

## Cieslak, Douglas J - DNR

---

**From:** Cieslak, Douglas J - DNR  
**Sent:** Wednesday, July 22, 2015 5:05 PM  
**To:** Mylotta, Pamela A - DNR  
**Subject:** FW: Superior Health Linens - 2-10-2015 Workplan - BRRT 02-41-532649 FID 241780880



Superior Health  
Linens work pl...

Hi Pam,

During our meeting last week with Michele Norman, Paul Grittner, and Margrette Brunette it was decided that I would call Dave Lennon at Key and give him my comments to their work plan.

Below is the summary of our conversation. I have attached the work plan here.

Thanks for your help on this.  
~Doug

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Doug Cieslak  
Phone: (262) 884-2344  
[Douglas.Cieslak@wisconsin.gov](mailto:Douglas.Cieslak@wisconsin.gov)

---

**From:** Cieslak, Douglas J - DNR  
**Sent:** Wednesday, July 22, 2015 1:20 PM  
**To:** Dave Lennon ([dlennon@keyengineering.com](mailto:dlennon@keyengineering.com))  
**Cc:** 'jbaum777@gmail.com'; 'wjnicklas@gmail.com'  
**Subject:** Superior Health Linens - 2-10-2015 Workplan - BRRT 02-41-532649 FID 241780880

Hi Dave,

Thanks for taking your time today to talk about your non-fee workplan for this site. Based on our conversations I understand you have gained access to the adjoining railroad property to conduct additional environmental sampling that you have proposed.

### **Soil and Groundwater Sampling**

According to your map you intend to collect additional soil and groundwater samples on the railroad property within 20 feet from your previous sampling on the subject property. No permanent monitoring wells are proposed. Sampling this small of an area may not yield data necessary to define the horizontal extent of groundwater contamination. Also, using the Department's guidance, *Understanding Chlorinated Hydrocarbon Behavior in Groundwater*, RR-699, a permanent upgradient clean well is necessary for assessing the geochemistry of the groundwater entering the plume and any contaminants entering the plume. I recommend establishing a permanent monitoring well for this purpose. Some of your deepest soil samples from below the

water table ~26ft contained high concentrations of contaminants. I recommend collecting sufficient soil samples to help guide your remedial options analysis. This should include the historic ingress/egress beneath the southwest corner of the building.

**Surface Water and Sediment**

Please assess the historic and current surface water drainage patterns on and adjacent to your site as a contaminant migration pathway. Additional investigative activities may be warranted based on your assessment.

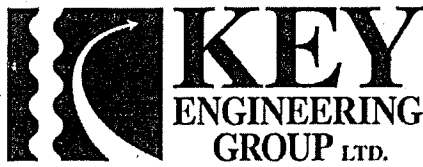
Thank you for your important work on this site. Please feel free to contact me directly if you need any additional assistance.

Thanks  
~Doug

We are committed to service excellence.  
Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Doug Cieslak  
Hydrogeologist - Remediation and Redevelopment Bureau  
Wisconsin Department of Natural Resources  
Phone: (262) 884-2344  
[Douglas.Cieslak@wisconsin.gov](mailto:Douglas.Cieslak@wisconsin.gov)

[dnr.wi.gov](http://dnr.wi.gov)



735 North Water Street, Suite 510  
Milwaukee, Wisconsin 53202  
(414) 224-8300  
Fax (414) 224-8383

February 10, 2015

Mr. Douglas Cieslak  
Hydrogeologist  
Remediation & Redevelopment Program  
Wisconsin Department of Natural Resources  
9531 Rayne Road  
Sturtevant, WI 53177

via email: [douglas.cieslak@wisconsin.gov](mailto:douglas.cieslak@wisconsin.gov)

Reference: *Work Plan for Additional Site Investigation*  
Superior Health Linens  
5005 South Packard Avenue  
Cudahy, Wisconsin  
BRRTS #02-41-532649  
FID #241780880

KEY ENGINEERING GROUP, LTD.  
File No. 2403001

Dear Mr. Cieslak:

Key Engineering Group, Ltd. (KEY), on behalf of D&C Partners, LLP, submitted a Request for Technical Assistance to the Wisconsin Department of Natural Resources (WDNR) on November 5, 2014. As the WDNR Project Manager, you met with D'Arcy Gravelle and Michele Norman from KEY and William Nicklas and James Baumgartner from D&C Partners, LLP on December 2, 2014 to discuss the status of the investigation for the site identified above. Following our meeting, you prepared the enclosed letter, dated January 21, 2015, identifying the need for further investigation. In response to your letter, KEY is pleased to submit this "Work Plan for Additional Site Investigation". Your letter provided comments in four general categories, which are each addressed below.

#### **NEED TO DEFINE THE DEGREE AND EXTENT OF CVOC CONTAMINATION**

The WDNR is requesting further work to address the vertical and horizontal extent of the chlorinated volatile organic compound (CVOC) contamination that has been identified on the subject site. Refer to the Site Layout figure.

### Railroad Right-of-Way (R-O-W)

Sampling has been performed in a narrow area (approximately 22 feet in width) between the building and property line on the west side of the site. CVOC soil concentrations increase as sampling locations become closer to the property line with the Union Pacific Railroad right-of-way. This trend indicates a possible contamination source on the railroad property. KEY plans to obtain access from the railroad to collect samples by requesting an "Environmental Right of Entry". This will require completion and submittal of the following to the Union Pacific's Environmental Management Group: application form, \$555 review fee, contact information, work plan, agency directive, map(s), and monitoring well design (if applicable). The railroad requires 60 days to review the application and materials. If the request is approved, KEY will need to obtain Railroad Protective Liability Insurance before the access agreement is executed. This insurance policy is available from Marsh for a minimum fee of \$750 for 24 months.

If the railroad approves access onto its property, KEY plans to perform a survey to accurately define the property boundaries of the subject site. This will provide a reference point and allow KEY to accurately identify the sampling locations with respect to the property line. KEY will then collect shallow (< 4 feet below ground surface (bgs)) and deep (> 4 feet bgs) soil samples from the railroad property adjacent to and outward (further west, north and south) from the high CVOC concentrations detected near the subject site's property line. KEY expects to encounter groundwater and will collect groundwater samples from temporary wells. The samples will be sent to a WDNR-certified laboratory and analyzed for CVOCs.

If the railroad denies access onto their property, KEY will request assistance from the WDNR.

Higher CVOC concentrations on the railroad property, compared to samples collected on the subject site, would likely indicate an off-site source that is migrating onto the subject site. Conversely, lower concentrations would likely indicate a source on the subject site.

### **NEED TO COMPLETE A VAPOR INVESTIGATION**

#### On-Site Vapor Impacts

In October 2013, Sigma detected TCE in one sub-slab sample below the building's foundation. Following the detection of TCE in a sub-slab vapor sample, a vapor mitigation system was installed in the southwest corner of the building in January 2014. KEY confirmed that post-construction testing of the vapor system was not completed to define the radius of influence and demonstrate the system's effectiveness in mitigating areas impacted by CVOC vapors. KEY plans to perform sub-slab pressure testing to confirm that the pressure field extends beneath the foundation area impacted by contaminated vapors. If the vapor system needs modification, KEY will provide a vapor mitigation contractor with the system requirements. KEY will prepare and submit an operation and maintenance (O&M) plan for the operating vapor system following additional sampling and possible system modifications.

KEY proposes to collect indoor air verification samples to confirm that an exposure to contaminant vapors is not occurring. As recommended by the WDNR, verification samples should be collected after the system has been operating, in its original or modified configuration, for a minimum of 3 months. The samples will be sent to a WDNR-certified laboratory and analyzed for CVOCs.

### Off-Site Vapor Impacts

The WDNR is requesting an assessment of vapors that may possibly be migrating off-site. Sampling data indicates that CVOC-impacted groundwater is migrating from the southwest to the northeast across the subject site. Below-grade utilities are present in the northeast area of the subject site. Utilities can become preferential migration pathways for sub-surface vapors. KEY proposes to collect soil-gas samples along the utility lines on the subject site to assess the potential for off-site vapor migration.

### **NEED TO CONDUCT ADDITIONAL GROUNDWATER MONITORING**

KEY plans to conduct additional groundwater monitoring to demonstrate a stable or receding plume.

### **CLOSURE DOCUMENTS**

The WDNR is requesting the following with future submittals and closure documents:

#### Detailed Site Map

The current version of the site map identifies all site features, including subsurface utilities, monitoring wells, and sampling locations. No spills, waste disposal or fill areas, or contaminant sources have been identified on the subject site. Further sampling on the subject site and off-site may identify a source area. KEY plans to modify the map to include BRRTS activities, topography, and historic shipping and receiving areas (ingress/egress), as requested.

#### Surface Water and Sediment

Surface water is not present on the subject site, therefore no assessment of surface water and sediment was conducted. KEY will identify and explain the absence of an assessment within the closure documents.

#### Remedial Actions

Following additional work to define the degree and extent of contamination and the identification of on-site and/or off-site source(s), KEY will determine the appropriate response action.

KEY will complete/supervise these proposed activities, complete the appropriate documentation (including abandonment forms and investigative waste disposal paperwork), and report all sampling results to the WDNR and property owners and occupants of the property from which the samples were collected. The results of these additional site investigation activities will be presented in an "Addendum to the Site Investigation" Report, including recommendations for further actions. Sampling results from these proposed activities will be reviewed to determine if additional investigation is necessary.

Please contact me at (414) 224-8300, ext. 25 if you have any questions or comments regarding this proposed work plan.

Sincerely,

KEY ENGINEERING GROUP, LTD.



Michele R. Norman  
Senior Hydrogeologist

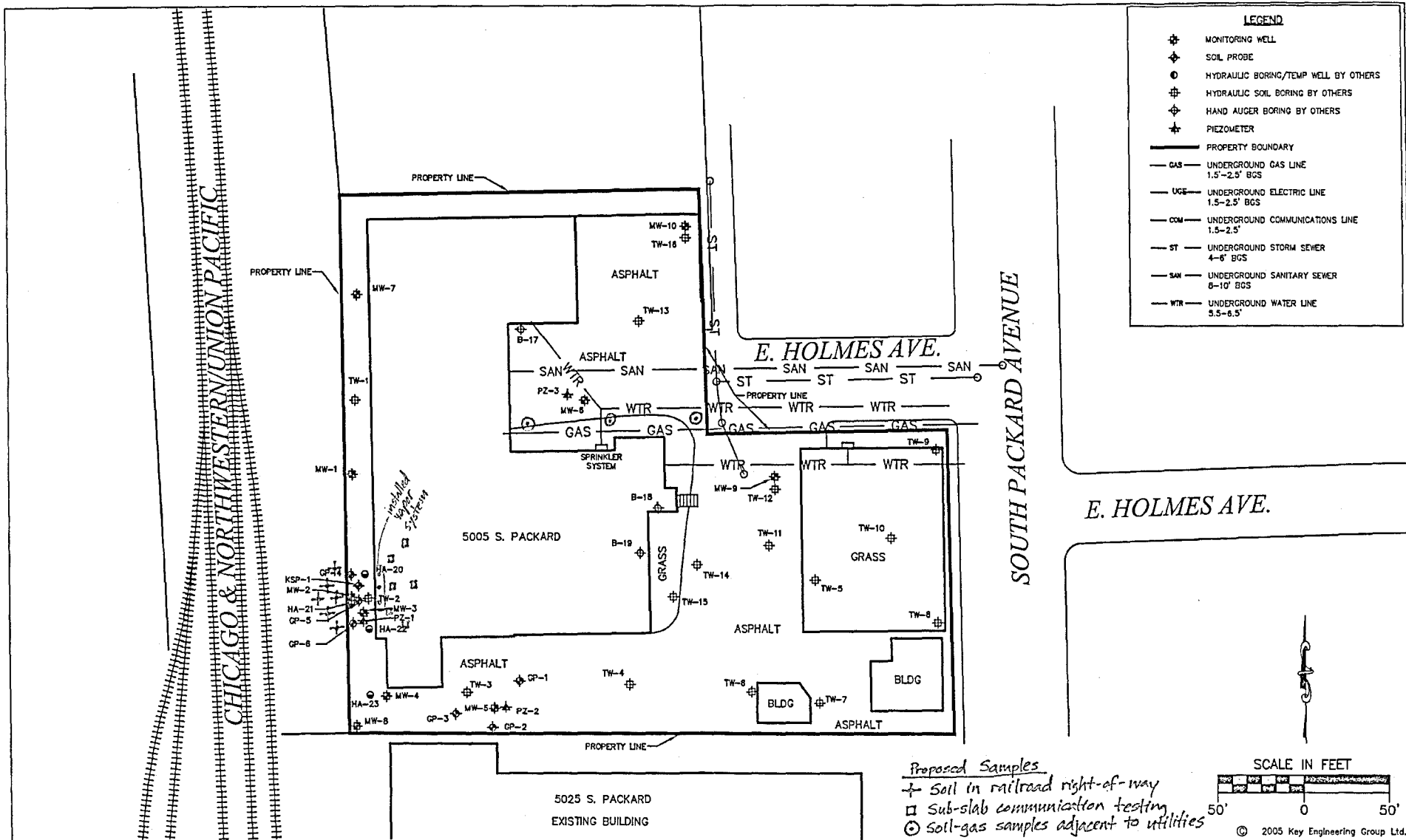


D'Arcy J. Gravelle, CPG, PG  
Vice President

cc: James Baumgartner, D&C Partners, LLP (via e-mail: [jbaum777@gmail.com](mailto:jbaum777@gmail.com))  
William Nicklas, D&C Partners, LLP (via e-mail: [wjnicklas@gmail.com](mailto:wjnicklas@gmail.com))

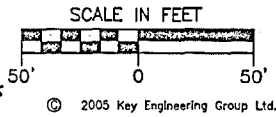
Enclosures:

Figure 1 – Site Layout  
DNR letter from Doug Cieslak, re: Technical Assistance Request, dated 1/21/2015



LEGEND	
⊕	MONITORING WELL
⊕	SOIL PROBE
⊕	HYDRAULIC BORING/TEMP WELL BY OTHERS
⊕	HYDRAULIC SOIL BORING BY OTHERS
⊕	HAND AUGER BORING BY OTHERS
⊕	PIEZOMETER
—	PROPERTY BOUNDARY
— GAS —	UNDERGROUND GAS LINE 1.5'-2.5' BGS
— UGE —	UNDERGROUND ELECTRIC LINE 1.5'-2.5' BGS
— COM —	UNDERGROUND COMMUNICATIONS LINE 1.5'-2.5'
— ST —	UNDERGROUND STORM SEWER 4'-8' BGS
— SAN —	UNDERGROUND SANITARY SEWER 8'-10' BGS
— WTR —	UNDERGROUND WATER LINE 5.5'-6.5'

*Proposed Samples*  
 ⊕ Soil in railroad right-of-way  
 ⊕ Sub-slab communication testing  
 ⊕ Soil-gas samples adjacent to utilities



DESIGNED BY DML	DATE 06-23-2014
DRAWN BY SAO	PROJECT 2403001
APPROVED BY KNW	SHEET NO. 1

FIGURE 21  
 SITE LAYOUT  
 5005 SOUTH PACKARD AVENUE  
 SUPERIOR HEALTH LINENS  
 CUDAHY, WI

© 2005 Key Engineering Group Ltd.

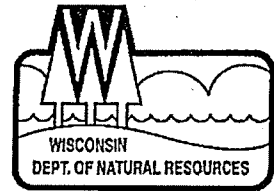
**KEY**  
 ENGINEERING  
 GROUP LTD.

100 SOUTH HOLMES STREET, SUITE 110  
 MILWAUKEE, WI 53204  
 TEL: 414.441.8800  
 FAX: 414.441.8801

Aug 29, 2014 - 9:24am C:\Users\jvm~1\My Documents\Desktop\KEY F-5A01\5005 S Packard\FIGURE 2.dwg

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
9531 Rayne Rd  
Sturtevant WI 53177

Scott Walker, Governor  
Cathy Stepp, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



January 21, 2015

VIA US MAIL AND EMAIL

William Nicklas  
James Baumgartner  
D & C Partners, LLP  
W223 N7658 Cherry Hill Road  
Sussex, WI 53089

Subject: Technical Assistance Superior Linens - BRRT 02-41-532649 - FID 241780880

Dear Sirs,

Thank you for the opportunity to meet with you and your consultant on December 2, 2014 to review your progress on the above named site. During our meeting you identified as your goal as to achieve case closure as soon as possible to finalize your transfer of the property to new operators of the medical linen business. I have reviewed your file and your November 5, 2014 status report and prepared the following comments to assist you in achieving your goal.

Additional site work is necessary in order to meet the requirements for site closure. You need to complete an investigation to determine the degree and extent of chlorinated volatile organic compounds (CVOC) contamination in soil and groundwater and to initiate and complete a vapor intrusion assessment of all occupied dwellings that are potentially impacted by the CVOC contamination.

**Need to Define the Degree and Extent of CVOC Contamination**

Additional soil and groundwater sampling is needed in order to define the degree and extent of CVOC contamination in soil and groundwater. More should be done to determine the vertical and horizontal extent of CVOC contamination in the source areas you have identified. This work will enable you to make decisions regarding what, if any, remediation is necessary.

**Need to Complete a Vapor Investigation**

It is my understanding your vapor intrusion mitigation systems are operational for all affected occupied buildings on your site. Please submit as-built documentation that demonstrates the effectiveness of the systems and an operation and maintenance (O&M) plan for your vapor intrusion mitigation systems. Your systems should be inspected in accordance with that O&M plan and the results of that inspection included with the plan. Additional vapor intrusion assessment is needed to determine whether or not vapor intrusion is a completed pathway that represents an off-site exposure risk due to residual contamination. If vapor intrusion is an issue off-site document all source control actions taken.

**Need to Conduct Additional Groundwater Monitoring**

Additional groundwater monitoring is needed in order to establish compliance with the closure criteria of ch. NR 726. If monitored natural attenuation is to be used as a remedial action, you need to determine the extent of groundwater contamination, monitor for natural attenuation parameters, and determine whether there is a stable or receding plume. I encourage you to use the Department's guidance, *Understanding Chlorinated Hydrocarbon Behavior in Groundwater*, RR-699, found on our website.



**Closure Documents**

Included with future submittals and your closure documents, please provide the following:

- **Detailed site map** illustrating all the following; polygon of all previous spills and BRTs activities, all waste disposal sites, fill sites, subsurface facilities and utilities, topography, locations of historic contaminant sources, historic shipping and receiving ingress/egress, and monitoring well and sampling locations.
- **Surface Water and Sediment** Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.
- **Remedial Actions** Identify how all exposure pathways were removed and/or adequately addressed by immediate and/or remedial action(s).

Please submit a workplan that addresses items above within 60 days of receipt of this letter, March 25, 2015. Addressing the potential for vapor intrusion exposures should be one of your priorities.

It was a pleasure meeting you both and I appreciate your efforts to restore the environment at this site. Please feel free to contact me directly at 262-884-2344 if you have any questions regarding this letter especially if you would like advice on your vapor intrusion monitoring and response actions.

Sincerely,



Doug Cieslak  
Hydrogeologist  
Sturtevant Service Center  
Remediation & Redevelopment Program

c: Michele Norman – Key Engineering Group (email)  
Darcy Gravelle - Key Engineering Group (email)