appreciate your assistance and cooperation with this matter. Please feel free to contact me with any questions or if additional information may be needed.

Thanks,

*Frank Dombrowski*  
*Principal Environmental Consultant*

WEC Energy Group - Business Services  
Environmental Dept. - Land Quality Group  
333 W. Everett St., A231  
Milwaukee, WI 53203  
Office: (414) 221-2156  
Cell: (414) 587-4467  
Fax: (414) 221-2022

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