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July 23, 2008

Ms. Jennifer Easterly
Hydrogeologist
Wisconsin Department of Natural Resources
Remediation & Redevelopment Program
Oshkosh Service Center
625 E. County Road Y, Suite 700
Oshkosh, WI 54901-9731

RE: Performance Evaluation of the Interim Gas Extraction System
Hwy FF/NN Landfill, License #467, Ripon, WI.
WDNR BRRTS #02-20-000915

Dear Jennie,

After one year of operation of the interim gas extraction system at the Highway FF/NN Landfill in Ripon, Wisconsin, a performance evaluation of the system was provided to the WDNR in a report dated July 5, 2007. Based on the results of the one year performance evaluation the FF/NN Landfill PRP Group recommended that the interim gas extraction system be selected as the final remedy for source control for the FF/NN Landfill (Alternative C1 of the Focused Feasibility Study modified to include the leachate head wells as part of the gas extraction system).

In correspondence dated October 4, 2007 the WDNR disagreed with the recommendation at that time indicating that in their review of the data it was difficult to say whether the gas extraction system was reducing the groundwater contamination. Therefore the Department recommended that another year of groundwater sampling be collected to provide a better idea of system performance.

The additional year of groundwater sampling has been performed and the results were submitted to the WDNR in a progress report for the May 2008 sampling event dated July 11, 2008. The results of the on-going landfill gas and groundwater monitoring program over the past year confirms that the system is performing well and achieving desired affects. Therefore the FF/NN PRP Group reaffirms its recommendation that the interim gas extraction system be selected as the final remedy for source control for the FF/NN Landfill (Alternative C1). A description of the improvements in groundwater quality over the past year is provided below.

Groundwater Monitoring Results

There are 27 groundwater monitoring wells at the site, some of which have been sampled since 1993. The wells are grouped into four hydrostratigraphic layers (1-4). In the progress report for the May 2008 sampling event, the results of the VOC analyses are summarized on Table 4 and time trend plots of trichloroethene (TCE), 1,2-dichloroethene (DCE), and vinyl chloride (VC) for each well are presented in Charts 27-53. Since start-up of the gas extraction system in March 2006, vinyl chloride concentrations have decreased in all wells where it was detected except for one (P-115). A discussion of the results by layer is provided below.

Layer 1

Layer 1 monitoring wells (MW-101, MW-102, MW-103, MW-104, MW-106, MW-107, MW-108, MW-111 and MW-112) are completed at or near the water table surface within the unconsolidated deposits with the bottom of well screen occurring between an elevation of 812-822 feet above mean sea level (amsl). The removal of vinyl chloride by the gas extraction system would have the greatest affect on the Layer 1 wells.

The Layer 1 charts show that VOC concentrations have been decreasing over the years and continued to do so during operation of the gas extraction system. At MW-101, MW-102, MW-106, MW-107 and MW-111 vinyl chloride has never been detected. Wells with historical vinyl chloride detections show the following trends:

- MW-103: vinyl chloride has shown a steady decline from 440 ug/L in 1994 to non-detect in the most recent round. This is the first time vinyl chloride was not detected in this well.
- MW-104: vinyl chloride declined from a high of 29 ug/L in 2000 to non-detect since 2006.
- MW-108: vinyl chloride was only detected in two rounds of samples back in 2004 and 2005.
- MW-112: vinyl chloride declined from a high of 56 ug/L in 2002 to 1.3 ug/L in the most recent sampling round which is down from 2.6 ug/L a year ago.

Layer 2

Layer 2 monitoring wells (P-101, P-102, P-103, P-104, P-106, P-107, P-108 and P-111) are completed within the unconsolidated deposits with the bottom of well screen occurring between an elevation of 774-792 feet above mean sea level (amsl).

The Layer 2 charts show that VOC concentrations have generally been decreasing over the years and continued to do so during operation of the gas extraction system. At P-101, P-104, P-106, P-108 and P-111 vinyl chloride has never been detected. Wells with historical vinyl chloride detections show the following trends:

- P-102: vinyl chloride was detected in seven rounds of samples back in 2002 to 2004 and has not been detected since.

- P-103: vinyl chloride declined from a high of 3.6 ug/L in 2006 to 0.74 ug/L in the most recent sampling round which is down from 1.6 ug/L a year ago.
- P-107: vinyl chloride declined from a high of 6 ug/L in 1993 to non-detect in the most recent sampling round which is down from 0.76 ug/L a year ago.

Layer 3

Layer 3 monitoring wells (P-103D, P-111D, MW-3B, P-113B, P-114, P-115 and P-116) are completed within the sandstone bedrock (except P-111D) with the bottom of well screen occurring between an elevation of 634-704 feet above mean sea level (amsl).

The Layer 3 charts show continued decreases in the vinyl chloride concentrations for all but one well (P-115). At P-116 vinyl chloride has never been detected. Wells with historical vinyl chloride detections show the following trends:

- P-103D: vinyl chloride declined from a high of 3 ug/L in 2005 to 0.69 in the most recent sampling round which is down from 1.4 ug/L a year ago.
- P-111D: vinyl chloride declined from a high of 15 ug/L in 2004 to 4.7 in the most recent sampling round which is down from 8.2 ug/L a year ago.
- MW-3B: vinyl chloride was detected in four rounds of samples back in 2002 through 2005 and has not been detected since.
- P-113B: vinyl chloride was detected in one round of samples back in 2002 and has not been detected since.
- P-114: vinyl chloride declined from a high of 13 ug/L in 2006 to 6.6 in the most recent sampling round which is down from 7.5 ug/L a year ago.
- P-115: vinyl chloride was detected at 1.1 ug/L in the most recent sampling round which is up from 0.54 ug/L a year ago. Wells P-114 and P-116 are down-gradient of P-115.

Layer 4

Layer 4 monitoring wells (MW-3A, P-107D and P-113A) are completed within the sandstone or granite bedrock with the bottom of well screen occurring between an elevation of 507-570 feet above mean sea level (amsl).

At MW-3A and P-113A vinyl chloride has never been detected. Well P-107D is the only Layer 4 well with detectable vinyl chloride. Wells with historical vinyl chloride detections show the following trends:

- P-107D: vinyl chloride declined from a high of 10 ug/L in 2005 to 1.3 ug/L in the most recent sampling round which is down from 6.2 ug/L a year ago.

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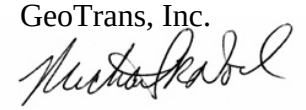
Based on the results of this performance evaluation we recommend that the interim gas extraction system be selected as the final remedy for source control for the FF/NN Landfill (Alternative C1). We are also still waiting to hear back from the EPA regarding an example of the institutional control (IC) investigation/study that they requested. If you have any questions please feel free to contact me.

Sincerely,
GeoTrans, Inc.



Michael R. Noel, P.G.
Vice President, Principal Hydrogeologist

cc: Steve Barg, City of Ripon
Nelson Olavarria, Cooper Industries
Bernard Schorle, US EPA