Seeds, Tena (ECY)

From: Kristin Anderson <Kristin.Anderson@floydsnider.com>
Sent: Friday, May 29, 2026 3:03 PM
To: Seeds, Tena (ECY)
Cc: Kim Hempel; Meg McCann
Subject: Time Oil Bulk Terminal well network update plan
Attachments: Revised TOC well replacement plan-ECY 5.26.pdf; A.2 Monitoring Well Status Summary.pdf; A.3b Proposed Short-Term PMP-Redevelopment.pdf

External Email

Tena, Thanks again for meeting with us to review the redevelopment and well decommission/replacement plan for the Time Oil Bulk Terminal site. The markup we discussed yesterday is attached and summarized below. The relevant GMP well network figures are also attached for reference.

Bulk Terminal property

- Q1 2026 results show continued progress toward CULs for TPH and benzene at the CPOC
- A planned building on this parcel (building C) will be situated over most of CAA-1 and will also extend west of CAA-1
- 01MW40 (beneath building footprint) will be decommissioned as anticipated in the GMP
- The available area for 01MW90R may be too far west of CAA-1 to obtain useful attenuation data; 01MW12R to the north of CAA-1 is proposed as an appropriate on-property replacement to monitor attenuation.

ASKO property

- Q1 results show ongoing source control issues for TCE. TCE was also newly detected at 01MW106 downgradient of the CPOC (well was last monitored during the RI)
- A planned building on this parcel (building A) and stormwater detention structure will be situated over most of CAA-4
- 01MW15, 01MW46, 01MW57, 01MW80, 01MW108 and MW05 (beneath building footprint) will be decommissioned as anticipated in the GMP. 01MW56 and MW06 are also beneath or too close to planned structures and require decommissioning.
- Two replacement performance wells are proposed on-property upgradient of the CPOC, consistent with the GMP. After Ecology discussion last week and observed results at 01MW106, these wells are shifted west to intercept the current TCE plume and include 01MW80R and MW04R.
- Upgradient performance well 01MW60R will be installed consistent with the GMP
- Planned performance well 01MW45R is beneath a building footprint. The monitoring purpose of this well, which is intended to intercept potential TCE flowing from upgradient, will be served by 01MW60R
- Planned contingency performance well 01MW46R is also beneath a building footprint. 01MW46 is in a likely stagnation area adjacent to the ISS monolith and not a priority location for continued performance monitoring
- Data from new wells MW04R and 01MW60R will be assessed to determine whether additional contingency monitoring is needed, in coordination with Ecology

Our planned scope for Q3 2026 includes regular semiannual monitoring per the GMP and 2025 GMAR, including sampling ROW well 01MW87 which was delayed from Q1. During this event, we will also sample 01MW106 to verify Q1 TCE impacts, assess the condition of 02MW14, and redevelop if 02MW14 remains intact. If the results of the Q3 sampling at 01MW106 confirm the TCE exceedance observed in Q1 2026, we will sample the downgradient 02MW14 (assuming it is a viable well).

Following monitoring, we plan to decommission wells including the ROW scope delayed from Q1 and the construction preparation scope described above. We are currently hoping to install replacement wells in Q1 2027 following earthwork.

Thanks!

Kristin Anderson, LHG (Associate Principal, Senior Geologist (she/her)
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01MW80R
CAA-4 upgradient of plumestop

MW04R
CAA-4 upgradient of plumestop, possible TCE flow path from BNSF

Recommended BNSF well at SW corner of monolith

01MW60R - CAA-4 upgradient plume

01MW12R- downgradient portion of CAA-1 Source area

Decommission prior to construction

Protect during construction (shown for wells near structure footprints for clarity)

Install following earthwork

Monitoring Well Locations

- Shallow WBZ Monitoring Well
- Intermediate WBZ Monitoring Well
- Gravity Well

0 25 50 100
Scale in Feet

BUSH, ROED & HITCHINGS, INC.
LAND SURVEYORS & CIVIL ENGINEERS
15400 SE 30TH PL STE 100
BELLEVUE, Washington
96007-6546
(206) 323-4144
1-800-935-0638
WWW.BRHINC.COM

2805 W COMMODORE WAY
TOCST-SALMON BAY SOUTH
GRADING PLAN
KING COUNTY
WASHINGTON

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Long-Term Compliance Monitoring Annual Report
Appendix A: 2025 Groundwater Monitoring Annual Report
Time Oil Bulk Terminal
Seattle, Washington

Figure A.9
Monitoring Locations and
Proposed Monitoring Well Network Updates for 2026

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5/5/2026

Legend

Existing Monitoring Well Locations

- Shallow WBZ Monitoring Well
- Intermediate WBZ Monitoring Well
- Perched WBZ Monitoring Well
- Decommissioned Monitoring Well

Well Decomissioning Plan

- Damaged—Decomission Required
- Decommission During Redevelopment

Cleanup Action Components

- Excavated to CULs
- Excavated to RELs
- In Situ Stabilization/Solidification
- PlumeStop Injection
- ORC-A Treatment
- Interceptor Trench
- PRB Wall for Trench
- Gravity Well

Other Site Features

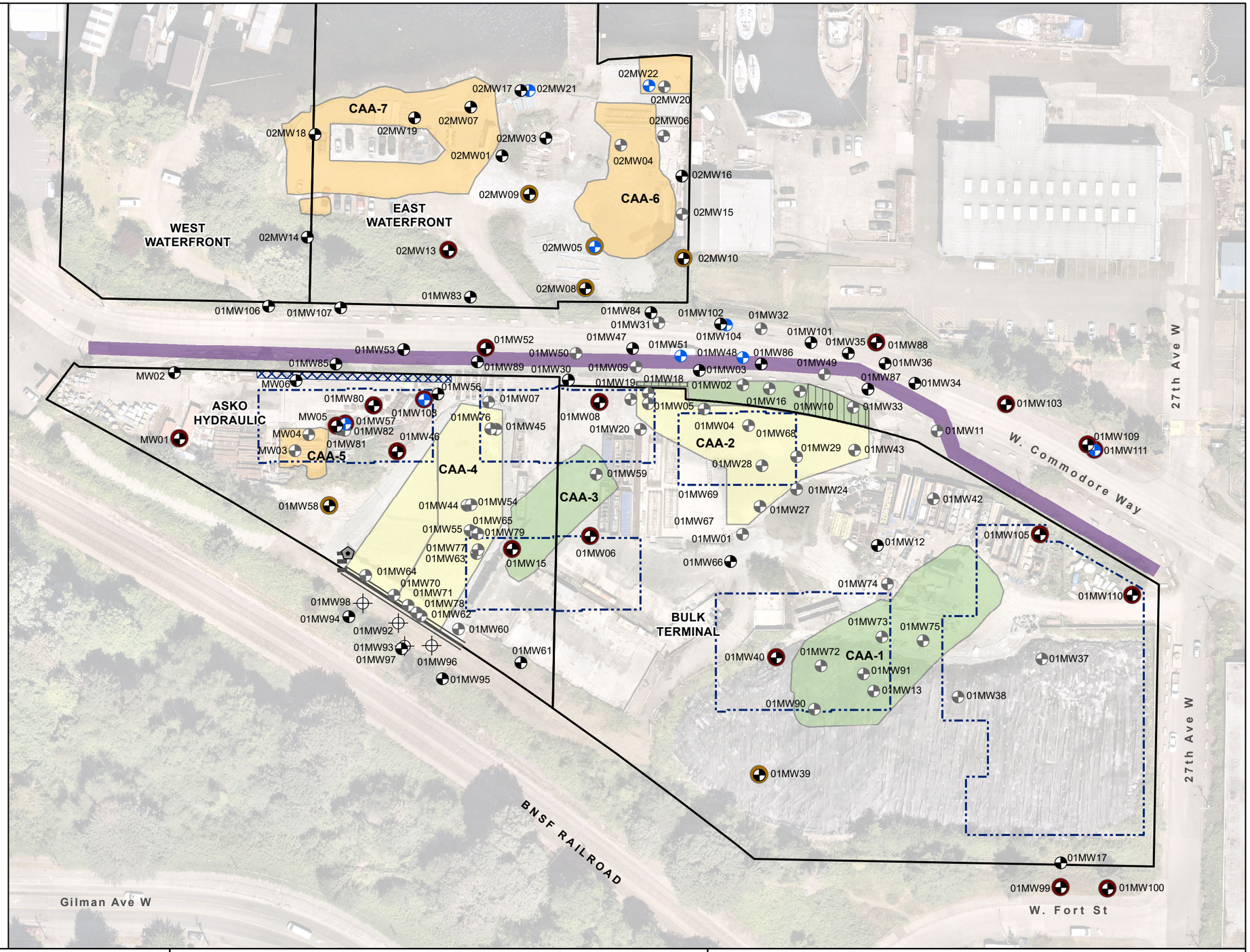
- Property Boundary for the Former TOC Seattle Terminal
- Planned Property Redevelopment Structure
- Conditional Point of Compliance

Notes:
· Parcel boundaries obtained from King County Geographic Information Systems Center, 2011. Lot lines are approximate. Not for legal use.
· Orthoimagery obtained from Nearmap, 2018.

Abbreviations:
CUL = Cleanup level
ORC-A = Oxygen Release Compound Advanced
PRB = Permeable reactive barrier
REL = Remediation level
TOC = TOC Holdings Co. and any predecessor entity including Time Oil Company
WBZ = Water-bearing zone

0 45 90 180
Scale in Feet

N



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Long-Term Compliance Monitoring Plan
Appendix A Groundwater Monitoring Plan
Time Oil Bulk Terminal
Seattle, Washington

Figure A.2
Monitoring Well Status Summary and Decommissioning Plan

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1/26/2023

Legend

Monitoring Well Locations

- Shallow WBZ Monitoring Well
- Intermediate WBZ Monitoring Well
- Perched WBZ Monitoring Well

Proposed Monitoring Well Locations

- Shallow WBZ Monitoring Well
- Intermediate WBZ Monitoring Well
- Perched WBZ Monitoring Well

Proposed Monitoring Plan[1]

- Quarterly Performance[2]
- Semiannual Performance
- Annual Performance
- Contingency Performance

Cleanup Action Components

- Excavated to CULs
- Excavated to RELs
- In Situ Stabilization/Solidification
- PlumeStop Injection
- Interceptor Trench
- PRB Wall for Trench
- Gravity Well

Approximate Extent of IHSs Exceeding CULs Before Cleanup Action (2019)

- Arsenic >5.0 µg/L
- Gasoline-Range Organics >800 µg/L
- Diesel- and Oil-Range Organics >500 µg/L
- Benzene >0.44 µg/L
- Trichloroethene >0.50 µg/L
- Vinyl Chloride >0.20 µg/L
- Penta >0.20 µg/L

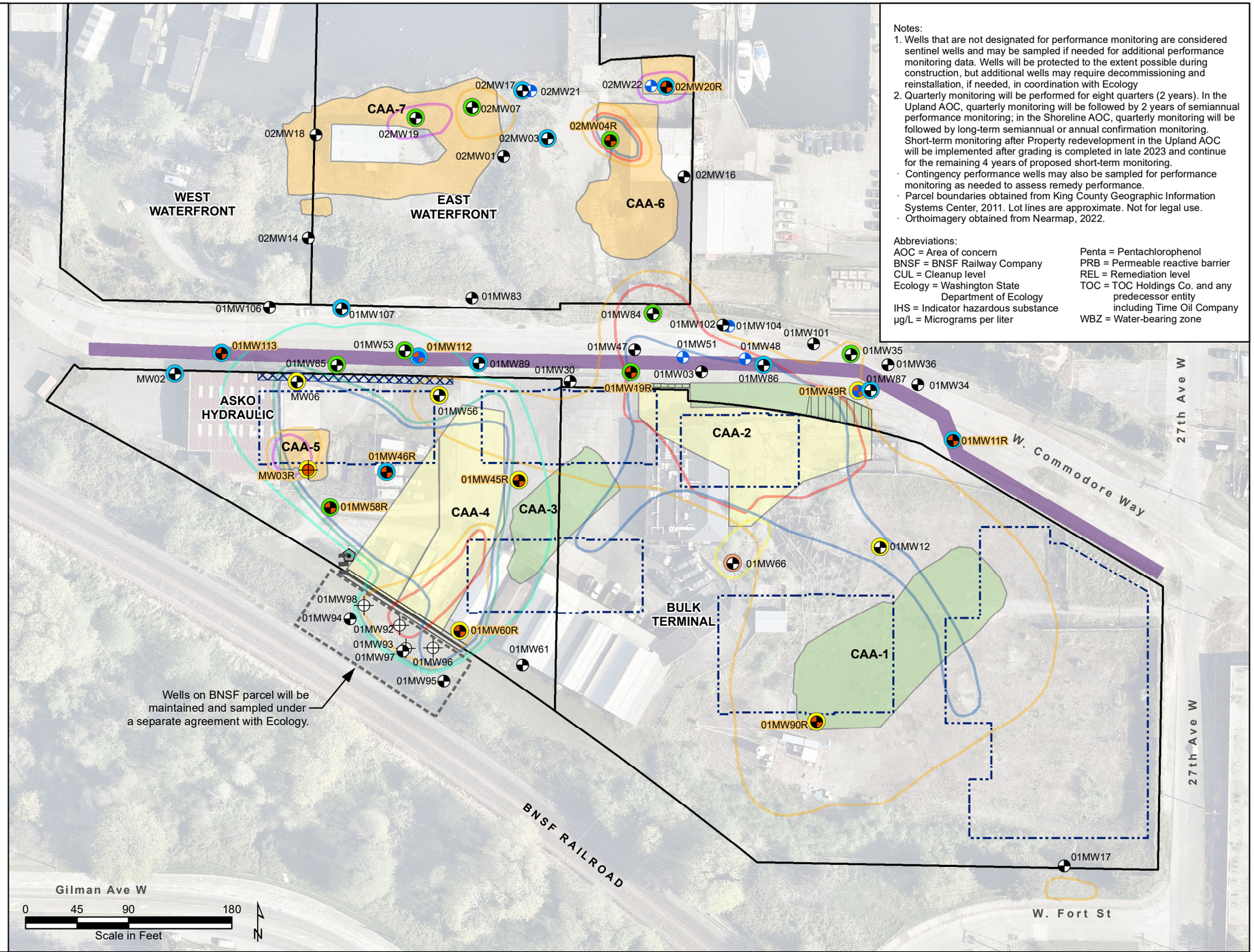
Other Site Features

- Property Boundary for the Former TOC Seattle Terminal
- Planned Property Redevelopment Structure
- Conditional Point of Compliance

Notes:
1. Wells that are not designated for performance monitoring are considered sentinel wells and may be sampled if needed for additional performance monitoring data. Wells will be protected to the extent possible during construction, but additional wells may require decommissioning and reinstallation, if needed, in coordination with Ecology
2. Quarterly monitoring will be performed for eight quarters (2 years). In the Upland AOC, quarterly monitoring will be followed by 2 years of semiannual performance monitoring; in the Shoreline AOC, quarterly monitoring will be followed by long-term semiannual or annual confirmation monitoring. Short-term monitoring after Property redevelopment in the Upland AOC will be implemented after grading is completed in late 2023 and continue for the remaining 4 years of proposed short-term monitoring.

· Contingency performance wells may also be sampled for performance monitoring as needed to assess remedy performance.
· Parcel boundaries obtained from King County Geographic Information Systems Center, 2011. Lot lines are approximate. Not for legal use.
· Orthoimagery obtained from Nearmap, 2022.

Abbreviations:
AOC = Area of concern
BNSF = BNSF Railway Company
CUL = Cleanup level
Ecology = Washington State Department of Ecology
IHS = Indicator hazardous substance
µg/L = Micrograms per liter
Penta = Pentachlorophenol
PRB = Permeable reactive barrier
REL = Remediation level
TOC = TOC Holdings Co. and any predecessor entity including Time Oil Company
WBZ = Water-bearing zone



Long-Term Compliance Monitoring Plan
Appendix A Groundwater Monitoring Plan
Time Oil Bulk Terminal
Seattle, Washington

Figure A.3b
Proposed Short-Term Performance Monitoring Plan—
After Redevelopment

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1/26/2023