

From: [Lautenbach, Glenn](#)
To: [Wright, Clifford C.](#)
Cc: [Vitale, Matthew J - DNR](#); [Endsley, Erin A - DNR](#); [Derrick Paul](#); [Payne, Chelsea J.](#)
Subject: RE: 9/12/2024 update on the third trial shutdown of EW-6 at NPI (34283.000)
Date: Wednesday, September 18, 2024 10:25:07 AM

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Good Morning,

I appreciate you sending the September update regarding the EW-6 Trial Shutdown. Due to the trend in results in well MW-77B, EPA agrees with restarting EW-6.

Thank you,
Glenn

From: Wright, Clifford C. <cwright@GFNET.com>
Sent: Friday, September 13, 2024 4:09 PM
To: Lautenbach, Glenn <Lautenbach.Glenn@epa.gov>
Cc: Vitale, Matthew J - DNR <matthew.vitale@wisconsin.gov>; Endsley, Erin A - DNR <erin.endsley@wisconsin.gov>; Derrick Paul <dpaul@gopresto.com>; Payne, Chelsea J. <cpayne@GFNET.com>
Subject: 9/12/2024 update on the third trial shutdown of EW-6 at NPI (34283.000)

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Glenn- This email is about the National Presto Industries (NPI) Superfund site in Eau Claire, WI, (BRRTS#02-09-000267) and provides an informal summary of the third trial shutdown of extraction well EW-6 at NPI. Please see Gannett Fleming TranSystems' (GF's) January 2023 *Work Plan for a 12-Month Trial Shutdown of Extraction Well EW-6* for details.

On February 23, 2023, the pump in EW-6 was turned off to start its trial shutdown, as approved by the USEPA and Wisconsin Department of Natural Resources (WDNR). The volatile organic compound (VOC) of primary concern in the groundwater (GW) is trichloroethylene (TCE). The electric submersible pump in EW-6 is temporarily restarted for NPI VOC grab sampling on a quarterly basis. Related quarterly operating and GW sampling info is summarized in the following table.

Date	TCE Concentration (µg/l)	Description/Comments
8/30/22	0.99 JA	Routine Q3 monitoring in 2022 with EW-6 running 24/7/365.
12/5/22	Not applicable	No sample collected during Q4 2022 monitoring; EW-6 was being redeveloped.
2/23/23	"	Start 12-month trial shutdown of EW-6, as agreed; no sample collected.
3/21/23	<0.32 A	1st sample on Day 26 of trial shutdown, after 5-min/900-gal purge (Q1 monitoring).
6/13/23	2.7 A	2nd sample on Day 110, after 5-min/900-gal purge (Q2 monitoring).
8/29/23	2.55 A	Q3 2023 monitoring (1 of 2) on Day 187, after 5-min/900-gal purge
8/30/23	1.5	Q3 2023 monitoring (2 of 2) on Day 188, after 22-hr & 20-min/241,200-gal purge.
11/30/23	2.6 A	Q4 2023 monitoring (1 of 2) on Day 280, after 10-min/1,800-gal purge.
12/1/23	1.3	Q4 2023 monitoring (2 of 2) on Day 281, after 22-hr & 35-min/243,900-gal purge.
3/27/24	2.0 A	Q1 2024 monitoring (1 of 2) on Day 398, after 10-min/1,800-gal purge.
3/28/24	1.1	Q1 2024 monitoring (2 of 2) on Day 399, after 24-hr & 15-min/261,900-gal purge.

6/3/24	2.3 A	Q2 2024 monitoring (1 of 2) on Day 466, after 5-min/900-gal purge.
6/4/24	1.1	Q2 2024 monitoring (2 of 2) on Day 467, after 23-hr & 50-min/257,400-gal purge.
8/27/24	3.05 A	Q3 2024 monitoring (1 of 2) on Day 551, after 5-min/900-gal purge.
8/28/24	1.7	Q3 2024 monitoring (2 of 2) on Day 552, after 23-hr & 55-min/258,300-gal purge.

NOTES:

Concentrations are in micrograms per liter (µg/l)/parts per billion (ppb).

Detected concentrations at or above 2.5 µg/l are in blue font.

EW-6 is 6-inch diameter & had, on average, a static water column of 30 ft in 2023. Hence, its casing volume=approx. 44 gal.

A = Average of original sample and duplicate. Began this approach in 2014.

J = Estimated concentration below laboratory quantitation level.

Per Page 5 of GF's Jan 2023 workplan, GW trigger thresholds for the restarting of EW-6 were described. If TCE rebound occurs at or above a proposed threshold concentration of 2.5 µg/l [i.e., 50 percent of TCE's 5.0 µg/l Maximum Contaminant Level/NR 140 Enforcement Standard (MCL/ES)] in:

- EW-6 and/or MW-76A for two consecutive quarters or 5.0 µg/l in one quarter.
- The MW-77 well nest.

At the annual site visit on July 12, 2024, though, the agencies and NPI verbally agreed that the trial shutdown of EW-6 could be extended through the first quarter (Q1) of 2025, unless the rebound of TCE groundwater concentrations in an NPI monitoring well or piezometer occurs at or above TCE's MCL/ES of 5.0 µg/l.

To date, EW-6 and MW-77B are the only two locations with temporary TCE rebound above the 2.5 µg/l threshold for two consecutive quarters, as outlined below.

- TCE concentrations of 2.7A, 2.55A, 2.6A, and 3.05A µg/l on 6/13/23, 8/29/23, 11/30/23, and 8/27/24, respectively, were above the 2.5 µg/l threshold but below its 5.0 µg/l MCL/ES. In addition, the TCE concentration decreased to 1.5, 1.3, and 1.7 µg/l on 8/30/23, 12/1/23, and 8/28/24, respectively, documenting that the observed rebound is due in part to back diffusion of TCE from residual organic material in and around the EW-6 well bore. NPI and GF believe that a portion of the organic material is from residual fuel oil contamination related to the NPI leaking underground storage tank (LUST) site (WDNR BRRTS #03-09-001038) defined by former monitoring well PW-1, which was located approximately 180 ft east of the main building and 90 ft west of MW-11A. Following several years of active remediation, the LUST site was closed in Oct 1999 based on documentation prepared by GF (fka Eder Associates).
- TCE concentrations in samples collected from MW-76A and MW-77A/B/C were:
 - <0.32A, 0.52J, 2.1, and 1.0J µg/l, respectively, on 3/21/23.
 - 0.56JA, 0.87J, 1.9A, and 0.55J µg/l, respectively, on 6/13/23.
 - 1.2A, 0.63J, 1.5, and 0.45J µg/l, respectively, on 8/29/23.
 - 1.75A, 0.47J, 1.4, and 0.58J µg/l, respectively, on 11/30/23.
 - 1.7A, <0.32, 1.5, and 0.56J µg/l, respectively, on 3/27/24.
 - 1.4A, <0.32, 2.8, and 0.645JA µg/l, respectively, on 6/4/24.
 - 1.05A, 0.49J, 4.0, and 0.87J µg/l, respectively, on 8/28/24.

Attached is a five-page pdf, *MW76A-MW77B-RW2B-RW2C*, which includes:

- TCE concentrations versus time graphs for the referenced water table well MW-76A, mid-depth piezometers MW-77B and RW-2B, and deep piezometer RW-2C.
- Figure 2, which shows the locations of soil vapor extraction (SVE) vent well VW-1; its blower and condensate knock-out tank; extraction well EW-6; GW monitoring well nests MW-76, MW-77, and RW-2; and the estimated extents of the residual DRO-impacted soil (i.e., red circle immediately northwest of PW-1) and DRO/GRO range GW impacts from the former LUST site (purple ellipse enclosing PW-1 and MW-77).

TCE results for Q3 of 2024 were mixed. In:

- MW-76A, TCE concentrations continue to decrease from a maximum of 1.75A µg/l on 11/30/23, as shown on Page 1 of the pdf, so "the trend is our friend" in this key water table monitoring well.

- MW-77B, RW-2B, and RW-2C, TCE concentrations increased from Q1 to Q3 so far this year (e.g., TCE concentrations in MW-77B were 1.5/2.8/4.0 µg/l on 3/27/24, 6/4/24, and 8/28/24, respectively), which is moving in the wrong direction.

The other bit of “good” news is that Q3 2024 maximum measured concentration of 4.0 µg/l (i.e., in MW-77B on 8/28/24) is below 5.0 µg/l, so the trial shutdown of EW-6 could continue. However, the trend is not our friend for TCE in the downgradient piezometers MW-77B, RW-2B, and RW-2C. Consequently, **NPI plans to restart EW-6 the week of Sep 16 out of an abundance of caution** and to reduce the odds of having TCE at the NPI site exceed its MCL/ES of 5 µg/l for the first time since 2015.

A formal report with all the data from third trial shutdown of EW-6 is in preparation and will include supplemental info on the LUST site outlined above. Meanwhile, enjoy the weekend and feel free to contact Chelsea (608/286-8491) or me (608/695-3651) if you have any questions. I left you, Matt, and Erin voicemails recently about this too.

Cliff Wright | Project Engineer/Geologist

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