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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
CADILLAC DISTRICT OFFICE

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STEVEN E. CHESTER
DIRECTOR

March 9, 2009

Mr. David Filipiak
Fishbeck, Thompson, Carr and Huber, Inc
1515 Arboretum Drive, SE
Grand Rapids, Michigan 49546

Dear Mr. Filipiak:

SUBJECT: Groundwater and Surface Water Monitoring Plan

Thank you for submitting the Groundwater and Surface Water Monitoring Plan for the Bonney Disposal Pit Area dated September 2008. The plan was submitted in accordance with Paragraph 5.1 of the Consent Judgment, Civil Action number 08-8279-CE (Consent Judgment). I would like to inform you the plan is approved with specific modifications in accordance with Paragraph 7.4 of the Consent Judgment. The plan includes monitoring of groundwater and surface water.

Groundwater Monitoring

The groundwater portion of the sampling plan is approved with the following modifications:

1. The Department of Environmental Quality (DEQ) and Fishbeck Thompson, Carr and Huber, Inc. (FTCH) continue to correspond regarding groundwater plume delineation and remediation as required by Section 6 of the Consent Judgment. Additional wells constructed as part of Section 6 shall be added to the monitoring plan and sampled for the parameters and at the frequency as other wells listed in the groundwater monitoring program. The monitoring plan was drafted in September and two wells have been replaced since then (now MW1-R and MW1R-D). These new wells are approved as groundwater sampling points.
2. Groundwater sampling shall be conducted quarterly rather than semi-annually until a Remedial Action Plan (RAP) or Long Term Interim Response Action (LTIRA) is approved and a seasonal baseline is observed.
3. Total Organic Carbon (TOC) shall be added to the groundwater monitoring parameter list.

Surface Water Monitoring

The following specific modifications apply to the surface water portion of the plan:

1. Surface water chemistry parameters must match the groundwater sampling parameters. The metals list shall be expanded to include total metals as specified for groundwater sampling. Chloride, calcium, sodium, sulfate and total organic carbon shall also be added to the surface water chemistry parameters. Total suspended solids may be deleted from the parameter list.
2. Surface water flow monitoring locations shall be modified as follows:
 - Stream flow measuring locations shall be modified to allow chemical loading estimates to be conducted on the stream chemistry data.
 - Flow monitoring locations shall be at the downstream end of each of the three branches comprising the headwater reaches of the stream as shown in Figure 2 of the monitoring plan. In addition a fourth flow station shall be located downstream of the confluence of the eastern stream branch shown in Figure 2 of the monitoring plan (near TW-3).
 - Flow shall be measured concurrent with semi-annual chemistry sampling.
3. Chemistry monitoring locations shall be modified as follows: The location described as the Creek #1 station in figure 2 shall be moved upstream of US-31 near what is labeled TW-3 in figure 1 of the monitoring plan. The purpose of this is to avoid contaminants that may be running off of US-31 that would affect the data downstream from the highway and to pair the chemistry data with the flow monitoring point as identified in the modification comment #2 above.
4. Three additional chemistry monitoring points shall be added to correspond to the flow monitoring points. Since the initial surface water assessment was conducted it has been observed that trees are dying downstream of US-31 potentially due to the effects of changes in the shallow groundwater chemistry. DEQ staff has also observed further stream impacts downstream of Platte Road. Therefore chemical monitoring shall be conducted in the area just upstream of what is labeled as Platte Road on Figure 2 of the monitoring plan. A second monitoring point shall be added approximately 300 yards downstream of Platte Road and another at the 2 track trail stream crossing near the mouth of the stream. The 2 track is on USGS quadrangle maps (see attached map). The purpose of these three additional locations is to monitor inputs from contaminated groundwater venting in these areas and to help assess remediation efforts over time.
5. In addition to the chemistry sampling a visual assessment shall be conducted at all chemistry stations during bi-annual sampling. Visual assessment shall be for bacterial slime, chemical precipitates, and black coatings on the bottom of water cobbles that indicates the presence of reducing conditions on the stream bottom. These observations can enhance the biological monitoring that is required by Section 5.1 of the Consent Judgment.

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6. Section 5.1 of the Consent Judgment requires the use of the Great lakes and Environmental Assessment Section Procedure 51 be conducted on the streams north of the discharge site. All observations made as part of this procedure (raw data) shall be included with the report for this assessment.

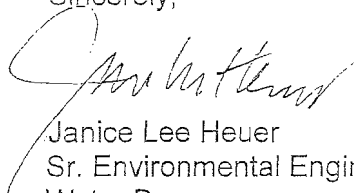
The plan suggests that proposed modifications to the monitoring plan may be discussed in the annual reports. Modifications to the plan shall occur only with specific agreement from the DEQ in writing.

The plan specifies that monitoring reporting will be conducted annually with the annual report summary as indicated in Paragraph 6.4 (c) of the Consent Judgment. Data shall be submitted as it is available after the quarterly or bi-annual sampling event in addition to the annual report. This allows the DEQ to follow-up on significant environmental observations or significant data changes in a timely manner. The annual report would include a greater level of summary and commentary than a raw data report.

Paragraph 7.4 of the Consent Judgment states that in the event of plan approval with specific modifications, the DEQ may require submittal of a revised work plan that addresses such modifications. Please submit a revised work plan that includes the above modifications.

Thank you for your cooperation.

Sincerely,



Janice Lee Heuer
Sr. Environmental Engineer
Water Bureau
231-876-4473

cc: Mr. Kevin Bonney
Mr. Joe Quandt, Zimmerman, Kuhn, Darling, Quandt and Phelps, PLC
Mr. Andrew Kok, Varnum, Riddering, Schmidt Howlett
Mr. Eric Chatterson, DEQ Groundwater Permits
Mr. Rick Ruzs, DEQ Enforcement
Mr. Matt Wesener, DEQ, SWAS

