January 23, 2026 Project No. US0039040.4227

Mr. Jerry Wick
MC-127
VCP-CA Section, Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

RE: DNAPL RECOVERY ACTIVITIES QUARTERLY REPORT – 3RD QUARTER 2025
UNION PACIFIC RAILROAD HOUSTON WOOD PRESERVING WORKS FACILITY
4910 LIBERTY ROAD FACILITY, HOUSTON, TEXAS
POST-CLOSURE CARE PERMIT NO. HW-50343; INDUSTRIAL SWR NO. 31547

Dear Mr. Wick:

WSP USA Inc. (WSP), on behalf of Union Pacific Railroad Company (UPRR), prepared this 3rd Quarter 2025 summary report for the dense non-aqueous phase liquid (DNAPL) recovery activities conducted at the UPRR Houston Wood Preserving Works Facility (the Site). Below is a summary of the DNAPL recovery activities for the 3rd Quarter 2025:

DNAPL Recovery Summary 3rd Quarter 2025

- The presence of DNAPL was checked in the selected monitoring wells bi-monthly during the 3rd Quarter 2025. DNAPL was recovered from 8 of the selected wells during at least one gauging event during the 3rd Quarter 2025.
- An average of 0.9 gallons of DNAPL were recovered per recovery event, and approximately 5.4 gallons were recovered during the 3rd Quarter 2025.
- From February 2013 to September 2025, an estimated 1,130 gallons of creosote DNAPL have been recovered from the wells at the Site.

DNAPL Recovery Procedures

As detailed in the Response Action Plan (RAP) dated November 24, 2014, a 24-month DNAPL recovery pilot test, consisting of manual DNAPL recovery from selected wells on a monthly basis, was conducted at the Site. Following the 24-month pilot testing period, the DNAPL recovery activities continued monthly following the same procedures detailed in the RAP. In response to the Texas Commission on Environmental Quality (TCEQ) Technical Notice of Deficiency dated April 11, 2019, the DNAPL recovery frequency was increased to bi-monthly (twice a month) in June 2019.

The following monitoring wells are part of the current DNAPL recovery activities:

WSP USA Inc.
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Austin, Texas 78746

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Well Name	Zone
MW-49A	A-TZ
MW-57A	A-TZ
MW-78A	A-TZ
MW-12B	B-TZ
MW-32B	B-CZ
MW-33BR	B-CZ
MW-41B	B-TZ
MW-49B	B-CZ
MW-57B	B-CZ
MW-68B	B-TZ
MW-70B	B-CZ
MW-74B	B-TZ
MW-75B	B-CZ
MW-23C	C-TZ
MW-34CR	C-TZ
MW-44C	C-TZ
MW-45C	C-TZ
MW-46C	C-TZ

The locations of the DNAPL recovery wells are shown on Figure 1.

DNAPL recovery activities consist of measuring the depth to groundwater surface, the depth to groundwater/DNAPL interface, and the total depth of the well relative to the top of casing prior to DNAPL recovery. DNAPL recovery from each well is then performed using a peristaltic pump or submersible pump. Beginning in October 2019, the DNAPL encountered in MW-12B and MW-41B was too thick for the submersible pump to efficiently recover. Two stainless steel pneumatic pulse pumps (gas displacement pumps) from QED Environmental Systems (Model LP1301) were installed in MW-12B and MW-41B on March 30, 2020. These pumps are designed for recovering the more viscous liquids observed in these wells. DNAPL is pumped from the bottom of each well until groundwater returns in the pump discharge. The volume of recovered DNAPL is estimated from each well based on the volume pumped; then, the well is gauged to measure the total depth of the well and depth to DNAPL following pumping. Recovered DNAPL from the wells is consolidated into a 55-gallon drum and temporarily stored at the Containment Storage Area at the Site pending disposal at TCEQ-permitted facilities including the Clean Harbors Deer Park Facility in La Porte, Texas or the US Ecology Robstown Facility in Robstown, Texas. The most recent waste manifest for the disposal of recovered DNAPL and groundwater is provided in Attachment 1.

3rd Quarter 2025 DNAPL Recovery Activities

A summary of the DNAPL recovery measurements from February 2013 through September 2025 is provided in Table 1. DNAPL thicknesses listed on the table and referenced in this letter are “in-well thicknesses”. A graph of DNAPL thicknesses measured prior to each recovery effort over time from February 2013 through September 2025 is presented on Figure 2, with individual graphs for each zone and/or portion of the Site (Figures 3 through

7) discussed below. Observations from the 3rd Quarter gauging and recovery activities are provided below for each of the groundwater bearing units (GWBUs):

- A-TZ Wells: Recovery wells MW-49A, MW-57A, and MW-78A completed in the A-TZ were evaluated for DNAPL recovery during this period (graph of DNAPL thickness from July 2018 through September 2025 shown on Figure 3).

    - **MW-49A:** Measurable DNAPL was detected on August 21, measuring 0.24 feet in thickness. Approximately 0.1 gallons of DNAPL were recovered from MW-49A during the 3rd Quarter.

    - **MW-57A:** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. Measurable DNAPL has not been recorded in MW-57A since August 2015. No DNAPL was recovered from MW-57A during the 3rd Quarter.

    - **MW-78A:** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. Measurable DNAPL has not been recorded in MW-78A since May 2024. No DNAPL was recovered from MW-78A during the 3rd Quarter.

- B-TZ Wells (West Side): Recovery wells MW-12B and MW-41B completed in the B-TZ were evaluated for DNAPL recovery during this period (graph of DNAPL thickness from July 2018 through September 2025 shown on Figure 4).

    - **MW-12B:** During the 3rd Quarter recovery events at MW-12B, the groundwater/DNAPL interface was below the top of the pneumatic pulse pump. As a result, the interface probe could not get past the pump assembly to measure DNAPL thickness in the well. The pump length is approximately 1.55 feet. Based on the measured length of the pump assembly, the assumption is that there is less than approximately 1.5-2 feet of DNAPL in the well. Approximately 1.5 gallons of DNAPL were recovered from MW-12B using the pneumatic pump during the 3rd Quarter.

    - **MW-41B:** Similar to MW-12B, the groundwater/DNAPL interface in MW-41B was below the top of the pneumatic pulse pump during the 3rd Quarter. Based on measured length of the pump assembly, the assumption is there is less than approximately 1.5-2 feet of DNAPL in the well. Approximately 1.5 gallons of DNAPL were recovered from MW-41B using the pneumatic pump during the 3rd Quarter.

- B-TZ/B-CZ Wells (North (on-site and off-site)): Recovery wells MW-32B, MW-33BR, MW-57B, MW-68B, and MW-70B completed in either the B-TZ or B-CZ on the north side of the Site or off-site to the north were evaluated for DNAPL recovery during this period (graph of DNAPL thickness from July 2018 through September 2025 shown on Figure 5).

    - **MW-32B (off-site):** Measurable DNAPL was detected on July 10, July 24, August 21, September 4, and September 18 and ranged in thickness from 0.28 to 1.69 feet. Approximately 1.1 gallons of DNAPL were recovered from MW-32B during the 3rd Quarter.

    - **MW-33BR (off-site):** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. No measurable DNAPL (greater than a trace) has been recorded in MW-33BR. No DNAPL was recovered from MW-33BR during the 3rd Quarter.

- **MW-57B (on-site):** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. No DNAPL was recovered from MW-57B during the 3rd Quarter.

- **MW-68B (off-site):** Measurable DNAPL was detected on July 24, August 21, September 4, and September 18 and ranged in thickness from 0.18 to 0.74 feet. A vehicle blocked access to this well on August 7 which prevented gauging the well. Approximately 0.2 gallons of DNAPL were recovered from MW-68B during the 3rd Quarter.

- **MW-70B (off-site):** During the 3rd Quarter recovery events, DNAPL thickness measurements have been sporadic ranging from approximately 0.51 to 0.92 feet. Approximately 0.7 gallons of DNAPL were recovered from MW-70B during the 3rd Quarter.

- B-TZ/B-CZ Wells (Englewood Intermodal Yard): Recovery wells MW-49B, MW-74B, and MW-75B in the Englewood Intermodal Yard completed in the B-CZ and B-TZ were evaluated for DNAPL recovery during this period (graph of DNAPL thickness from July 2018 through September 2025 shown on Figure 6).

  - **MW-49B:** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. No DNAPL was recovered from MW-49B during the 3rd Quarter. The total depth measurement at MW-49B is approximately 7 feet shallower than the well construction depth and suggests that the well has an obstruction or casing failure. The well will be plugged, abandoned, and replaced by the end of December 2025.

  - **MW-74B:** Measurable DNAPL was detected on July 10, August 7, and August 21 and ranged in thickness from 0.39 to 2.75 feet. Approximately 0.3 gallons of DNAPL were recovered from MW-74B during the 3rd Quarter.

  - **MW-75B:** During the 3rd Quarter recovery events, DNAPL thickness measurements have been sporadic ranging from approximately 0.16 to 0.67 feet. Approximately 0.1 gallons of DNAPL were recovered from MW-75B during the 3rd Quarter.

- C-TZ Wells: Wells MW-23C, MW-34CR, MW-44C, MW-45C, and MW-46C completed in the C-TZ were evaluated for DNAPL recovery (graph of DNAPL thickness from July 2018 through September 2025 shown on Figure 7).

  - **MW-23C:** Measurable DNAPL was detected on July 10, August 7, September 4, and September 18 and ranged in thickness from 0.05 to 0.11 feet. No DNAPL was recovered from MW-23C during the 3rd Quarter.

  - **MW-34CR:** In May 2014, replacement well MW-34CR was installed and gauged as part of the DNAPL recovery program. However, no DNAPL has been detected in this well. No DNAPL was observed during the well redevelopment on August 30, 2022 or on February 5, 2024. No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. Given the absence of DNAPL in this well, a graph for MW-34CR is not included in Figure 7.

- **MW-44C:** Due to well damage, MW-44C will be plugged and abandoned. The well will be plugged, abandoned, and replaced by the end of December 2025.

- **MW-45C:** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. No DNAPL was recovered from MW-45C during the 3rd Quarter.

- **MW-46C:** No measurable or trace amount of DNAPL was detected during any of the 3rd Quarter recovery events. Measurable DNAPL has not been recorded in MW-46C since May 2019. No DNAPL was recovered from MW-46C during the 3rd Quarter.

DNAPL Recovery: From February 2013 to September 2025, an estimated 1,130 gallons of creosote DNAPL have been recovered from the wells at the Site. Monthly DNAPL recovery volumes increased after the January 2015 event due to a change in pumping techniques. Recovery volumes began to decline in 2020 and decreased significantly beginning in September 2021. Eleven of the wells were redeveloped in August 2022, and two additional wells were redeveloped in October 2022. Following the redevelopment, DNAPL recovery volumes increased. Well development of two wells occurred in January/February 2024 prior to the sitewide semi-annual groundwater sampling event. No changes in DNAPL recovery occurred after redevelopment.

During 3rd Quarter 2025, an average of 0.9 gallons of DNAPL were recovered per semi-monthly event. Approximately 5.4 gallons were recovered during the 3rd Quarter 2025 (Table 1). UPRR will continue to monitor the DNAPL thicknesses twice per month as described in the response to the TCEQ 4th Technical Notice of Deficiency (TNOD) letter (April 11, 2019).

If you have any questions or need additional information, please feel free to call us at (512) 220-7459 or Mr. Kevin Peterburs of UPRR at (414) 267-4164.

Sincerely,

WSP USA INC.

Matthew K. Wickham, P.G.
Vice-President/Team Lead

STATE OF TEXAS
MATTHEW K. WICKHAM
GEOLOGY
LIC. # 5330
LICENSED
PROFESSIONAL GEOSCIENTIST

01/23/26

Texas Geoscience Firm No. 50561

CC: Waste Program Manager, TCEQ Region 12, Houston
Mr. Kevin Peterburs, UPRR – Milwaukee, WI

Attachments:
Table 1 – Summary of DNAPL Recovery Measurements
Figure 1 – In-Well DNAPL Thickness – September 18, 2025
Figure 2 – DNAPL Recovery Activities February 2013 – September 2025
Figure 3 – A-TZ Wells – DNAPL Recovery Activities July 2018 – September 2025
Figure 4 – B-TZ Wells (West Side) – DNAPL Recovery Activities July 2018 – September 2025
Figure 5 – B-CZ/B-TZ Wells (North (On-Site and Off-Site) – DNAPL Recovery Activities July 2018 – September 2025
Figure 6 – B-CZ/B-TZ Wells (Englewood Intermodal Yard) – DNAPL Recovery Activities July 2018 – September 2025
Figure 7 – C-TZ Wells – DNAPL Recovery Activities July 2018 – September 2025

TABLE

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-12B				MW-23C				MW-32B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013	9.06	39.87	5.93	2.5	NM	NM	NM	0	6.01	30.06	6.23	2
4/3/2013	9.41	39.95	5.85	1.0	NM	NM	NM	0	4.86	33.61	2.68	1
4/22/2013	8.61	31.64	14.16	0.5*	NM	NM	NM	0	5.62	36.08	0.21	0.3
5/30/2013	8.47	37.62	8.18	1.5*	NM	NM	NM	0	5.86	32.21	4.08	2
6/29/2013	9.62	38.22	7.58	1.5	NM	NM	NM	0	6.79	33.59	2.7	1.5
7/22/2013	11.16	39.04	6.76	1.0	NM	NM	NM	0	7.14	33.91	2.38	1.5
8/26/2013	11.31	39.61	6.19	1.0	NM	NM	NM	0	7.48	33.83	2.46	1
9/27/2013	11.17	40.63	5.17	1.0	NM	NM	NM	0	7.23	34.39	1.9	1
10/31/2013	11.09	43.71	2.09	1.0	NM	NM	NM	0	7.16	34.96	1.33	0.5
11/27/2013	11.17	44.06	1.74	1.0	NM	NM	NM	0	7.29	35.03	1.26	0.5
12/31/2013	11.02	44.62	1.18	1.0	NM	NM	NM	0	7.16	35.16	1.13	0.5
1/30/2014	11.34	45.12	0.68	1.0	NM	NM	NM	0	6.72	34.82	1.47	0.5
3/3/2014	11.17	44.32	1.48	1.0	NM	NM	NM	0	6.53	34.52	1.77	0.5
3/31/2014	11.03	44.53	1.27	1.0	NM	NM	NM	0	6.29	34.21	2.08	0.5
4/30/2014	10.92	44.26	1.54	1.0	NM	NM	NM	0	6.42	34.67	1.62	0.5
5/27/2014	10.81	44.34	1.46	1.0	NM	NM	NM	0	6.36	34.72	1.57	0.5
6/26/2014	10.72	44.61	1.19	1.0	NM	NM	NM	0	6.21	34.61	1.68	0.5
7/31/2014	10.13	44.96	0.84	1.0	NM	NM	NM	0	6.06	34.33	1.96	0.3
8/27/2014	10.26	45.12	0.68	1.0	NM	NM	NM	0	6.18	34.98	1.31	0.3
10/3/2014	10.17	44.91	0.89	1.0	NM	NM	NM	0	6.06	34.72	1.57	0.3
11/3/2014	10.29	44.97	0.83	1.0	22.51	70.71	2.09	0.3	6.18	34.91	1.38	0.3
11/24/2014	10.27	44.99	0.81	1.0	22.56	70.92	1.88	0.5	6.21	35.16	1.13	0.5
12/22/2014	10.23	44.71	1.09	1.0	22.47	70.81	1.99	0.5	6.14	35.02	1.27	0.8
1/29/2015	10.16	44.96	0.84	1.0	22.26	71.04	1.76	0.5	5.71	35.29	1	0.8
2/26/2015	10.12	44.96	0.84	1.5	22.06	71.09	1.71	0.5	6.02	35.29	1	1
3/26/2015	9.96	45.21	0.59	1.5	22.17	71.12	1.68	0.3	5.46	35.36	0.93	1
4/27/2015	9.89	45.37	0.43	1.5	22.23	71.06	1.74	0.5	5.21	35.29	1	1
5/26/2015	9.72	45.61	0.19	2.0	22.17	71.14	1.66	0.5	5.07	35.46	0.83	1
7/6/2015	7.12	45.96	0.24	2.0	19.01	71.39	1.41	0.5	4.06	35.66	0.63	1
8/3/2015	7.26	46.09	0.11	2.0	19.16	71.46	1.34	0.8	4.29	35.71	0.58	1
8/27/2015	8.09	46.01	0.19	1.0	20.34	71.51	1.29	0.8	5.05	35.77	0.52	1
10/5/2015	7.12	45.86	0.34	1.0	19.02	71.57	1.23	0.5	4.31	35.96	0.33	1
11/5/2015	6.86	45.81	0.39	1.0	18.59	71.59	1.21	0.5	4.02	35.91	0.38	1
12/3/2015	6.46	45.79	0.41	1.0	18.33	71.67	1.13	0.5	3.92	35.96	0.33	1
12/28/2015	6.23	45.62	0.58	1.3	23.21	71.61	1.19	0.8	3.73	35.91	0.38	1
2/3/2016	6.04	45.55	0.65	1.5	17.96	71.64	1.16	0.5	3.61	35.87	0.42	1
3/3/2016	5.96	45.61	0.59	1.5	17.92	71.71	1.09	0.5	3.51	35.91	0.38	1
3/31/2016	6.06	45.72	0.48	1.5	17.86	71.79	1.01	0.5	3.56	35.92	0.37	1
5/3/2016	6.13	45.66	0.54	1.0	NM	NM	NM	0.0	3.67	35.87	0.53	0.5
6/2/2016	6.21	45.61	0.59	1.0	22.9	71.51	1.29	0.5	3.74	35.92	0.48	0.5
7/8/2016	6.29	45.72	0.48	1.0	23.09	71.52	1.28	0.3	3.91	35.96	0.44	0.5
8/3/2016	6.34	45.77	0.43	1.0	23.16	71.66	1.14	0.3	4.03	35.49	0.91	0.5
8/30/2016	6.47	45.69	0.51	1.0	23.31	71.61	1.19	0.5	4.22	36.09	0.31	0.5
9/30/2016	6.59	45.81	0.39	1.0	23.39	71.81	0.99	0.5	4.33	35.91	0.49	0.5
11/3/2016	6.64	45.92	0.28	1.0	23.41	71.98	0.82	0.5	4.47	35.99	0.41	0.5
11/30/2016	6.86	45.86	0.34	0.5	23.59	71.91	0.89	0.8	4.62	35.91	0.49	0.5
1/4/2017	7.02	45.81	0.39	0.5	23.74	71.82	0.98	0.8	4.83	36.02	0.38	0.3
2/7/2017	6.97	45.69	0.51	0.5	23.67	71.74	1.06	0.8	4.81	35.91	0.49	0.3
3/2/2017	6.91	45.64	0.56	0.5	23.54	76.82	0.98	0.8	4.66	35.97	0.43	0.3
4/3/2017	6.82	45.71	0.49	0.5	23.46	76.96	0.84	0.8	4.57	36.01	0.39	0.3
4/27/2017	6.74	45.64	0.56	0.5	23.21	77.04	0.76	0.5	4.51	36.06	0.34	0.3
5/29/2017	6.89	45.77	0.43	0.5	23.49	77.21	0.59	0.3	4.74	36.03	0.37	0.3
7/5/2017	7.01	45.71	0.49	0.5	23.61	77.27	0.53	0.3	4.86	36.13	0.27	0.3
8/1/2017	7.14	45.63	0.57	0.8	23.79	77.17	0.63	0.3	4.99	36.24	0.16	0.3
9/5/2017	7.03	45.6	0.6	1.0	23.67	77.29	0.51	0.3	4.78	36.24	0.16	0.3
10/4/2017	7.07	45.69	0.51	1.0	23.61	77.36	0.44	0.3	4.89	36.29	0.11	0.3
11/2/2017	7.11	45.76	0.44	1.0	23.74	77.42	0.38	0.3	4.96	36.26	0.14	0.3
11/29/2017	7.16	45.71	0.49	1.0	23.81	77.4	0.40	0.3	5.06	36.31	0.09	0.3
1/2/2018	6.96	45.82	0.38	1.0	23.67	77.43	0.37	0.3	4.93	36.27	0.13	0.3
2/7/2018	7.13	45.87	0.33	1.0	23.86	77.46	0.34	0.3	5.16	36.21	0.19	0.3
3/1/2018	7.36	45.96	0.24	1.0	23.96	77.41	0.39	0.3	5.38	36.13	0.27	0.3
4/2/2018	7.29	45.94	0.26	1.0	23.9	77.32	0.48	0.5	5.31	36.18	0.22	0.3
5/1/2018	8.17	45.91	0.29	1.0	24.47	77.39	0.41	0.5	6.12	36.23	0.17	0.5

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-12B				MW-23C				MW-32B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/1/2018	8.49	45.86	0.34	1.0	24.81	77.31	0.49	0.5	6.41	36.19	0.21	0.5
6/29/2018	8.62	45.81	0.39	1.0	24.99	77.37	0.43	0.5	6.59	36.11	0.29	0.8
8/3/2018	8.79	45.96	0.24	1.0	25.12	77.39	0.41	0.5	6.74	36.19	0.21	0.8
8/31/2018	8.32	46.01	0.19	0.8	24.81	77.43	0.37	0.5	6.47	36.23	0.17	0.8
9/28/2018	8.27	45.93	0.27	0.5	24.69	77.39	0.41	0.5	6.41	36.19	0.21	0.8
11/2/2018	8.16	45.91	0.29	0.5	24.57	77.36	0.44	0.5	6.33	36.21	0.19	0.5
11/29/2018	8.01	45.9	0.30	0.5	24.36	77.3	0.50	0.5	6.21	36.27	0.13	0.3
1/2/2019	7.96	45.87	0.33	0.5	24.29	77.31	0.49	0.5	6.09	36.29	0.11	0.3
2/2/2019	7.82	45.89	0.31	0.5	24.21	77.44	0.36	0.5	5.97	36.24	0.16	0.5
2/28/2019	7.69	45.81	0.39	0.5	24.16	77.36	0.44	0.5	5.86	36.21	0.19	0.3
4/2/2019	7.61	45.8	0.4	0.5	24.08	77.32	0.48	0.5	5.79	36.24	0.16	0.3
4/25/2019	7.49	45.76	0.44	1.0	24.01	77.16	0.64	0.5	5.86	36.29	0.11	0.3
5/29/2019	7.51	45.71	0.49	1.0	24.11	77.11	0.69	0.5	5.91	36.21	0.19	0.3
6/12/2019	6.81	45.52	0.68	1.5	24.39	76.71	1.09	1.0	5.46	35.91	0.49	0.5
6/30/2019	6.67	45.06	1.14	2.0	24.32	76.67	1.13	0.8	5.39	35.42	0.98	1
7/16/2019	6.62	45.11	1.09	2.0	24.26	76.61	1.19	1.0	5.32	35.36	1.04	1
8/2/2019	6.69	45.01	1.19	1.5	24.31	76.49	1.31	1.5	5.41	35.26	1.14	1.5
8/15/2019	6.79	44.76	1.44	2.0	24.22	76.36	1.44	1.5	5.61	35.19	1.21	1.5
8/28/2019	6.88	44.71	1.49	2.0	24.29	76.41	1.39	1.5	5.72	35.22	1.18	1.5
9/17/2019	6.93	43.96	2.24	3.0	24.36	76.29	1.51	1.5	5.81	35.17	1.23	1.5
10/2/2019	6.86	43.17	3.03	0.0	24.32	76.09	1.71	1.5	5.77	35.02	1.38	1.5
10/16/2019	6.71	30.29	15.91	0.0	25.75	75.89	1.91	1.5	4.36	33.42	2.98	1.5
10/31/2019	6.53	21.63	24.57	0.0	26.33	75.29	2.51	1.5	3.43	31.86	4.54	1.5
11/15/2019	7.21	19.12	27.08	0.5	25.69	ND	0	0.0	3.47	35.7	0.7	1
12/3/2019	7.55	27.37	18.83	0.0	26.11	75.12	2.68	1.5	4.33	35.51	0.89	0
12/18/2019	12.68	35.9	10.3	0.0	26.13	77.4	0.4	0.3	4.71	35.61	0.79	1.5
12/30/2019	8.08	28.12	18.08	0.0	26.48	76.1	1.7	0.1	5.04	34.28	2.12	1.5
1/7/2020	--	--	--	--	--	--	--	--	--	--	--	--
1/15/2020	7.47	27.12	19.08	0.0	26.49	77.1	0.7	0.0	4.1	35.4	1	1
1/27/2020	6.28	21.06	25.14	0.0	25.99	76.58	1.22	0.0	3.01	31.15	5.25	1
2/13/2020	6.91	20.42	25.78	0.0	25.51	76.42	1.38	0.0	3.88	31.39	5.01	1
2/25/2020	6.4	23.6	22.6	0.0	25.6	75.5	2.3	0.1	3.9	31.05	5.35	0.8
3/13/2020	7.61	22.01	24.19	0.0	25.66	77.08	0.72	0.0	4.32	32.46	3.94	1.3
3/31/2020	7.88	22.01**	24.19	2.5	25.9	77.12	0.68	0.0	4.63	33.3	3.1	0.3
4/9/2020	7.37	18.21	27.99	3.0	25.91	77.22	0.58	0.0	4.65	30.14	6.26	1.0
4/27/2020	8.64	19.12	27.08	3.5	26.31	76.45	1.35	0.0	5.39	34.52	1.88	0.5
5/14/2020	9.39	33.16	13.04	2.5	26.7	75.89	1.91	0.1	6.02	34.73	1.67	0.5
5/28/2020	8.79	40.29	5.91	1.5	26.75	75.71	2.09	0.1	5.84	34.35	2.05	1.0
6/11/2020	9.29	40.69	5.51	2.5	26.93	ND	0	0.0	5.89	35.01	1.39	0.3
6/25/2020	9.01	BP	NM	2.0	25.89	77.94	0	0.0	5.6	35.12	1.28	0.3
7/9/2020	8.04	BP	NM	1.0	26.64	76	1.8	0.3	4.83	35.18	1.22	0.3
7/23/2020	8.17	BP	NM	2.5	26.81	75.61	2.19	0.3	5.63	34.7	1.7	1.0
8/6/2020	5.43	BP	NM	1.0	26.41	75.52	2.28	0.3	3.88	33.94	2.46	1.3
8/20/2020	8.03	BP	NM	1.0	26.38	75.4	2.4	0.3	4.87	33.87	2.53	0.5
9/2/2020	8.89	BP	NM	1.0	26.71	76.24	1.56	0.5	5.54	35.21	1.19	0.3
9/17/2020	9.84	BP	NM	0.0	26.99	75.9	1.9	0.5	6.01	34.4	2	0.5
10/1/2020	6.9	BP	NM	0.5	26.59	75.08	2.72	0.3	4.88	35.18	1.22	0.3
10/14/2020	8.42	BP	NM	2.5	26.71	75.08	2.72	0.3	4.95	34.26	2.14	0.5
10/28/2020	8.31	BP	NM	2.0	26.84	75.81	1.99	0.3	5.31	33.94	2.46	0.8
11/12/2020	9.19	BP	NM	1.0	27.12	76.12	1.68	TR	5.79	33.71	2.69	2.5
11/23/2020	9.55	BP	NM	0.8	27.41	76.28	1.52	0.3	6.24	34.19	2.21	1.0
12/10/2020	6.67	BP	NM	1.5	26.72	76.2	1.6	0.3	3.68	32.9	3.5	1.0
12/21/2020	5.46	BP	NM	0.8	26.21	NM	NM	0.0	3.89	32.82	3.58	1.0
1/7/2021	5.01	BP	NM	1.0	25.85	ND	0	0.0	3.02	35.4	1	1.0
1/21/2021	5.72	BP	NM	2.0	25.49	75.29	2.51	0.3	3.48	35.01	1.39	1.0
2/4/2021	6.87	BP	NM	1.5	25.48	75.36	2.44	1.3	4.09	34.48	1.92	1.0
2/23/2021	5.47	BP	NM	1.0	25.25	75.61	2.19	1.0	3.19	33.59	2.81	1.0
3/11/2021	5.95	BP	NM	0.8	25.31	75.84	1.96	1.0	3.47	34.05	2.35	1.0
3/25/2021	9.28	BP	NM	1.0	25.2	75.62	2.18	1.0	3.85	34.83	1.57	1.0
4/8/2021	7.52	BP	NM	1.0	25.38	75.4	2.4	1.0	4.92	33.7	2.7	1.0
4/22/2021	8.42	BP	NM	1.0	25.94	76.35	1.45	0.1	5.03	34.2	2.2	1.0
5/4/2021	6.82	BP	NM	1.0	25.95	75.25	2.55	1.0	4.26	34.6	1.8	1.0
5/20/2021	5.52	BP	NM	1.0	25.84	75.66	2.14	1.0	3.55	34.2	2.2	1.0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-12B				MW-23C				MW-32B			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/3/2021	5.46	BP	NM	1.0	25.19	75.74	2.06	0.5	2.54	34.6	1.8	1.0
6/17/2021	6.67	BP	NM	1.0	25.06	75.62	2.18	0.5	3.08	33.98	2.42	1.0
7/1/2021	5.46	BP	NM	1.0	24.72	75.12	2.68	0.5	2.61	34.38	2.02	1.0
7/19/2021	5.08	BP	NM	1.0	23.99	74.9	2.9	0.5	2.68	34.18	2.22	0.5
7/29/2021	7.1	BP	NM	1.0	24.19	75.25	2.55	0.3	3.71	34.10	2.3	0.5
8/12/2021	8.71	BP	NM	1.0	24.96	75.72	2.08	0.3	4.96	34.19	2.21	1.0
8/26/2021	8.93	BP	NM	1.0	25.42	75.81	1.99	0.5	5.2	34.8	1.6	1.0
9/10/2021	8.91	BP	NM	0.7	25.87	75.79	2.01	TR	5.68	34.48	1.92	1.1
9/22/2021	7.42	BP	NM	0	25.93	ND	0	0	4.72	31.15	5.25	1.3
10/8/2021	6.00	45.60	0.10	0	25.68	75.60	2.20	0	3.30	32.70	3.70	1.0
10/20/2021	7.81	44.00	1.70	0	26.14	ND	0	0	4.82	32.82	3.58	1.2
11/4/2021	6.03	BP	NM	0	25.57	ND	0	0	3.93	33.30	3.10	1.5
11/18/2021	6.75	BP	NM	0	25.65	74.80	1.71	0	4.3	33.61	2.79	0.3
12/3/2021	6.30	BP	NM	0	25.79	ND	0	0	4.64	32.70	3.70	1.3
12/16/2021	6.37	BP	NM	0	25.92	76.00	0.51	0	4.84	33.30	2.70	1.3
12/30/2021	6.21	BP	NM	0	25.84	ND	Trace	0	4.22	33.63	2.37	1.5
1/14/2022	6.26	ND	TR	0	25.92	ND	Trace	0	4.31	33.74	2.26	1.5
1/26/2022	6.32	ND	TR	0	26.01	ND	Trace	0	4.26	33.61	2.39	1.5
2/10/2022	5.70	43.50	2.20	0.12	25.65	75.3	1.2	0	3.51	34.65	1.35	0.3
2/24/2022	6.53	BP	NM	0.15	26.00	75.51	0.99	0.2	4.87	34.32	1.68	0.3
3/10/2022	6.40	BP	NM	0.2	25.96	ND	0	0	5.03	34.6	1.40	0.5
3/24/2022	6.83	BP	NM	0	26.55	ND	0	0	5.33	35.07	0.93	0.3
4/7/2022	6.98	BP	NM	0.1	26.51	ND	0	0	4.48	35.51	0.53	0.3
4/18/2022	7.49	BP	NM	0.8	26.72	ND	0	0	4.77	35.46	0.54	0.5
5/2/2022	7.95	BP	NM	1.0	26.89	ND	Trace	0	5.12	35.33	0.57	0.5
5/20/2022	6.72	BP	NM	1.0	26.39	ND	0	0	5.21	35.21	0.84	0.5
6/2/2022	6.81	BP	NM	1.0	26.31	ND	0	0	5.39	35.34	0.71	0.5
6/16/2022	9.85	BP	NM	0.5	27.62	ND	Trace	0	5.20	35.50	0.35	0.3
6/30/2022	9.91	BP	NM	0.25	27.98	ND	0	0	6.97	ND	Trace	0.1
7/15/2022	6.89	BP	NM	1.0	27.87	ND	0	0	6.26	35.31	0.69	0.5
7/28/2022	6.96	BP	NM	1.0	27.96	ND	0	0	6.39	35.21	0.79	0.5
8/12/2022	9.10	BP	NM	0.1	28.28	Trace	Trace	0	6.92	34.15	1.85	NM
8/29/2022	8.56	BP	NM	0.5	26.56	ND	0	0	5.52	35.52	0.53	0.5
9/16/2022	8.30	BP	NM	0.5	27.70	ND	0	0	5.20	31.00	5.05	0.5
9/30/2022	9.80	BP	NM	0.25	28.00	ND	0	0	6.40	28.50	7.55	3.0
10/17/2022	11.52	BP	NM	0.25	28.32	ND	0	0	7.10	27.35	8.70	2.0
10/27/2022	11.79	BP	NM	0.25	28.74	ND	0	0	7.49	28.91	7.14	2.0
11/10/2022	11.47	BP	NM	0.25	28.51	ND	0	0	7.22	28.96	7.09	2.0
11/30/2022	7.49	BP	NM	0.25	26.21	ND	0	0	3.76	29.31	6.74	1.5
12/16/2022	7.36	BP	NM	0.25	26.06	ND	0	0	3.52	29.26	6.79	1.5
12/27/2022	7.59	BP	NM	0.25	25.67	ND	0	0	3.71	29.21	6.84	1.5
1/13/2023	8.06	BP	NM	0.25	26.29	ND	0	0	4.06	29.29	6.76	1.5
1/27/2023	5.57	BP	NM	0.25	26.97	ND	0	0	3.67	29.72	6.33	1.0
2/9/2023	5.6	BP	NM	0.10	26.52	ND	0	0	3.74	NM	NM	0.0
2/23/2023	6.42	BP	NM	0.25	26.56	ND	0	0	4.28	29.93	6.12	1.5
3/9/2023	6.52	BP	NM	0.25	26.46	ND	0	0	4.17	29.86	6.19	1.5
3/23/2023	7.25	BP	NM	0.25	27.50	ND	0	0	4.70	31.50	4.55	1.5
4/6/2023	6.63	BP	NM	0.25	26.53	ND	0	0	5.06	31.67	4.38	1.5
4/19/2023	6.55	BP	NM	0.25	27.00	ND	0	0	4.31	31.00	5.05	1.5
5/5/2023	6.81	BP	NM	0.25	26.78	ND	0	0	5.29	31.77	4.28	1.5
5/18/2023	5.22	BP	NM	0.25	26.15	ND	0	0	1.98	32.18	3.87	0.5
6/1/2023	7.85	BP	NM	0.10	26.32	ND	0	0	4.20	32.80	3.25	0.5
6/15/2023	7.88	BP	NM	0.10	26.62	ND	0	0	4.52	33.23	2.82	0.50
6/29/2023	9.05	BP	NM	0.10	27.18	ND	0	0	5.57	33.45	2.50	0.10
7/13/2023	8.90	BP	NM	Trace	19.34	ND	0	0	5.33	33.50	3.41	0.50
7/27/2023	10.02	BP	NM	Trace	27.75	ND	0	0	6.50	34.60	1.37	Trace
8/10/2023	10.90	BP	NM	0.25	28.26	ND	0	0	6.97	33.30	2.70	0.75
8/24/2023	11.28	BP	NM	Trace	29.37	ND	0	0	7.80	34.22	1.98	0.25
9/7/2023	11.36	BP	NM	0.10	29.48	ND	0	0	7.91	35.01	1.09	0.25
9/21/2023	12.00	BP	NM	0.00	29.18	ND	0	0	7.80	35.80	0.30	0.30
10/5/2023	9.00	BP	NM	Trace	29.10	ND	0	0	7.00	7.40	0.40	0.25
10/19/2023	10.15	BP	NM	0.10	28.88	ND	0	0	6.60	34.60	1.50	0.15
11/2/2023	9.75	BP	NM	0.25	28.90	ND	0	0	6.87	35.10	1.00	0.20

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-12B				MW-23C				MW-32B			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
11/16/2023	8.80	BP	NM	0.40	28.85	ND	0	0	5.88	34.60	1.50	0.30
11/30/2023	9.85	BP	NM	TR	28.70	ND	0	0	6.68	34.00	2.00	0.10
12/14/2023	5.92	BP	NM	TR	27.45	ND	0	0	6.20	34.60	1.50	0.10
12/27/2023	7.30	BP	NM	TR	28.20	ND	0	0	5.00	35.00	1.00	TR
1/11/2024	5.76	PoP	TR	TR	27.58	ND	0	0	3.42	PoP	TR	0.10
1/25/2024	7.20	BP	NM	TR	27.20	ND	0	0	1.36	ND	0	0
2/9/2024	5.80	BP	NM	TR	26.58	ND	0	0	4.42	35.10	1.00	TR
2/22/2024	6.45	BP	NM	0.20	26.37	ND	0	0	4.56	35.00	1.00	TR
3/7/2024	7.45	BP	NM	0.30	26.65	ND	0	0	5.07	35.20	1.00	0.20
3/22/2024	5.51	BP	NM	TR	23.00	PoP	TR	0	4.43	35.08	1.00	0.25
4/18/2024	7.21	BP	NM	TR	26.47	ND	0	0	5.95	35.00	1.10	0.10
5/2/2024	7.56	BP	NM	0.10	26.55	ND	0	0	5.09	PoP	TR	0
5/17/2024	6.41	BP	NM	0.10	25.90	ND	0	0	3.65	35.00	1.00	0.20
5/30/2024	5.71	BP	NM	TR	25.95	ND	0	0	3.40	35.70	0.50	0.10
6/13/2024	6.73	BP	NM	0.10	25.80	ND	0	0	4.00	35.20	1.00	0.20
6/27/2024	7.21	BP	NM	0.10	25.99	ND	0	0	4.55	PoP	TR	0
7/11/2024	5.82	BP	NM	0.10	25.76	ND	0	0	2.55	35.60	0.50	0.10
7/25/2024	5.45	BP	NM	0.10	18.70	ND	0	0	4.32	35.50	0.50	0.20
8/8/2024	6.90	BP	NM	TR	25.04	PoP	TR	0	5.39	35.20	1.00	0.25
9/5/2024	9.05	BP	NM	0.10	26.15	ND	0	0	5.13	34.70	1.50	0.30
9/19/2024	9.72	BP	NM	TR	26.60	PoP	TR	0	5.50	35.40	0.70	0.10
10/4/2024	10.45	BP	NM	TR	27.03	PoP	TR	0	6.45	35.50	0.50	TR
10/17/2024	11.07	BP	NM	TR	27.58	ND	0	0	7.45	PoP	TR	TR
10/31/2024	11.50	BP	NM	TR	27.95	PoP	TR	0	7.42	PoP	TR	TR
11/15/2024	10.45	BP	NM	TR	28.04	ND	0	0	7.08	35.05	2.00	0.25
12/3/2024	10.36	BP	NM	TR	28.20	ND	0	0	6.37	PoP	TR	TR
12/12/2024	10.22	BP	NM	TR	28.22	ND	0	0	6.56	34.10	2.00	0.40
12/26/2024	9.01	BP	NM	0.20	28.08	ND	0	0	5.76	PoP	TR	0.25
1/9/2025	7.88	BP	NM	0	DRY	ND	0	0	4.85	ND	0.00	0.00
1/23/2025	6.62	BP	NM	0.25	27.34	ND	0	0	4.48	34.50	1.68	0.33
2/6/2025	6.06	BP	NM	0	26.78	ND	0	0	3.51	35.70	0.34	0.10
2/22/2025	6.62	BP	NM	0.25	26.41	ND	0	0	3.34	35.10	0.85	0.25
3/6/2025	5.92	BP	NM	0.25	26.02	23.42	1.67	0.25	3.66	35.55	0.48	0.15
3/25/2025	6.80	BP	NM	0.25	26.27	75.08	0.03	0	4.53	35.34	0.69	0.15
4/3/2025	6.32	BP	NM	0.15	26.24	73.22	1.89	0.30	4.08	35.38	0.64	0.30
4/17/2025	7.08	BP	NM	0.25	26.05	73.20	1.91	0.30	4.18	35.35	0.68	0.10
5/1/2025	7.21	BP	NM	0.10	26.12	73.24	1.86	0.10	4.43	35.80	0.25	0.23
5/15/2025	6.40	BP	NM	0.20	25.58	74.29	0.81	0.15	3.95	35.93	0.10	0.00
5/29/2025	6.68	BP	NM	0.25	26.13	73.05	TR	0.00	4.20	35.09	0.94	0.15
6/12/2025	4.90	BP	NM	0.25	25.87	ND	TR	0.00	3.55	35.97	0.06	0.00
6/26/2025	4.56	BP	NM	0.25	25.44	74.97	0.13	0.00	2.78	35.40	0.63	0.00
7/10/2025	5.69	BP	NM	0.25	25.22	74.99	0.11	0.00	3.23	35.75	0.28	TR
7/24/2025	7.93	BP	NM	0.25	25.53	ND	0.00	0.00	5.14	34.34	1.69	0.30
8/7/2025	7.80	BP	NM	0.25	25.79	75.02	0.09	0.00	4.33	ND	0.00	0.30
8/21/2025	8.91	BP	NM	0.25	26.22	ND	0.00	0.00	4.97	35.03	1.00	0.20
9/4/2025	6.11	BP	NM	0.25	26.38	75.06	0.05	0.00	4.63	34.60	1.35	0.25
9/18/2025	6.16	BP	NM	0.20	26.47	75.04	0.10	0.00	4.69	35.40	0.55	0.00
Total DNAPL Pumped (gal)				***161.7***				***56.6***				***153.8***

Notes:

* - indicates DNAPL and groundwater mixture

MW-23C- added 5 feet to TOC due to capping after 2/3/2016

** - indicates DTD from previous event was used; DNAPL recovered revised based on review of field notes.

--- - No DNAPL pumped

ND - Not detected

DTW - Depth to water (feet Below Top of Casing (BTOC))

NM - Not measured

DTD - Depth to DNAPL (feet BTOC)

PoP - Product on probe, not measureable

TR - Trace amount of DNAPL measured and/or extracted

BP - Below pump; depth to DNAPL not measured because DNAPL is below top of in-well pump

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-33BR				MW-34C/MW-34CR (July 2014)				MW-41B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013	3.72	ND	0	0	NM	NM	NM	0	8.91	41.1	3.71	3
4/3/2013	4.02	PoP	0	0	NM	NM	NM	0	9.37	41.6	3.21	1.5
4/22/2013	3.63	ND	0	0	NM	NM	NM	0	8.62	41.6	3.21	0.5*
5/30/2013	3.59	ND	0	0	NM	NM	NM	0	8.73	34.16	10.65	2
6/29/2013	6.07	ND	0	0	NM	NM	NM	0	9.72	37.12	7.69	2
7/22/2013	9.68	ND	0	0	NM	NM	NM	0	10.31	39.29	5.52	1.5
8/26/2013	9.86	ND	0	0	NM	NM	NM	0	10.09	34.55	10.26	2.5
9/27/2013	9.57	ND	0	0	NM	NM	NM	0	9.63	37.29	7.52	2
10/31/2013	9.32	ND	0	0	21.63	NM	NM	0	9.52	38.16	6.65	2
11/27/2013	9.16	ND	0	0	NM	NM	NM	0	9.57	38.39	6.42	2
12/31/2013	8.97	ND	0	0	NM	NM	NM	0	9.42	39.36	5.45	2
1/30/2014	7.41	ND	0	0	NM	NM	NM	0	9.06	39.17	5.64	2
3/3/2014	7.16	ND	0	0	NM	NM	NM	0	8.62	38.06	6.75	2
3/31/2014	7.04	ND	0	0	NM	NM	NM	0	8.52	37.74	7.07	2
4/30/2014	6.88	ND	0	0	NM	NM	NM	0	8.36	37.21	7.6	2
5/27/2014	6.72	ND	0	0	NM	NM	NM	0	8.26	37.29	7.52	2
6/26/2014	6.52	ND	0	0	NM	NM	NM	0	8.02	37.47	7.34	2
7/31/2014	6.29	ND	0	0	19.06	ND	0	0	8.21	37.92	6.89	2
8/27/2014	6.47	ND	0	0	18.96	ND	0	0	8.07	38.29	6.52	1.5
10/3/2014	6.32	ND	0	0	18.81	ND	0	0	8.02	38.13	6.68	2
11/3/2014	NM	NM	NM	0	19.06	ND	0	0	8.22	38.29	6.52	2
11/24/2014	NM	NM	NM	0	19.11	ND	0	0	8.27	38.47	6.34	2
12/22/2014	NM	NM	NM	0	19.06	ND	0	0	8.16	38.39	6.42	2
1/29/2015	NM	NM	NM	0	18.79	ND	0	0	8.02	39.16	5.65	1.5
2/26/2015	NM	NM	NM	0	18.71	ND	0	0	7.92	39.06	5.75	2.5
3/26/2015	NM	NM	NM	0	18..67	ND	0	0	7.83	38.74	6.07	2.5
4/27/2015	NM	NM	NM	0	18.79	ND	0	0	8.02	38.61	6.2	3
5/26/2015	NM	NM	NM	0	18.63	ND	0	0	7.91	38.72	6.09	3
7/6/2015	NM	NM	NM	0	17.29	ND	0	0	6.03	38.96	5.85	2.5
8/3/2015	NM	NM	NM	0	17.21	ND	0	0	6.09	39.01	5.8	2.5
8/27/2015	NM	NM	NM	0	18.46	ND	0	0	7.39	39.14	5.67	2
10/5/2015	NM	NM	NM	0	17.29	ND	0	0	6.32	39.34	5.47	2
11/5/2015	NM	NM	NM	0	16.78	ND	0	0	6.01	39.51	5.3	2
12/3/2015	NM	NM	NM	0	16.44	ND	0	0	5.76	39.56	5.25	2
12/28/2015	NM	NM	NM	0	16.16	ND	0	0	5.62	39.63	5.18	2.3
2/3/2016	NM	NM	NM	0	15.98	ND	0	0	5.32	39.72	5.09	3
3/3/2016	NM	NM	NM	0	15.98	ND	0	0	5.17	39.81	5	3
3/31/2016	NM	NM	NM	0	15.98	ND	0	0	5.26	39.77	5.04	3
5/3/2016	NM	NM	NM	0	15.79	ND	0	0	5.52	39.96	4.85	3
6/2/2016	NM	NM	NM	0	15.97	ND	0	0	5.67	40.07	4.74	3
7/8/2016	NM	NM	NM	0	16.06	ND	0	0	5.72	40.01	4.8	3
8/3/2016	NM	NM	NM	0	16.17	ND	0	0	5.79	40.09	4.72	3
8/30/2016	NM	NM	NM	0	16.31	ND	0	0	5.91	40.26	4.55	3
9/30/2016	NM	NM	NM	0	16.42	ND	0	0	6.06	40.13	4.68	3
11/3/2016	NM	NM	NM	0	16.51	ND	0	0	6.11	40.29	4.52	3
11/30/2016	NM	NM	NM	0	16.72	ND	0	0	6.26	40.42	4.39	3
1/4/2017	NM	NM	NM	0	16.94	ND	0	0	6.39	40.56	4.25	3
2/7/2017	NM	NM	NM	0	16.91	ND	0	0	6.44	40.51	4.3	3
3/2/2017	NM	NM	NM	0	16.78	ND	0	0	6.29	40.76	4.05	3
4/3/2017	NM	NM	NM	0	16.71	ND	0	0	6.21	40.67	4.14	2.5
4/27/2017	NM	NM	NM	0	16.61	ND	0	0	6.19	40.87	3.94	3
5/29/2017	NM	NM	NM	0	16.84	ND	0	0	6.14	40.29	4.52	3
7/5/2017	NM	NM	NM	0	17.01	ND	0	0	6.34	40.57	4.24	2.5
8/1/2017	NM	NM	NM	0	17.17	ND	0	0	6.42	40.79	4.02	3
9/5/2017	NM	NM	NM	0	17.11	ND	0	0	6.36	40.68	4.13	3
10/4/2017	NM	NM	NM	0	17.06	ND	0	0	6.29	40.69	4.12	2.5
11/2/2017	NM	NM	NM	0	17.17	ND	0	0	6.41	40.73	4.08	3
11/29/2017	NM	NM	NM	0	17.29	ND	0	0	6.52	40.82	3.99	2.5
1/2/2018	NM	NM	NM	0	17.52	ND	0	0	6.72	40.72	4.09	2.5
2/7/2018	NM	NM	NM	0	18.11	ND	0	0	6.97	40.79	4.02	2.5
3/1/2018	NM	NM	NM	0	18.38	ND	0	0	7.16	40.63	4.18	2
4/2/2018	NM	NM	NM	0	18.29	ND	0	0	7.13	40.71	4.1	2
5/1/2018	NM	NM	NM	0	18.33	ND	0	0	8.26	40.76	4.05	2

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-33BR				MW-34C/MW-34CR (July 2014)				MW-41B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/1/2018	NM	NM	NM	0	18.62	ND	0	0	8.71	40.81	4	2.3
6/29/2018	NM	NM	NM	0	18.91	ND	0	0	9.02	40.71	4.1	2.5
8/3/2018	NM	NM	NM	0	19.06	ND	0	0	9.13	40.76	4.05	2.5
8/31/2018	NM	NM	NM	0	18.77	ND	0	0	8.89	40.86	3.95	2
9/28/2018	NM	NM	NM	0	18.64	ND	0	0	8.77	40.76	4.05	2
11/2/2018	NM	NM	NM	0	18.57	ND	0	0	8.61	40.71	4.1	2
11/29/2018	NM	NM	NM	0	18.39	ND	0	0	8.41	40.81	4	2
1/2/2019	NM	NM	NM	0	18.26	ND	0	0	8.22	40.83	3.98	2
2/2/2019	NM	NM	NM	0	18.19	ND	0	0	8.16	40.89	3.92	2
2/28/2019	NM	NM	NM	0	18.02	ND	0	0	8.03	40.76	4.05	3
4/2/2019	NM	NM	NM	0	17.96	ND	0	0	7.93	40.69	4.12	3
4/25/2019	NM	NM	NM	0	Well Damaged			0	7.76	40.28	4.53	3
5/29/2019	NM	NM	NM	0	Well Damaged			0	7.71	40.07	4.74	3
6/12/2019	NM	NM	NM	0	Well Damaged			0	7.52	39.63	5.18	3
6/30/2019	NM	NM	NM	0	Well Damaged			0	7.46	39.52	5.29	3
7/16/2019	NM	NM	NM	0	Well Damaged			0	7.39	39.46	5.35	3
8/2/2019	NM	NM	NM	0	Well Damaged			0	7.46	39.42	5.39	0
8/15/2019	NM	NM	NM	0	Well Damaged			0	7.51	39.31	5.5	3
8/28/2019	NM	NM	NM	0	Well Damaged			0	7.57	39.21	5.6	3
9/17/2019	NM	NM	NM	0	Well Damaged			0	7.66	39.02	5.79	3
10/2/2019	NM	NM	NM	0	Well Damaged			0	7.61	38.76	6.05	3
10/16/2019	NM	NM	NM	0	Well Damaged			0	5.21	38.67	6.14	3
10/31/2019	NM	NM	NM	0	Well Damaged			0	5.21	38.67	6.14	3
11/15/2019	NM	NM	NM	0	Well Damaged			0	4.81	38.12	6.69	2
12/3/2019	NM	NM	NM	0	Well Damaged			0	6.46	39.27	5.54	3
12/18/2019	NM	NM	NM	0	Well Damaged			0	6.51	41.7	3.11	0
12/30/2019	NM	NM	NM	0	Well Damaged			0	6.99	43.5	1.31	0
1/7/2020	--	--	--	--	--	--	--	--	--	--	--	--
1/15/2020	NM	NM	NM	0	Well Damaged			0	5.12	38.99	5.82	0
1/27/2020	NM	NM	NM	0	Well Damaged			0	3.41	40.7	4.11	0
2/13/2020	NM	NM	NM	0	Well Damaged			0	5.1	40.12	4.69	0
2/25/2020	NM	NM	NM	0	Well Damaged			0	4.5	41.12	3.69	0
3/13/2020	NM	NM	NM	0	Well Damaged			0	6.06	42.12	2.69	0
3/31/2020	NM	NM	NM	0	17.49	ND	0	0	6.82	42.12**	2.69	2
4/9/2020	NM	NM	NM	0	17.63	ND	0	0	6.47	BP	NM	2
4/27/2020	NM	NM	NM	0	17.89	ND	0	0	8.01	BP	NM	2
5/14/2020	NM	NM	NM	0	18.29	ND	0	0	8.71	42.1	2.71	3.5
5/28/2020	NM	NM	NM	0	18.31	ND	0	0	8.08	BP	NM	3.5
6/11/2020	NM	NM	NM	0	18.51	ND	0	0	8.01	41.59	3.22	2
6/25/2020	NM	NM	NM	0	17.66	ND	0	0	7.52	BP	NM	2
7/9/2020	NM	NM	NM	0	18.22	ND	0	0	7.29	BP	NM	2
7/23/2020	NM	NM	NM	0	18.36	ND	0	0	7.49	BP	NM	2.5
8/6/2020	NM	NM	NM	0	17.66	ND	0	0	5.64	BP	NM	1.3
8/20/2020	NM	NM	NM	0	18.02	ND	0	0	7.38	BP	NM	0.5
9/2/2020	NM	NM	NM	0	18.2	ND	0	0	8.11	BP	NM	0.8
9/17/2020	NM	NM	NM	0	18.56	ND	0	0	8.81	BP	NM	1
10/1/2020	NM	NM	NM	0	18.29	ND	0	0	6.39	BP	NM	0.8
10/14/2020	NM	NM	NM	0	18.31	ND	0	0	8.71	BP	NM	2
10/28/2020	NM	NM	NM	0	18.61	ND	0	0	8.51	BP	NM	1.5
11/12/2020	NM	NM	NM	0	18.71	ND	0	0	8.49	BP	NM	0.5
11/23/2020	NM	NM	NM	0	18.97	ND	0	0	8.84	BP	NM	0
12/10/2020	NM	NM	NM	0	18.62	ND	0	0	5.31	BP	NM	1.5
12/21/2020	NM	NM	NM	0	18.01	ND	0	0	4.42	BP	NM	1
1/7/2021	NM	NM	NM	0	17.52	ND	0	0	4.48	BP	NM	1.5
1/21/2021	NM	NM	NM	0	17.39	ND	0	0	4.59	BP	NM	2
2/4/2021	NM	NM	NM	0	17.22	ND	0	0	5.62	BP	NM	1.5
2/23/2021	NM	NM	NM	0	17.04	ND	0	0	4.58	BP	NM	1
3/11/2021	NM	NM	NM	0	16.98	ND	0	0	4.22	BP	NM	1.5
3/25/2021	NM	NM	NM	0	17.01	ND	0	0	5.13	BP	NM	1.0
4/8/2021	NM	NM	NM	0	17.22	ND	0	0	6.63	BP	NM	1.0
4/22/2021	NM	NM	NM	0	17.41	ND	0	0	7.64	BP	NM	1.0
5/4/2021	NM	NM	NM	0	17.57	ND	0	0	5.96	BP	NM	1.0
5/20/2021	NM	NM	NM	0	16.51	ND	0	0	5.62	BP	NM	1.0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-33BR				MW-34C/MW-34CR (July 2014)				MW-41B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/3/2021	NM	NM	NM	0	15.81	ND	0	0	4.41	BP	NM	1.0
6/17/2021	NM	NM	NM	0	16.74	ND	0	0	5.81	BP	NM	1.0
7/1/2021	NM	NM	NM	0	15.71	ND	0	0	4.36	BP	NM	1.0
7/19/2021	NM	NM	NM	0	15.49	ND	0	0	4.11	BP	NM	1.0
7/29/2021	NM	NM	NM	0	15.98	ND	0	0	6.51	BP	NM	1.0
8/12/2021	NM	NM	NM	0	16.58	ND	0	0	8.01	BP	NM	1.0
8/26/2021	NM	NM	NM	0	17.11	ND	0	0	8.04	BP	NM	1.0
9/10/2021	NM	NM	NM	0	17.56	ND	0	0	8.25	BP	NM	0.3
9/22/2021	5.32	ND	0	0	17.32	ND	0	0	5.66	BP	NM	0
10/8/2021	1.53	ND	0	0	NM	NM	NM	0	1.34	43.68	1.13	0.0
10/20/2021	1.98	ND	0	0	17.68	ND	0	0	5.98	43.01	1.80	0.0
11/4/2021	3.56	ND	0	0	NM	NM	NM	0	5.08	42.00	2.81	0.3
11/18/2021	NM	NM	NM	0	NM	NM	NM	0	5.92	BP	NM	0.0
12/3/2021	3.7	ND	0	0	NM	NM	NM	0	6.57	BP	NM	0.0
12/16/2021	4.6	ND	0	0	17.6	ND	0	0	6.63	BP	NM	0.0
12/30/2021	4.29	ND	0	0	17.52	ND	0	0	5.21	BP	NM	0.0
1/14/2022	4.36	ND	0	0	17.58	ND	0	0	5.34	ND	Trace	0.0
1/26/2022	4.43	ND	0	0	17.66	ND	0	0	5.42	ND	Trace	0.0
2/10/2022	4.3	ND	0	0	17.3	ND	0	0	4.61	41.55	3.26	0.3
2/24/2022	4.25	ND	0	0	17.42	ND	0	0	5.6	41.55	3.26	0.2
3/10/2022	NM	NM	NM	0	17.48	ND	0	0	5.59	41.58	3.23	0.3
3/24/2022	5.08	ND	0	0	17.72	ND	0	0	5.06	BP	NM	TR
4/7/2022	4.80	ND	0	0	17.40	ND	0	0	5.80	BP	NM	0.1
4/18/2022	5.16	ND	0	0	17.86	ND	0	0	6.03	BP	NM	1.0
5/2/2022	5.40	ND	0	0	18.10	ND	0	0	6.24	BP	NM	1.0
5/20/2022	5.46	ND	0	0	18.02	ND	0	0	6.13	BP	NM	1.0
6/2/2022	5.61	ND	0	0	18.12	ND	0	0	6.29	BP	NM	1.0
6/16/2022	5.82	ND	0	0	18.21	ND	0	0	9.23	BP	NM	1.0
6/30/2022	5.87	ND	0	0	18.39	ND	0	0	9.37	BP	NM	1.0
7/15/2022	6.81	ND	0	0	19.27	ND	0	0	6.54	BP	NM	1.0
7/28/2022	6.94	ND	0	0	19.39	ND	0	0	6.67	BP	NM	1.0
8/12/2022	7.68	ND	0	0	20.00	ND	0	0	1.00	BP	NM	0.25
8/29/2022	NM	NM	NM	0	19.81	ND	0	0	6.47	BP	NM	0.5
9/16/2022	5.70	ND	0	0	19.45	ND	0	0	8.00	BP	NM	0.5
9/30/2022	NM	NM	NM	0	19.60	ND	0	0	9.10	42.50	2.31	1.0
10/17/2022	6.90	ND	0	0	19.93	ND	0	0	9.88	BP	NM	0.25
10/27/2022	7.02	ND	0	0	20.06	ND	0	0	10.13	BP	NM	0.25
11/10/2022	6.91	ND	0	0	19.92	ND	0	0	10.02	BP	NM	0.25
11/30/2022	5.24	ND	0	0	17.52	ND	0	0	6.12	BP	NM	0.25
12/16/2022	5.17	ND	0	0	17.39	ND	0	0	6.02	BP	NM	0.25
12/27/2022	5.46	ND	0	0	17.58	ND	0	0	6.34	BP	NM	0.25
1/13/2023	5.86	ND	0	0	18.13	ND	0	0	6.63	BP	NM	0.25
1/27/2023	3.88	ND	0	0	18.30	ND	0	0	4.55	BP	NM	1.00
2/9/2023	4.59	ND	0	0	18.12	ND	0	0	4.51	BP	NM	0.25
2/23/2023	NM	NM	NM	0	18.03	ND	0	0	5.35	BP	NM	0.25
3/9/2023	3.99	ND	0	0	17.91	ND	0	0	5.26	BP	NM	0.25
3/23/2023	4.99	ND	0	0	18.6	ND	0	0	6.41	BP	NM	0.50
4/6/2023	4.12	ND	0	0	17.74	ND	0	0	5.36	BP	NM	0.25
4/19/2023	4.93	4.93	0	0	18.60	ND	0	0	5.41	BP	NM	0.25
5/5/2023	4.27	4.27	0	0	17.89	ND	0	0	5.52	BP	NM	0.25
5/18/2023	2.34	ND	0	0	18.3	ND	0	0	4.23	BP	NM	0.25
6/1/2023	3.66	ND	0	0	17.87	ND	0	0	7.12	BP	NM	0.50
6/15/2023	4.43	ND	0	0	18.03	ND	0	0	7.14	BP	NM	0.10
6/29/2023	5.32	ND	0	0	18.60	ND	0	0	8.34	BP	NM	0.25
7/13/2023	5.88	ND	0	0	18.81	ND	0	0	8.12	BP	NM	0.10
7/27/2023	7.92	ND	0	0	19.31	ND	0	0	9.40	BP	NM	Trace
8/10/2023	7.58	ND	0	0	19.42	ND	0	0	10.30	BP	NM	0.25
8/24/2023	8.11	ND	0	0	20.29	ND	0	0	9.08	BP	NM	0.10
9/7/2023	8.45	ND	0	0	20.62	ND	0	0	9.13	BP	NM	0.10
9/21/2023	8.45	ND	0	0	20.75	ND	0	0	11.45	BP	NM	Trace
10/5/2023	12.45	ND	0	0	20.66	ND	0	0	8.75	BP	NM	0.15
10/19/2023	7.26	PoP	Trace	0	20.51	ND	0	0	9.55	BP	NM	0.25
11/2/2023	7.30	ND	0	0	21.50	ND	0	0	10.35	BP	NM	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-33BR				MW-34C/MW-34CR (July 2014)				MW-41B			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
11/16/2023	7.15	ND	0	0	20.40	ND	0	0	8.40	BP	NM	1.50
11/30/2023	6.80	ND	0	0	20.30	ND	0	0	9.23	BP	NM	0.20
12/14/2023	5.15	ND	0	0	20.60	ND	0	0	8.25	BP	NM	2.00
12/27/2023	7.36	ND	0	0	19.71	ND	0	0	6.45	BP	NM	0.30
1/11/2024	5.15	ND	0	0	18.20	ND	0	0	4.65	BP	NM	0.30
1/25/2024	4.50	ND	0	0	0.00	NM	0	0	4.22	BP	NM	1.00
2/9/2024	1.80	PoP	TR	0	18.10	ND	0	0	4.65	BP	NM	0.10
2/22/2024	3.30	ND	0	0	18.04	ND	0	0	5.35	BP	NM	0.50
3/7/2024	4.55	ND	0	0	18.20	ND	0	0	6.54	BP	NM	0.20
3/22/2024	4.08	ND	0	0	18.27	ND	0	0	4.43	BP	NM	0.20
4/18/2024	4.61	ND	0	0	18.06	ND	0	0	6.35	BP	NM	0.30
5/2/2024	5.40	PoP	TR	0	18.25	ND	0	0	6.75	BP	NM	0.20
5/17/2024	2.60	PoP	TR	0	NM	NM	NM	NM	5.42	BP	NM	0.30
5/30/2024	3.40	ND	0	0	NM	NM	NM	NM	4.56	BP	NM	1.00
6/13/2024	3.65	ND	0	0	NM	NM	NM	NM	6.15	BP	NM	0.30
6/27/2024	4.51	ND	0	0	NM	NM	NM	NM	6.72	BP	NM	0.20
7/11/2024	4.06	ND	0	0	NM	NM	NM	NM	4.72	BP	NM	0.25
7/25/2024	2.92	ND	0	0	NM	NM	NM	NM	4.50	BP	NM	0.20
8/8/2024	5.21	ND	0	0	16.76	ND	ND	0	6.10	BP	NM	0.15
9/5/2024	5.02	ND	0	0	17.64	ND	0	0	7.00	BP	NM	0.30
9/19/2024	5.40	ND	0	0	18.04	ND	0	0	9.06	BP	NM	TR
10/4/2024	6.15	ND	0	0	18.65	ND	0	0	9.85	BP	NM	0.30
10/17/2024	6.90	ND	0	0	18.95	ND	0	0	10.45	BP	NM	0.70
10/31/2024	7.43	ND	0	0	19.50	ND	0	0	10.87	BP	NM	0.10
11/15/2024	6.87	ND	0	0	19.71	ND	0	0	10.56	BP	NM	TR
12/3/2024	6.40	ND	0	0	19.35	ND	0	0	9.71	BP	NM	0.20
12/12/2024	6.67	ND	0	0	19.68	ND	0	0	9.69	BP	NM	0.15
12/26/2024	6.82	ND	0	0	20.43	ND	0	0	8.35	BP	NM	0.25
1/9/2025	5.64	ND	0	0	19.43	ND	0	0	7.28	BP	NM	0.0
1/23/2025	7.96	ND	0	0	18.95	ND	0	0	5.44	BP	NM	0.0
2/6/2025	2.00	ND	0	0	18.88	ND	0	0	4.70	BP	NM	0.0
2/22/2025	4.16	ND	0	0	18.15	ND	0	0	4.68	BP	NM	0.5
3/6/2025	3.24	ND	0	0	17.67	ND	0	0	4.80	BP	NM	0.25
3/25/2025	4.27	ND	0	0	17.81	ND	0	0	5.78	BP	NM	0.25
4/3/2025	4.31	ND	0	0	17.94	ND	0	0	5.40	BP	NM	0.25
4/17/2025	4.12	ND	0	0	17.58	ND	0	0	6.19	BP	NM	0.25
5/1/2025	4.34	ND	0	0	17.74	ND	0	0	6.47	BP	NM	0.25
5/15/2025	4.33	ND	0	0	17.65	ND	0	0	5.29	BP	NM	0.35
5/29/2025	4.38	ND	0	0	17.71	ND	0	0	5.98	BP	NM	0.25
6/12/2025	3.39	ND	0	0	17.53	ND	0	0	4.02	BP	NM	0.25
6/26/2025	4.05	ND	0	0	17.39	ND	0	0	5.55	BP	NM	0.25
7/10/2025	2.63	ND	0	0	16.99	ND	0	0	4.58	BP	NM	0.25
7/24/2025	4.85	ND	0	0	17.19	ND	0	0	7.16	BP	NM	0.25
8/7/2025	4.34	ND	0	0	17.32	ND	0	0	6.06	BP	NM	0.25
8/21/2025	4.57	ND	0	0	17.78	ND	0	0	8.26	BP	NM	0.25
9/4/2025	4.16	ND	0	0	17.97	ND	0	0	5.05	BP	NM	0.25
9/18/2025	4.50	ND	0	0	18.01	ND	0	0	5.13	BP	NM	0.25
Total DNAPL Pumped (gal)				***0.0***				***0.0***				***299.2***

Notes:

* - indicates DNAPL and groundwater mixture

** - indicates DTD from previous event was used

--- - No DNAPL pumped

DTW - Depth to water (feet Below Top of Casing (BTOC))

DTD - Depth to DNAPL (feet BTOC)

BP - Below pump; depth to DNAPL not measured because DNAPL is below top of in-well pump

ND - Not detected

NM - Not measured

PoP - Product on probe, not measureable

TR - Trace amount of DNAPL measured and/or extracted

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-44C				MW-45C				MW-46C			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013	18.96	62.95	7.85	1	21.26	69.9	0.7	0.3	21.07	71.3	1.6	0.3
4/3/2013	19.34	70.47	0.33	0.3*	21.39	70.39	0.21	0.3*	20.61	72.36	0.54	0.3*
4/22/2013	18.62	70.64	0.16	0.3*	21.03	70.47	0.13	0.3*	20.61	72.61	0.29	0.3*
5/30/2013	18.43	70.01	0.79	0.3*	21.16	70.25	0.35	0.3*	20.59	71.61	1.29	0.3*
6/29/2013	19.34	70.32	0.48	0.3	21.93	70.32	0.28	0.3*	21.09	72.34	0.56	0.3*
7/22/2013	20.36	70.26	0.54	0.3	22.72	70.39	0.21	0.3*	21.96	72.16	0.74	0.3*
8/26/2013	20.62	70.39	0.41	0.3	22.86	70.31	0.29	0.3	22.23	72.32	0.58	0.3
9/27/2013	20.39	70.61	0.19	0.3	22.66	70.17	0.43	0.3	22.09	72.09	0.81	0.3
10/31/2013	20.17	70.75	0.05	0.1	22.59	70.42	0.18	0.1	22.41	72.34	0.56	0.2
11/27/2013	20.09	70.78	0.02	0.0	22.52	70.49	0.11	0	22.31	72.47	0.43	0.1
12/31/2013	20.01	70.8	PoP	0.0	22.39	70.46	0.14	0	22.03	72.53	0.37	0.1
1/30/2014	19.67	70.42	0.38	0.3	22.13	70.35	0.25	0	21.81	72.55	0.35	0.1
3/3/2014	19.29	70.17	0.63	0.3	21.86	70.09	0.51	0	21.57	72.05	0.85	0.3
3/31/2014	19.17	70.02	0.78	0.3	21.71	69.63	0.97	0.3	21.43	72.12	0.78	0.1
4/30/2014	19.02	69.81	0.99	0.3	21.59	69.74	0.86	0.3	21.27	71.81	1.09	0.3
5/27/2014	18.92	69.71	1.09	0.0	21.52	69.67	0.93	0.3	21.34	71.71	1.19	0.3
6/26/2014	18.81	69.52	1.28	0.3	21.59	69.77	0.83	0.3	21.17	71.6	1.3	0.3
7/31/2014	18.66	69.37	1.43	0.3	21.21	69.96	0.64	0.3	20.39	71.43	1.47	0.3
8/27/2014	18.53	69.47	1.33	0.3	21.13	70.12	0.48	0.3	20.22	71.61	1.29	0.3
10/3/2014	18.41	69.23	1.57	0.3	20.13	70.41	0.19	0.3	20.14	71.39	1.51	0.3
11/3/2014	18.52	69.37	1.43	0.3	20.29	70.36	0.24	0.3	20.27	71.47	1.43	0.3
11/24/2014	18.57	69.49	1.31	0.5	20.34	70.48	0.12	0.3	20.38	71.53	1.37	0.5
12/22/2014	18.51	69.31	1.49	0.5	20.31	70.41	0.19	0.3	20.37	71.42	1.48	0.5
1/29/2015	18.39	69.39	1.41	0.5	20.17	70.51	0.09	0.3	20.13	71.48	1.42	0.5
2/26/2015	18.42	69.51	1.29	0.5	20.11	70.59	0.01	0	20.09	71.38	1.52	0.5
3/26/2015	18.39	69.42	1.38	0.3	19.26	70.52	0.08	0	20.17	71.02	1.88	0.3
4/27/2015	18.29	69.52	1.28	0.5	20.17	70.48	0.12	0.3	20.22	71.56	1.34	1.0
5/26/2015	18.17	69.57	1.23	0.8	20.12	70.41	0.19	0.3	20.12	71.61	1.29	1.0
7/6/2015	16.29	69.86	0.94	0.5	18.07	70.49	0.11	0.3	18.17	71.93	0.97	0.8
8/3/2015	16.18	69.82	0.98	0.5	18.16	70.56	0.04	TR*	18.24	71.98	0.92	0.8
8/27/2015	17.46	69.74	1.06	0.3	19.03	70.54	0.06	TR*	19.39	72.03	0.87	0.5
10/5/2015	16.83	69.86	0.94	0.3	18.39	ND	0	0	18.72	72.34	0.56	0.5
11/5/2015	16.62	69.79	1.01	0.3	17.96	ND	0	0	18.51	72.26	0.64	0.5
12/3/2015	16.46	69.73	1.07	0.3	17.72	ND	0	0	18.62	72.36	0.54	0.5
12/28/2015	16.32	69.77	1.03	0.3	17.62	ND	0	0	18.42	72.31	0.59	0.5
2/3/2016	16.17	69.74	1.06	0.3	17.42	ND	0	0	18.29	72.46	0.44	0.3
3/3/2016	16.12	69.79	1.01	0.3	17.39	ND	0	0	18.23	72.49	0.41	0.3
3/31/2016	16.06	69.71	1.09	0.3	17.33	ND	0	0	18.24	72.54	0.36	0.3
5/3/2016	16.27	69.59	1.21	0.3	17.47	ND	0	0	18.39	72.39	0.51	0.3
6/2/2016	16.38	69.63	1.17	0.3	17.52	ND	0	0	18.43	72.43	0.47	0.3
7/8/2016	16.47	69.71	1.09	0.3	17.62	ND	0	0	18.54	72.49	0.41	0.3
8/3/2016	16.59	69.7	1.1	0.3	17.69	ND	0	0	18.51	72.53	0.37	0.3
8/30/2016	16.67	69.58	1.22	0.3	17.76	ND	0	0	18.72	72.57	0.33	0.3
9/30/2016	16.79	69.49	1.31	0.5	17.86	ND	0	0	18.83	72.46	0.44	0.3
11/3/2016	16.86	69.71	1.09	0.5	17.92	ND	0	0	18.89	72.41	0.49	0.3
11/30/2016	17.03	69.94	0.86	0.8	18.09	ND	0	0	19.12	72.32	0.58	0.3
1/4/2017	17.22	70.11	0.69	0.8	18.22	ND	0	0	19.27	72.46	0.44	0.3
2/7/2017	17.29	70.01	0.79	0.5	18.17	ND	0	0	19.19	72.39	0.51	0.3
3/2/2017	17.17	70.16	0.64	0.5	17.96	ND	0	0	19.03	72.31	0.59	0.3
4/3/2017	17.06	70.21	0.59	0	17.89	ND	0	0	18.97	72.39	0.51	0.3
4/27/2017	17.01	70.29	0.51	0	17.67	ND	0	0	18.84	72.31	0.59	0.5
5/29/2017	17.23	70.24	0.56	0.3	17.84	ND	0	0	18.94	72.47	0.43	0.3
7/5/2017	17.33	70.34	0.46	0.3	17.96	ND	0	0	19.12	72.34	0.56	0.5
8/1/2017	17.39	70.39	0.41	0.3	18.09	ND	0	0	19.23	72.27	0.63	0.5
9/5/2017	17.36	70.43	0.37	0.3	18.16	ND	0	0	19.29	72.34	0.56	0.5
10/4/2017	17.31	70.41	0.39	0.3	18.21	ND	0	0	19.36	72.3	0.6	0.5
11/2/2017	17.42	70.4	0.4	0.3	18.32	ND	0	0	19.42	72.36	0.54	0.5
11/29/2017	17.49	70.36	0.44	0.3	18.43	ND	0	0	19.57	72.34	0.56	0.5
1/2/2018	17.67	70.31	0.49	0.5	18.73	ND	0	0	19.81	72.39	0.51	0.5
2/7/2018	17.77	70.34	0.46	0.5	18.62	ND	0	0	19.96	72.46	0.44	0.5
3/1/2018	NM	NM	NM	0	18.79	ND	0	0	20.02	72.32	0.58	0.5
4/2/2018	NM	NM	NM	0	18.72	ND	0	0	19.81	72.39	0.51	0.5
5/1/2018	NM	NM	NM	0	19.31	ND	0	0	20.62	72.46	0.44	1

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-44C				MW-45C				MW-46C			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/1/2018	18.31	70.17	0.63	0.8	19.47	ND	0	0	20.87	72.51	0.39	1
6/29/2018	18.79	70.39	0.41	0.8	19.67	ND	0	0	20.97	72.57	0.33	1
8/3/2018	18.97	70.36	0.44	0.8	19.77	ND	0	0	21.11	72.59	0.31	1
8/31/2018	18.87	70.39	0.41	0.5	19.41	ND	0	0	20.96	72.48	0.42	0.5
9/28/2018	18.82	70.41	0.39	0.8	19.32	ND	0	0	20.91	72.43	0.47	0.5
11/2/2018	18.67	70.44	0.36	0.8	19.26	ND	0	0	20.77	72.39	0.51	0.8
11/29/2018	18.47	70.46	0.34	0.3	19.16	ND	0	0	20.52	72.34	0.56	0.5
1/2/2019	18.42	70.41	0.39	0.5	19.02	ND	0	0	20.49	72.46	0.44	0.5
2/2/2019	18.29	70.41	0.39	0.5	18.93	ND	0	0	20.43	72.49	0.41	0.5
2/28/2019	18.16	70.42	0.38	0.5	18.77	ND	0	0	20.34	72.37	0.53	0.5
4/2/2019	18.09	70.39	0.41	0.5	18.71	ND	0	0	20.18	72.32	0.58	0.5
4/25/2019	18.02	70.16	0.64	0.5	18.63	ND	0	0	20.14	72.36	0.54	0.5
5/29/2019	18.61	70.23	0.57	0.5	18.47	ND	0	0	20.06	72.39	0.51	0.5
6/12/2019	18.29	ND	Trace	0	18.81	ND	0	0	18.02	ND	Trace	0
6/30/2019	18.16	ND	0	0	18.71	ND	0	0	18.09	ND	0	0
7/16/2019	18.09	ND	0	0	18.66	ND	0	0	18.12	ND	0	0
8/2/2019	18.17	ND	0	0	18.72	ND	0	0	18.17	ND	0	0
8/15/2019	18.22	ND	0	0	18.79	ND	0	0	18.09	ND	0	0
8/28/2019	18.29	ND	0	0	18.86	ND	0	0	18.17	ND	0	0
9/17/2019	18.39	ND	0	0	18.97	ND	0	0	18.23	ND	0	0
10/2/2019	18.32	ND	0	0	18.89	ND	0	0	18.17	ND	0	0
10/16/2019	15.06	ND**	0	0	16.23	ND	0	0	16.34	ND	0	0
10/31/2019	14.89	ND**	0	0	15.94	ND	0	0	16.06	ND	0	0
11/15/2019	14.21	ND**	0	0	15.69	ND	0	0	15.81	ND	0	0
12/3/2019	16.11	ND**	0	0	15.71	ND	0	0	15.91	ND	0	0
12/18/2019	16.51	ND**	0	0	15.91	ND	0	0	16.11	ND	0	0
12/30/2019	16.65	ND**	0	0	16.11	ND	0	0	16.22	ND	0	0
1/7/2020	--	--	--	--	--	--	--	--	--	--	--	--
1/15/2020	16.61	ND**	0	0	16.11	ND	0	0	16.29	ND	0	0
1/27/2020	16.24	ND**	0	0	15.71	ND	0	0	16.15	ND	0	0
2/13/2020	15.81	ND**	0	0	15.29	ND	0	0	14.4	ND	0	0
2/25/2020	15.81	ND**	0	0	15.28	ND	0	0	15.42	ND	0	0
3/13/2020	15.84	ND**	0	0	15.31	ND	0	0	15.57	ND	0	0
3/31/2020	14.82	ND**	0	0	15.59	ND	0	0	15.72	ND	0	0
4/9/2020	22.76	ND**	0	0	15.67	ND	0	0	15.89	ND	0	0
4/27/2020	14.67	ND**	0	0	15.94	ND	0	0	16.12	ND	0	0
5/14/2020	14.21	ND**	0	0	16.38	69.3	1.30	0.1	16.51	ND	0	0
5/28/2020	12.06	57.61	0.39**	0	16.46	70	0.6	0	16.71	ND	0	0
6/11/2020	11.61	ND**	0	0	16.68	ND	0	0	16.83	ND	0	0
6/25/2020	10.37	ND**	0	0	14.99	ND	0	0	15.12	ND	0	0
7/9/2020	11.51	ND**	0	0	16.28	ND	0	0	16.51	ND	0	0
7/23/2020	16.92	ND**	0	0	16.49	69.7	0.90	TR	16.49	ND	0	0
8/6/2020	16.75	ND**	0	0	16.19	ND	0	0	16.47	ND	0	0
8/20/2020	16.71	ND**	0	0	16.18	ND	0	0	16.35	ND	0	0
9/2/2020	16.84	ND**	0	0	16.21	ND	0	0	16.51	ND	0	0
9/17/2020	17.29	ND**	0	0	16.71	ND	0	0	16.85	ND	0	0
10/1/2020	16.84	ND**	0	0	16.61	ND	0	0	16.64	ND	0	0
10/14/2020	16.92	ND**	0	0	16.39	ND	0	0	16.58	ND	0	0
10/28/2020	17.11	ND**	0	0	16.58	70.6	Trace	TR	16.74	ND	0	0
11/12/2020	17.42	ND**	0	0	16.83	ND	0	0	17.04	ND	0	0
11/23/2020	1769	ND**	0	0	17.12	ND	0	0	17.33	ND	0	0
12/10/2020	17.01	ND**	0	0	16.50	ND	0	0	16.71	ND	0	0
12/21/2020	16.69	ND**	0	0	16.02	69.04	1.56	0.3	16.22	ND	0	0
1/7/2021	15.91	ND**	0	0	15.59	ND	0	0	15.81	ND	0	0
1/21/2021	15.77	ND**	0	0	15.2	70.5	0.1	TR	15.44	ND	0	0
2/4/2021	15.69	ND**	0	0	15.19	70.55	0.05	TR	15.39	ND	0	0
2/23/2021	14.55	ND**	0	0	14.99	70.21	0.39	TR	15.24	ND	0	0
3/11/2021	15.49	ND**	0	0	14.98	ND	0	0	15.21	ND	0	0
3/25/2021	15.5	ND**	0	0	14.99	ND	0	0	15.18	ND	0	0
4/8/2021	15.59	ND**	0	0	15.19	ND	0	0	15.41	ND	0	0
4/22/2021	16.09	ND**	0	0	15.52	ND	0	0	15.77	ND	0	0
5/4/2021	Well Damaged			0	14.58	ND	0	0	14.74	ND	0	0
5/20/2021	Well Damaged			0	15.58	ND	0	0	15.75	ND	0	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-44C				MW-45C				MW-46C			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/3/2021	Well Damaged			0	14.96	ND	0	0	15.21	ND	0	0
6/17/2021	Well Damaged			0	15.76	ND	0	0	15.08	ND	0	0
7/1/2021	Well Damaged			0	14.59	69.79	0.81	0.3	14.81	ND	0	0
7/19/2021	Well Damaged			0	14.05	69.42	1.18	0.3	14.26	ND	0	0
7/29/2021	Well Damaged			0	14.05	69.71	0.89	0.1	14.29	ND	0	0
8/12/2021	Well Damaged			0	14.68	70.36	0.24	TR	14.84	ND	0	0
8/26/2021	Well Damaged			0	15.21	ND	0	0	15.43	ND	0	0
9/10/2021	Well Damaged			0	15.63	ND	0	0	15.82	ND	0	0
9/22/2021	Well Damaged			0	15.71	ND	0	0	15.89	ND	0	0
10/8/2021	Well Damaged			0	15.47	ND	0	0	15.83	ND	0	0
10/20/2021	Well Damaged			0	15.88	ND	0	0	15.98	ND	0	0
11/4/2021	Well Damaged			0	15.31	68.61	1.99	0	15.51	ND	0	0
11/18/2021	Well Damaged			0	15.31	ND	0	0	15.51	ND	0	0
12/3/2021	Well Damaged			0	15.51	ND	0	0	15.72	ND	0	0
12/16/2021	Well Damaged			0	15.68	ND	0	0	16.02	ND	0	0
12/30/2021	Well Damaged			0	15.61	ND	Trace	0	15.62	ND	Trace	0
1/14/2022	Well Damaged			0	15.72	ND	Trace	0	15.81	ND	Trace	0
1/26/2022	Well Damaged			0	15.83	ND	Trace	0	15.96	ND	Trace	0
2/10/2022	Well Damaged			0	15.33	ND	0	0	15.56	ND	0	0
2/24/2022	Well Damaged			0	15.58	69.83	0.67	0	15.78	ND	0	0
3/10/2022	Well Damaged			0	15.58	69.71	0.79	0.3	15.83	ND	0	0
3/24/2022	Well Damaged			0	16.08	ND	0	0	16.20	ND	0	0
4/7/2022	Well Damaged			0	16.15	ND	0	0	16.34	ND	0	0
4/18/2022	Well Damaged			0	16.29	ND	0	0	16.59	ND	0	0
5/2/2022	Well Damaged			0	16.43	ND	0	0	16.61	ND	0	0
5/20/2022	Well Damaged			0	16.29	ND	0	0	16.52	ND	0	0
6/2/2022	Well Damaged			0	16.42	ND	0	0	16.74	ND	0	0
6/16/2022	Well Damaged			0	NM	NM	NM	0	17.33	ND	0	0
6/30/2022	Well Damaged			0	NM	NM	NM	0	17.72	ND	0	0
7/15/2022	Well Damaged			0	17.98	ND	0	0	18.21	ND	0	0
7/28/2022	Well Damaged			0	18.06	ND	0	0	18.41	ND	0	0
8/12/2022	Well Damaged			0	NM	NM	NM	0	18.00	ND	0	0
8/29/2022	Well Damaged			0	18.57	ND	0	0	19.42	ND	0	0
9/16/2022	Well Damaged			0	17.35	ND	Trace	0	17.60	ND	0	0
9/30/2022	Well Damaged			0	17.65	ND	Trace	0	17.85	ND	0	0
10/17/2022	Well Damaged			0	18.95	ND	0	0	18.12	ND	0	0
10/27/2022	Well Damaged			0	19.03	ND	0	0	18.22	ND	0	0
11/10/2022	Well Damaged			0	18.76	ND	0	0	18.76	ND	0	0
11/30/2022	Well Damaged			0	16.46	ND	0	0	15.79	ND	0	0
12/16/2022	Well Damaged			0	16.52	ND	0	0	15.71	ND	0	0
12/27/2022	Well Damaged			0	16.74	ND	0	0	16.12	ND	0	0
1/13/2023	Well Damaged			0	17.13	ND	0	0	16.49	ND	0	0
1/27/2023	Well Damaged			0	16.45	ND	0	0	16.62	ND	0	0
2/9/2023	Well Damaged			0	16.05	ND	0	0	16.22	ND	0	0
2/23/2023	Well Damaged			0	16.11	ND	0	0	16.25	ND	0	0
3/9/2023	Well Damaged			0	15.96	ND	0	0	16.18	ND	0	0
3/23/2023	Well Damaged			0	16.57	ND	0	0	16.69	ND	0	0
4/6/2023	Well Damaged			0	16.07	ND	0	0	16.31	ND	0	0
4/19/2023	Well Damaged			0	16.04	ND	0	0	16.14	ND	0	0
5/5/2023	Well Damaged			0	16.22	ND	0	0	16.39	ND	0	0
5/18/2023	Well Damaged			0	13.02	ND	0	0	16.05	ND	0	0
6/1/2023	Well Damaged			0	17.90	ND	0	0	16.05	ND	0	0
6/15/2023	Well Damaged			0	16.15	ND	0	0	16.32	ND	0	0
6/29/2023	Well Damaged			0	16.55	ND	0	0	16.78	ND	0	0
7/13/2023	Well Damaged			0	16.86	ND	Trace	0	17.80	ND	0	0
7/27/2023	Well Damaged			0	18.33	ND	0	0	17.50	ND	0	0
8/10/2023	Well Damaged			0	18.51	ND	0	0	18.12	ND	0	0
8/24/2023	Well Damaged			0	18.31	ND	0	0	18.48	ND	0	0
9/7/2023	Well Damaged			0	18.85	ND	0	0	18.63	ND	0	0
9/21/2023	Well Damaged			0	19.85	ND	0	0	18.82	ND	Trace	0
10/5/2023	Well Damaged			0	18.71	ND	0	0	18.90	ND	0	0
10/19/2023	Well Damaged			0	18.71	ND	0	0	18.56	PoP	Trace	0
11/2/2023	Well Damaged			0	18.66	ND	0	0	18.51	ND	0	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-44C				MW-45C				MW-46C			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
11/16/2023	Well Damaged			0	18.40	ND	0	0	18.56	ND	0	0
11/30/2023	Well Damaged			0	18.29	NM	0	0	18.39	ND	0	0
12/14/2023	Well Damaged			0	18.05	PoP	TR	0	18.22	ND	0	0
12/27/2023	Well Damaged			0	17.98	NM	0	0	17.90	ND	0	0
1/11/2024	Well Damaged			0	17.40	ND	0	0	17.22	ND	0	0
1/25/2024	Well Damaged			0	16.76	ND	0	0	17.00	ND	0	0
2/9/2024	Well Damaged			0	16.20	PoP	TR	0	16.35	PoP	TR	0
2/22/2024	Well Damaged			0	16.01	ND	0	0	16.20	ND	0	0
3/7/2024	Well Damaged			0	16.40	ND	0	0	16.20	ND	0	0
3/22/2024	Well Damaged			0	17.26	ND	0	0	17.41	PoP	TR	0
4/18/2024	Well Damaged			0	16.06	PoP	TR	0	16.20	ND	0	0
5/2/2024	Well Damaged			0	11.20	PoP	TR	0	NM	NM	NM	NM
5/17/2024	Well Damaged			0	15.80	PoP	TR	0	16.00	ND	0	0
5/30/2024	Well Damaged			0	15.60	PoP	TR	0	15.78	ND	0	0
6/13/2024	Well Damaged			0	15.40	PoP	TR	0	15.60	ND	0	0
6/27/2024	Well Damaged			0	15.63	ND	0	0	15.85	PoP	TR	0
7/11/2024	Well Damaged			0	15.53	PoP	TR	0	15.70	ND	0	0
7/25/2024	Well Damaged			0	15.01	ND	0	0	15.15	ND	0	0
8/8/2024	Well Damaged			0	13.80	ND	0	0	15.04	ND	0	0
9/5/2024	Well Damaged			0	15.70	ND	0	0	15.98	ND	0	0
9/19/2024	Well Damaged			0	16.22	ND	0	0	16.40	ND	0	0
10/4/2024	Well Damaged			0	16.75	ND	0	0	16.93	ND	0	0
10/17/2024	Well Damaged			0	17.22	PoP	TR	0	17.40	ND	0	0
10/31/2024	Well Damaged			0	17.64	ND	0	0	17.84	ND	0	0
11/15/2024	Well Damaged			0	17.63	ND	0	0	17.89	ND	0	0
12/3/2024	Well Damaged			0	17.82	ND	0	0	17.98	ND	0	0
12/12/2024	Well Damaged			0	17.86	ND	0	0	18.04	ND	0	0
12/26/2024	Well Damaged			0	17.80	ND	0	0	18.00	ND	0	0
1/9/2025	Well Damaged			0	17.51	ND	0	0	17.71	ND	0	0
1/23/2025	Well Damaged			0	16.90	ND	0	0	17.15	ND	0	0
2/6/2025	Well Damaged			0	16.49	ND	0	0	16.67	ND	0	0
2/22/2025	Well Damaged			0	16.13	ND	0	0	16.31	ND	0	0
3/6/2025	Well Damaged			0	15.79	ND	0	0	15.93	ND	0	0
3/25/2025	Well Damaged			0	15.88	ND	0	0	16.03	ND	0	0
4/3/2025	Well Damaged			0	15.85	ND	0	0	16.04	ND	0	0
4/17/2025	Well Damaged			0	15.71	69.60	2.66	0.50	15.93	ND	0	0
5/1/2025	Well Damaged			0	15.78	ND	0	0	15.80	ND	0	0
5/15/2025	Well Damaged			0	15.78	ND	0	0	15.81	ND	0	0
5/29/2025	Well Damaged			0	15.78	ND	0	0	15.96	ND	0	0
6/12/2025	Well Damaged			0	15.52	ND	0	0	16.16	ND	0	0
6/26/2025	Well Damaged			0	15.20	ND	0	0	15.38	ND	0	0
7/10/2025	Well Damaged			0	15.01	ND	0	0	15.10	ND	0	0
7/24/2025	Well Damaged			0	15.29	ND	0	0	15.45	ND	0	0
8/7/2025	Well Damaged			0	15.45	ND	0	0	15.67	ND	0	0
8/21/2025	Well Damaged			0	15.91	ND	0	0	16.03	ND	0	0
9/4/2025	Well Damaged			0	16.11	ND	0	0	16.28	ND	0	0
9/18/2025	Well Damaged			0	16.20	ND	0	0	16.36	ND	0	0
Total DNAPL Pumped (gal)				***26.7***				***7.6***				***31.8***

Notes:

* - indicates DNAPL and groundwater mixture

--- - No DNAPL pumped

DTW - Depth to water (feet Below Top of Casing (BTOC))

DTD - Depth to DNAPL (feet BTOC)

ND - Not detected

NM - Not measured

PoP - Product on probe, not measureable

TR - Trace amount of DNAPL measured and/or extracted

MW-44C NM 3/1/18 - 5/1/18; couldn't locate well due to construction. MW-45C NM 6/16/22-6/30/22; couldn't locate well

**Total depth measured in MW-44C was approximately 10 ft higher than during previous events

- attempted to remove silt in July and October 2020.

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-49A				MW-49B				MW-57A			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013									10.56	22.12	4.78	0.5
4/3/2013									10.32	24.79	2.11	0.5
4/22/2013									10.71	25.85	1.05	0.5
5/30/2013									10.63	24.16	2.74	0.5
6/29/2013									12.16	23.82	3.08	2
7/22/2013					11.83	33.91	0.84	--	13.21	23.05	3.85	2
8/26/2013									12.91	25.32	1.58	1
9/27/2013									12.72	25.71	1.19	0.8
10/31/2013									12.72	25.92	0.98	1
11/27/2013									12.61	25.98	0.92	1
12/31/2013									12.46	26.09	0.81	1
1/30/2014									11.79	26.15	0.75	0.3
3/3/2014									11.02	26.25	0.65	0.3
3/31/2014									10.83	26.41	0.49	0.3
4/30/2014									10.71	26.31	0.59	0.3
5/27/2014									10.74	26.16	0.74	0.3
6/26/2014									10.61	26.29	0.61	0.3
7/31/2014									10.35	26.18	0.72	0.3
8/27/2014									10.22	26.26	0.64	0.3
10/3/2014									10.09	26.04	0.86	0.3
11/3/2014									10.17	26.16	0.74	0.3
11/24/2014									10.13	26.29	0.61	0.3
12/22/2014									10.06	26.34	0.56	0.3
1/29/2015									9.73	26.51	0.39	0.3
2/26/2015									9.87	26.42	0.48	0.3
3/26/2015									9.81	26.32	0.58	0.3
4/27/2015									9.82	26.47	0.43	0.5
5/26/2015									9.71	26.56	0.34	0.5
7/6/2015									7.41	26.82	0.08	TR*
8/3/2015									7.29	26.86	0.04	TR*
8/27/2015									8.11	ND	0	TR*
10/5/2015									7.72	ND	0	0
11/5/2015									7.39	ND	0	0
12/3/2015									7.13	ND	0	0
12/28/2015									NM	NM	NM	0
2/3/2016									NM	NM	NM	0
3/3/2016									NM	NM	NM	0
3/31/2016									NM	NM	NM	0
5/3/2016									NM	NM	NM	0
6/2/2016									7.26	ND	0	0
7/8/2016									7.39	ND	0	0
8/3/2016									7.46	ND	0	0
8/30/2016									7.58	ND	0	0
9/30/2016									7.69	ND	0	0
11/3/2016									7.77	ND	0	0
11/30/2016									7.92	ND	0	0
1/4/2017									8.07	ND	0	0
2/7/2017									8.18	ND	0	0
3/2/2017									8.02	ND	0	0
4/3/2017									8.06	ND	0	0
4/27/2017									8.01	ND	0	0
5/29/2017									8.34	ND	0	0
7/5/2017									8.41	ND	0	0
8/1/2017									8.52	ND	0	0
9/5/2017									8.46	ND	0	0
10/4/2017									8.41	ND	0	0
11/2/2017									8.52	ND	0	0
11/29/2017									8.67	ND	0	0
1/2/2018									8.91	ND	0	0
2/7/2018									8.98	ND	0	0
3/1/2018									9.22	ND	0	0
4/2/2018									9.16	ND	0	0
5/1/2018									9.34	ND	0	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-49A				MW-49B				MW-57A			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/1/2018									9.67	ND	0	0
6/29/2018									9.87	ND	0	0
8/3/2018									10.02	ND	0	0
8/31/2018									9.91	ND	0	0
9/28/2018									9.86	ND	0	0
11/2/2018									9.77	ND	0	0
11/29/2018									9.56	ND	0	0
1/2/2019									9.52	ND	Trace	0
2/2/2019									9.41	ND	Trace	0
2/28/2019									9.32	ND	Trace	0
4/2/2019									9.27	ND	Trace	0
4/25/2019									9.16	ND	Trace	0
5/29/2019									9.06	ND	Trace	0
6/12/2019									9.39	ND	0	0
6/30/2019									9.21	ND	0	0
7/16/2019					12.02	34.62	0.24	--	9.17	ND	0	0
8/2/2019									9.22	ND	0	0
8/15/2019									9.29	ND	0	0
8/28/2019									9.33	ND	0	0
9/17/2019									9.46	ND	0	0
10/2/2019									9.74	ND	0	0
10/16/2019									10.39	ND	0	0
10/31/2019									11.92	ND	0	0
11/15/2019									11.14	ND	0	0
12/3/2019									13.75	ND	0	0
12/18/2019									14.09	ND	0	0
12/30/2019									14.42	ND	0	0
1/7/2020					11.51	20.09	14.77	--	--	--	--	--
1/15/2020					15.48	20.89	13.97	2.5	12.79	ND	0	0
1/27/2020					14.2	22.4	12.46	2	11.61	ND	0	0
2/13/2020					13.31	28.9	5.96	1.5	13.22	ND	0	0
2/25/2020					11.51	26.8	8.06	1.0	12.31	ND	0	0
3/13/2020					11.73	26.1	8.76	0.5	13.71	ND	0	0
3/31/2020					13.72	29.39	5.47	0.5	13.85	ND	0	0
4/9/2020					14.13	31.04	3.82	0.5	13.36	ND	0	0
4/27/2020					15.31	32.05	2.81	0.1	14.45	ND	0	0
5/14/2020					14.95	31.89	2.97	0.1	14.84	ND	0	0
5/28/2020					13.66	31.07	3.79	0.5	13.91	ND	0	0
6/11/2020					14.56	31.22	3.64	0.3	14.41	ND	0	0
6/25/2020					10.65	31.64	3.22	0.3	14.08	ND	0	0
7/9/2020					10.51	32.41	2.45	0.5	13.51	ND	0	0
7/23/2020					13.51	31.13	3.73	0.5	13.26	ND	0	0
8/6/2020					13.23	32.48	2.38	0.3	11.53	ND	0	0
8/20/2020					12.11	32.08	2.78	0.1	13.11	ND	0	0
9/2/2020					13.58	31.04	3.82	0.8	13.91	ND	0	0
9/17/2020					15.91	30.24	4.62	0.5	14.43	ND	0	0
10/1/2020					13.63	31.11	3.75	0.8	12.41	ND	0	0
10/14/2020					12.18	29.6	5.26	2.0	13.74	ND	0	0
10/28/2020					13.71	31.93	2.93	1.0	13.91	ND	0	0
11/12/2020					12.74	32.03	2.83	0.5	14.64	ND	0	0
11/23/2020					12.08	32.30	2.56	0.3	14.99	ND	0	0
12/10/2020					8.66	31.21	3.65	0.3	12.31	ND	0	0
12/21/2020					6.6	30.72	4.14	0.5	10.92	ND	0	0
1/7/2021					6.41	32.25	2.61	0.5	12.51	ND	0	0
1/21/2021					15.44	31.25	3.61	0.5	12.54	ND	0	0
2/4/2021					15.81	31.54	3.32	0.5	13.15	ND	0	0
2/23/2021					13.44	31.2	3.66	0.5	12.32	ND	0	0
3/11/2021					11.91	31.96	2.9	0.5	13.13	ND	0	0
3/25/2021					10.28	32.41	2.45	0.5	13.01	ND	0	0
4/8/2021					10.79	31.79	3.07	0.5	13.71	ND	0	0
4/22/2021					11.29	32.08	2.78	0.5	14.31	ND	0	0
5/4/2021					7.94	32.4	2.46	0.3	13.03	ND	0	0
5/20/2021					7.04	32.69	2.17	0.5	10.45	ND	0	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-49A				MW-49B				MW-57A			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/3/2021					4.81	32.6	2.26	0.5	11.15	ND	0	0
6/17/2021					6.39	32.8	2.06	TR	12.21	ND	0	0
7/1/2021					4.51	ND	0	0	10.38	ND	0	0
7/19/2021					0.39	ND	0	0	9.79	ND	0	0
7/29/2021					12.91	ND	0	0	12.51	ND	0	0
8/12/2021					10.49	32.60	2.26	0.1	13.91	ND	0	0
8/26/2021					9.87	31.90	2.96	0.5	14.11	ND	0	0
9/10/2021					10.03	31.79	3.07	0.2	14.28	ND	0	0
9/22/2021					7.50	ND	0	0	13.21	ND	0	0
10/8/2021					7.56	ND	0	0	12.05	ND	0	0
10/20/2021					7.8	30.94	1.82	0.1	13.80	ND	0	0
11/4/2021					7.63	ND	0	0	12.45	ND	0	0
11/18/2021					8.00	ND	0	0	13.37	ND	0	0
12/3/2021					8.25	ND	0	0	13.81	ND	0	0
12/16/2021					8.52	ND	0	0	13.69	ND	0	0
12/30/2021					7.81	ND	0	0	13.36	ND	0	0
1/14/2022					7.92	ND	0	0	13.43	ND	0	0
1/26/2022					7.91	ND	0	0	13.56	ND	0	0
2/10/2022					11.38	30	2.76	0.3	12.71	ND	0	0
2/24/2022					12.6	ND	0	0	13.68	ND	0	0
3/10/2022					11.96	ND	0	0	14.40	ND	0	0
3/24/2022					12.20	ND	0	0	12.56	ND	0	0
4/7/2022					11.60	ND	0	0	13.70	ND	0	0
4/18/2022					11.32	ND	0	0	13.81	ND	0	0
5/2/2022					11.08	ND	0	0	13.99	ND	0	0
5/20/2022					11.17	ND	0	0	13.46	ND	0	0
6/2/2022					11.12	ND	0	0	13.34	ND	0	0
6/16/2022					10.97	ND	0	0	15.03	ND	0	0
6/30/2022					11.16	ND	0	0	15.48	ND	0	0
7/15/2022					8.73	ND	0	0	13.96	ND	0	0
7/28/2022					8.84	ND	0	0	14.06	ND	0	0
8/12/2022					11.11	ND	0	0	13.50	ND	0	0
8/29/2022					11.39	ND	NM	2	13.56	ND	0	0
9/16/2022					9.60	24.00	11.50	2.5	13.85	ND	0	0
9/30/2022					10.80	20.00	15.50	3.5	14.80	ND	0	0
10/17/2022					11.85	19.35	9.15	2.5	15.41	ND	0	0
10/27/2022					12.06	19.47	9.03	2.5	15.79	ND	0	0
11/10/2022					11.77	19.62	8.88	2.5	15.61	ND	0	0
11/30/2022					7.52	19.86	8.64	2.5	12.29	ND	0	0
12/16/2022					7.46	19.98	8.52	2.5	12.17	ND	0	0
12/27/2022					7.74	19.62	8.88	2.5	12.46	ND	0	0
1/13/2023					8.06	19.56	8.94	2.5	12.77	ND	0	0
1/27/2023					7.6	ND	Trace	0	11.92	ND	0	0
2/9/2023					9.4	24.80	3.70	0.5	12.5	ND	0	0
2/23/2023					10.33	26.37	2.13	1.0	13.98	ND	0	0
3/9/2023					10.21	26.22	2.28	1.0	13.91	ND	0	0
3/23/2023					10.06	25.00	3.50	1.0	13.78	ND	0	0
4/6/2023					10.71	16.94	11.56	2.0	13.77	ND	0	0
4/19/2023					7.55	19.64	8.86	2.0	13.09	ND	0	0
5/5/2023					9.48	22.79	5.71	1.5	13.61	ND	0	0
5/18/2023					4.90	20.82	7.68	2.0	10.28	ND	0	0
6/1/2023	9.25	28.40	1.53	0	8.65	25.70	2.60	1.25	13.05	ND	0	0
6/15/2023	9.27	27.22	2.70	1.00	7.88	24.15	4.15	0.75	13.11	ND	0	0
6/29/2023	9.63	28.39	0.50	0.10	9.00	24.45	3.75	1.00	13.81	ND	0	0
7/13/2023	9.55	PoP	Trace	0	7.85	24.14	4.21	1.00	13.54	ND	0	0
7/27/2023	10.45	PoP	Trace	0	10.80	21.60	6.55	0.00	14.80	ND	0	0
8/10/2023	10.78	PoP	Trace	0	10.43	23.35	4.80	0.90	15.42	ND	0	0
8/24/2023	11.94	PoP	Trace	0	11.27	24.68	3.37	0.90	12.55	ND	0	0
9/7/2023	12.02	PoP	Trace	0	11.22	24.70	3.33	0.90	12.67	ND	0	0
9/21/2023	10.83	PoP	Trace	0	10.51	25.75	2.65	0.60	15.53	ND	0	0
10/5/2023	6.65	PoP	Trace	0	8.05	22.20	6.30	0.75	15.60	PoP	Trace	0
10/19/2023	10.68	PoP	Trace	0	10.00	25.85	2.50	0.50	15.30	ND	0	0
11/2/2023	10.66	PoP	Trace	0	10.00	26.35	2.00	0.70	15.50	ND	0	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-49A				MW-49B				MW-57A			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
11/16/2023	9.53	PoP	TR	0	Not accessable			0	14.00	ND	0	0
11/30/2023	10.78	PoP	TR	0	Not accessable			0	15.03	ND	0	0
12/14/2023	11.50	PoP	TR	0	Not accessable			0	15.16	ND	0	0
12/27/2023	10.77	PoP	TR	0	Not accessable			0	13.92	ND	0	0
1/11/2024	10.56	ND	0	0	Not accessable			0	12.71	ND	0	0
1/25/2024	7.50	ND	0	0	Not accessable			0	10.62	ND	0	0
2/9/2024	11.97	PoP	TR	0	Not accessable			0	12.73	ND	0	0
2/22/2024	11.61	ND	0	0	Not accessable			0	14.05	ND	0	0
3/7/2024	11.90	PoP	TR	0	Not accessable			0	14.81	ND	0	0
3/22/2024	9.05	28.95	1.00	0.5	Not accessable			0	15.08	PoP	TR	0
4/18/2024	12.00	ND	0	0	Not accessable			0	14.61	ND	0	0
5/2/2024	10.82	PoP	TR	0	Not accessable			0	12.82	ND	0	0
5/17/2024	10.95	PoP	TR	0	Not accessable			0	15.20	ND	0	0
5/30/2024	11.10	PoP	TR	0	Not accessable			0	12.15	ND	0	0
6/13/2024	11.41	ND	0	0	Not accessable			0	13.57	ND	0	0
6/27/2024	11.84	ND	0	0	Not accessable			0	14.04	ND	0	0
7/11/2024	10.10	ND	0	0	Not accessable			0	10.28	ND	0	0
7/25/2024	8.06	PoP	TR	0	Not accessable			0	10.95	ND	0	0
8/8/2024	10.55	ND	0	0	Not accessable			0	12.25	ND	0	0
9/5/2024	10.90	PoP	TR	0	Not accessable			0	13.69	ND	0	0
9/19/2024	11.12	ND	0	0	Not accessable			0	14.19	ND	0	0
10/4/2024	12.00	PoP	TR	0	Not accessable			0	15.00	ND	0	0
10/17/2024	12.36	PoP	TR	0	Not accessable			0	15.61	ND	0	0
10/31/2024	12.45	PoP	TR	0	Not accessable			0	15.90	ND	0	0
11/15/2024	11.76	ND	0	0	Not accessable			0	15.65	ND	0	0
12/3/2024	20.20	PoP	TR	0	Not accessable			0	15.13	ND	0	0
12/12/2024	12.02	ND	0	0	Not accessable			0	14.98	ND	0	0
12/26/2024	10.60	PoP	TR	0.03	Not accessable			0	13.26	ND	0	0
1/9/2025	11.21	ND	0	0	Not accessable			0	13.27	ND	0	0
1/23/2025	10.78	ND	0	0	Not accessable			0	12.65	ND	0	0
2/6/2025	10.89	ND	0	0	Not accessable			0	12.23	ND	0	0
2/22/2025	10.63	ND	0	0	Not accessable			0	11.96	ND	0	0
3/6/2025	10.55	ND	0	0	Not accessable			0	12.26	ND	0	0
3/25/2025	10.86	ND	0	0	Not accessable			0	12.94	ND	0	0
4/3/2025	10.60	ND	0	0	Not accessable			0	12.33	ND	0	0
4/17/2025	10.81	ND	0	0	Not accessable			0	12.64	ND	0	0
5/1/2025	10.63	ND	0	0	Not accessable			0	12.68	ND	0	0
5/15/2025	10.70	ND	0	0	Not accessable			0	11.80	ND	0	0
5/29/2025	9.22	29.65	0.19	0	Not accessable			0	11.52	ND	0	0
6/12/2025	5.18	ND	0	0	Not accessable			0	9.92	ND	0	0
6/26/2025	6.68	ND	0	0	7.19	26.90	1.29	0.25	10.26	ND	0	0
7/10/2025	6.72	ND	TR	0	5.38	ND	0.00	0.00	10.75	ND	0	0
7/24/2025	7.60	ND	0	0	7.54	ND	0.00	0.00	12.12	ND	0	0
8/7/2025	7.21	ND	0	0	7.28	ND	0.00	0.00	11.38	ND	0	0
8/21/2025	7.71	29.57	0.24	0.04	7.63	ND	0.00	0.00	12.45	ND	0	0
9/4/2025	7.00	ND	0	0	6.68	ND	0.00	0.00	10.60	ND	0	0
9/18/2025	7.10	ND	0	0	6.76	ND	0.00	0.00	10.49	ND	0	0
Total DNAPL Pumped (gal)				***1.7***				***69.9***				***15.5***

Notes:

* - indicates DNAPL and groundwater mixture

--- - No DNAPL pumped

DTW - Depth to water (feet Below Top of Casing (BTOC))

DTD - Depth to DNAPL (feet BTOC)

ND - Not detected

NM - Not measured

PoP - Product on probe, not measureable

TR - Trace amount of DNAPL measured and/or extracted

MW-49B is not accessable due to a field trailer obstructing access to the well since 11/16/2023.

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-57B				MW-68B				MW-70B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
2/14/2013	28.56	41.41	1.54	0.3					6.57	34.09	1.61	0.3
4/3/2013	28.09	42.36	0.59	0.3*					6.79	35.26	0.44	0.3
4/22/2013	27.06	42.17	0.78	0.3					6.06	35.12	0.58	0.3
5/30/2013	27.13	41.63	1.32	0.3					6.19	34.67	1.03	0.3
6/29/2013	18.26	42.07	0.88	0.3					8.01	34.92	0.78	0.3*
7/22/2013	16.34	41.67	1.28	0.8					8.22	34.07	1.63	0.3*
8/26/2013	18.01	42.31	0.64	0.3					8.17	35.09	0.61	0.3
9/27/2013	17.74	42.51	0.39	0.3					8.32	35.34	0.36	0.3
10/31/2013	17.61	42.61	0.29	0.1					8.26	35.39	0.31	0.1
11/27/2013	17.54	42.67	0.23	0.1					8.12	35.42	0.28	0.1
12/31/2013	17.36	42.74	0.16	0.1					7.89	35.51	0.19	0.1
1/30/2014	17.04	ND	Trace	0					7.84	35.06	0.64	0.1
3/3/2014	16.51	ND	Trace	0					7.09	35.05	0.65	0.1
3/31/2014	16.41	ND	Trace	0					6.87	35.17	0.53	0.1
4/30/2014	16.29	ND	Trace	0					6.72	35.01	0.69	0.1
5/27/2014	16.13	ND	Trace	0					6.64	34.86	0.84	0.1
6/26/2014	16.02	ND	Trace	0					6.52	34.97	0.73	0.3
7/31/2014	15.84	ND	Trace	0					6.26	34.76	0.94	0.3
8/27/2014	15.71	ND	Trace	0					6.84	34.86	0.84	0.3
10/3/2014	15.61	ND	Trace	0					6.71	34.61	1.09	0.3
11/3/2014	NM	NM	NM	0					6.79	34.79	0.91	0.3
11/24/2014	NM	NM	NM	0					6.77	34.93	0.77	0.3
12/22/2014	NM	NM	NM	0					6.69	34.86	0.84	0.3
1/29/2015	NM	NM	NM	0					6.48	34.92	0.78	0.3
2/26/2015	NM	NM	NM	0					6.39	34.81	0.89	0.5
3/26/2015	NM	NM	NM	0					6.27	34.91	0.79	0.3
4/27/2015	NM	NM	NM	0					6.19	34.99	0.71	0.3
5/26/2015	NM	NM	NM	0					6.07	35.11	0.59	0.5
7/6/2015	NM	NM	NM	0					5.03	35.32	0.38	0.3
8/3/2015	12.32	ND	PoP	0					5.12	35.37	0.33	TR*
8/27/2015	13.04	ND	0	0					6.31	35.41	0.29	TR*
10/5/2015	12.62	ND	0	0					5.72	35.47	0.23	0.3
11/5/2015	12.27	ND	0	0					5.41	35.42	0.28	0.3
12/3/2015	12.02	ND	0	0					5.13	35.63	0.07	0.3
12/28/2015	NM	NM	NM	0					5.02	35.26	0.44	0.3
2/3/2016	NM	NM	NM	0					4.86	35.21	0.49	0.3
3/3/2016	NM	NM	NM	0					4.92	35.17	0.53	0.3
3/31/2016	NM	NM	NM	0					4.91	35.24	0.46	0.3
5/3/2016	NM	NM	NM	0					5.13	35.29	0.36	0.3
6/2/2016	12.32	ND	0	0					5.26	35.36	0.29	0.3
7/8/2016	12.44	ND	0	0					5.34	35.31	0.34	0.3
8/3/2016	12.52	ND	0	0					5.42	35.39	0.26	0.3
8/30/2016	12.67	ND	0	0					5.61	35.21	0.44	0.3
9/30/2016	12.81	ND	0	0					5.74	35.03	0.62	0.3
11/3/2016	12.92	ND	0	0					5.79	35.11	0.54	0.3
11/30/2016	13.16	ND	0	0					6.03	35.23	0.42	0.3
1/4/2017	13.24	ND	0	0					6.17	35.09	0.56	0.5
2/7/2017	13.29	ND	0	0					6.26	35.01	0.64	0.5
3/2/2017	13.17	ND	0	0					6.16	35.09	0.56	0.5
4/3/2017	13.04	ND	0	0					6.09	35.13	0.52	0.5
4/27/2017	13.14	ND	0	0					6.12	35.2	0.45	0.5
5/29/2017	13.41	ND	0	0					6.29	35.06	0.59	0.5
7/5/2017	13.57	ND	0	0					6.39	35.14	0.51	0.3
8/1/2017	13.69	ND	0	0					6.47	35.21	0.44	0.3
9/5/2017	13.79	ND	0	0					6.56	35.34	0.31	0.3
10/4/2017	13.71	ND	0	0					6.63	35.39	0.26	0.3
11/2/2017	13.91	ND	0	0					6.74	35.31	0.34	0.3
11/29/2017	14.02	ND	0	0					6.79	35.29	0.36	0.3
1/2/2018	13.06	ND	0	0					6.34	35.34	0.31	0.3
2/7/2018	12.42	ND	0	0					6.42	35.31	0.34	0.3
3/1/2018	12.58	ND	0	0					6.67	35.21	0.44	0.5
4/2/2018	12.46	ND	0	0					6.61	35.16	0.49	0.5
5/1/2018	13.04	ND	0	0					7.22	35.23	0.42	1.3

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-57B				MW-68B				MW-70B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/1/2018	13.29	ND	0	0					7.42	35.29	0.36	1
6/29/2018	13.47	ND	0	0					7.58	35.21	0.44	1
8/3/2018	13.61	ND	0	0					7.69	35.29	0.36	0.8
8/31/2018	13.47	ND	0	0					7.42	35.36	0.29	0.5
9/28/2018	13.36	ND	0	0					7.33	35.28	0.37	0.5
11/2/2018	13.21	ND	0	0					7.22	35.24	0.41	0.8
11/29/2018	13.01	ND	0	0					7.06	35.21	0.44	0.5
1/2/2019	13.03	ND	Trace	0					6.96	35.31	0.34	0.5
2/2/2019	12.91	ND	Trace	0					6.87	35.36	0.29	0.5
2/28/2019	12.83	ND	Trace	0					6.74	35.29	0.36	0.5
4/2/2019	12.76	ND	Trace	0					6.67	35.27	0.38	0.5
4/25/2019	12.71	ND	Trace	0					6.74	35.21	0.44	0.5
5/29/2019	12.70	ND	Trace	0					6.71	35.17	0.48	0.5
6/12/2019	12.93	ND	0	0					6.43	34.84	0.81	1
6/30/2019	12.86	ND	0	0					6.48	34.61	1.04	1
7/16/2019	12.79	ND	0	0					6.43	34.49	1.16	1.5
8/2/2019	12.84	ND	0	0					6.48	34.31	1.34	1.5
8/15/2019	12.92	ND	0	0					6.51	34.07	1.58	2
8/28/2019	12.96	ND	0	0					6.57	34.09	1.56	2
9/17/2019	12.86	ND	0	0					6.51	34.01	1.64	2
10/2/2019	12.83	ND	0	0					6.46	33.71	1.94	2.5
10/16/2019	13.67	ND	0	0					6.42	ND	0	0
10/31/2019	14.21	ND	0	0					6.43	ND	Trace	0
11/15/2019	6.21	ND	0	0					4.75	ND	0	0
12/3/2019	13.51	ND	0	0					5.01	ND	0	0
12/18/2019	13.51	ND	0	0					5.53	35	0.65	0.3
12/30/2019	13.51	ND	0	0					5.71	32.4	3.25	0.1
1/7/2020	--	--	--	--	4.82	34.21	3.59	--	--	--	--	--
1/15/2020	21.93	ND	0	0	4.82	34.41	3.39	0.5	7.19	32.51	3.14	0.1
1/27/2020	19.96	ND	0	0	2.15	35.9	1.9	0.5	9.9	31.3	4.35	0.1
2/13/2020	17.91	ND	0	0	3.49	35.02	2.78	0.5	5.99	31.43	4.22	0.1
2/25/2020	16.86	ND	0	0	2.35	36.12	1.68	0.3	4.71	31.81	3.84	0.3
3/13/2020	15.91	ND	0	0	3.99	35.6	2.2	0.1	4.63	30.5	5.15	0.3
3/31/2020	15.37	ND	0	0	4.46	36.9	0.9	0.0	6.04	31.34	4.31	0.5
4/9/2020	15.19	ND	0	0	4.41	35.99	1.81	0.1	6.79	31.53	4.12	0.5
4/27/2020	14.99	ND	0	0	5.53	36.1	1.7	0.1	6.81	30.84	4.81	1.0
5/14/2020	14.95	ND	0	0	6.39	37.01	0.79	0	7.26	30.63	5.02	1.0
5/28/2020	14.92	ND	0	0	5.99	37.09	0.71	TR	7.02	30.74	4.91	1.5
6/11/2020	14.89	ND	0	0	6.49	36.8	1	TR	7.53	31.2	4.45	0.5
6/25/2020	14.28	ND	0	0	6.09	36.94	0.86	TR	7.08	32.12	3.53	0.5
7/9/2020	14.67	ND	0	0	5.06	37.37	0.43	0.3	5.61	32	3.65	0.5
7/23/2020	17.09	ND	0	0	5.31	37.47	0.33	TR	6.33	32.2	3.45	1.0
8/6/2020	16.20	ND	0	0	3.02	37.38	0.42	TR	6.15	33.12	2.53	1.3
8/20/2020	15.47	ND	0	0	5.11	37.26	0.54	TR	5.74	33.2	2.45	1.0
9/2/2020	15.01	ND	0	0	5.96	37.4	0.4	TR	6.74	34.39	1.26	0.1
9/17/2020	14.71	ND	0	0	6.6	37.32	0.48	0.1	6.92	34.99	0.66	0.1
10/1/2020	14.44	ND	0	0	3.81	37.39	0.41	0.1	5.52	34.88	0.77	0.3
10/14/2020	14.08	ND	0	0	5.11	36.81	0.99	0.3	5.63	34.49	1.16	0.3
10/28/2020	13.87	ND	0	0	5.26	36.52	1.28	0.3	4.8	34.71	0.94	0.3
11/12/2020	13.81	ND	0	0	6.13	36.82	0.98	0.3	6.38	34.21	1.44	0.5
11/23/2020	13.21	ND	0	0	6.54	37.2	0.6	0.3	7.51	35.19	0.46	0.3
12/10/2020	13.76	ND	0	0	3.24	37.08	0.72	0.0	5.82	35.10	0.55	0.1
12/21/2020	13.56	ND	0	0	1.22	37.01	0.79	0.1	5.55	34.48	1.17	0.1
1/7/2021	13.25	ND	0	0	2.48	ND	0	0	5.04	35	0.65	TR
1/21/2021	20.69	ND	0	0	2.99	37.37	0.43	TR	4.72	35.02	0.63	TR
2/4/2021	18.46	ND	0	0	3.62	37.32	0.48	TR	7.2	35.08	0.57	TR
2/23/2021	16.49	ND	0	0	2.51	ND	0	0	5.33	34.2	1.45	1.0
3/11/2021	15.55	ND	0	0	3.49	ND	0	0	5.33	34.3	1.35	0.8
3/25/2021	15.06	ND	0	0	3.34	ND	0	0	5.78	34.93	0.72	0.5
4/8/2021	14.84	ND	0	0	4.28	ND	0	0	5.88	34.83	0.82	0.5
4/22/2021	14.65	ND	0	0	4.96	ND	0	0	5.99	34.56	1.09	0.5
5/4/2021	14.59	ND	0	0	3.64	37.38	0.42	0	6.21	34.39	1.26	0.5
5/20/2021	14.61	ND	0	0	0.99	ND	0	0	5.89	35.09	0.56	0.3

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-57B				MW-68B				MW-70B			
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
6/3/2021	14.12	ND	0	0	2.66	ND	0	0	4.58	34.98	0.67	0.3
6/17/2021	13.84	ND	0	0	3.51	ND	0	0	4.78	35.16	0.49	0.3
7/1/2021	13.61	ND	0	0	1.11	37.01	0.39	0.1	4.48	34.85	0.8	TR
7/19/2021	13.22	ND	0	0	1.06	37.21	0.19	TR	3.78	34.9	0.75	TR
7/29/2021	16.66	ND	0	0	3.74	37.38	0.02	TR	5.74	35.2	0.45	TR
8/12/2021	15.32	ND	0	0	5.21	ND	0	0	5.71	35.12	0.53	TR
8/26/2021	14.92	ND	0	0	5.80	ND	0	TR	5.88	35.16	0.49	TR
9/10/2021	14.61	ND	0	0	5.08	ND	0	0	6.41	35.18	0.47	0.1
9/22/2021	14.40	ND	0	0	4.65	ND	0	0	6.46	ND	0	0
10/8/2021	14.10	ND	0	0	3.14	ND	0	0	5.12	ND	0	0
10/20/2021	14.61	ND	0	0	5.01	ND	0	0	6.84	35.27	0.38	0
11/4/2021	13.59	ND	0	0	3.38	ND	0	0	5.10	ND	0	0
11/18/2021	13.44	ND	0	0	4.38	ND	0	0	5.34	ND	0	0
12/3/2021	13.40	ND	0	0	4.38	ND	0	0	5.58	ND	0	0
12/16/2021	13.36	ND	0	0	4.72	ND	0	0	5.84	ND	0	0
12/30/2021	13.41	ND	Trace	0	3.88	ND	0	0	5.46	ND	Trace	0
1/14/2022	13.52	ND	Trace	0	3.92	ND	0	0	5.56	ND	Trace	0
1/26/2022	13.44	ND	Trace	0	4.06	ND	0	0	5.67	ND	Trace	0
2/10/2022	19.21	ND	0	0	3.07	ND	0	0	5.39	ND	0	0
2/24/2022	17.65	ND	0	0	4.08	ND	0	0	5.52	34.7	0.6	0.2
3/10/2022	18.44	ND	0	0	4.99	ND	0	0	6.23	ND	0	0
3/24/2022	16.06	ND	0	0	2.91	ND	0	0	6.24	ND	0	0
4/7/2022	15.60	ND	0	0	4.23	ND	0	0	6.05	ND	0	0
4/18/2022	15.39	ND	0	0	4.46	ND	0	0	6.29	ND	0	0
5/2/2022	15.17	ND	0	0	5.13	ND	0	0	6.40	ND	Trace	0
5/20/2022	15.41	ND	0	0	5.21	ND	0	0	6.52	ND	0	0
6/2/2022	15.34	ND	0	0	5.39	ND	0	0	6.43	ND	0	0
6/16/2022	14.95	ND	Trace	0	5.27	ND	0	0	8.80	ND	0	0
6/30/2022	15.03	ND	Trace	0	5.35	ND	0	0	8.96	ND	0	0
7/15/2022	15.22	ND	Trace	0	6.79	ND	0	0	7.34	ND	0	0
7/28/2022	15.38	ND	Trace	0	6.91	ND	0	0	7.41	ND	0	0
8/12/2022	16.60	ND	Trace	0	6.54	ND	Trace	0	7.90	ND	0	0
8/29/2022	15.61	ND	0	0	4.35	ND	0	0	6.26	ND	0	0
9/16/2022	15.30	ND	0	0	6.00	37.20	0.75	0.25	7.30	31.90	3.40	0.25
9/30/2022	15.00	ND	Trace	0	7.00	ND	Trace	0	7.40	32.00	3.30	0.25
10/17/2022	14.85	ND	Trace	0	7.83	ND	Trace	0	7.90	32.85	2.45	0.10
10/27/2022	14.93	ND	Trace	0	7.97	ND	Trace	0	8.27	32.97	2.33	0.50
11/10/2022	14.77	ND	Trace	0	7.72	ND	Trace	0	8.13	32.82	2.48	0.50
11/30/2022	11.23	ND	Trace	0	3.22	ND	Trace	0	3.29	33.63	1.67	0.50
12/16/2022	11.06	ND	Trace	0	3.34	ND	Trace	0	3.16	33.69	1.61	0.50
12/27/2022	11.49	ND	Trace	0	2.96	ND	Trace	0	2.87	33.52	1.78	0.50
1/13/2023	12.46	ND	Trace	0	2.09	ND	Trace	0	2.61	33.62	1.68	0.50
1/27/2023	18.73	42.11	0.71	0	2.21	ND	Trace	0	5.29	34.48	0.82	0.50
2/9/2023	17.23	ND	Trace	0	3.00	ND	Trace	0	5.74	ND	Trace	0
2/23/2023	16.19	ND	0	0	3.96	ND	0	0	5.78	34.60	0.70	0.25
3/9/2023	16.06	ND	0	0	3.74	ND	0	0	5.56	34.29	1.01	0.50
3/23/2023	15.23	PoP	Trace	0	4.56	PoP	Trace	0	6.28	ND	Trace	0
4/6/2023	16.13	ND	0	0	3.96	ND	0	0	5.69	34.62	0.68	0.50
4/19/2023	14.87	ND	0	0	4.19	PoP	Trace	0	5.99	ND	Trace	0.00
5/5/2023	15.96	ND	0	0	3.72	ND	0	0	5.79	34.69	0.61	0.50
5/18/2023	14.23	ND	0	0	1.60	ND	0	0	4.40	32.92	2.38	0
6/1/2023	13.86	PoP	Trace	0	4.38	PoP	Trace	0	5.64	ND	Trace	0
6/15/2023	13.75	PoP	Trace	0	4.80	ND	0.00	0	5.63	32.85	2.40	1.10
6/29/2023	13.74	PoP	Trace	0	5.84	PoP	Trace	0	6.57	ND	Trace	0.10
7/13/2023	13.79	PoP	Trace	0	5.90	PoP	Trace	0	6.58	ND	Trace	0
7/27/2023	16.57	PoP	Trace	0	7.15	PoP	Trace	0	8.10	34.55	0.75	Trace
8/10/2023	16.08	PoP	Trace	0	7.90	PoP	Trace	0	7.75	ND	Trace	0
8/24/2023	16.70	PoP	Trace	0	8.55	PoP	Trace	0	8.28	ND	Trace	0
9/7/2023	16.74	PoP	Trace	0	8.63	PoP	Trace	0	8.66	ND	Trace	0
9/21/2023	15.70	PoP	Trace	0	8.70	PoP	Trace	0	8.50	ND	Trace	0
10/5/2023	12.60	PoP	Trace	0	5.50	PoP	Trace	0	8.50	ND	Trace	0
10/19/2023	15.45	PoP	Trace	0	7.00	PoP	Trace	0	7.36	33.60	1.70	0.30
11/2/2023	15.25	PoP	Trace	0	7.20	PoP	Trace	0	7.73	PoP	Trace	0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-57B				MW-68B				MW-70B			
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)
11/16/2023	15.18	ND	0	0	5.57	ND	0	0	7.60	34.40	1.00	0.25
11/30/2023	15.56	ND	0	0	6.75	ND	0	0	11.50	35.70	0.75	0.05
12/14/2023	14.93	PoP	TR	0	6.30	ND	0	0	7.15	34.60	0.80	TR
12/27/2023	14.83	PoP	TR	0	5.11	PoP	TR	0	6.50	34.50	1.00	0.10
1/11/2024	14.60	PoP	TR	0	3.00	Pop	TR	0	5.80	PoP	TR	0
1/25/2024	17.20	PoP	TR	0	0.50	ND	0	0	8.34	34.30	1.00	0.10
2/9/2024	15.11	PoP	TR	0	2.56	ND	0	0	4.15	PoP	TR	0
2/22/2024	15.50	PoP	TR	0	3.80	PoP	TR	0	5.46	32.30	3.00	0.60
3/7/2024	15.17	PoP	TR	0	4.84	PoP	TR	0	6.65	PoP	TR	0
3/22/2024	12.02	PoP	TR	0	4.35	PoP	TR	0	6.32	34.40	1.00	TR
4/18/2024	14.83	PoP	TR	0	4.75	ND	0	0	6.38	35.00	0.50	TR
5/2/2024	14.88	ND	0	0	4.90	PoP	TR	0	6.80	34.90	0.50	0.10
5/17/2024	3.75	PoP	TR	0	2.00	PoP	TR	0	5.46	34.80	0.50	0.10
5/30/2024	14.65	PoP	TR	0	2.52	PoP	TR	0	5.36	34.90	0.50	TR
6/13/2024	14.42	PoP	TR	0	4.05	PoP	TR	0	5.23	PoP	TR	0.10
6/27/2024	14.78	PoP	TR	0	4.56	ND	0	0	5.90	34.90	0.50	0.10
7/11/2024	14.27	PoP	TR	0	2.05	PoP	TR	TR	4.75	PoP	TR	TR
7/25/2024	14.02	PoP	TR	0	1.71	ND	0	0	4.22	PoP	TR	TR
8/8/2024	20.10	PoP	TR	0	NM	NM	NM	NM	5.65	35.00	0.30	TR
9/5/2024	17.13	PoP	TR	0	5.47	PoP	TR	0	5.72	34.40	1.00	0.10
9/19/2024	16.32	PoP	TR	0	6.15	PoP	TR	0	6.41	34.80	0.50	TR
10/4/2024	15.75	PoP	TR	0	7.06	PoP	TR	0	7.17	PoP	TR	0.10
10/17/2024	15.50	PoP	TR	0	7.65	PoP	TR	0	7.68	34.80	0.50	0.10
10/31/2024	15.30	PoP	TR	0	8.00	ND	0	0	8.09	35.20	0.16	0.10
11/15/2024	15.30	ND	0	0	7.58	ND	0	0	7.80	PoP	TR	TR
12/3/2024	15.21	PoP	TR	0	6.80	ND	0	0	7.37	PoP	TR	TR
12/12/2024	15.11	ND	0	0	6.42	ND	0	0	7.65	PoP	TR	0.00
12/26/2024	14.95	ND	0	0	5.51	PoP	TR	0.20	7.76	ND	0.00	0.00
1/9/2025	14.86	ND	0	0	5.06	ND	0	0	6.45	ND	0.00	0.00
1/23/2025	14.60	ND	0	0	4.51	ND	0	0	7.91	33.92	1.44	0.25
2/6/2025	14.24	ND	0	0	2.41	ND	0	0	5.31	34.18	1.18	0.25
2/22/2025	13.93	ND	0	0	2.30	ND	0	0	7.22	ND	0.00	0.00
3/6/2025	13.65	41.70	1.14	0.25	2.46	ND	0	0	5.00	34.04	1.26	0.25
3/25/2025	13.58	41.96	0.88	0.25	2.75	ND	0	0	5.83	33.70	1.61	0.30
4/3/2025	13.53	41.88	0.96	0.15	Not accessable			0	5.79	33.80	1.52	0.25
4/17/2025	13.59	ND	0.00	0.00	3.54	37.61	0.32	0.10	5.45	33.70	1.60	0.25
5/1/2025	13.51	ND	0.00	0.00	4.10	ND	0	0	5.83	34.63	0.63	0.35
5/15/2025	13.54	ND	0.00	0.00	3.25	37.81	0.09	0	5.63	34.96	0.34	0.05
5/29/2025	13.54	42.16	0.68	0.10	Not accessable			0	5.62	34.65	0.65	0.10
6/12/2025	14.42	42.16	0.68	0.15	2.59	37.61	0.29	0	5.12	34.88	0.42	0.05
6/26/2025	13.91	42.21	0.63	0.15	1.93	37.65	0.25	0	4.43	34.62	0.68	0.15
7/10/2025	16.35	ND	0.00	0.00	0.84	ND	TR	0	3.92	34.60	0.70	0.10
7/24/2025	15.22	ND	0.00	0.00	4.53	37.61	0.29	TR	6.93	34.46	0.84	0.15
8/7/2025	14.45	ND	0.00	0.00	Not accessable			0	5.99	34.56	0.75	0.15
8/21/2025	13.95	ND	0.00	0.00	2.99	37.72	0.18	0.02	5.68	34.79	0.51	0.08
9/4/2025	13.61	ND	0.00	0.00	2.46	37.30	0.60	0	5.12	34.38	0.92	0.20
9/18/2025	13.70	ND	0.00	0.00	2.54	37.16	0.74	0.15	5.19	34.69	0.61	TR
Total DNAPL Pumped (gal)				***3.8***				***4.5***				***68.4***

Notes:

* - indicates DNAPL and groundwater mixture

--- - No DNAPL pumped

DTW - Depth to water (feet Below Top of Casing (BTOC))

DTD - Depth to DNAPL (feet BTOC)

ND - Not detected

NM - Not measured

PoP - Product on probe, not measureable

TR - Trace amount of DNAPL measured and/or extracted

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-74B				MW-75B				MW-78A				
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	Approx DNAPL Recovered (gal)
2/14/2013					10.01	34.1	3.1	0.3	NM	NM	NM	0	10.3
4/3/2013					13.71	36.47	0.73	0.3	NM	NM	NM	0	5.7
4/22/2013					9.72	36.72	0.48	0.3	NM	NM	NM	0	3.4
5/30/2013					9.61	35.09	2.11	*0.8*	NM	NM	NM	0	8.2
6/29/2013					10.61	35.61	1.59	*0.8*	NM	NM	NM	0	9.2
7/22/2013					9.74	35.71	1.49	*0.8*	NM	NM	NM	0	8.7
8/26/2013					10.76	35.93	1.27	0.8	NM	NM	NM	0	7.5
9/27/2013					10.52	36.39	0.81	0.5	NM	NM	NM	0	6.5
10/31/2013					10.31	36.47	0.73	1	NM	NM	NM	0	6.1
11/27/2013					10.39	36.51	0.69	1	NM	NM	NM	0	5.7
12/31/2013					10.13	36.72	0.48	1	NM	NM	NM	0	5.7
1/30/2014					12.62	36.49	0.71	0.8	NM	NM	NM	0	4.9
3/3/2014					12.12	36.35	0.85	0.8	NM	NM	NM	0	5.2
3/31/2014					12.01	36.27	0.93	0.8	NM	NM	NM	0	5.2
4/30/2014					11.84	36.02	1.18	0.8	NM	NM	NM	0	5.4
5/27/2014					11.71	35.79	1.41	0.8	NM	NM	NM	0	5.1
6/26/2014					11.58	35.91	1.29	0.5	NM	NM	NM	0	5.3
7/31/2014					11.32	35.82	1.38	0.5	NM	NM	NM	0	5.0
8/27/2014					11.19	36.09	1.11	0.5	NM	NM	NM	0	4.5
10/3/2014					11.09	36.01	1.19	0.5	NM	NM	NM	0	5.0
11/3/2014					11.16	36.19	1.01	0.8	9.31	19.12	6.23	2	7.5
11/24/2014					11.21	36.27	0.93	0.5	9.39	19.62	5.73	2	8.3
12/22/2014					11.26	36.19	1.01	0.5	9.34	19.86	5.49	2	8.5
1/29/2015					11.06	36.34	0.86	0.5	9.14	21.29	4.06	2	8.0
2/26/2015					11.09	36.34	0.86	0.5	9.17	19.97	5.38	2.5	10.3
3/26/2015					10.93	36.42	0.78	0.5	9.12	20.31	5.04	0.8	7.5
4/27/2015					10.78	36.52	0.68	0.5	9.17	20.46	4.89	2	11.0
5/26/2015					10.61	36.72	0.48	0.8	9.09	20.59	4.76	2.5	12.8
7/6/2015					8.52	36.91	0.29	0.8	7.01	21.16	4.19	2	10.5
8/3/2015					8.66	36.96	0.24	0.8	7.12	21.39	3.96	2.5	10.8
8/27/2015					9.31	36.91	0.29	0.8	7.96	21.51	3.84	2	8.3
10/5/2015					8.62	37.02	0.18	0.5	7.23	21.67	3.68	2	8.0
11/5/2015					8.34	36.93	0.27	0.5	7.02	21.56	3.79	2	8.0
12/3/2015					8.12	36.81	0.39	0.5	6.83	21.67	3.68	2	8.0
12/28/2015					8.01	36.72	0.48	0.5	6.71	21.52	3.83	2.3	9.0
2/3/2016					7.82	36.19	1.01	0.3	6.52	21.67	3.68	2	9.0
3/3/2016					7.74	36.27	0.93	0.5	6.46	21.72	3.63	2	9.3
3/31/2016					7.67	36.39	0.81	0.5	6.49	21.86	3.49	2	9.3
5/3/2016					7.79	36.47	0.68	0.5	6.57	21.94	3.41	2	7.8
6/2/2016					7.71	36.42	0.73	0.5	6.65	21.91	3.44	2	8.3
7/8/2016					7.8	36.53	0.62	0.5	6.71	21.97	3.38	2	8.0
8/3/2016					7.89	36.59	0.56	0.5	6.82	22.04	3.31	2	8.0
8/30/2016					7.96	36.64	0.51	0.5	6.94	22.21	3.14	2	8.3
9/30/2016					7.91	36.51	0.64	0.5	7.04	22.39	2.96	2	8.5
11/3/2016					7.86	36.36	0.79	0.5	7.11	22.49	2.86	2	8.5
11/30/2016					7.97	36.47	0.68	0.8	7.29	22.67	2.68	2	8.8
1/4/2017					8.04	36.36	0.79	0.8	7.42	22.74	2.61	2	8.8
2/7/2017					8.12	36.21	0.94	0.8	7.48	22.93	2.42	2.5	9.0
3/2/2017					8.01	36.26	0.89	0.8	7.36	23.26	2.09	2	8.5
4/3/2017					7.93	36.43	0.72	0.8	7.29	23.34	2.01	2	7.5
4/27/2017					7.86	36.52	0.63	0.8	7.36	23.42	1.93	2	8.0
5/29/2017					7.94	36.41	0.74	0.8	7.51	23.51	1.84	2	7.8
7/5/2017					8.04	36.36	0.79	0.8	7.79	23.59	1.76	2	7.3
8/1/2017					8.16	36.31	0.84	0.8	7.89	23.51	1.84	2	8.0
9/5/2017					8.22	36.47	0.68	0.8	7.81	23.48	1.87	2	8.3
10/4/2017					8.29	36.56	0.59	0.8	7.89	23.51	1.84	2	7.8
11/2/2017					8.37	36.51	0.64	1	7.97	23.59	1.76	2	8.5
11/29/2017					8.33	36.59	0.56	1	8.02	23.67	1.68	2	8.0
1/2/2018					8.07	36.72	0.43	1	8.17	23.82	1.53	2	8.3
2/7/2018					8.17	36.91	0.24	1	8.29	23.97	1.38	2	8.3
3/1/2018					8.31	36.94	0.21	1	8.47	23.91	1.44	2	7.5
4/2/2018					8.26	36.89	0.26	0.8	8.39	23.97	1.38	2.3	7.8
5/1/2018					8.92	36.96	0.19	0.8	9.02	24.06	1.29	2	9.0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

	MW-74B				MW-75B				MW-78A				
DNAPL Recovery Date	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	Approx DNAPL Recovered (gal)
6/1/2018					9.34	36.91	0.24	0.8	9.21	24.13	1.22	2	9.8
6/29/2018					9.67	36.82	0.33	0.8	9.39	24.21	1.14	2.3	10.5
8/3/2018					9.84	36.87	0.28	0.8	9.47	24.31	1.04	2	10.0
8/31/2018					9.71	36.91	0.24	0.8	9.32	24.47	0.88	2	8.3
9/28/2018					9.62	36.84	0.31	0.8	9.22	24.39	0.96	2	8.3
11/2/2018					9.57	36.88	0.27	0.8	9.09	24.27	1.08	2	8.5
11/29/2018					9.41	36.92	0.23	1	8.96	24.22	1.13	2	7.5
1/2/2019					9.28	36.96	0.19	1	8.78	24.39	0.96	2	7.8
2/2/2019					9.22	36.91	0.24	1	8.71	24.47	0.88	2	8.0
2/28/2019					9.16	36.93	0.22	1	8.67	24.42	0.93	2	8.8
4/2/2019					9.06	36.91	0.24	1	8.58	24.43	0.92	2	8.8
4/25/2019					9.02	36.72	0.43	1	8.49	24.31	1.04	2	9.3
5/29/2019					9.07	36.67	0.48	1	8.42	24.26	1.09	2	9.3
6/12/2019					8.92	ND	Trace	0	8.67	23.96	1.39	2	9.0
6/30/2019					8.66	ND	Trace	0	9.36	23.77	1.58	2	9.8
7/16/2019					8.62	ND	Trace	0	9.29	23.62	1.73	2	10.5
8/2/2019					8.67	ND	Trace	0	9.34	23.57	1.78	2	8.0
8/15/2019					8.69	ND	0	0	9.42	23.06	2.29	2	12.0
8/28/2019					8.72	ND	Trace	0	9.51	23.01	2.34	2	12.0
9/17/2019					8.61	ND	Trace	0	9.39	22.76	2.59	2	13.0
10/2/2019					8.53	ND	Trace	0	9.27	22.58	2.77	2	10.5
10/16/2019					NM	NM	NM	0	10.16	21.63	3.72	2	8.0
10/31/2019					NM	NM	NM	0	10.41	21.79	3.56	2.5	8.5
11/15/2019					7.91	ND	0	0	8.01	21.62	3.73	1.5	5.0
12/3/2019					8.24	ND	0	0	8.41	22.12	3.23	2	6.5
12/18/2019					4.99	ND	0	0	8.38	ND	0	0	2.1
12/30/2019					7.79	35.3	1.85	0	9.16	19.93	5.42	1.5	3.3
1/7/2020					--	--	--	--	--	--	--	--	0.0
1/15/2020					6.47	36.4	0.75	0	8.79	24.9	0.45	0.1	4.1
1/27/2020					5.92	34.6	2.55	0.1	7.06	24.06	1.29	0	3.8
2/13/2020					7.88	35.08	2.07	0.1	8.01	24.08	1.27	0	3.3
2/25/2020					5.82	ND	0	0	7.84	21.86	3.49	0.3	2.6
3/13/2020					8.24	34.9	2.25	0.1	NM	NM	NM	0	2.3
3/31/2020					4.79	ND	0	0	7.82	23.1	2.25	0.1	5.9
4/9/2020					8.52	ND	0	0	7.52	22.5	2.85	0.1	7.3
4/27/2020					9.07	ND	0	0	8.33	23.2	2.15	0.5	7.7
5/14/2020					7.74	37.1	0.05	0	8.05	23.22	2.13	0.5	8.3
5/28/2020					5.06	ND	0	0	7.59	23.69	1.66	0.5	8.6
6/11/2020					5.79	37	0.15	TR	7.39	24.96	0.39	0.1	5.6
6/25/2020					4.87	ND	0	0	6.28	19.9	5.45	1.5	6.5
7/9/2020					8.91	ND	0	0	8.41	19.7	5.65	2.5	7.3
7/23/2020					8.71	ND	0	0	7.85	20.91	4.44	1.0	8.8
8/6/2020					6.74	ND	0	0	7.81	22.05	3.3	1.0	6.3
8/20/2020					6.01	ND	0	0	7.21	21.88	3.47	0.5	3.9
9/2/2020					8.61	ND	0	0	6.98	22.6	2.75	1.0	4.4
9/17/2020					8.52	ND	0	0	8.05	22.21	3.14	0.5	3.1
10/1/2020					7.33	37.1	Trace	0	8.01	24.1	1.25	1.0	3.9
10/14/2020					8.26	37.2	Trace	TR	8.11	24.9	0.45	0.5	8.3
10/28/2020					8.11	ND	0	0	7.99	25.08	0.27	0.3	6.3
11/12/2020					8.41	36.78	0.37	0.3	8.42	25.0	0.35	0.1	5.6
11/23/2020					8.62	36.04	1.11	0.3	9.19	25.08	0.27	0.3	3.3
12/10/2020					7.94	36.54	0.61	0.1	8.79	25.12	0.23	TR	4.8
12/21/2020					6.15	36.84	0.31	0.1	6.43	25.21	0.14	TR	3.9
1/7/2021					6.81	37.01	0.14	0.1	7.31	ND	0	0	4.1
1/21/2021					7.85	35.5	1.65	2.0	7.71	ND	0	0	7.8
2/4/2021					8.19	35.2	1.95	2.0	7.63	ND	0	0	7.8
2/23/2021					7.64	34.59	2.56	1.0	7.52	ND	0	0	6.5
3/11/2021					7.82	35.1	2.05	1.0	7.42	ND	0	0	6.5
3/25/2021					7.91	36.81	0.34	0.3	7.28	ND	0	0	5.3
4/8/2021					7.08	36.53	0.62	0	7.41	ND	0	0	5.0
4/22/2021					8.59	36.8	0.35	0.3	7.02	ND	0	0	4.4
5/4/2021	7.81	32.80	2.20	2.0	7.83	ND	0	0	7.22	ND	0	0	6.8
5/20/2021	5.93	33.40	1.60	0.5	8.06	37.1	0.05	0.3	8.04	ND	0	0	5.5

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-74B				MW-75B				MW-78A				Approx DNAPL Recovered (gal)
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	
6/3/2021	6.54	33.62	1.38	0.5	3.71	37.02	0.13	0.1	7.49	ND	0	0	4.9
6/17/2021	6.86	34.70	0.30	0.1	5.21	ND	0	0	6.81	ND	0	0	3.9
7/1/2021	3.68	34.08	0.92	0.5	7.33	ND	0	0	NM	NM	NM	0	4.4
7/19/2021	5.36	34.15	0.85	0.8	5.16	ND	0	0	NM	NM	NM	0	4.0
7/29/2021	6.31	33.60	1.40	1.0	7.48	ND	0	0	7.18	ND	0	0	3.9
8/12/2021	7.51	33.34	1.66	1.0	7.58	ND	0	0	6.84	ND	0	0	4.4
8/26/2021	7.34	33.22	1.78	1.0	8.19	37.01	0.14	TR	6.92	ND	0	0	5.0
9/10/2021	7.81	34.40	0.60	0.2	8.63	ND	0	0	6.58	ND	0	0	2.6
9/22/2021	11.35	34.41	0.59	0	8.09	ND	0	0	NM	NM	NM	0	1.3
10/8/2021	6.94	33.58	1.42	0	8.03	ND	0	0	7.14	ND	0	0	1.0
10/20/2021	11.84	34.81	0.19	0	8.21	ND	0	0	NM	NM	NM	0	1.3
11/4/2021	7.24	33.83	1.17	0.3	7.70	ND	0	0	7.01	ND	0	0	2.0
11/18/2021	7.41	ND	0	0	7.70	ND	0	0	7.11	ND	0	0	0.3
12/3/2021	7.90	ND	0	0	7.94	ND	0	0	7.46	ND	0	0	1.3
12/16/2021	7.51	ND	0	0	8.12	ND	0	0	7.80	ND	0	0	1.3
12/30/2021	7.76	ND	Trace	0	NM	NM	NM	0	8.09	ND	Trace	0	1.5
1/14/2022	7.82	ND	Trace	0	NM	NM	NM	0	8.16	ND	Trace	0	1.5
1/26/2022	7.91	ND	Trace	0	NM	NM	NM	0	8.27	ND	Trace	0	1.5
2/10/2022	7.30	ND	0	0	NM	NM	NM	0	8.88	ND	0	0	0.9
2/24/2022	8.41	ND	0	0	NM	NM	NM	0	8.51	ND	0	0	1.1
3/10/2022	8.60	ND	0	0	NM	NM	NM	0	8.67	ND	0	0	1.2
3/24/2022	8.62	ND	0	0	NM	NM	NM	0	8.65	ND	0	0	0.3
4/7/2022	8.20	ND	0	0	NM	NM	NM	0	8.90	ND	0	0	0.5
4/18/2022	8.42	ND	0	0	NM	NM	NM	0	8.96	ND	0	0	2.3
5/2/2022	8.52	ND	0	0	NM	NM	NM	0	9.02	ND	0	0	2.5
5/20/2022	8.51	ND	0	0	NM	NM	NM	0	9.13	ND	0	0	2.5
6/2/2022	8.39	ND	0	0	NM	NM	NM	0	9.26	ND	0	0	2.5
6/16/2022	9.09	ND	Trace	0	NM	NM	NM	0	9.13	ND	Trace	0	1.8
6/30/2022	9.47	ND	Trace	0	NM	NM	NM	0	9.23	ND	Trace	0	1.4
7/15/2022	8.41	ND	Trace	0	NM	NM	NM	0	9.26	ND	Trace	0	2.5
7/28/2022	8.51	ND	Trace	0	NM	NM	NM	0	9.36	ND	Trace	0	2.5
8/12/2022	8.82	ND	Trace	0	NM	NM	NM	0	9.59	ND	Trace	0	0.4
8/29/2022	8.62	ND	0	0	NM	NM	NM	0	9.41	ND	0	0	3.5
9/16/2022	8.80	ND	Trace	0	NM	NM	NM	0	NM	NM	NM	0	4.5
9/30/2022	8.70	ND	0	0	NM	NM	NM	0	9.20	ND	Trace	0	8.0
10/17/2022	9.24	ND	0	0	NM	NM	NM	0	9.21	ND	Trace	0	5.1
10/27/2022	9.42	ND	0	0	NM	NM	NM	0	9.34	ND	Trace	0	5.5
11/10/2022	9.31	ND	0	0	NM	NM	NM	0	9.17	ND	Trace	0	5.5
11/30/2022	6.02	ND	0	0	NM	NM	NM	0	5.81	ND	0	0	5.0
12/16/2022	6.12	ND	0	0	NM	NM	NM	0	5.72	ND	0	0	5.0
12/27/2022	6.02	ND	0	0	NM	NM	NM	0	6.17	ND	0	0	5.0
1/13/2023	6.67	ND	0	0	NM	NM	NM	0	6.79	ND	0	0	5.0
1/27/2023	7.64	ND	Trace	0	NM	NM	NM	0	8.6	ND	0	0	2.8
2/9/2023	7.21	ND	0	0	NM	NM	NM	0	8.65	ND	Trace	0	0.9
2/23/2023	7.84	ND	0	0	NM	NM	NM	0	8.61	ND	0	0	3.3
3/9/2023	7.67	ND	0	0	NM	NM	NM	0	8.51	ND	0	0	3.5
3/23/2023	8.12	ND	0	0	NM	NM	NM	0	8.47	ND	Trace	0	3.3
4/6/2023	7.81	ND	0	0	NM	NM	NM	0	8.59	ND	0	0	4.5
4/19/2023	7.9	ND	0	0	7.11	NM	NM	0	8.5	ND	0	0	4.0
5/5/2023	7.62	ND	0	0	8.01	NM	NM	0	8.42	ND	0	0	4.0
5/18/2023	6.10	ND	0	0	6.72	NM	NM	0	7.82	ND	0	0	3.0
6/1/2023	6.85	ND	Trace	0	NM	NM	NM	0	7.50	ND	0	0	2.4
6/15/2023	6.86	ND	0.00	0	NM	NM	NM	0	7.54	ND	0	0	3.6
6/29/2023	7.24	ND	Trace	0	7.85	ND	Trace	0	7.57	ND	0	0	1.7
7/13/2023	6.92	ND	0.00	0	7.8	ND	Trace	0	7.44	ND	0	0	1.6
7/27/2023	7.70	ND	0.00	0	8.15	ND	Trace	0	7.52	ND	0	0	0.0
8/10/2023	8.52	ND	Trace	0	8.2	ND	Trace	0	7.89	ND	Trace	0	2.2
8/24/2023	9.90	ND	Trace	0	9.75	ND	Trace	0	9.03	ND	Trace	0	1.3
9/7/2023	9.96	ND	Trace	0	9.82	ND	Trace	0	9.07	ND	Trace	0	1.4
9/21/2023	8.90	ND	Trace	0	8.50	ND	Trace	0	8.51	ND	Trace	0	0.9
10/5/2023	8.95	ND	Trace	0	--	--	--	--	7.95	ND	Trace	0	1.2
10/19/2023	8.41	PoP	Trace	0	8.00	PoP	Trace	0	7.68	ND	0	0	1.3
11/2/2023	8.78	33.70	2.40	0.80	7.92	PoP	Trace	0	8.31	ND	0	0	2.0

TABLE 1

SUMMARY OF DNAPL RECOVERY MEASUREMENTS
UPRR HOUSTON, TX - WOOD PRESERVING WORKS

DNAPL Recovery Date	MW-74B				MW-75B				MW-78A				Approx DNAPL Recovered (gal)
	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	DTW (ft BTOC)	DTD (ft BTOC)	DNAPL Thickness (ft)	DNAPL Pumped (gal)	
11/16/2023	8.80	35.20	1.00	0.20	7.77	ND	0	0	8.70	ND	0	0	2.7
11/30/2023	8.41	35.45	0.75	0.10	5.90	PoP	TR	0	8.92	ND	0	0	0.5
12/14/2023	8.70	34.00	2.10	0.10	7.70	ND	0	0	8.45	ND	0	0	2.2
12/27/2023	8.15	39.00	1.00	0.20	7.74	PoP	TR	0	8.12	ND	0	0	0.6
1/11/2024	7.37	PoP	TR	0.00	7.30	ND	0	0	7.80	ND	0	0	0.4
1/25/2024	7.50	35.00	1.00	0.10	3.65	ND	0	0	7.72	ND	0	0	1.2
2/9/2024	6.76	PoP	TR	0.00	7.30	35.20	2.00	0.50	11.42	ND	0	0	0.6
2/22/2024	7.41	35.60	0.50	0.20	7.80	36.70	0.50	0.10	7.30	ND	0	0	1.6
3/7/2024	8.20	PoP	TR	0.00	7.82	36.20	1.00	0.30	7.90	ND	0	0	1.0
3/22/2024	NM	PoP	TR	0.00	NM	PoP	TR	0.00	8.56	PoP	TR	0	1.0
4/18/2024	7.60	35.20	1.00	0.30	8.15	PoP	TR	0.10	7.95	ND	0	0	0.8
5/2/2024	7.75	35.20	1.00	0.10	8.11	36.70	0.50	0.10	7.90	ND	0	0	0.6
5/17/2024	6.55	35.50	0.50	0.10	7.60	PoP	TR	0	7.75	ND	0	0	0.8
5/30/2024	6.95	35.00	1.00	0.30	NM	NM	NM	NM	5.45	36.90	0.5	0.1	1.5
6/13/2024	NM	NM	NM	NM	8.55	PoP	TR	0	7.65	ND	0	0	0.7
6/27/2024	7.02	35.00	1.00	0.20	9.00	PoP	TR	0	8.02	ND	0	0	0.6
7/11/2024	6.70	35.10	1.00	0.25	8.48	PoP	TR	0.10	7.40	ND	0	0	0.8
7/25/2024	5.94	35.20	1.00	0.20	10.20	ND	0	0	7.01	ND	0	0	0.7
8/8/2024	6.05	PoP	TR	0.10	7.90	ND	0	0	6.85	ND	0	0	0.5
9/5/2024	7.50	PoP	TR	0.10	7.54	PoP	TR	TR	7.01	ND	0	0	0.9
9/19/2024	7.75	PoP	TR	TR	7.87	36.20	1.00	0.30	8.66	PoP	TR	0	0.4
10/4/2024	8.74	PoP	TR	0.1	8.04	36.20	1.00	0.20	7.98	ND	0	0	0.7
10/17/2024	9.65	35.15	1.00	1.0	9.10	PoP	TR	TR	8.85	ND	0	0	1.8
10/31/2024	10.00	35.32	0.94	0.8	9.30	35.30	1.88	0.30	9.00	ND	0	0	1.3
11/15/2024	10.16	ND	0.00	0.0	9.25	PoP	TR	0.00	9.46	ND	0	0	0.3
12/3/2024	9.51	PoP	TR	0.1	8.95	ND	0.00	0.00	9.15	PoP	TR	0	0.3
12/12/2024	9.75	ND	0.00	0.0	9.28	34.52	2.30	0.35	9.64	ND	0	0	0.9
12/26/2024	9.39	PoP	TR	0.03	8.95	PoP	TR	0.13	Not accessable			0	1.1
1/9/2025	8.72	ND	0.00	0.0	8.91	ND	0.00	0.00	9.13	ND	0	0	0.0
1/23/2025	8.13	ND	0.00	0.0	8.59	ND	0.00	0.00	Not accessable			0	0.8
2/6/2025	7.52	ND	0.00	0.0	8.59	36.70	0.40	0.10	9.00	ND	0	0	0.5
2/22/2025	7.55	ND	0.00	0.0	8.75	36.95	0.20	0.06	8.39	ND	0	0	1.1
3/6/2025	7.14	PoP	TR	0.0	8.34	36.87	0.30	0.10	8.40	ND	0	0	1.5
3/25/2025	8.22	ND	0.00	0.0	8.75	ND	0.00	0.00	8.35	ND	0	0	1.2
4/3/2025	7.69	36.06	0.26	0.0	8.76	36.81	0.89	0.15	8.15	ND	0	0	1.6
4/17/2025	7.74	ND	0.00	0.0	8.85	ND	0.00	0.00	8.02	ND	0	0	1.8
5/1/2025	7.39	ND	0.00	0.0	8.90	ND	0.00	0.00	7.56	ND	0	0	1.0
5/15/2025	7.70	36.03	0.28	0.05	8.13	36.87	0.30	0.05	7.67	ND	0	0	0.9
5/29/2025	7.63	35.87	0.43	0.05	8.82	37.12	0.05	0.00	7.74	ND	0	0	0.9
6/12/2025	6.61	35.90	0.40	0.10	8.54	36.90	0.27	0.00	Not accessable			0	0.8
6/26/2025	6.10	36.20	0.10	0.0	8.15	37.07	0.10	0.00	7.31	ND	0	0	1.1
7/10/2025	6.18	35.00	1.21	0.20	8.02	36.74	0.43	TR	6.89	ND	0	0	0.8
7/24/2025	6.65	ND	0.00	0.0	8.03	36.50	0.67	0.10	7.21	ND	0	0	1.1
8/7/2025	6.78	35.55	2.75	0.0	7.31	36.96	0.19	0.00	7.04	ND	0	0	1.0
8/21/2025	7.21	35.91	0.39	0.06	7.83	37.01	0.16	0.02	7.22	ND	0	0	0.9
9/4/2025	6.80	ND	0.00	0.0	7.74	36.73	0.44	0.00	7.29	ND	0	0	1.0
9/18/2025	6.91	ND	0.00	0.0	7.79	36.92	0.25	0.00	7.16	ND	0	0	0.6
Total DNAPL Pumped (gal)				***13.7***				***63.9***				***151.4***	***1130.2***

Notes:

* - indicates DNAPL and groundwater mixture

--- - No DNAPL pumped

DTW - Depth to water (feet Below Top of Casing (BTOC))

DTD - Depth to DNAPL (feet BTOC)

ND - Not detected

NM - Not measured

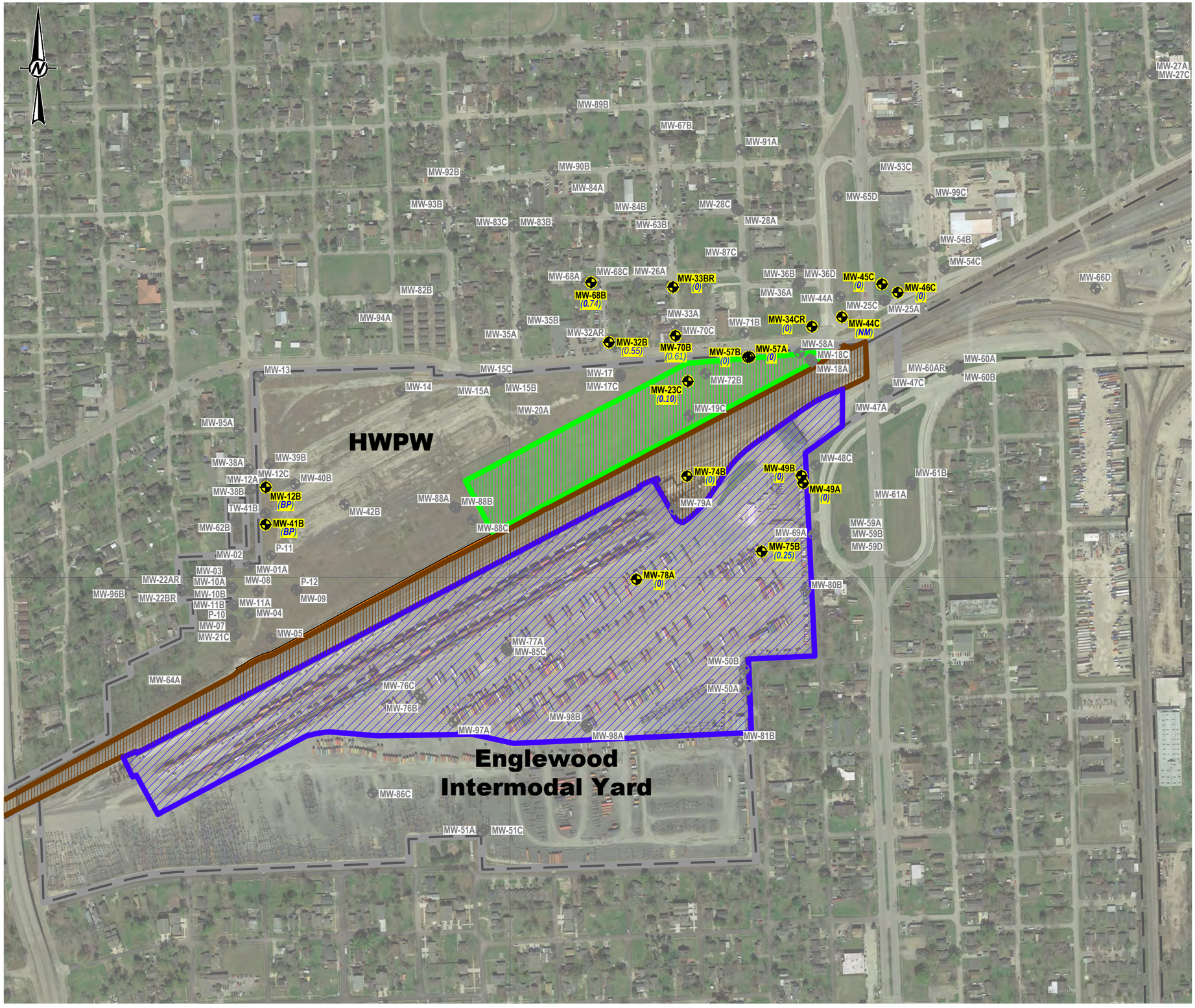
PoP - Product on probe, not measureable

TR - Trace amount of DNAPL measured and/or extracted

MW-78A 12/26/24: Not accessable due to water covering well.

MW-78A 1/23/25: Not accessable due to a field trailer obstructing access to the well.

FIGURES



LEGEND

- UPRR PROPERTY BOUNDARY
- MONITORING WELL LOCATION
- MONITORING WELL LOCATION USED FOR DNAPL RECOVERY
- (0) IN WELL DNAPL THICKNESS (FT)
- RAILROAD BALLAST CAP AREA
- ASPHALT CAP AREA
- SOIL CAP AREA
- CONCRETE CAP AREA

NOTE(S)

1. BP - BELOW PUMP; DEPTH TO DNAPL NOT MEASURED BECAUSE DNAPL IS BELOW TOP OF IN-WELL PUMP.
2. IN-WELL THICKNESS MEASURED JUNE 26, 2025.
3. NM - NOT MEASURED; MW-44C DAMAGED AND MW-78A INACCESSIBLE.
4. TR - TRACE, NOT MEASURABLE.

REFERENCE(S)

PARCEL BOUNDARIES: CITY OF HOUSTON GEOGRAPHIC INFORMATION & MANAGEMENT SYSTEMS (GIMS).
AERIAL: GOOGLE EARTH, IMAGERY DATED 2/23/19.

0 200 400
1" = 400' FEET

CLIENT
UNION PACIFIC RAILROAD CO.

PROJECT
HOUSTON WOOD PRESERVING WORKS

TITLE
IN-WELL DNAPL THICKNESS
SEPTEMBER 18, 2025

CONSULTANT

YYYY-MM-DD	2025-11-19
DESIGNED	AJD
PREPARED	AJD
REVIEWED	CET
APPROVED	ECM

PROJECT NO. US0039040.4227 | REV. 0 | FIGURE 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Path: \\golder.gds\complexdata\office\Texarkana\Projects - Round Rock 20191\19119232 - HWPW\2023-11\ | File Name: 1 - In-Well DNAPL Thickness (September 2023).dwg | Last Edited By: adiamond Date: 2023-11-27 Time: 12:27:13 PM | Printed By: adiamond Date: 2023-11-27 Time: 12:43:53 PM

Figure 2
DNAPL Recovery Activities February 2013 - September 2025
UPRR Houston Wood Preserving Works

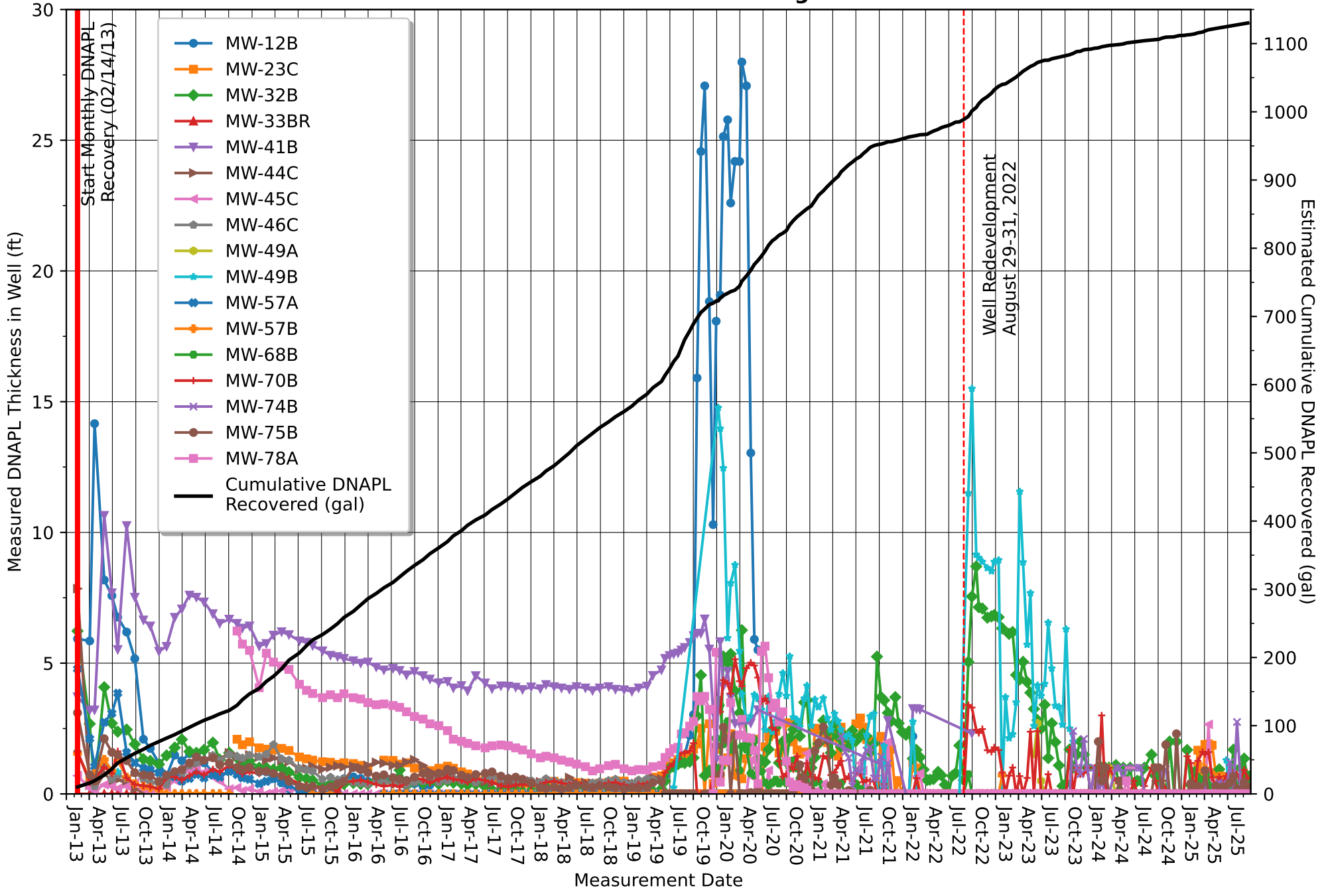


Figure 3
A-TZ Wells-DNAPL Recovery Activities July 2018 - September 2025
UPRR Houston Wood Preserving Works

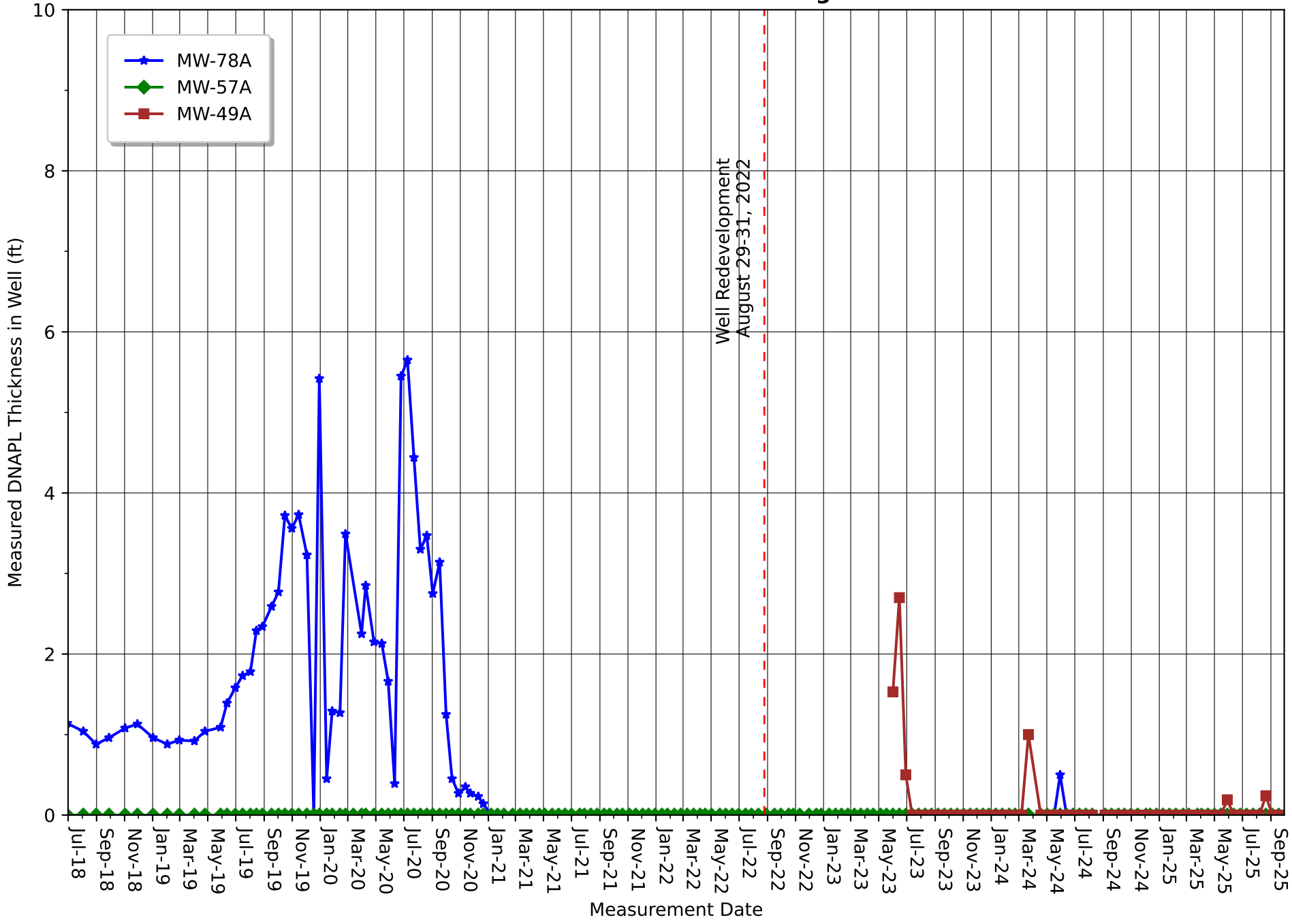


Figure 4
B-TZ Wells (West Side)-DNAPL Recovery Activities July 2018 - September 2025
UPRR Houston Wood Preserving Works

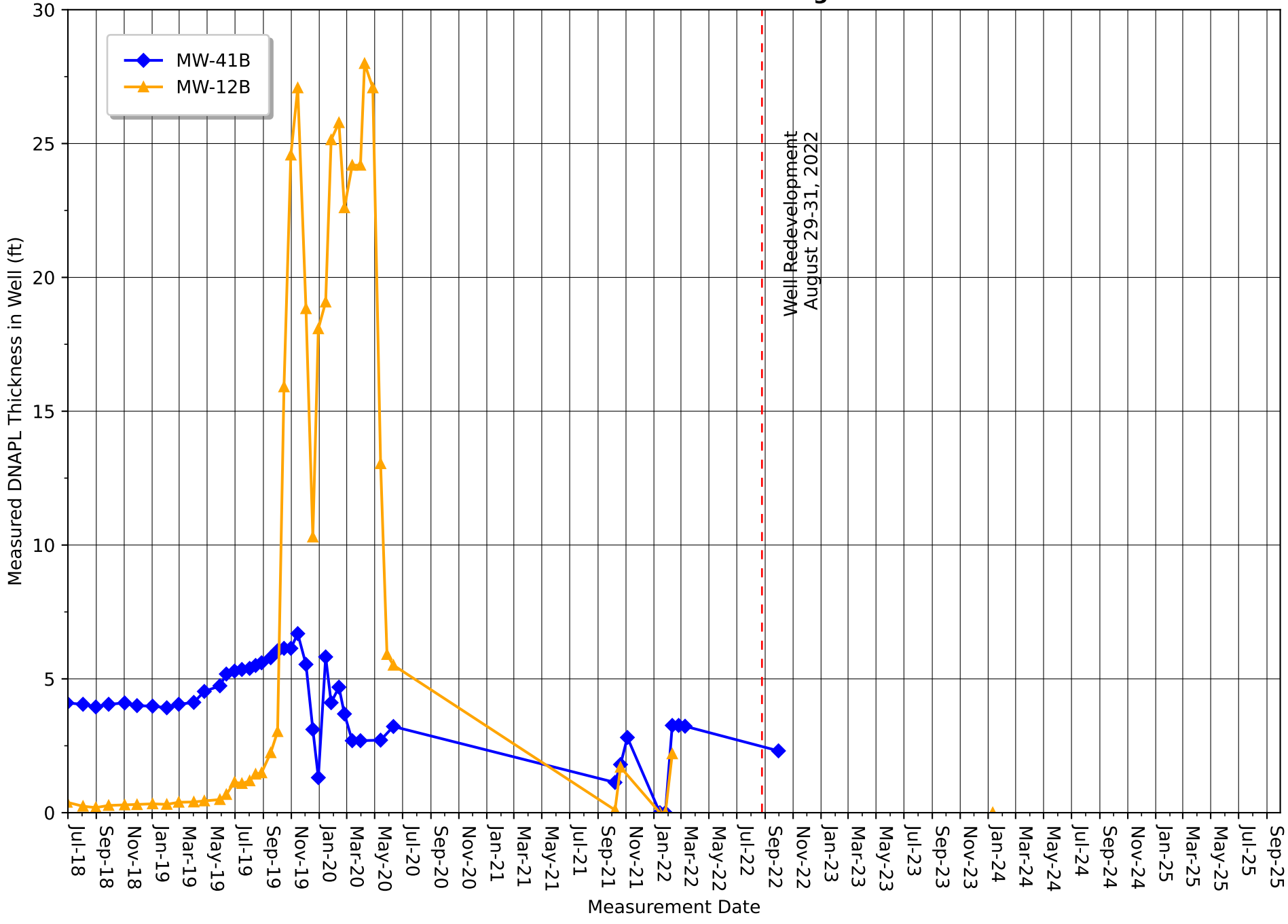


Figure 5
B-CZ/B-TZ Wells (North (On-site and Off-site)-DNAPL Recovery Activities July 2018 - September 2025
UPRR Houston Wood Preserving Works

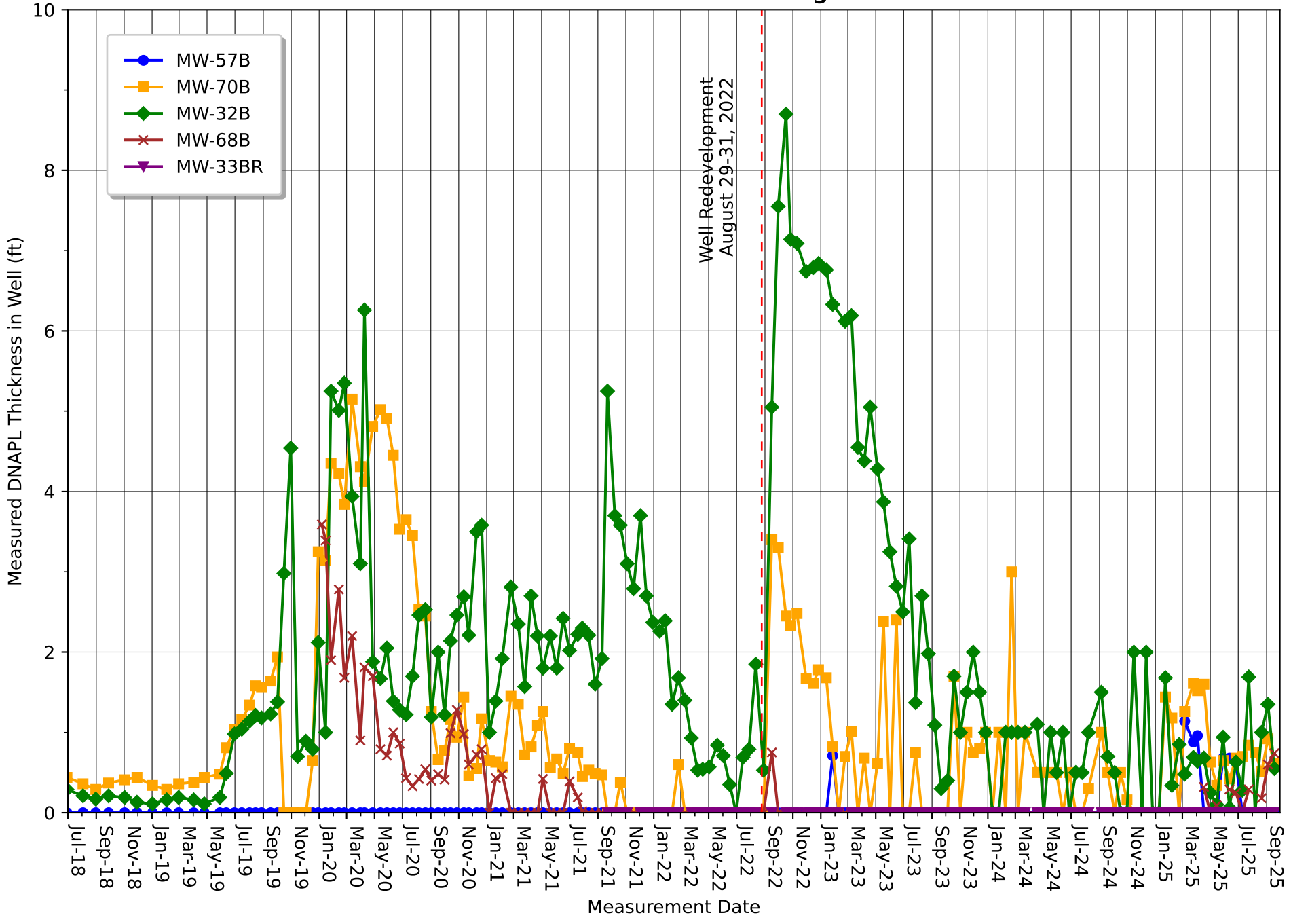


Figure 6
B-CZ/B-TZ Wells (Englewood Intermodal Yard)-DNAPL Recovery Activities July 2018 - September 2025
UPRR Houston Wood Preserving Works

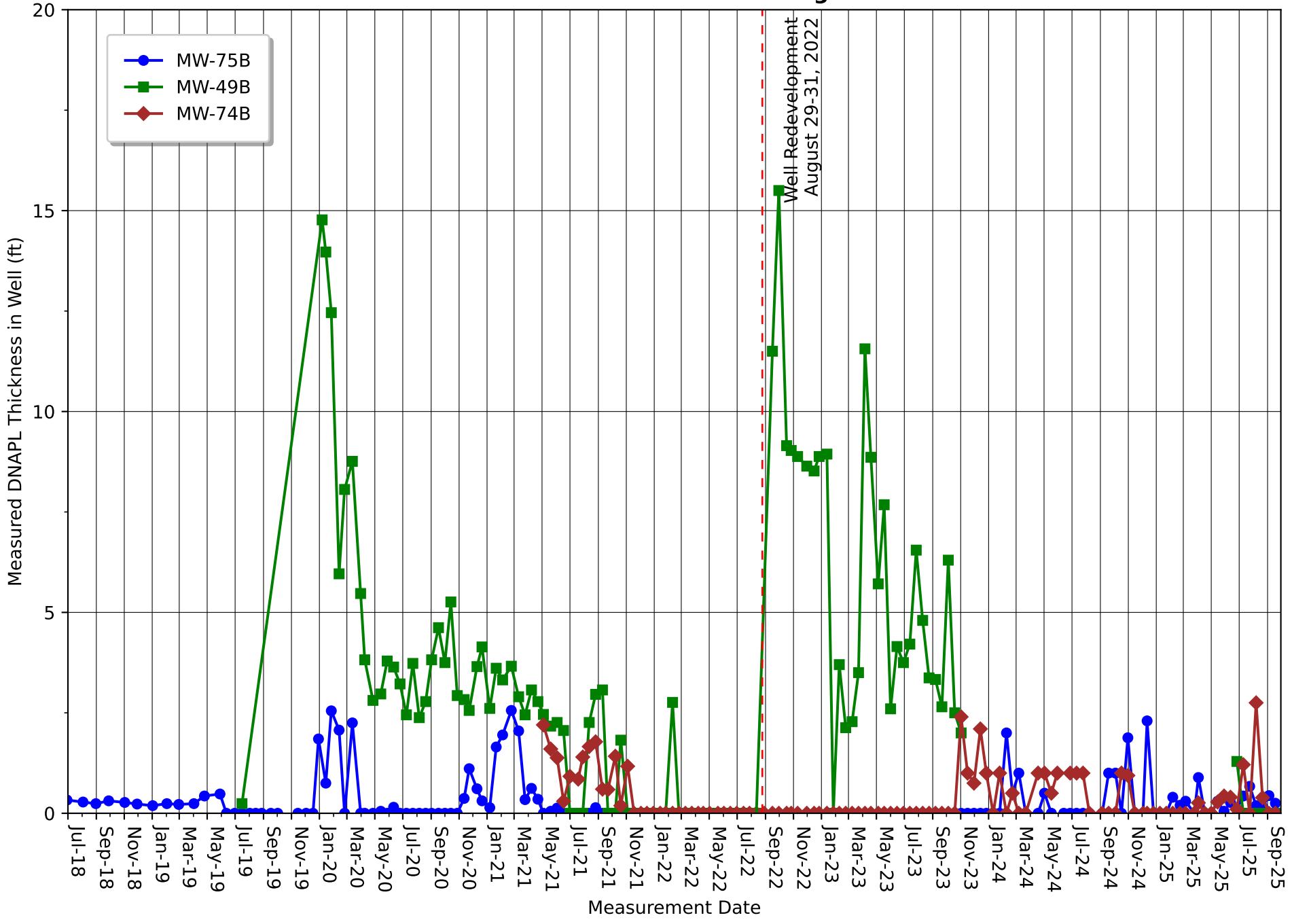
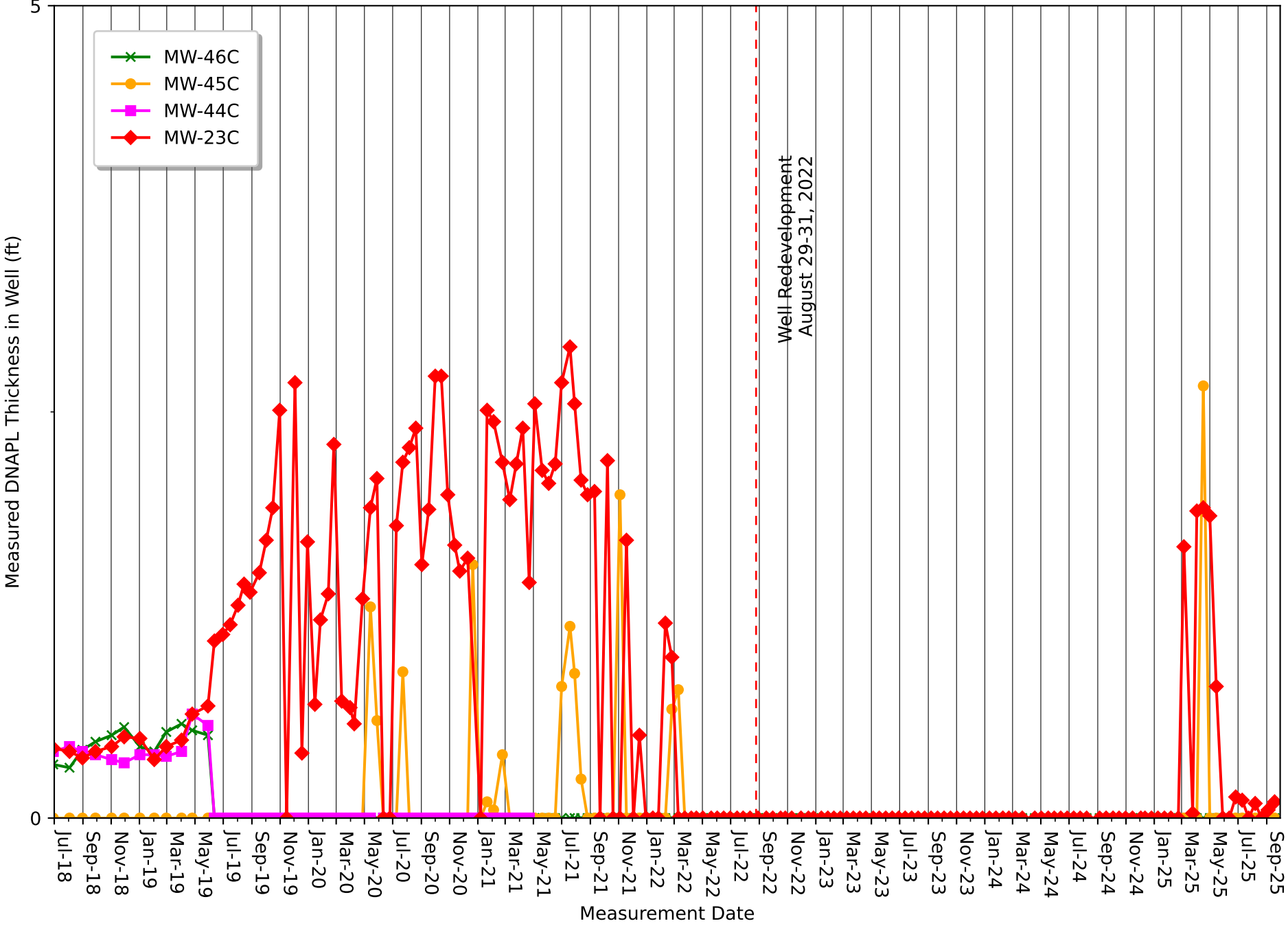


Figure 7
C-TZ Wells-DNAPL Recovery Activities July 2018 - September 2025
UPRR Houston Wood Preserving Works



ATTACHMENT 1

Recovered DNAPL Waste Manifest

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
TXD000820266	1	888-877-7267	025350779 JJK

GENERATOR

5. Generator's Name and Mailing Address
Union Pacific Railroad (UPRR) c/o GHD - Attn: Manifest Receiving
9100 Centre Pointe Drive Suite 240
West Chester, OH 45069
Generator's Phone: (414-267-4164)

Generator's Site Address (if different than mailing address)
Union Pacific Railroad
4910 Liberty Rd
Houston, TX 77026

6. Transporter 1 Company Name
E3 Environmental
U.S. EPA ID Number
TXRDDD083939

7. Transporter 2 Company Name
US Ecology
U.S. EPA ID Number
MIK593743838

8. Designated Facility Name and Site Address
US Ecology - Robstown
3277 County Road 69
Robstown, TX 78380
Facility's Phone: (800-242-3209)
U.S. EPA ID Number
TXD069452340

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ, NA3082, Hazardous waste, liquid, n.o.s. (creosote, benzene), 9, PG III (F034)	1	DM	200	G P	F034 0918 219H D018
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. Profile # 090130010-0 Exp: 3/24/26
WR: 022946
Job# 135.25.0018
PO# 135.2025.0145

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Anthony Momullins
Signature: Anthony Momullins
Month: 9 Day: 4 Year: 25

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ~~William Register~~ APRoad Project
Signature:
Month: 9 Day: 4 Year: 25

Transporter 2 Printed/Typed Name: Richard Almaguer
Signature:
Month: 9 Day: 5 Year: 25

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H042			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Quinn Myles
Signature:
Month: 9 Day: 10 Year: 25

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM