



Tug *Western Mariner* Diesel Spill Natural Resource Damage Assessment Preassessment Phase Update:

Results of March 23-24, 2023 Bivalve & Sediment Sampling



On March 21, 2022, the tug *Western Mariner* collided with its freight barge *Chichagof Provider* while traveling through Neva Strait approximately 18 miles northwest of Sitka, Alaska. The collision pushed the tug onto the beach, resulting in a release of diesel. Within the following eight days, the spill was controlled, and the vessel was refloated and removed from the site. Federal and state agencies (Trustees) are conducting a preliminary [Natural Resource Damage Assessment](#) (NRDA) to determine if impacts to fish, wildlife, their habitats, and the human uses of these natural resources have occurred. If found to be appropriate, the Trustees will initiate restoration planning to quantify the injuries to natural resources from the spill, and determine the type and amount of restoration warranted to offset those harms. The Trustees and Responsible Party are working cooperatively, following regulations for NRDA under the Oil Pollution Act of 1990.

NATURAL RESOURCE TRUSTEES FOR THE TUG *WESTERN MARINER* NRDA

U.S. Department of the Interior:
U.S. Fish & Wildlife Service and
the Bureau of Indian Affairs

U.S. Department of Commerce:
National Oceanic and
Atmospheric Administration
(NOAA)

U.S. Department of Agriculture:
U.S. Forest Service

Alaska Department of
Environmental Conservation

Alaska Department of Law

Alaska Department of Fish and
Game

Alaska Department of Natural
Resources

What is the current status of the Tug *Western Mariner* NRDA?

The preliminary steps taken during a NRDA are collectively called the Preassessment Phase. The Trustees are considering information from the emergency response to the oil spill and other sources to evaluate potential impacts to habitats, fish and wildlife, and human uses of natural resources. In addition, the Trustees conducted field assessments in March 2022, May 2022, and March 2023 to collect information about oil exposure and injury to natural resources. This update provides results from the chemical analyses of bivalve tissue and sediment samples collected in March 2023.

Where were samples collected and what were the results?

On March 23-24, 2023, Trustee scientists collected mussels, clams, and cockles (bivalves) and sediments from shorelines where oil contamination was documented in spring 2022 (see [previous NRDA updates](#)), as well as a reference site in Olga Strait that was not oiled (see map). These samples were sent to a laboratory and analyzed for oil chemicals, including polyaromatic hydrocarbons (PAHs), which can be toxic to natural resources. The samples were not collected for the purpose of evaluating seafood safety, but the data were provided to the State of Alaska Department of Health for its consideration. The objective of the sampling was to assess recovery in shoreline habitats and resources one year after the spill and evaluate if these resources are experiencing any ongoing oil exposure and related impacts.

The chemical results show that most areas where elevated oil concentrations were documented in spring 2022 have recovered to pre-spill, baseline conditions that are comparable to the unoiled reference site. However, areas at the grounding site, Highwater Island, and '1.7 Mile Beach', all places where persistent oil was documented in 2022, continue to show elevated PAH concentrations in bivalve tissues (Figures 1 and 2). Visible oil sheening was also observed at the grounding site and Highwater Island. However, the oil chemical concentrations recorded in 2023 were at least 100-times lower than those recorded in 2022, indicating substantially reduced oil exposure one year after the spill (see table below). Sediment results are not shown here but are consistent with other results, showing ongoing, relatively low-level oil contamination in specific areas along shorelines with persistent oil.

The chemistry data for all samples are available for download through NOAA's DIVER web portal (<https://www.diver.orr.noaa.gov/recent-datasets>)

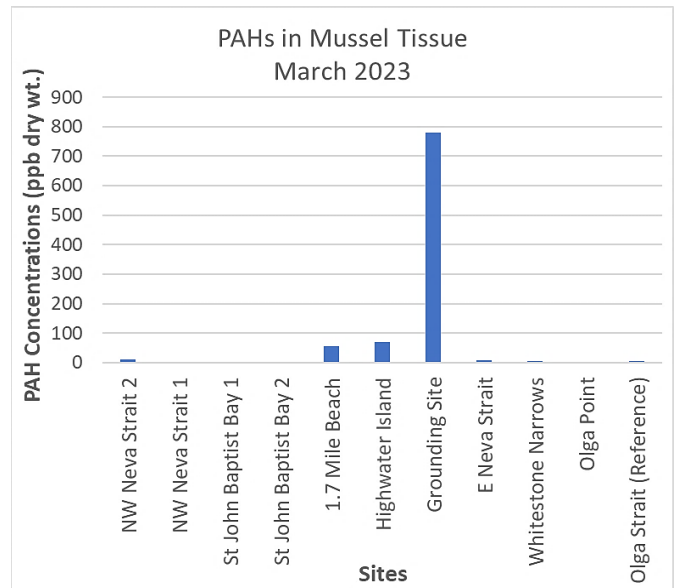


Figure 1: PAH concentrations in mussel tissue composite samples collected in March 2023. Concentrations in some samples are so low that they are not easily visible in the graph.

| | Mar-22 | Apr-22 | May-22 | Mar-23 |
|------------------------------|--------|--------|--------|--------|
| NW Neva Strait 2 | 4700 | n/s | n/s | 11 |
| NW Neva Strait 1 | 29000 | n/s | n/s | 4.0 |
| St John Baptist Bay 1 | 4500 | n/s | n/s | 2.5 |
| St John Baptist Bay 2 | n/s | 710 | n/s | 3.7 |
| 1.7 Mile Beach | n/s | n/s | n/s | 55 |
| Highwater Island | n/s | n/s | 21000 | 70 |
| Grounding Site | n/s | n/s | 16000 | 780 |
| E Neva Strait | 27000 | n/s | n/s | 7.7 |
| Whitestone Narrows | n/s | 340 | n/s | 5.0 |
| Olga Point | 290 | n/s | n/s | 1.5 |

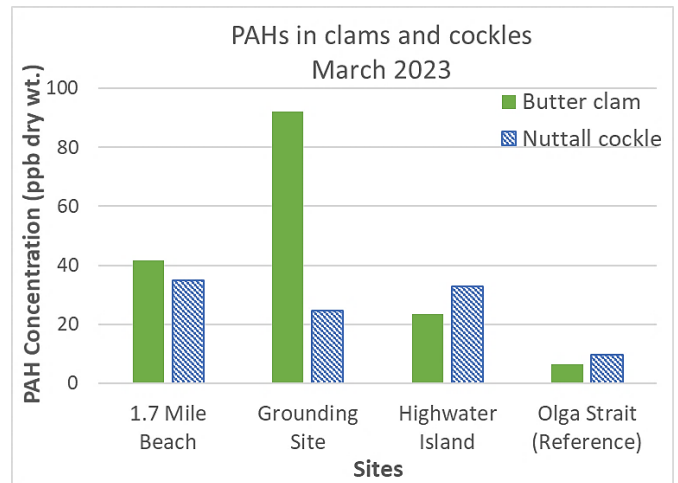


Figure 2: Average PAH concentrations in clam (green) and cockle (blue stripes) tissue composite samples collected in March 2023 (n=2-3).

For figures and table: Concentrations are the sum of 72 PAH compounds in parts per billion in the dry weight of tissue. PAH compounds not detected in samples (i.e., below method detection limits) were not included in the sums.

What are the next steps for the Western Mariner NRDA?

The Trustees continue to evaluate information about the spill’s impacts on natural resources and the human uses of those resources, with the goal of determining whether a restoration planning effort is appropriate. If warranted, the Trustees will publish a Notice of Intent to Conduct Restoration Planning and create a draft Restoration Plan that will be made available for public review and input. Throughout the process, the Trustees welcome information from the public.

Who should I contact to obtain more information or to share my information?

For NRDA information, contact the Federal Lead Administrative Trustee, Sarah Allan at 907-202-1859 or sarah.allan@noaa.gov

For information on seafood safety, contact Allison Natcher, Alaska Department of Health, at 907-269-8054 or Allison.Natcher@alaska.gov