TASI-GPN 14 July 2022

MEMORANDUM FOR RECORD

SUBJECT: Record for No Public Participation in the Sierra Army Depot (SIAD) Restoration Advisory Board (RAB) Meeting held 12 July 2022

1. The SIAD Environmental Restoration Program Manager, Cortney Carrier, scheduled the annual RAB meeting 12 July 2022, 6:00 p.m. PST. This was a virtual proposed RAB due to Covid-19 social distancing restrictions.

2. The required stakeholders (regulators, contractors, and SIAD) waited 20 minutes on Microsoft Teams as the agenda with Teams link and/or call-in number were provided a month prior to the meeting. No one from the public participated; therefor, the presentation was not held. Meeting minutes were not prepared due to no public participation. This memorandum for record is the place holder for meeting minutes. The agenda and slide presentation are enclosed in this document.

2 Encl
1. RAB Meeting Agenda
2. RAB Presentation

CORTNEY A. CARRIER
Sierra Army Depot
Restoration Program Manager

Enclosure 1

AGENDA
Restoration Advisory Board (RAB) Meeting
SIERRA ARMY DEPOT
12 July 2022, 6:00 p.m. PST
Virtual Meeting

Due to COVID-19 social distancing restrictions, please join us utilizing meeting invite below for an update on Sierra Army Depot clean-up activities for both groundwater and soil contamination.

1.0	6:00 – 6:10	ROLL CALL, APPROVAL OF MINUTES (Co-Chair)
2.0	6:10 – 6:30	GROUNDWATER REMEDIAL SITES (Arcadis)
		BUILDING 210 AREA ALF/SSA DRMO TRENCH AREA TNT LEACHING BEDS AREA
3.0	6:30 – 6:40	HONEY LAKE STATUS (BRAC)
4.0	6:40 – 6:50	MILITARY MUNITIONS RESPONSE SITES AND 5 SITES (PIKA Inc.)
5.0	6:50 – 7:00	NEW ISSUE: PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) IN GROUNDWATER

6.0 OPEN DISCUSSION (Group)

- 6.1 RWQCB and DTSC TOPICS (California Regulators)
- 6.2 RAB MEMBERS QUESTIONS AND DISCUSSIONS

Meeting Details:

-Join Microsoft Teams Meeting - https://teams.microsoft.com/l/meetup-join/19%3ameeting_MTJjM2QzZTAtODU2Ni00YWEwLWE3OTItNzQ3Yjg4NGFkN2Uw%40thread.v2/0?context=%7b%22Tid%22%3a%227f90057d-3ea0-46fe-b07c-e0568627081b%22%2c%22Oid%22%3a%2227df9b9c-5a26-4d99-93d7-fa65dc79e22c%22%7d

-Dial by your location: +1 312-767-0178, Meeting ID: 547355687#

Enclosure 2

PIKA ARCADIS a joint venture

RESTORATION ADVISORY BOARD MEETING FOR SIERRA ARMY DEPOT

July 12, 2022

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1.0 6:00 – 6:10 ROLL CALL, APPROVAL OF MINUTES (Co-Chair)

2.0 6:10 – 6:30 GROUNDWATER REMEDIAL SITES (Arcadis)

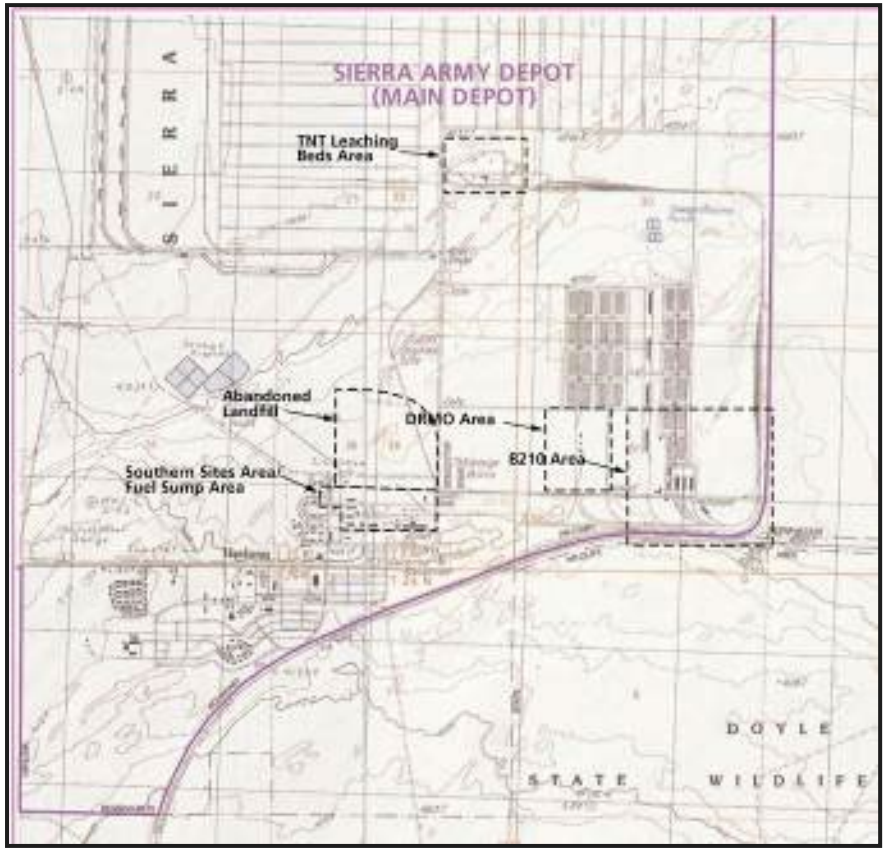
BUILDING 210 AREA
ALF/SSA
DRMO TRENCH AREA
TNT LEACHING BEDS AREA

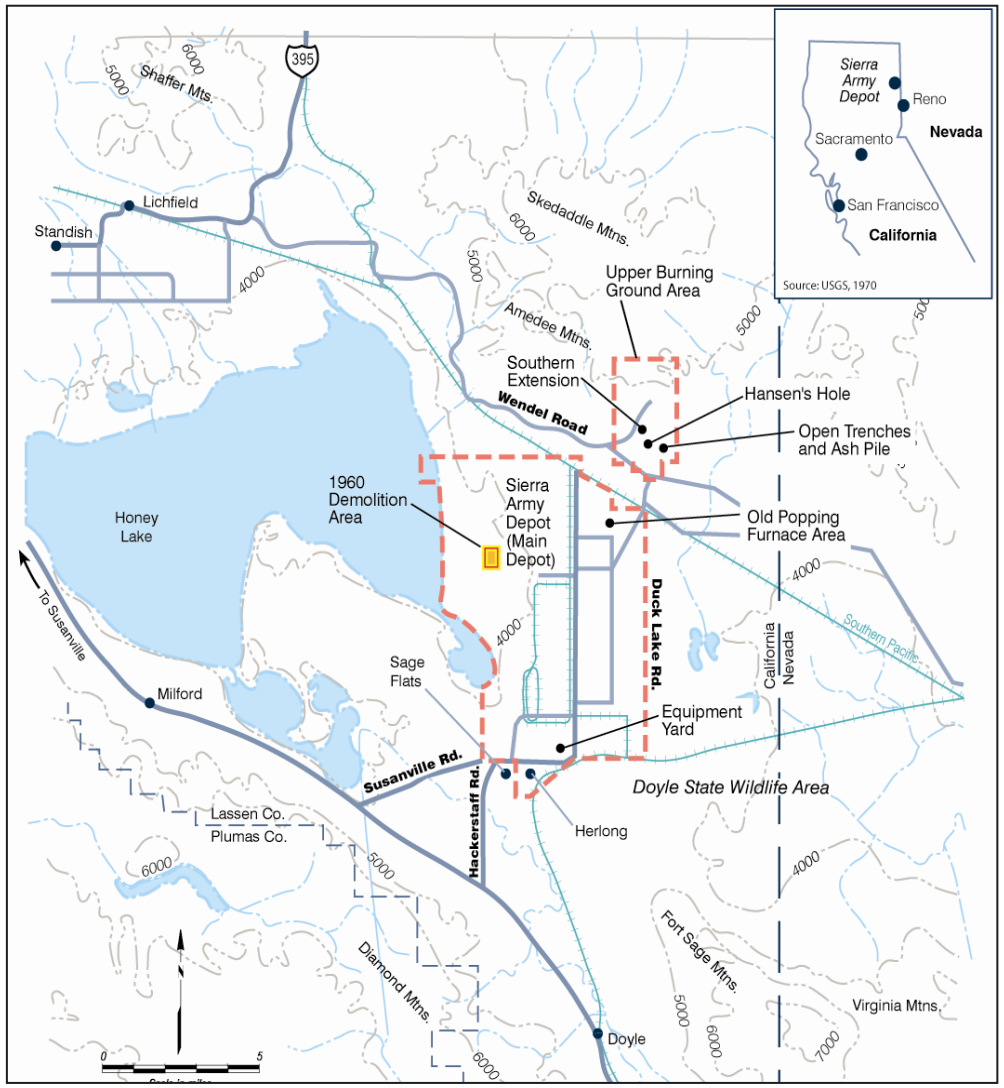
3.0 6:30 – 6:40 HONEY LAKE STATUS (BRAC)

4.0 6:40 – 6:50 7 MILITARY MUNITIONS RESPONSE SITES (PIKA Inc.)

5.0 OPEN DISCUSSION (Group)

- ✓ **Building 210 Area**
- ✓ **ALF/SSA**
- ✓ **DRMO Trench Area**
- ✓ **TNT Leaching Beds Area**





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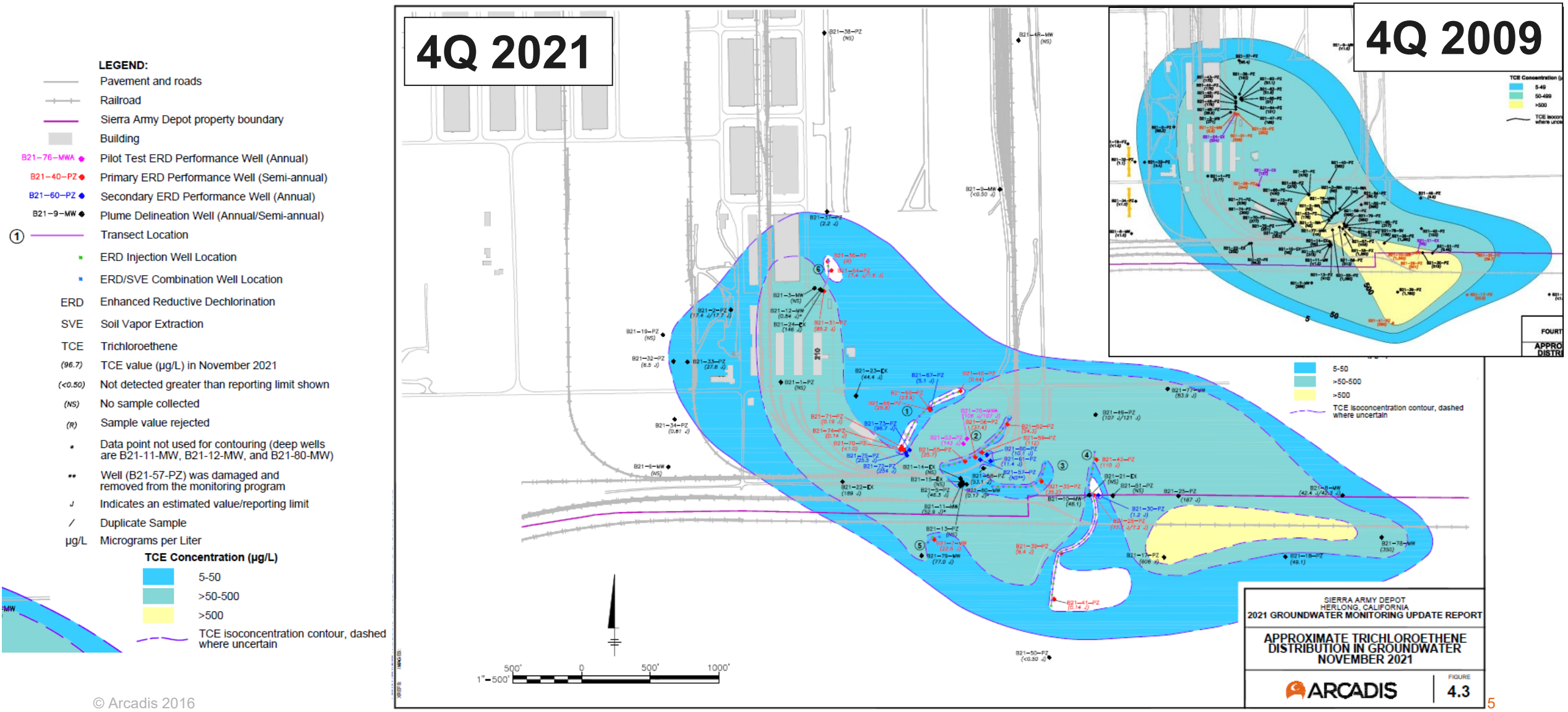
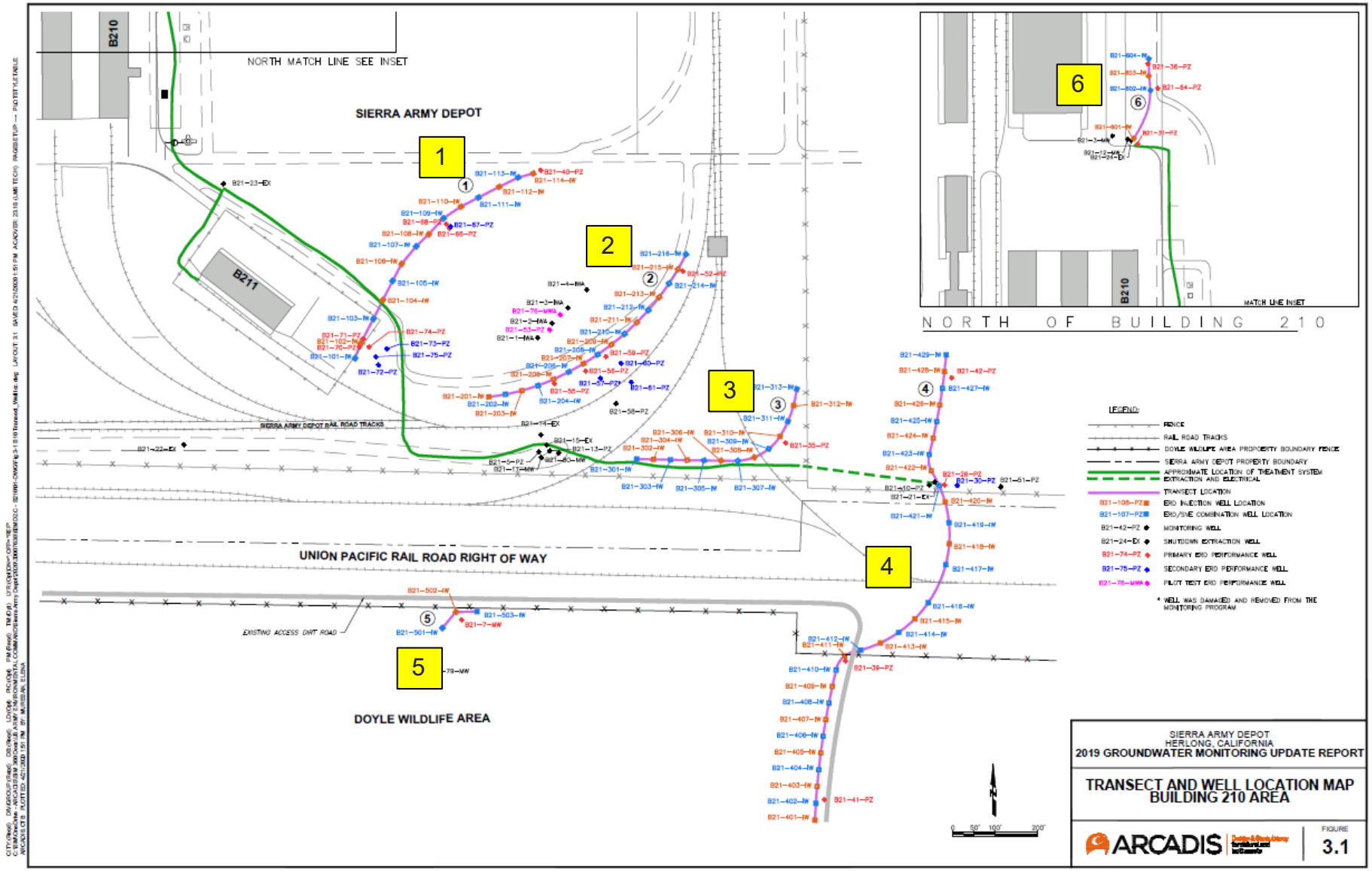
Building 210 Area

Building 210 Technical Update – ERD Performance



Building 210 Technical Update – System Layout

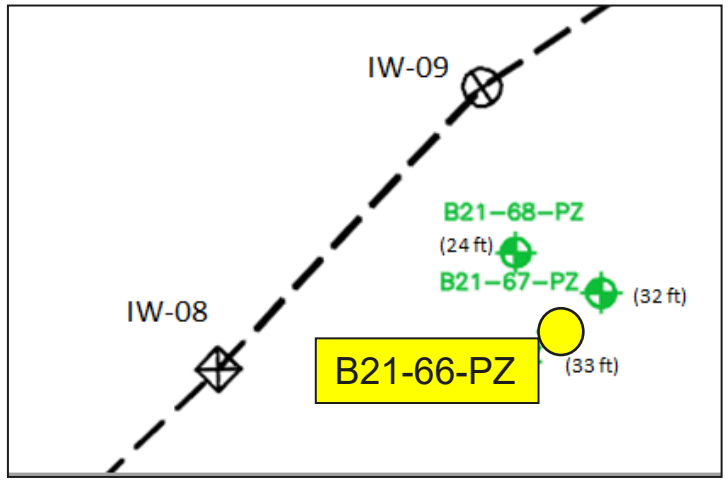


Building 210 Technical Update – ERD O&M

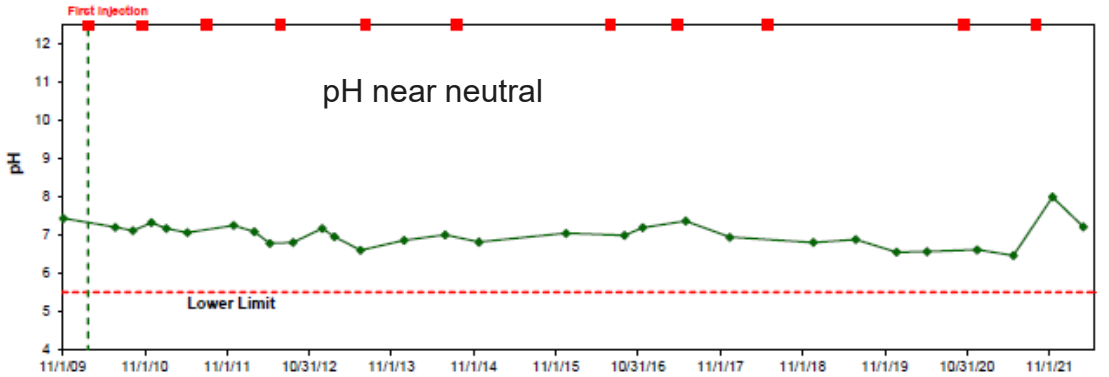
- ✓ Total of six transects (Transects 1 through 6) with 79 injection wells
- ✓ Transect 1 injection volumes typically range from ~50,000 to 60,000 gallons per well (50-ft well spacing)
- ✓ Transects 2 through 6 injection volumes typically range from ~30,000 to 40,000 gallons per well (40-ft well spacing)
- ✓ Injection solution of 1.5 to 4% molasses solution (w/ NaOH for pH adjustment)

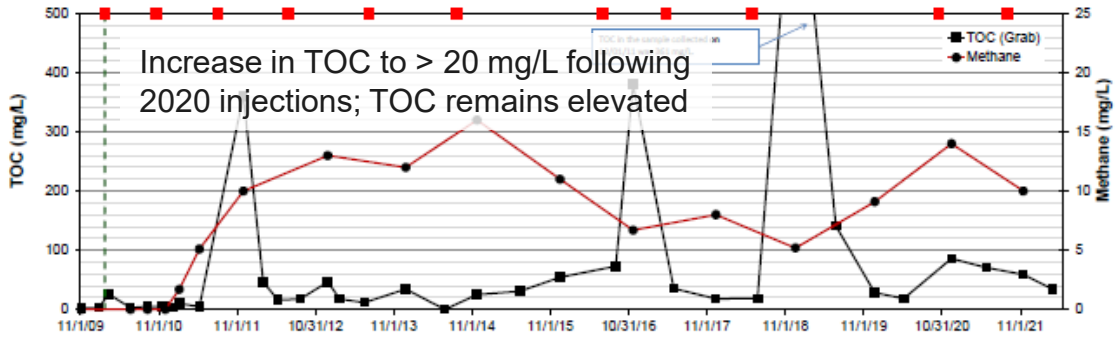
Transect	Latest Injection Event	Last Monitoring Event
1	April-May 2022	March-April 2022
2	Sep-Nov 2018 (rebound monitoring)	March-April 2022
3	June-Aug 2018 (rebound monitoring)	March-April 2022
4 North	Sep-Nov 2021 (2022 injections in progress)	March-April 2022
4 South	July-Sep 2021 (2022 injections in progress at 409-IW to 416-IW)	March-April 2022
5	May-July 2022	March-April 2022
6	May-July 2022	March-April 2022

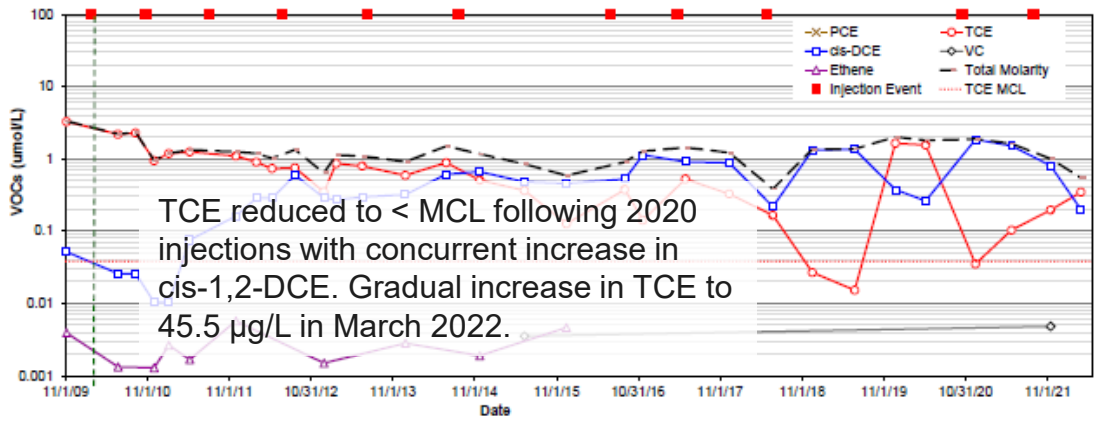
Building 210 Technical Update – Transect 1



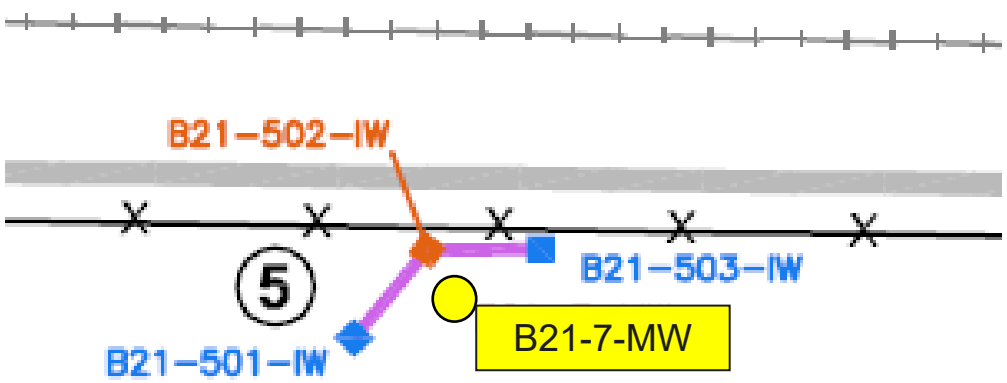
Continue injections at Transect 1: Clean water front maintained along majority of transect. Low-level increases in TCE observed in B21-66-PZ and B21-68-PZ (middle portion of transect). Injections completed in April-May 2022 (following the semiannual performance monitoring event).



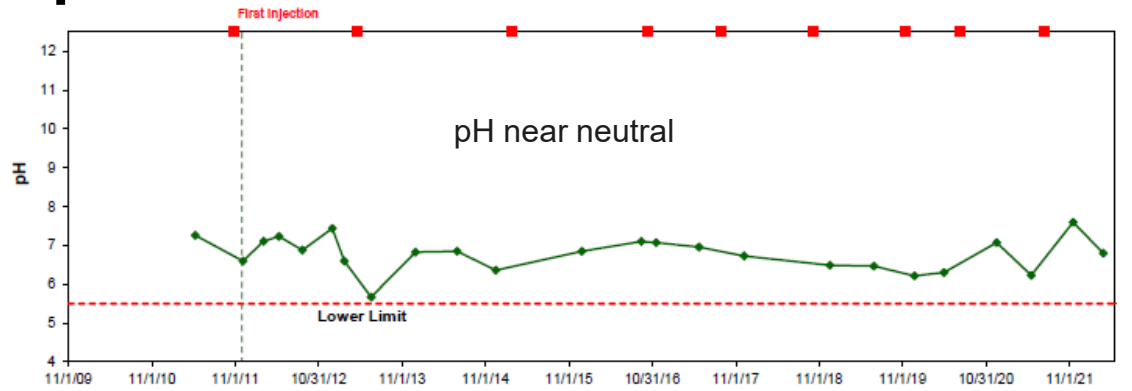


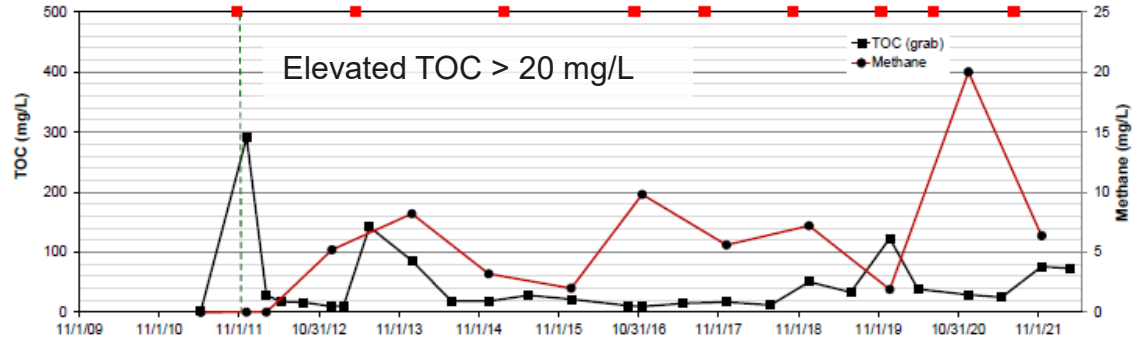


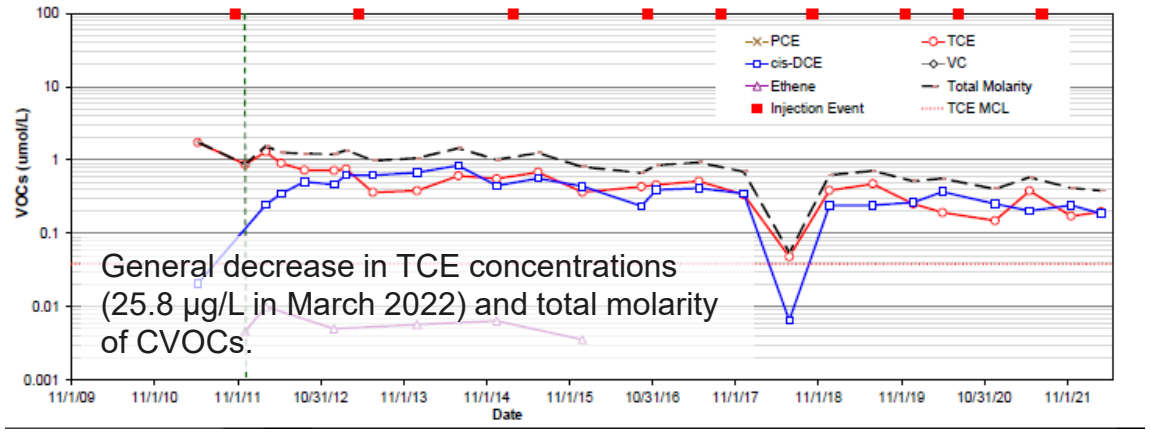
Building 210 Technical Update – Transect 5



Continue injections at Transect 5: General decrease in TCE concentrations and total molarity of CVOCs since injections initiated. Decrease in TCE following 2021 injection event. Injections completed in May-July 2022 (following the semiannual performance monitoring event).







Building 210 Technical Update – ERD Recommendations

- ✓ Continue injections at Transects 1, 4N, 4S (northern portion), 5, and 6 to establish/maintain the clean water fronts along these transects.
- ✓ Injections along the southern portion of Transect 4S will be suspended to monitor for dissipation of the treatment zone and potential rebound effects.
- ✓ Continue to monitor Transects 2 and 3 based on the elevated methane levels, high residual TOC concentrations, and relatively low-level TCE rebound.

Building 210 Area - Schedule

- ✓ Semi-annual groundwater monitoring completed in March-April 2022
  - Primary performance wells (for ERD parameters)
  - Select general groundwater monitoring wells
    - Monitoring wells with ongoing increasing trends (B21-18-PZ and B21-25-PZ)
    - More recently installed downgradient monitoring wells (B21-77-MW and B21-78-MW)
    - Wells B21-8-MW and B21-17-PZ (to confirm more recent decreasing trends in TCE)
    - TCE concentrations in above wells have decreased since November 2021
- ✓ Injections initiated in April 2022 and are ongoing
- ✓ Annual groundwater monitoring will be completed in 4Q 2022
- ✓ Will prepare 2022 Annual Groundwater Monitoring Report by April 2023

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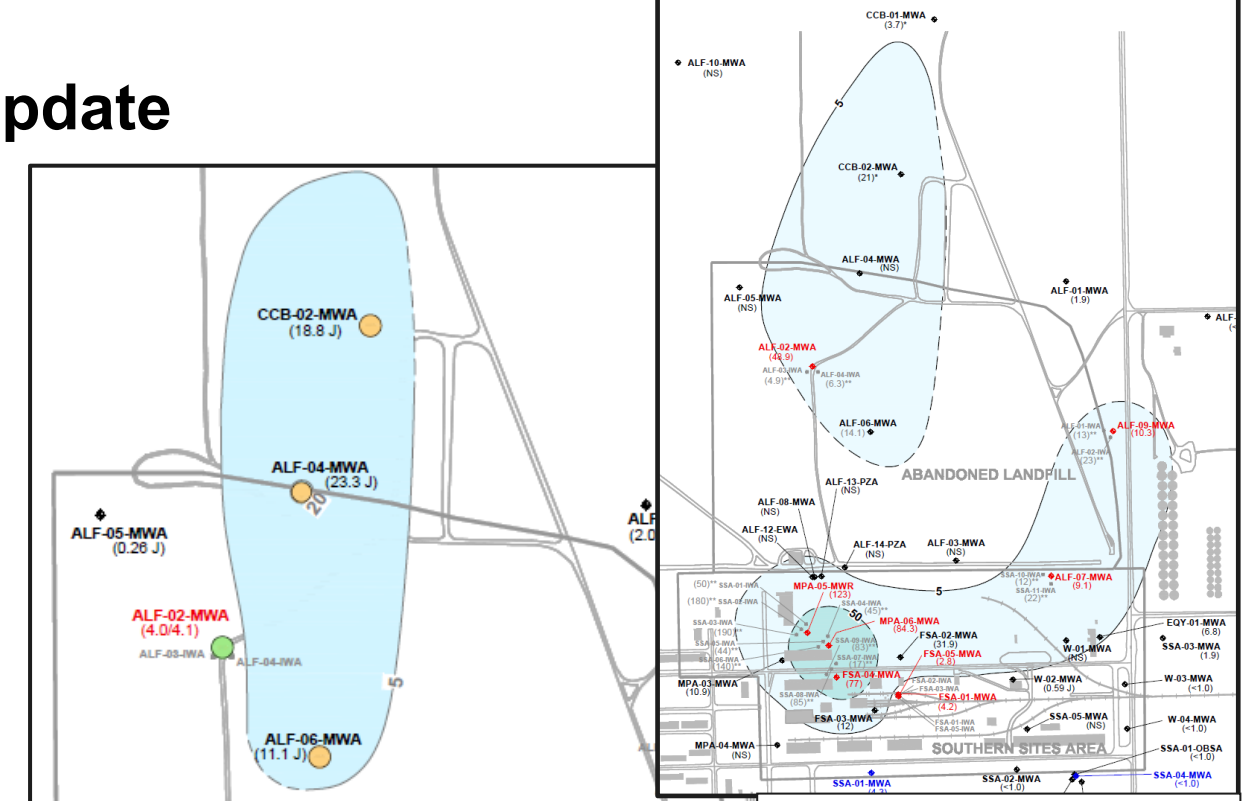
ALF/SSA

ALF/SSA Technical Update

- ✓ Last injections in June 2015
- ✓ TCE concentrations in five of the former ERD performance wells continue to be/ decreased to less than the MCL
- ✓ Ongoing monitoring with sampling conducted per MNA WP

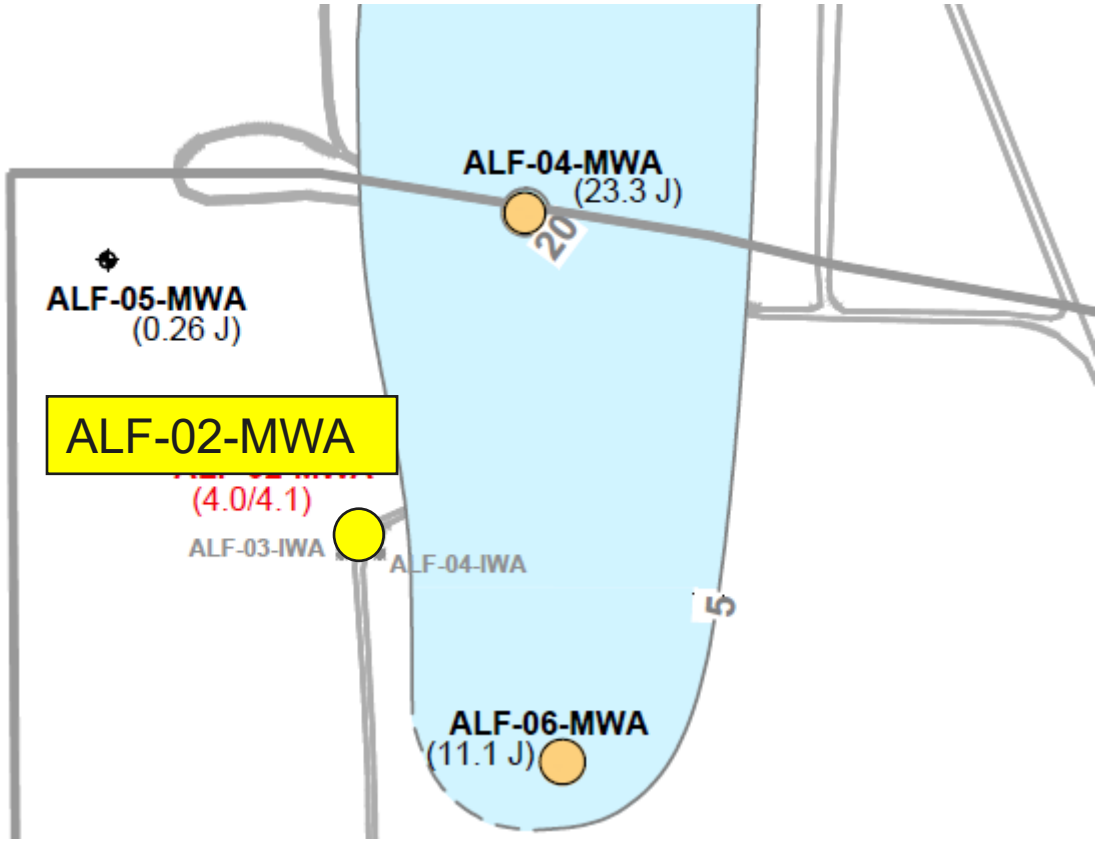


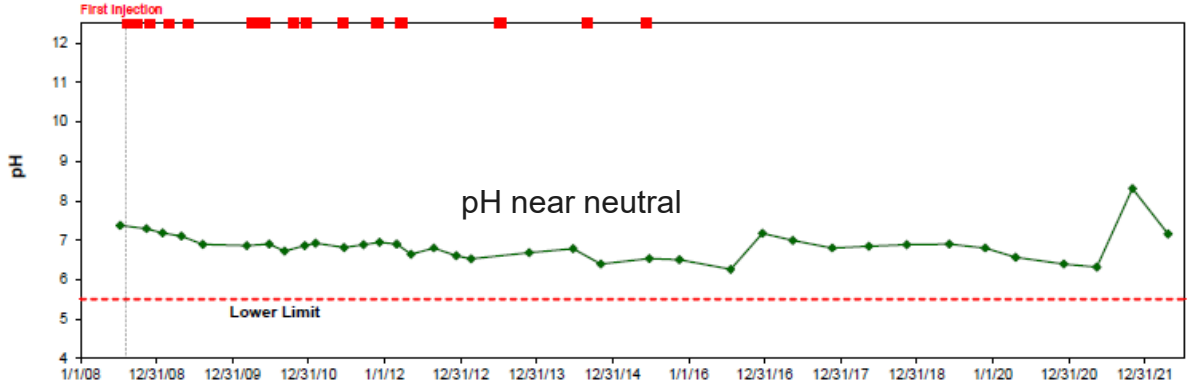
4Q 2009 –TCE Map

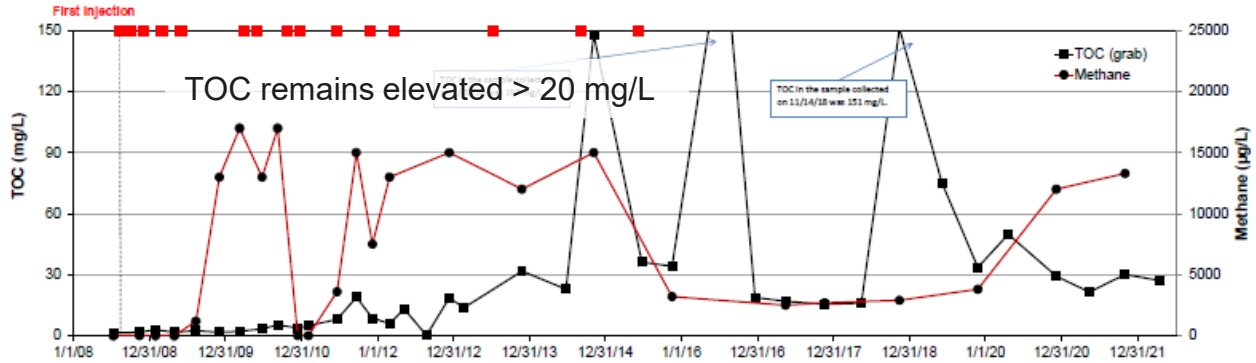
4Q 2021 –TCE Trends Map

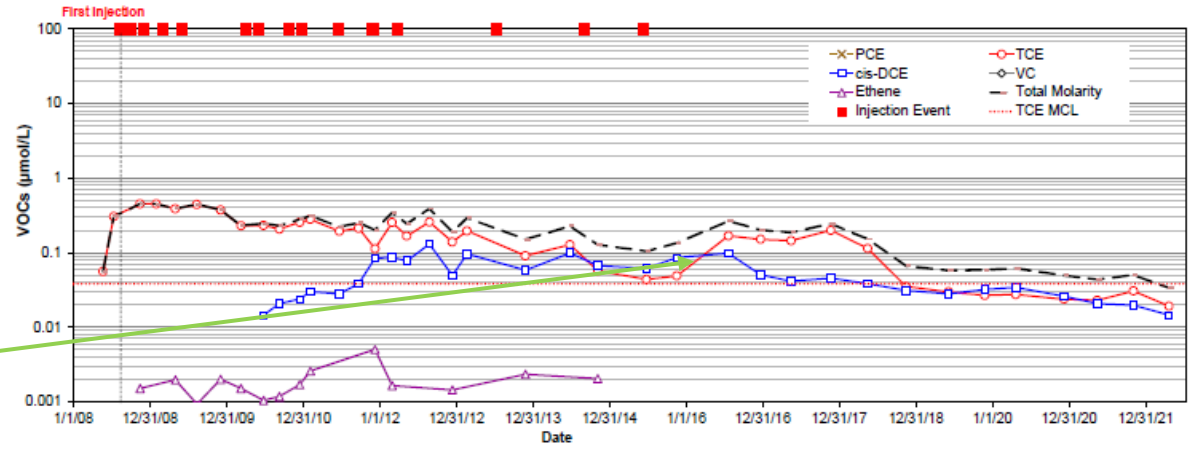
- Decreasing Trend
- No Trend/ Insignificant Trend
- Increasing Trend

ALF/SSA Technical Update – ERD Performance









Rebound in TCE concentrations (on the order of 20 µg/L) observed after discontinuation of ERD injections; TCE subsequently decreased and has remained < MCL.

ALF/SSA - Schedule

- ✓ Ongoing MNA monitoring in 2022
- ✓ Completed semiannual MNA sampling in April 2022
- ✓ Will complete annual MNA sampling in 4Q 2022
- ✓ Will prepare 2022 Annual Groundwater Monitoring Report by April 2023

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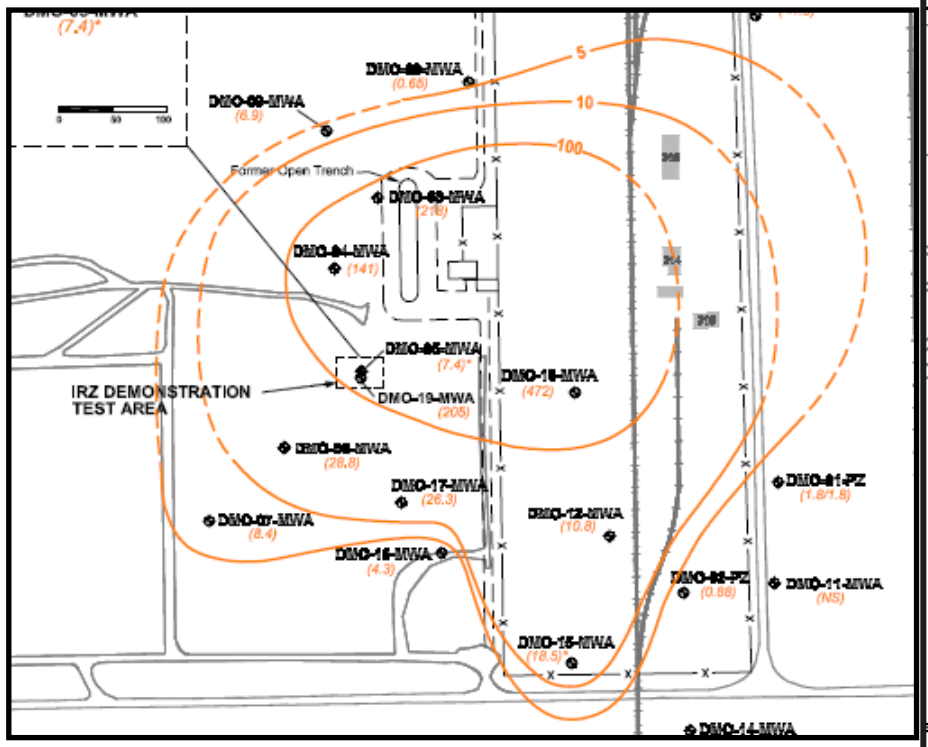
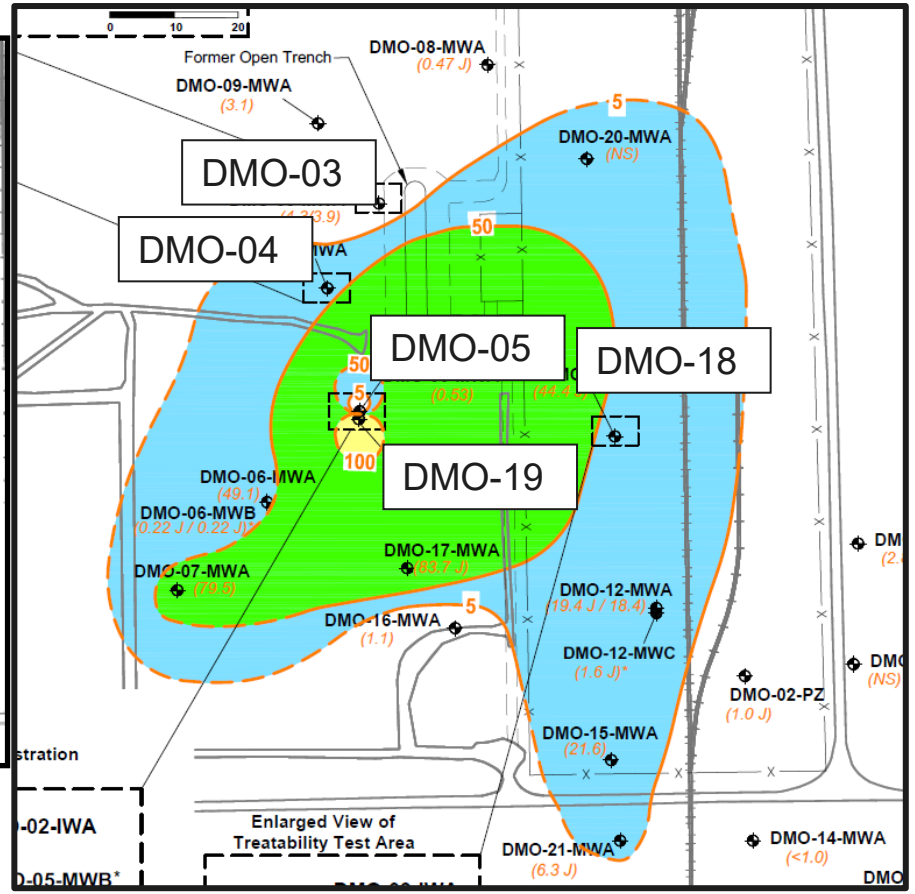
DRMO Trench Area

DRMO Trench Area Technical Update – ERD Treatability Test



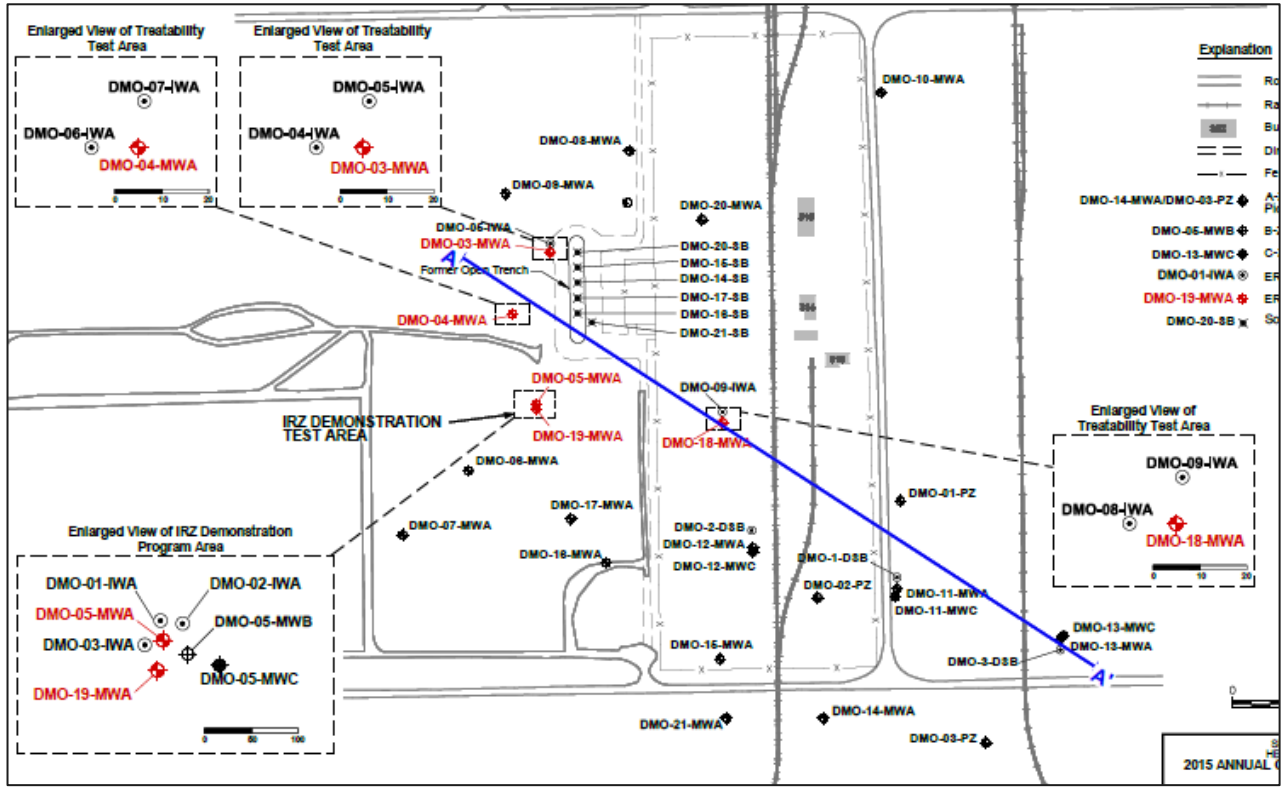
2010 TCE Plume



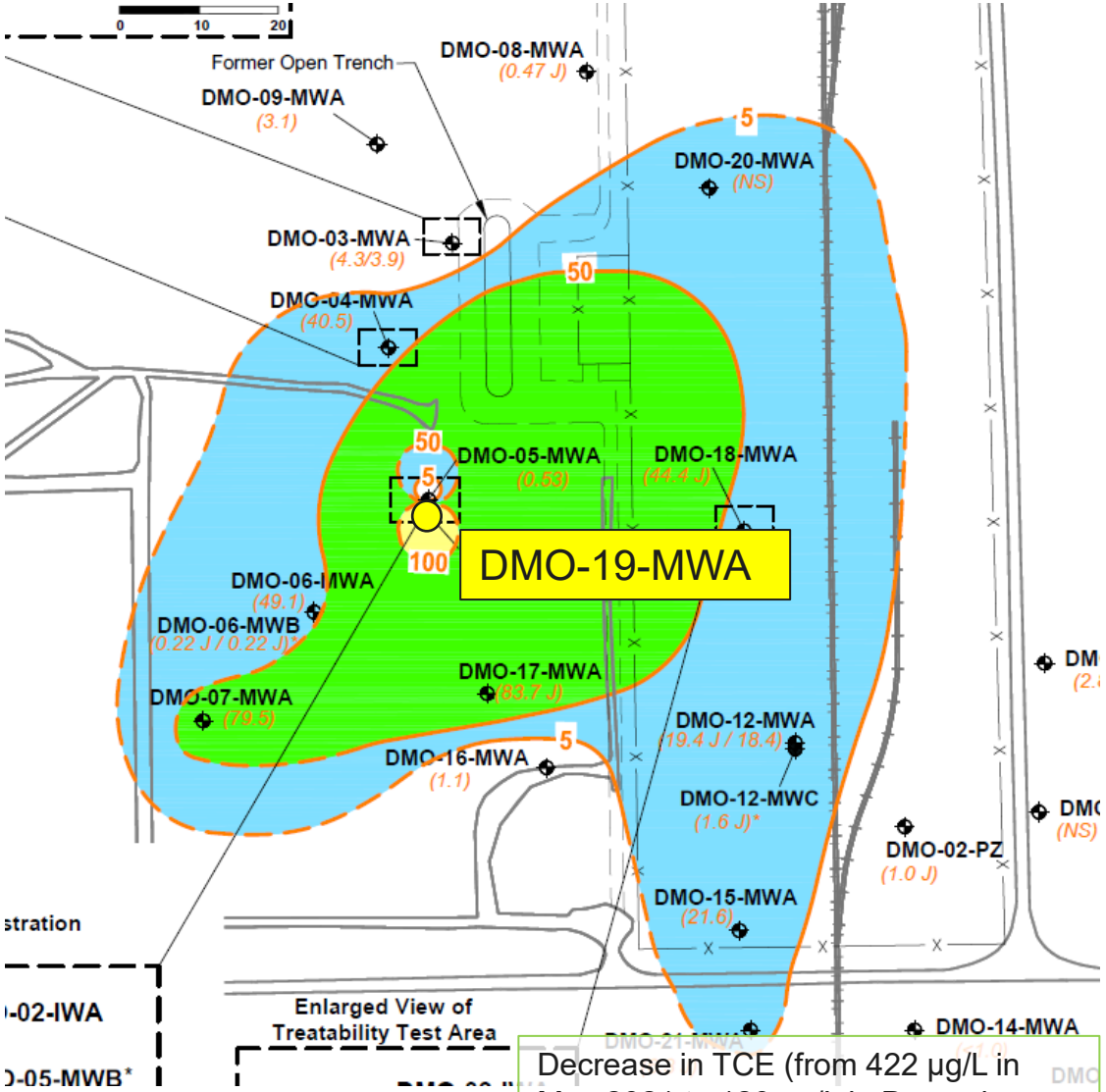
2021 TCE Plume

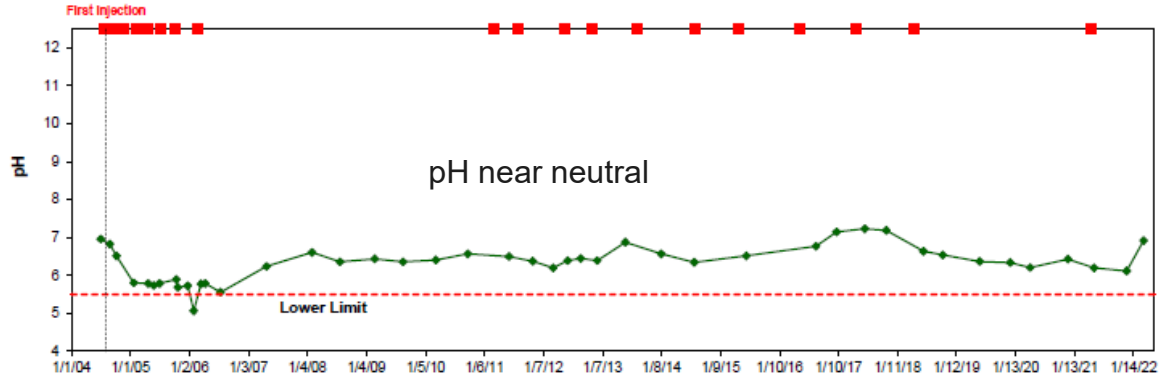
DRMO Trench Area Technical Update – ERD Treatability Test

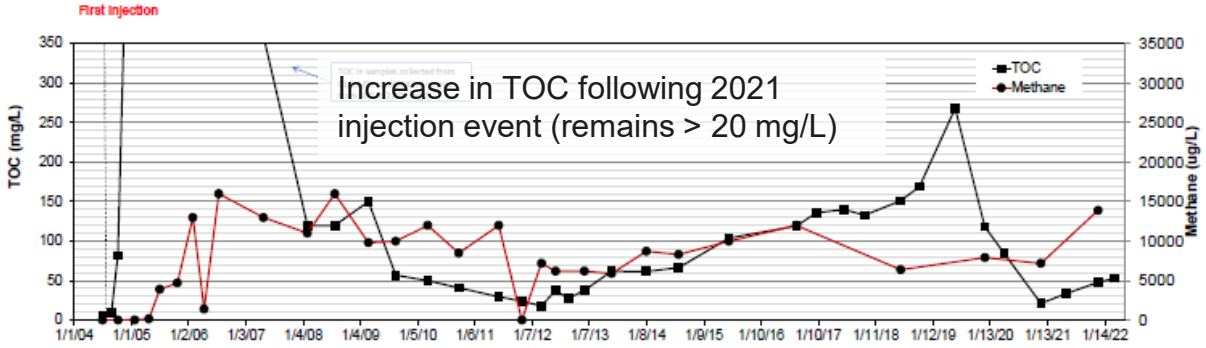
- ✓ Continued rebound monitoring in area of DMO-18-MWA (last injection in April 2018).
- ✓ Injections resumed in the other treatment areas in April 2021.
- ✓ Injections completed in April 2022 (2% molasses solution, ~5,000 gallons per injection well, ~10,000 gallons in DMO-02-IWA), following the semiannual performance monitoring event

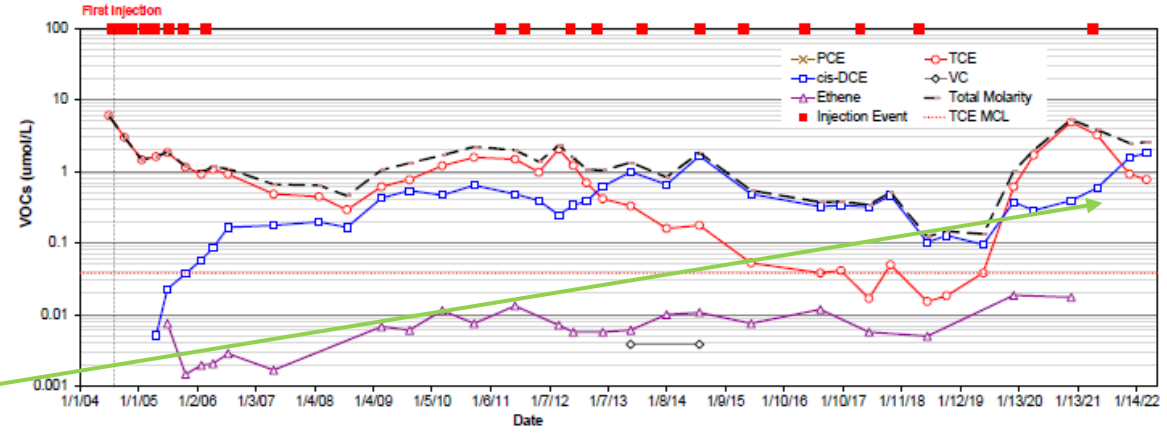


DRMO Trench Area Technical Update – ERD Treatability Test



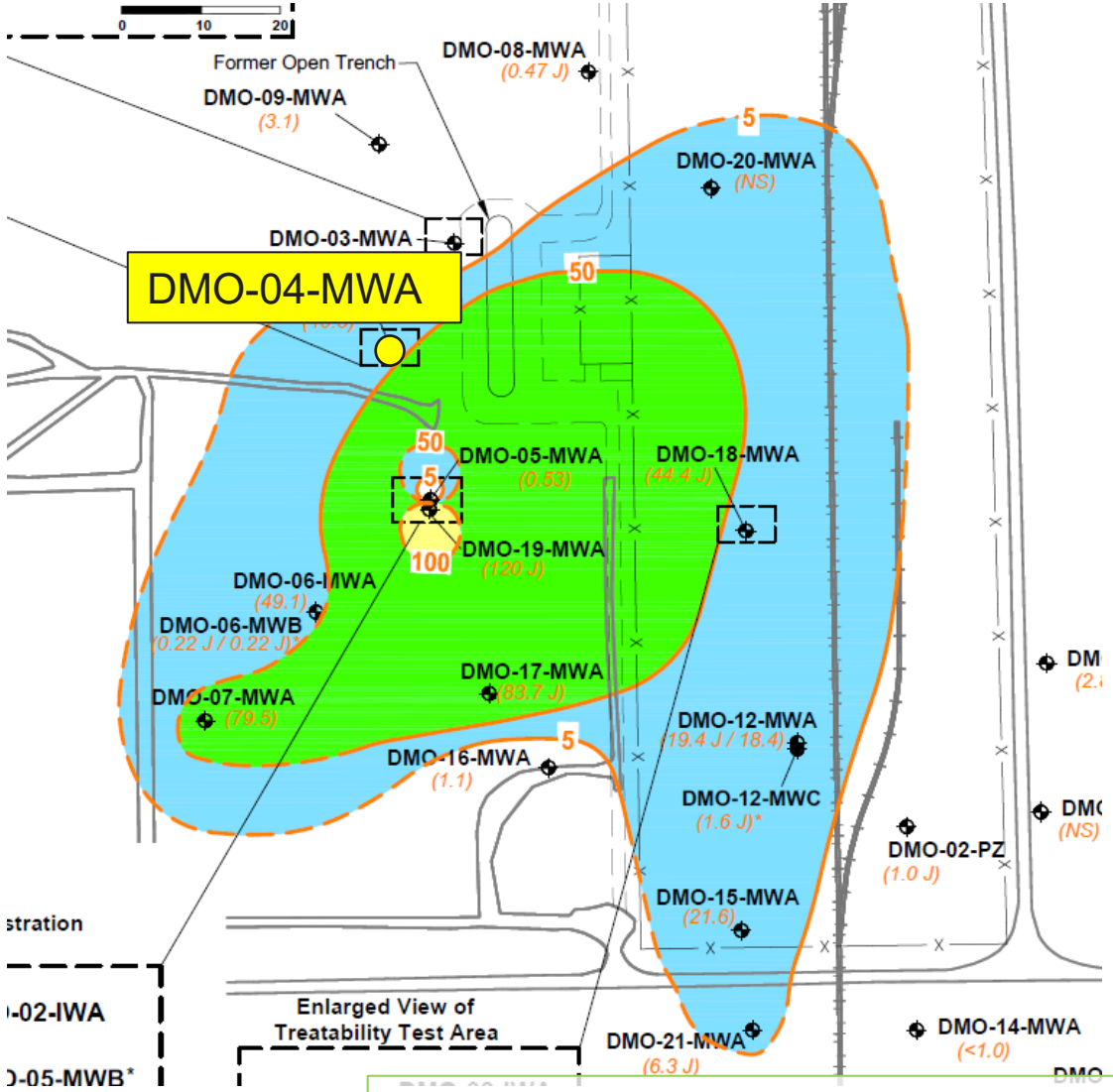


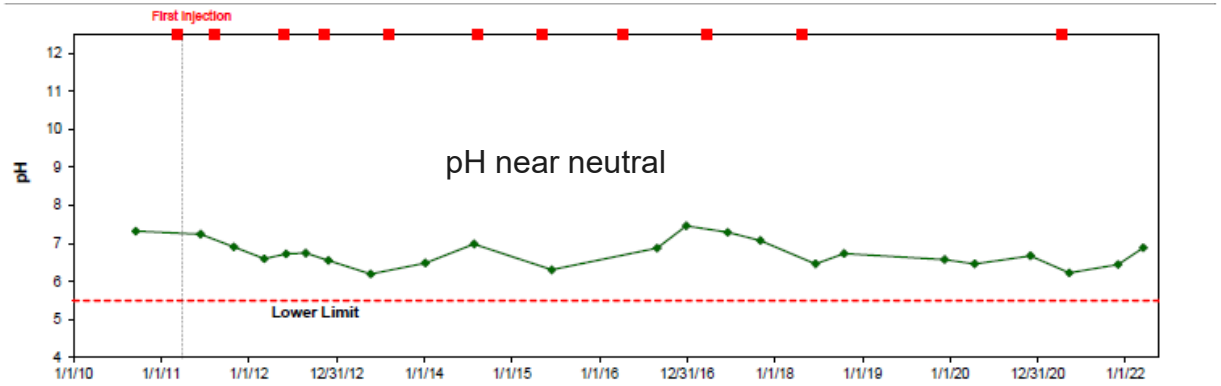


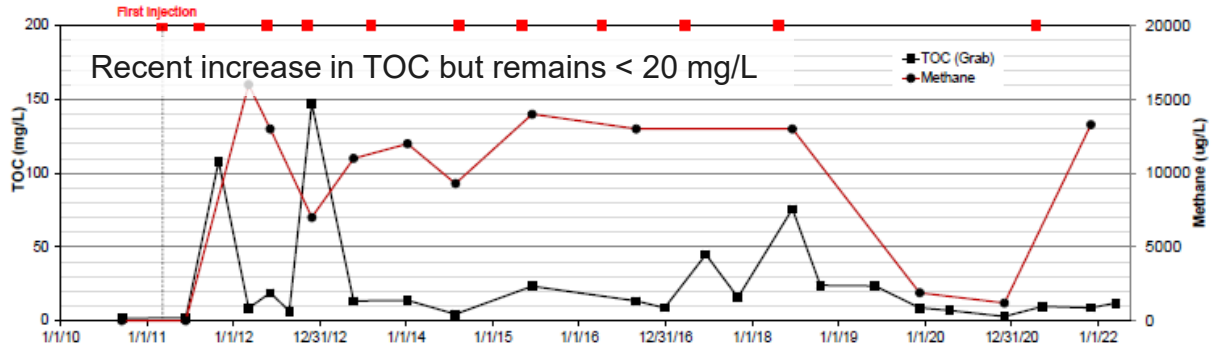


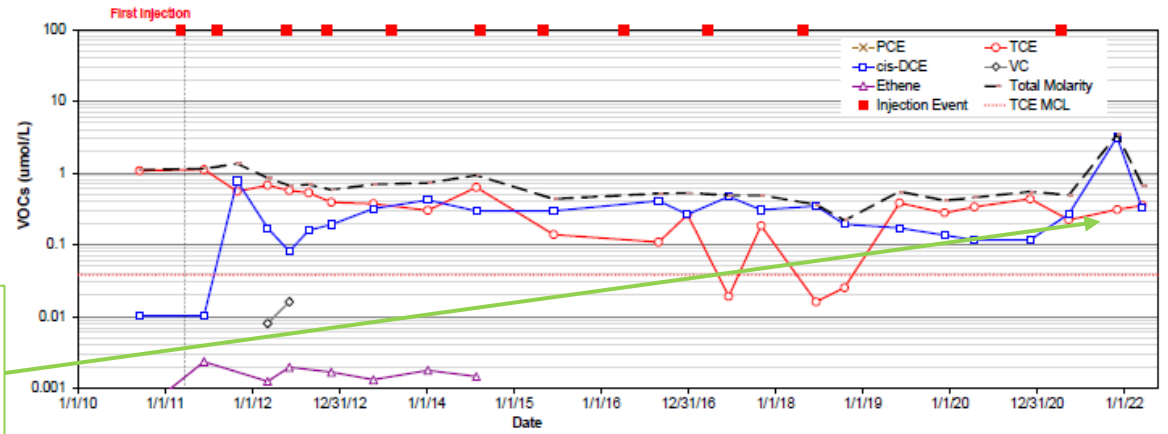
Decrease in TCE (from 422 µg/L in May 2021 to 120 µg/L in December 2021 to 101 µg/L in March 2022) and concurrent increase in cis-1,2-DCE following 2021 injection event.

DRMO Trench Area Technical Update – ERD Treatability Test









Slight increase in TCE (from 29 µg/L in May 2021 to 40.5 µg/L in December 2021 to 46.2 µg/L in March 2022) and decrease in cis-1,2-DCE (from 304 µg/L in December 2021 to 31.2 µg/L in March 2022

DRMO Trench Area - Schedule

- ✓ Completed semiannual sampling of the ERD performance wells in March 2022
- ✓ Completed ERD injections in the areas of DMO-03-MWA, DMO-04-MWA, and DMO-05-MWA/DMO-19-MWA in April 2022
- ✓ Will complete annual sampling event in 4Q 2022
- ✓ Will prepare 2022 Annual Groundwater Monitoring Report by May 2023

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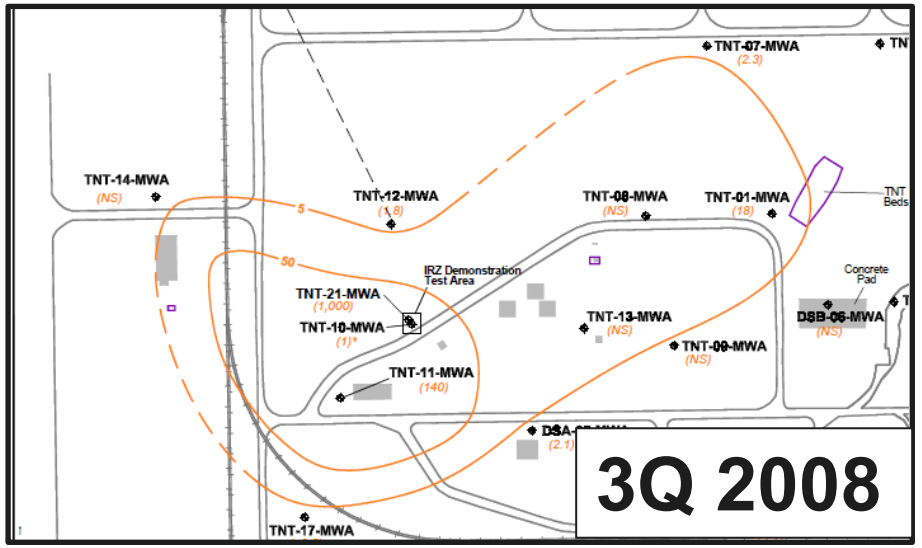
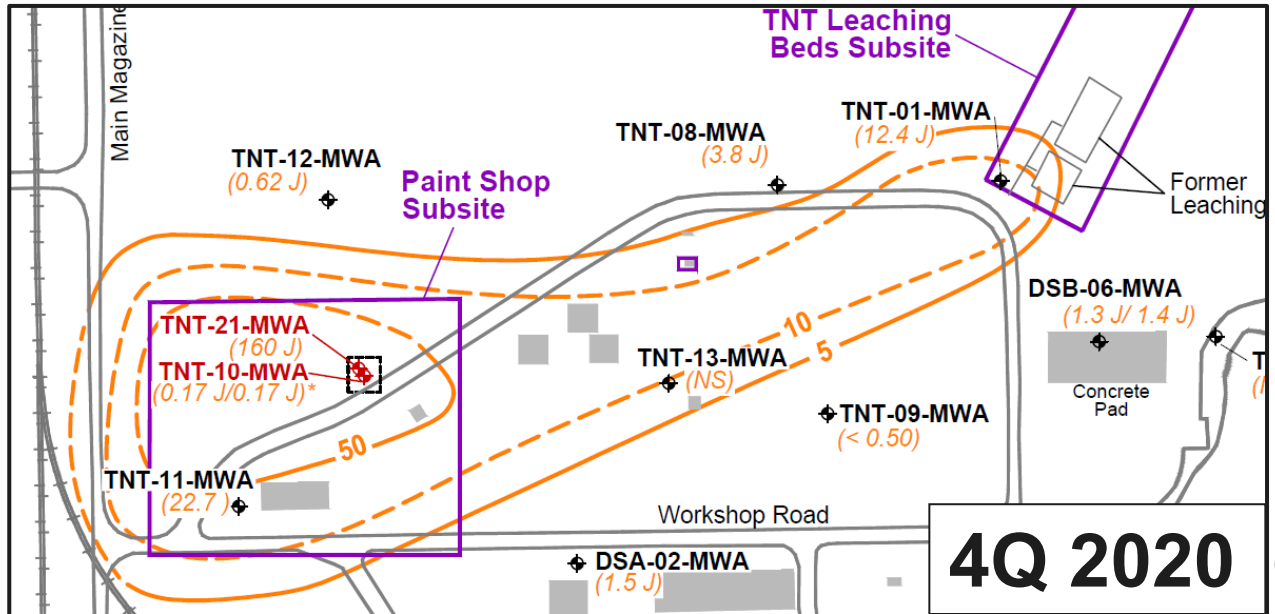
TNT Leaching Beds Area

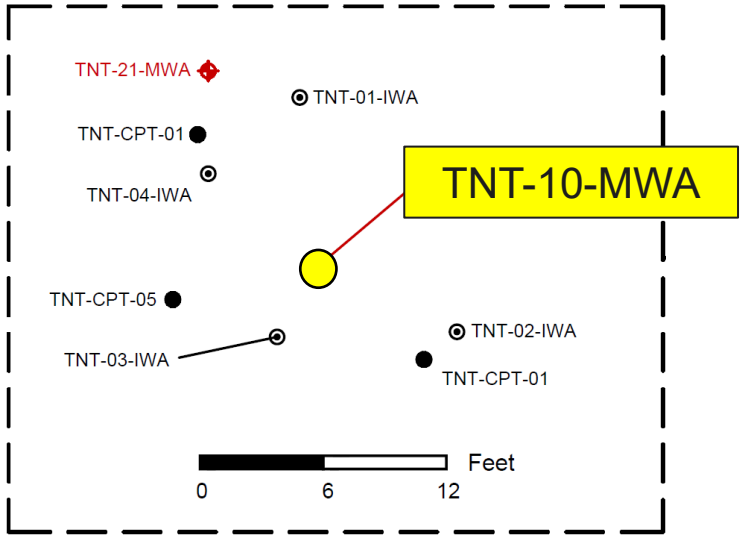
TNT Leaching Beds Area Technical Update – IRZ Demonstration Program

- ✓ Injections completed using four injection wells
- ✓ Injected between 2,000 to 3,000 gallons (2% to 3% molasses solution) per well in April 2021
- ✓ Injected between 1,000 to 3,000 gallons (2% to 3% molasses solution) per well in April 2022, following the semiannual performance monitoring event



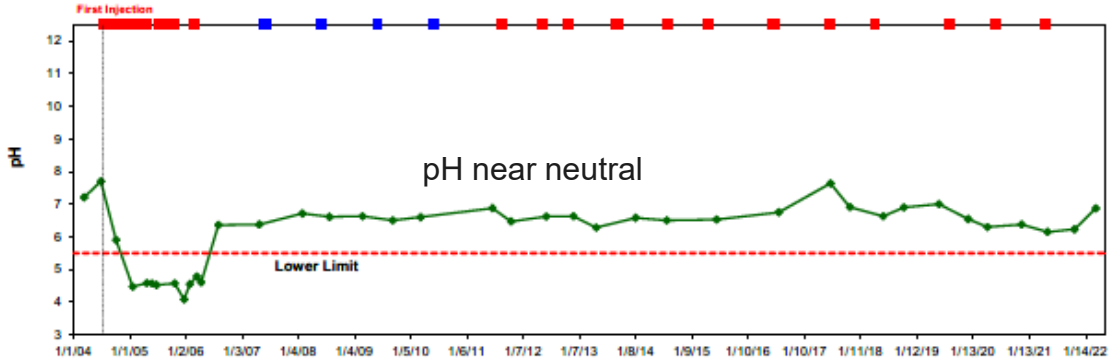


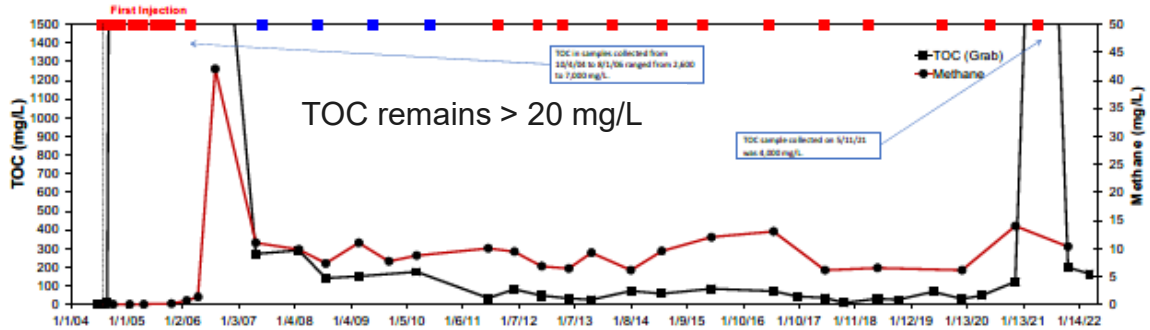
TNT Leaching Beds Area Technical Update – IRZ Demonstration Program

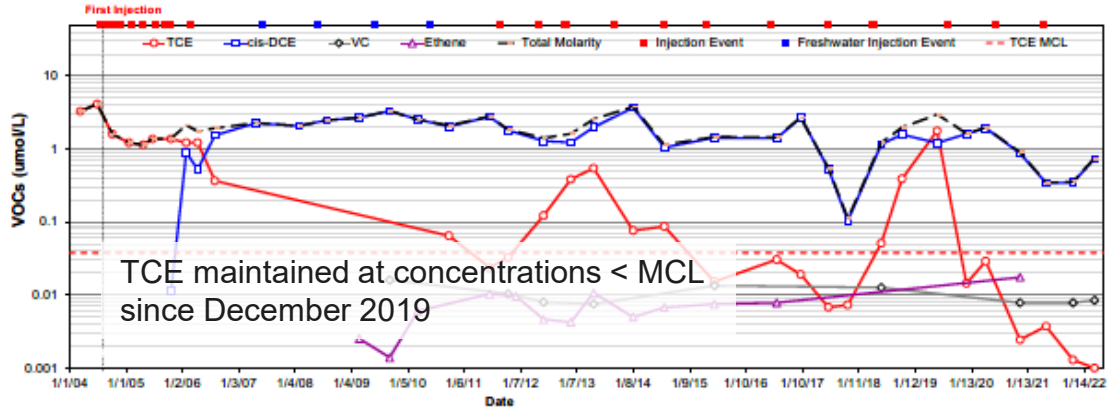


Notes:

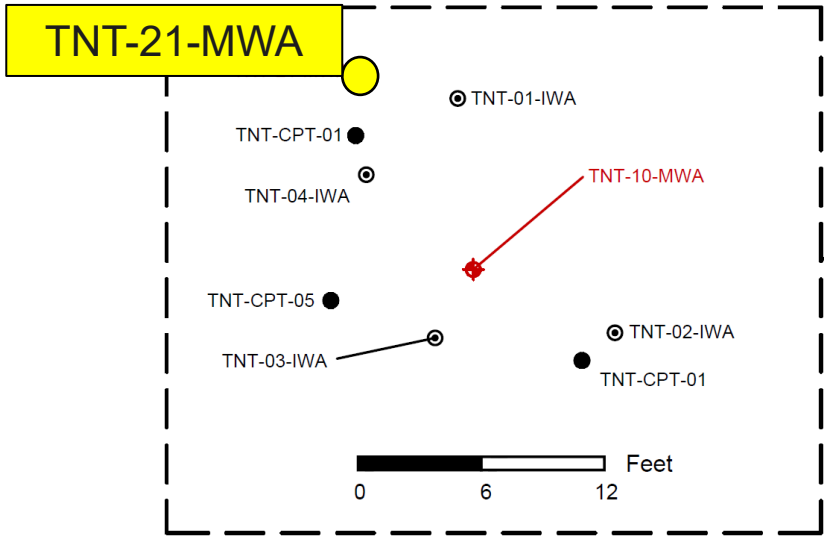
- Red square indicates molasses injection, blue square indicates clean water injection
- Clean water injection was carried out on an annual basis from 2007-2010







TNT Leaching Beds Area Technical Update – IRZ Demonstration Program



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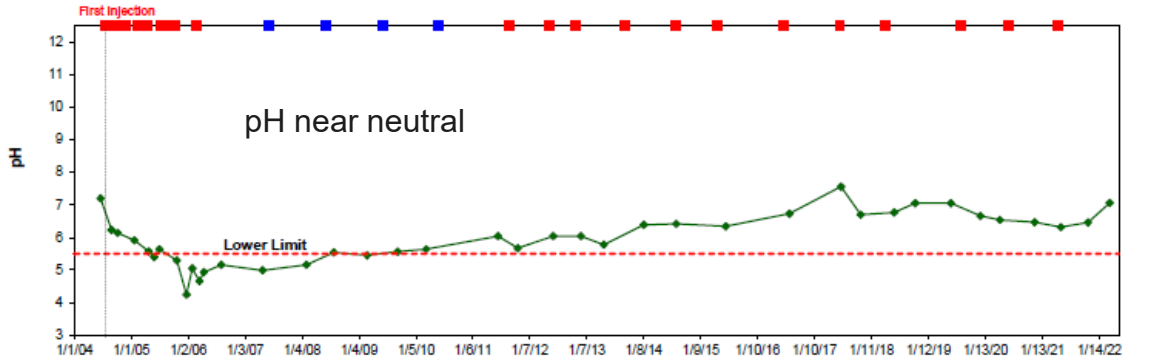

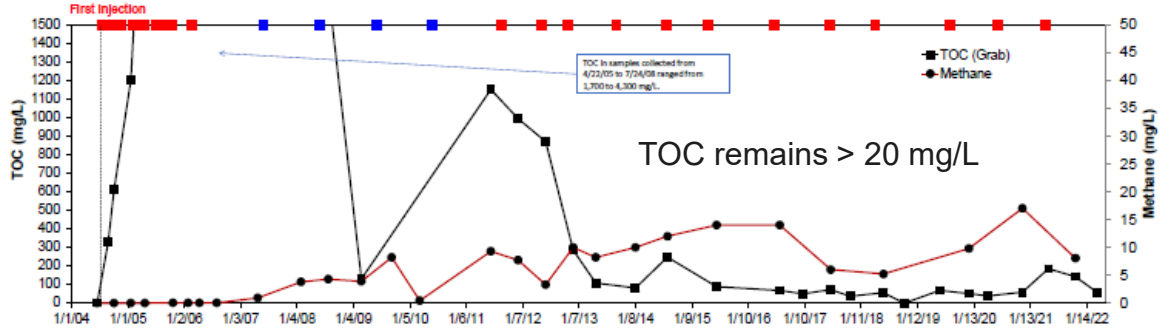

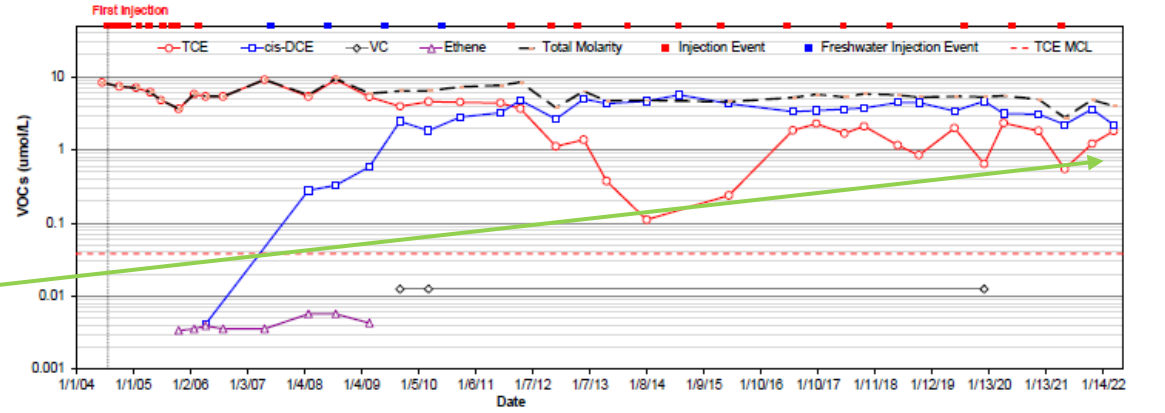

Rebound in TCE concentrations following April 2021 injection event (consistent with past observations) to 239 µg/L in March 2022. Concentrations still significantly lower than baseline levels on the order of 1,000s of µg/L.

TNT Leaching Beds Area - Schedule

- ✓ Semiannual sampling of the IRZ Demonstration Program performance wells completed in March 2022
- ✓ Completed IRZ Demonstration Program injection event in April 2022
- ✓ Will complete annual sampling event in 4Q 2022
- ✓ Will prepare 2022 Annual Groundwater Monitoring Report by May 2023

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Honey Lake Status

7 Military Munitions Response Sites

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Open Discussion