

Henderson, Sarah

From: Stock, Paul
Sent: Monday, July 14, 2003 2:30 PM
To: Henderson, Sarah
Subject: LEAK #3534, Junction Food-n-Fuel, Hermantown, MN

RE: my review of Twin Ports Testing's 3.28.03 "Annual Monitoring Report (February 2001)".

Sarah, I have reviewed the report and have the following comments and recommendations.

- I completed a full file review on this site last October resulting in a 12.5.02 RAW letter. The 3.28.03 AMR has many errors and omissions and could probably be rejected - it adequately addresses only some of the 9 items in that letter.
 - I can not find Fact Sheet #3.24's Tables 13 and 14 referred to in the AMR (Appendix F)
 - The monitoring well fluid level measurement and ground water sample analytical tables are not comprehensive and cumulative.
 - Only MDH "Well Records" were submitted for new MWs 2b, 3b, and 8 - no boring or well construction logs.
- The previously submitted report - 2.22.02 AMR - contained ground water monitoring data through 12.20.01. The 3.28.03 AMR includes the following new information:
 1. 4 ground water monitoring events from 4.17.02 through 2.12.03.
 2. Installation of 3 new monitoring wells (MW2b, MW3b, and MW8) during Jan-03.
 3. Sealing of MW2 during Feb-03
 4. MW elevation survey on 2.13.03.
 5. A map with identified buildings, etc. and water well locations within a 500 ft radius of site.
- It appears that Regenesys' guarantee/warranty does not cover ineffectiveness of their ORC product for remediation purposes. It is unlikely that I will ever approve its use at this site in the future.
- Based on information including TALES dB Leak Sire Remarks tab, it appears that the site is no longer used a gasoline retail facility and has been redeveloped with a bldg expansion, however, I do not know what sort of facility it now is. The 3 remaining USTs were removed in Nov-02. Curiously, although the report post dates recent UST removal, it is not discussed in the report. Moreover, no Excavation Report has been prepared to document UST removal - hopefully, they at least collected soil samples from under the USTs for laboratory analysis. Even more curious is that we were contacted several times during Dec-02 and Jan-03 about removing contaminated soil during site redevelopment activities and we approved removal of 80 cu yds of soil, yet this is not discussed in the report. Moreover, there is no Excavation Report documenting soil removal nor is there anything in the file or TALES Leak Site>Treatment tab indicating this removed soil has been handled properly or treated. Based on the 12.3.02 and 1.9.03 MPCA "Quick Memos" in the file, it appears clear that the RP/Consultant intends to seek Petrofund reimbursement for soil removal and treatment costs - several \$1000 worth, I bet. This "corrective action" needs to be documented so that we know what's been done out there.
- MW2b replaces MW2, which had a submerged screen in a potential free product area and was also damaged by frost heaving, etc. MW3b replaced MW3 which was removed during installation of a sanitary sewer line. MW8 was required to investigate extent of ground water contamination and possible impacts to surface water.
- For some reason, the consultant does not report fluid level measurements for MW8 and MW8 data was not used to construct the flow map. The constructed flow maps indicate a northerly flow direction that ranged from ranging from ENE to NW, i.e., towards the wetlands and ditch. The MW8 ground water sample indicates that petroleum contaminated ground water is likely discharging to the ditch and wetland at concentrations exceeding applicable standards and criterion.
- Besides the site water well there are at least 3 other water wells within 500 ft of the site including 2 located WNW of the site, potentially down gradient.
- MW3b ground water sample data indicates significant concentrations of contamination have migrated SE since MW3 was removed.

RECOMMENDATIONS

The MPCA project manager should document treatment of the approved contaminated soil removal during the Dec-02/Jan-03 redevelopment work.

I recommend that we submit a RAW-type letter; following is suggested language for inclusion:

The Minnesota Pollution Control Agency (MPCA) Petroleum and Landfill Remediation Section staff have reviewed Twin Ports Testing's March 28, 2003 Annual Monitoring Report. Based on the information provided in the report, additional

work is required at the site. Specifically, the MPCA has the following comments and requirements:

1. The report was not complete. MPCA are concerned about the following omissions:
 - A. Tables 2 and 3 are not comprehensive and cumulative.
 - B. Tables 3 and 4 must have dates.
 - C. No fluid level measurement data for MW8.
 - D. MW8 ground water elevation data was not used to construct the flow map.
 - E. Monitoring well ground water samples were not analyzed for MTBE.
 - F. Monitoring well construction logs were not included for MW5, MW6, and MW7.
 - G. No boring logs and well construction logs were included for MW2b, MW3b, and MW8.
 - H. Tables 13 and 14 (from Fact Sheet \$3.24) were not included.

These items must be adequately addressed and/or submitted in the next report or the report will be rejected.

2. Continue quarterly ground water monitoring measuring fluid levels in and collecting ground water samples from all monitoring wells. Analyze the samples for BTEX, MTBE and GRO except that the second round of samples collected from MW2b, MW3b and MW8 must be analyzed for VOCs and GRO. Continue annual sampling of ground water from PW2. Analyze the samples for VOCs and GRO. Continue quarterly ground water and annual water well sampling until and unless an alternative schedule is approved by the MPCA.

4. Collect ground water samples from the 3 other water supply wells located within 500 feet of the site and analyze the samples for VOCs and GRO. Ground water "Sample Information Forms" must be submitted for all ground water samples in addition to other required items as described in the Fact Sheets.

5. Wetlands, including peat bogs and many drainage ditches, are considered waters of the State of Minnesota. Minnesota Rule 7050 and others apply to discharges of contaminated ground water to surface water. Based on a preliminary review, the wetlands and ditch to the North of the site are classified as 2B waters and the following Chronic Standards and Criterion apply:

- Benzene - 114 micrograms per liter (ug/l)
- Toluene - 253 ug/l
- Ethyl Benzene - 68 ug/l
- Xylenes - 166 ug/l
- Naphthalene - 81 ug/l
- GRO and/or DRO - 200 ug/l (Criterion)

Standards and Criterion are typically applied to a compliance point, e.g., a boring or well, located close to the receiving water, along the flow path from the contaminant source to the receiving water. Based on the information presented, it appears that MW8 can be considered a compliance point, however, flow maps constructed by your consultant indicate variable ground water flow directions, which suggests that there may be a larger, or other, discharge points, so, your consultant should provide rationale and recommendations for whether additional monitoring well installations are necessary north of the site. Discharge Standards and Criterion are exceeded in the MW8 ground water sample indicating that petroleum contaminated ground water is discharging to surface water. If confirmed, your consultant should provide corrective action recommendations for mitigating this discharge.

6. High concentrations of dissolved petroleum were detected in MW3b. Borings are required to delineate the extent of soil and ground water contamination to the west, southwest and south of MW3b. Your consultant should provide rationale and recommendations for whether additional monitoring well installations are necessary west, southwest, and south of the MW3b.

7. An Annual Monitoring Report documenting completion of the above work must be submitted by April 30, 2004.

8. An Excavation Report, documenting removal of the 3 underground storage tanks during November 2002 must be submitted within 30 days of the date of this letter.

9. An Excavation Report, documenting soil removal during site development activities during late 2002, including removal of approximately 80 cubic yards for treatment, must be submitted within 30 days of the date of this letter.

I hope I have not forgotten anything. Feel free to edit my suggested wording for typos, clarity and brevity. Let me know if you have any questions. I will return the file to you via interoffice mail/Speedee. Thanks!

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