

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

**AUG 08 2011**

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Article Number: 7010 2780 0001 2212 0937

Mr. John F. Brimeyer  
Senior Project Manager  
Terracon  
870 40<sup>th</sup> Avenue  
Bettendorf, Iowa 52722

RE: Approval of the Revised Vapor Intrusion Characterization Work Plan (Revised August 1, 2011)  
for the Chamberlain Manufacturing Site, Waterloo, Iowa

Dear Mr. Brimeyer:

The United States Environmental Protection Agency hereby approves of the subject document with the following minor modification. The word "adjacent" should be deleted (crossed out) from the last sentence of Section 2.1 – Proposed Study Area.

I can be reached at (913) 551-7755, if you have any questions concerning this matter.

Sincerely,

A handwritten signature in black ink that reads "Bruce A. Morrison".

Bruce A. Morrison  
Project Manager  
Air and Waste Management Division

cc: Dan Cook, IDNR  
Deborah Tinker, IDNR  
Mike Dolan, Jones Day

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KANSAS CITY, KANSAS 66101

AUG 08 2011

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Article Number: 7010 2780 0001 2212 0944

Mr. John F. Brimeyer  
Senior Project Manager  
Terracon  
870 40<sup>th</sup> Avenue  
Bettendorf, Iowa 52722

RE: Approval of the Revised Vapor Intrusion Interim Measures Work Plan (Revised August 1, 2011)  
for the Chamberlain Manufacturing Site, Waterloo, Iowa

Dear Mr. Brimeyer:

The United States Environmental Protection Agency hereby approves of the subject document with no further comment.

I can be reached at (913) 551-7755, if you have any questions concerning this matter.

Sincerely,

A handwritten signature in black ink that reads "Bruce A. Morrison".

Bruce A. Morrison  
Project Manager  
Air and Waste Management Division

cc: Dan Cook, IDNR  
Deborah Tinker, IDNR  
Mike Dolan, Jones Day

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

AUG 22 2011

CERTIFIED MAIL

RETURN RECEIPTS REQUESTED

Article Numbers: 7010 2780 0001 2212 1088 &  
7010 2780 0001 2212 1095

Mr. Mike Dolan  
Jones, Day  
77 West Wacker Drive  
Chicago, Illinois 60601-1692

Mr. John F. Brimeyer  
Senior Project Manager  
Terracon  
870 40<sup>th</sup> Avenue  
Bettendorf, Iowa 52722

RE: Additional Work - Groundwater Sampling at the Chamberlain Manufacturing Site, Waterloo, Iowa

Dear Mr. Dolan and Mr. Brimeyer:

In a letter dated July 15, 2011, the U.S. Environmental Protection Agency directed the Chamberlain Manufacturing Corporation to characterize multiple residential properties located west of Sherman Avenue for potential vapor intrusion of volatile organic compounds (VOCs) associated with the subject site. Based on the most recent groundwater sampling results (June 2009) at the site, the EPA is retracting this directive, and is invoking the additional work provision of the Administrative Order (Docket No. RCRA-07-2010-002 and CERCLA-07-2010-0005) to conduct groundwater sampling at the site.

The TCE levels observed in 2009 groundwater samples collected from monitoring wells OSMW-10 and OSMW-11 indicate a low likelihood of VOC vapor intrusion into residential homes located west of Sherman Avenue at that time. Although groundwater sampling of these wells from the 2007 to 2009 time period indicated a downward trend in TCE levels, not all TCE concentrations in groundwater samples collected from off-site monitoring wells were trending downwards during that time period. While TCE concentrations decreased to 5.36  $\mu\text{g/L}$  and 6.36  $\mu\text{g/L}$  in wells OSMW-10 and OSMW-11 respectively, the TCE concentration increased from  $<1\mu\text{g/L}$  to 30.4  $\mu\text{g/L}$  over the same time period in groundwater from well OSMW-8. In addition, the TCE concentration in well OSMW-4 decreased over 90 percent from January 2007 to October 2007, only to rebound to near the January 2007 concentration by June of 2009. These historical sampling results further support the need to determine current TCE concentrations in groundwater, i.e. sample the monitoring wells, in order to select where additional residences may be at risk of TCE-vapor intrusion.

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Based on the reasoning described above, the EPA is invoking the additional work provision of the Administrative Order (Docket No. RCRA-07-2010-002 and CERCLA-07-2010-0005) for Chamberlain Manufacturing to collect groundwater samples from off-site wells OSMW-3, -4, -5, -7, -8, -9, -10, -11, -13, and -14; and all of the existing on-site monitoring wells within 90 days of receipt of this letter.

Groundwater samples should be analyzed for VOCs and SVOCs in accordance with the existing Sampling Plan and Quality Assurance Project Plan for the site. A Groundwater Monitoring Report shall be submitted to the EPA within 60 days of collection of the samples, and should be similar in format and content as Terracon's Quarterly Groundwater Monitoring Report for the site dated July 22, 2009.

I can be reached at (913) 551-7755, if you have any questions concerning this matter.

Sincerely,



Bruce A. Morrison  
Project Manager  
Air and Waste Management Division

cc: Dan Cook, IDNR  
Deborah Tinker, IDNR  
Chris Western, City of Waterloo



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KANSAS CITY, KANSAS 66101

AUG 08 2011

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Article Number: 7010 2780 0001 2212 0951

Article Number: 7010 2780 0001 2212 0975

Mr. John F. Brimeyer  
Senior Project Manager  
Terracon  
870 40<sup>th</sup> Avenue  
Bettendorf, Iowa 52722

Mr. Mike Dolan  
Jones, Day  
77 West Wacker  
Chicago, Illinois 60601-1692

RE: Approval of the Aquifer Characterization Report Dated May 5, 2011, for the Chamberlain Manufacturing Site, Waterloo, IA

Dear Mr. Brimeyer and Mr. Dolan:

The U.S. Environmental Protection Agency has reviewed the subject document, and hereby approves of it with the following comments. In accordance with the Unilateral Administrative Order (Docket No. RCRA-07-2010-002 and CERCLA-07-2010-0005) a draft Corrective Measures Study (CMS) Work Plan should be submitted to the EPA within 60 days of receipt of this letter.

It appears that the objective of the pump test, i.e., to determine if pumping geothermal and municipal wells have an effect on water levels in onsite groundwater monitoring wells, was generally met. However, if transducer readings were impacted by barometric pressure changes during the test, this may not be the case.

It should be noted that this pump test does not provide data that should be used to determine hydraulic parameters of the aquifer. The estimation of hydraulic conductivity (K) and transmissivity (T) using the recovery data from the pumping well is a valid approach; however, the values most likely represent the hydraulic conditions at the pumping well rather than the average values for the aquifer. The estimated values are very approximate as indicated in the report and should be used with caution. If hydraulic parameters are needed, then another pumping test that is designed to achieve this objective will be required. If such a test is to be conducted, all geothermal wells and production wells must be taken off-line and the water levels must reach equilibrium prior to the initiation of the test. The wells must remain off-line during the entire testing period (i.e., both pumping and recovery period).

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I can be reached at (913) 551-7755 if you have any questions concerning these comments.

Sincerely,



Bruce A. Morrison  
Project Manager  
Air and Waste Management Division

cc: Dan Cook, IDNR  
Deborah Tinker, IDNR  
James Caldwell, USGS  
Eric A. Reeves, The Chamberlain Group, inc.