

# SPAR Annual Report

FISCAL YEAR 2023

DEC | SPILL PREVENTION AND RESPONSE



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF SPILL PREVENTION AND RESPONSE

OIL AND HAZARDOUS SUBSTANCE RELEASE PREVENTION & RESPONSE FUND  
ANNUAL REPORT

FISCAL YEAR 2023

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A list of acronyms and abbreviations used frequently throughout this report can be found on our website at <https://dec.alaska.gov/spar/reports>.

## **1.0 RESPONSE FUND HISTORY AND STRUCTURE**

### **HISTORY OF THE RESPONSE FUND**

The Oil and Hazardous Substance Release Prevention and Response Fund (the Response Fund) was created by the Legislature in 1986 to provide a readily available funding source to investigate, contain, clean up, and take other necessary action to protect public health, welfare, and the environment from the release and threatened release of oil or hazardous substances. Alaska Statute 46.08.030 reads: “It is the intent of the legislature and declared to be the public policy of the state that funds for the abatement of a release of oil or a hazardous substance will always be available.” (SLA 1986 Ch. 59 Sec 1). Since 1989, the statutes governing the Response Fund have been amended several times to further define the usage, management, and funding sources.

### **STRUCTURE OF THE FUND**

In 1994, the Alaska Legislature amended the Response Fund structure by dividing it into two separate accounts: The Response Fund Account and the Prevention Account. These accounts fund the Department’s mission in distinct ways and have separate revenue sources.

#### THE RESPONSE FUND ACCOUNT

The Response Fund Account (Response Account) is used to finance the state’s response to an oil or hazardous substance release disaster declared by the governor or to address a release or threatened release that poses an imminent and substantial threat to public health, welfare, or the environment. If the Response Account is accessed for any incident other than a declared disaster, the Commissioner of the Department of Environmental Conservation, or their designee, must provide the Governor and the Legislative Budget and Audit Committee a written report summarizing the release, and the state’s actions and associated costs, both taken and anticipated, within 120 hours of that access.

The Response Account receives revenue from two sources:

1. A surcharge of \$0.01 per barrel that is levied on each taxable barrel of oil produced in Alaska which is deposited into the response surcharge account.
2. Costs recovered from parties financially responsible for the release of oil or a hazardous substance deposited into the response mitigation account.

The legislature must annually appropriate revenue from the response surcharge and response mitigation accounts into the Response Account.

The \$0.01 (one cent) per barrel surcharge is suspended when the combined balances of the response surcharge account, the response mitigation account, and the unreserved and unobligated balance in the Response Account itself reaches \$50 million.

The Commissioner of Administration reports the balance of the Response Account at the end of each calendar quarter and makes the determination if the \$0.01 surcharge shall be suspended. The combined balance of the Response Account as of December 31, 2023 was \$38,081,761.80; as a result, the \$0.01 surcharge remains in effect.

### THE PREVENTION ACCOUNT

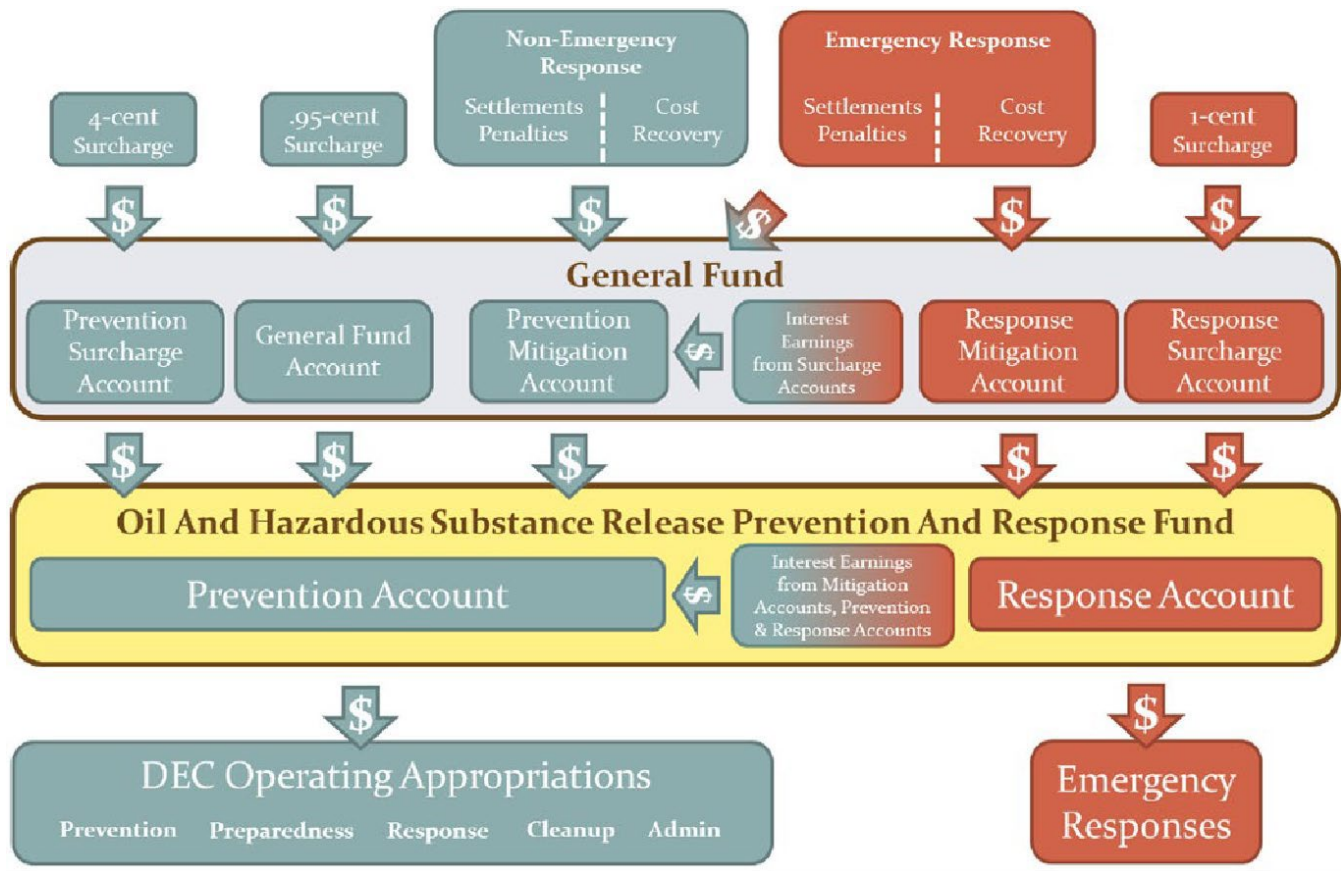
The Prevention Account may be used to investigate, evaluate, clean up, and take other necessary action to address oil and hazardous substance releases that have not been declared a disaster by the governor or do not pose an imminent and substantial threat to the public health and welfare of the environment. The Prevention Account may also be used to fund Alaska's oil and hazardous substance release prevention programs and to fund activities related to cost recovery. The Prevention Account pays for most of the SPAR operating budget.

The Prevention Account receives funding from four sources:

1. A surcharge of \$0.04 per barrel that is levied on each taxable barrel of oil produced in the state which is deposited in the prevention surcharge account.
2. A surcharge of \$0.0095 per-gallon on refined fuel sold, transferred, or used at the wholesale level in Alaska (municipalities and electrical co-ops were exempted).
3. Fines, settlements, penalties, and costs recovered from parties financially responsible for the release of oil or a hazardous substance deposited into the prevention mitigation accounts.
4. Interest earned on the balance of each of the following accounts deposited into the general fund and credited to the Prevention Account: (a) the prevention account; (b) the prevention mitigation account; (c) the response account; (d) the response mitigation account.

The legislature must annually appropriate revenue from the prevention surcharge and prevention mitigation accounts into the Prevention Account. The Prevention Account had an unobligated balance of \$23,004,000.00 at the end of FY2023.

## RESPONSE FUND FLOW CHART



## **2.0 RESPONSE FUND HEALTH**

### **IMMINENT OPERATIONAL IMPACTS FROM REVENUE SHORTFALL**

In 2015, House Bill 158 was passed to address the shortfall by implementing a surcharge on refined fuel. At the time of the passage, the refined fuel surcharge was estimated to bring in approximately \$7.5 million annually to fund the Department's prevention and response activities. Due to declining production numbers and exemptions for municipalities and electric co-ops, the state has been collecting approximately \$1 million less per year than originally projected.

SPAR began receiving general fund monies in FY22. With the continuation of general fund monies, the Prevention Account is projected to remain healthy for over a decade. Should the general fund subsidy be removed from SPAR's budget due to other needs within the state, the Prevention Account would face a revenue shortfall that would impact DEC's ability to protect human health and the environment within the SFY32 budget.

### **EMERGENCY RESPONSE FUNDING AFFECTED BY DIRECT APPROPRIATIONS**

In 2018, the Legislature made a \$5 million capital appropriation from the Response Account to export soil from the Wrangell Junkyard to a landfill in the Lower 48 rather than an on-island disposal site. Due to the lack of a viable responsible party for this cleanup project, the Department could not recover any of this expenditure.

In 2019, there was a \$9.4 million supplemental capital appropriation from the Response Account to address per- and polyfluoroalkyl substance (PFAS) contamination at airports owned by the Alaska Department of Transportation and Public Facilities (DOT&PF).

## RESPONSE FUND FINANCIAL TABLES

**Table A - Fiscal Year 2023 Expenditures (AS 46.08.060)**

This table summarizes the expenditures for appropriations funded by the Oil and Hazardous Substance Release Prevention and Response Fund (Response Fund) in Fiscal Year 2023.

|  | Appropriation | Budgeted*            | Expended             |
|--|---------------|----------------------|----------------------|
| <b>Operating Funds</b>                                       |               |                      |                      |
| Division of Spill Prevention and Response                    | 181610700     | \$ 12,145,600        | \$ 12,099,784        |
| DEC Administrative Services                                  | 181100700     | \$ 1,692,300         | \$ 1,479,406         |
| DEC State Support Services                                   | 181200700     | \$ 309,900           | \$ 309,900           |
| Division of Spill Prevention and Response - General Funds    | 181610300     | \$ 1,696,000         | \$ 1,696,000         |
|  |               | <b>\$ 15,843,800</b> | <b>\$ 15,585,090</b> |
| <b>Capital Funds</b>   |               |                      |                      |
| Home Heating Oil Tank Spill Asst Pilot Prj ORIG 19 OHSRPF    | 182190004     |                      | \$ 15,587            |
| Oil & Haz Substance 1stRespond Equip & Prepare ORIG20 OHSRPF | 182200002     |                      | \$ 180,420           |
|  |               |                      | <b>\$ 196,007</b>    |
| <b>Response Account Funds</b>                                |               |                      |                      |
| Statewide PFAS Response ORIG 19 OHSRPF                       | 182190007     |                      | \$ 623,102           |
| Flint Hills OHSRPF   | 18ER10200     |                      | \$ 23,634            |
| Big State Logistics MP36 Dalton Hwy Release OHSRPF           | 18ER19023     |                      | \$ 171               |
| Chevak Building Fire Cleanup OHSPRF                          | 18ER21001     |                      | \$ 591,220           |
| VMT Admin Sump Crude Spill OHSPRF                            | 18ER20004     |                      | \$ 44                |
| Chevak Building Fire Cleanup OHSPRF                          | 18ER21001     |                      | \$ 591,220           |
|  |               |                      | <b>\$ 1,829,393</b>  |
| <b>Total 2023 Fiscal Year Expenditures:</b>                  |               |                      | <b>\$ 17,610,490</b> |

\*Budgeted amounts are not included for Capital and Response Account appropriations due to the multi-year nature of the work.

## RESPONSE FUND FINANCIAL TABLES (CONTINUED)

| <b>Revenue Source</b>                                   |           | <b>Revenue</b>   |
|---|-----------|------------------|
| <b>Prevention Mitigation Account (3211)</b>             |           |                  |
| Cost Recovery   | \$        | 941,198          |
| Judgements/Settlements                                  | \$        | -                |
| Cost Recovery Late Fees                                 | \$        | -                |
| Interest  | \$        | 138,036          |
| Other/Miscellaneous                                     | \$        | 70               |
|   | <b>\$</b> | <b>1,079,304</b> |
| <b>Response Mitigation Account (3212)</b>               |           |                  |
| Judgements/Settlements                                  | \$        | -                |
| Cost Recovery   | \$        | 939,225          |
|   | <b>\$</b> | <b>939,225</b>   |
| <b>Oil &amp; Hazardous Release Response Fund (1052)</b> |           |                  |
| Judgements/Settlements                                  | \$        | 142              |
| Cost Recovery Late Fees                                 | \$        | 14,282           |
| Other/Miscellaneous                                     | \$        | 2,670            |
|   | <b>\$</b> | <b>17,094</b>    |
| <b>Total</b>  | <b>\$</b> | <b>2,035,622</b> |

**Table C - Fund Revenue Source History (AS 46.080.060)**

This table summarizes the amounts and sources of revenue that have been appropriated by the State of Alaska to the Oil & Hazardous Release Prevention and Response Fund since Fiscal Year 2018.

| Fiscal Year  | Mitigation Accounts | Interest Posted to Prevention Account | 4 Cents Oil Surcharge (Note 1) | 1 Cent Oil Surcharge (Note 2) | Refined Fuel Tax (Note 3) | Total    |
|--------------|---------------------|---------------------------------------|--------------------------------|-------------------------------|---------------------------|----------|
| <b>FY18</b>  | 1,705.5             | 647.4                                 | 6,950.7                        | 1,737.6                       | 6,615.5                   | 17,656.7 |
| <b>FY19</b>  | 1,773.0             | 1,804.5                               | 6,563.7                        | 1,675.8                       | 6,349.4                   | 18,166.4 |
| <b>FY20</b>  | 1,233.2             | 1,257.3                               | 6,612.6                        | 1,654.1                       | 6,275.9                   | 17,033.1 |
| <b>FY21</b>  | 1,249.2             | 40.2                                  | 6,453.8                        | 1,613.7                       | 6,853.7                   | 16,210.6 |
| <b>FY22*</b> | 3,220.7             | (910.6)                               | 12,526.4                       | 3,131.3                       | 12,811.2                  | 30,779.0 |
| <b>FY23</b>  | 2,018.5             | 2,175.2                               | 5,744.5                        | 1,416.4                       | 6,530.2                   | 17,884.8 |

*All figures above are in thousands.*

\*In FY22, the timing of appropriations to the fund was changed from July 1 to June 30. This removed the one fiscal year delay between receipt of monies in other funds and their transfer to the Prevention Account. As a result, FY22 contains two fiscal years' worth of revenues.

Note 1: AS 43.55.300 is amended to change the surcharge levied on every producer of oil from \$.03 to \$.04 per barrel of oil produced from each lease or property in the state, less any oil the ownership or right to which is exempt from taxation. The amendment changing the surcharge to \$.04 was effective on April 1, 2006.

Note 2: The amendment changing the surcharge to \$.01 was effective on April 1, 2006.

Note 3: HB 158 authorizes a surcharge of \$0.0095 per gallon that is applied to refined fuel sold, transferred, or used in Alaska (effective July 1, 2015).



### 3.0 COST RECOVERY

#### OBLIGATION TO RECOVER

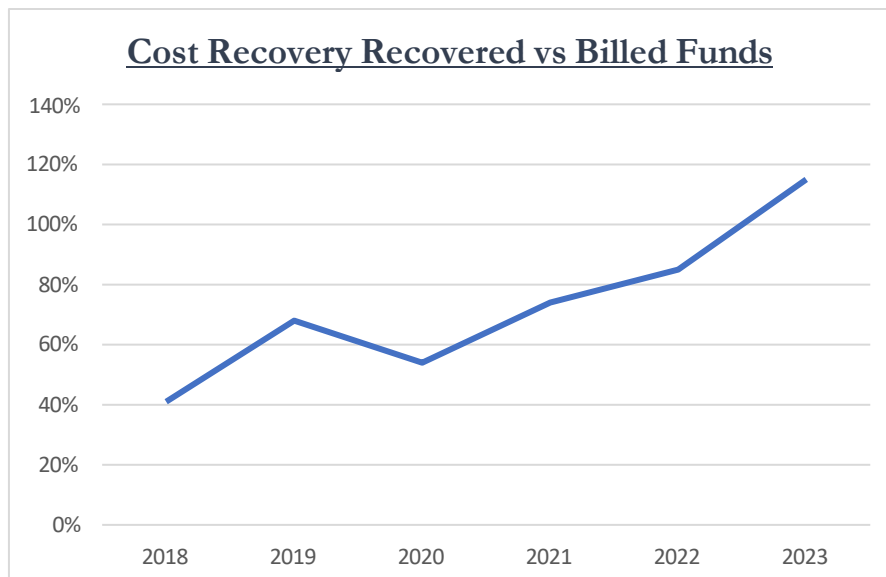
The Department has a statutory obligation to recover costs. Recovery of response costs are based on the provisions of AS 46.03.760(d), AS 46.03.822, AS 46.04.010, and AS 46.08.070. A person is liable under AS 46.03.760 and AS 46.03.822 for costs incurred by the Department or another state agency. Billable costs are the costs reasonably attributable to the investigation and cleanup of a site and/or the containment and cleanup of a spill incident; those of direct activities and support of direct activities. Billable costs also include legal costs, potentially responsible party (PRP) searches, obtaining site access, enforcement actions, and interest charges for delayed payments. Recoverable monies are the costs incurred by the Department, contractors, or other entities acting at the direction of the Department.

#### COST RECOVERABLE EXPENSES

Most site charges are cost recoverable and are billable to responsible parties. Non-personal service charges that are directly attributable to the site (travel, contractual, and supply charges) are billable. Most personal service charges are billable, but not all.

While the Department makes every effort to recover response and oversight costs from responsible parties, there are numerous reasons why billable costs are not recovered. A responsible party's inability to pay is the primary reason. In FY2017, the Department, in partnership with the Alaska Department of Law, established an internal inability to pay process that includes making inability to pay determinations by using the U.S. Environmental Protection Agency (EPA) financial modeling software, negotiations with the responsible party to recover partial costs and/or, establish an installment payment plan. Other reasons for low recovery rates relate to third-party liability issues, unclear responsible party determinations, and disputed liability.

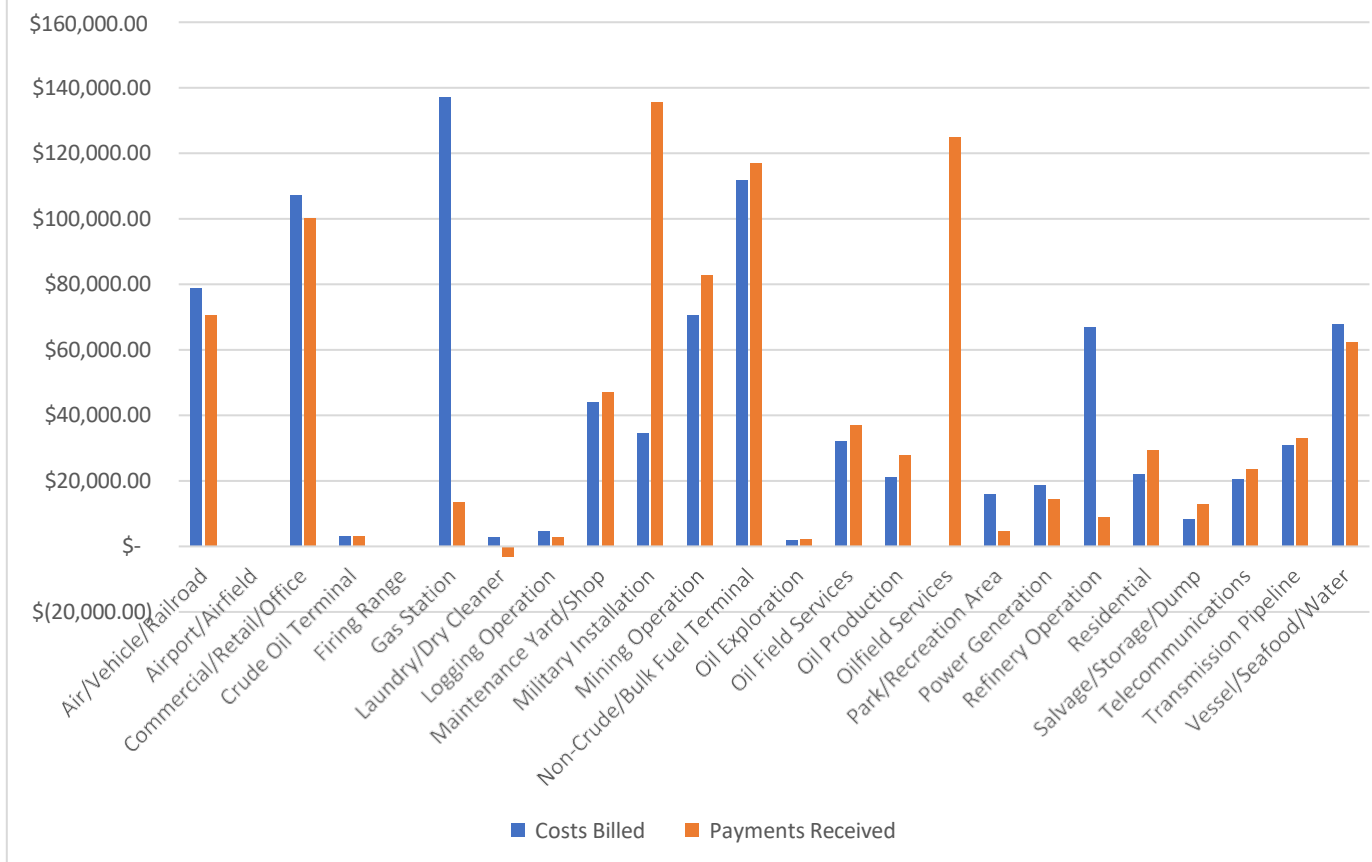
As demonstrated in the graph below, SPAR's Cost Recovery Unit has made several process improvements to increase the team's recovery rate. Bills are being sent to the Responsible Parties monthly, while ongoing communication with the Responsible Parties has become a primary focus of the team. Additionally, the program is working to resolve older, outstanding accounts in the next several years to enhance this percentage further.



### CHART 4-1, TABLE D, AND PIE CHARTS BY ENTITY: COSTS BILLED IN FY2023 VS RECOVERED BY INDUSTRY TYPE

The chart and table below compare the amount of costs billed through SPAR’s Cost Recovery billing process to responsible parties during the fiscal year with the total amounts of payments received during the fiscal year. The industry types shown reflect the type of facilities where releases have occurred. The “Residential” category includes releases at shared living facilities (such as nursing homes and correctional institutions) as well as home heating oil releases where cost recovery has not been exempted. The three pie charts represent costs billed vs recovered by entity: federal, state, or private.

**Chart 4-1: Industry Type Total Cost Billed vs Total Payments Received**



**Table D - Industry Type Total Billed vs Total Payments Received**

This table supports the above chart which compares the amount of costs billed through SPAR's Cost Recovery billing process to responsible parties during the fiscal year with the total amounts of payments received during the fiscal year.

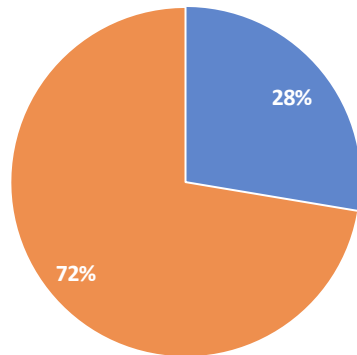
| Industry Type                | Costs Billed           | Payments Received      |
|------------------------------|------------------------|------------------------|
| Air/Vehicle/Railroad         | \$ 78,887.89           | \$ 70,681.05           |
| Airport/Airfield             | \$ 136.46              | \$ -                   |
| Commercial/Retail/Office     | \$ 107,308.38          | \$ 100,303.32          |
| Crude Oil Terminal           | \$ 3,253.42            | \$ 2,982.09            |
| Firing Range                 | \$ 20.92               | \$ -                   |
| Gas Station                  | \$ 137,125.84          | \$ 13,416.09           |
| Laundry/Dry Cleaner          | \$ 2,677.54            | \$ (3,151.15)          |
| Logging Operation            | \$ 4,601.86            | \$ 2,953.95            |
| Maintenance Yard/Shop        | \$ 43,953.69           | \$ 46,998.88           |
| Military Installation        | \$ 34,644.03           | \$ 135,697.33          |
| Mining Operation             | \$ 70,628.77           | \$ 82,950.51           |
| Non-Crude/Bulk Fuel Terminal | \$ 111,671.94          | \$ 116,925.85          |
| Oil Exploration              | \$ 2,016.13            | \$ 2,277.01            |
| Oil Field Services           | \$ 32,138.99           | \$ 36,928.75           |
| Oil Production               | \$ 21,183.91           | \$ 27,793.84           |
| Oilfield Services            | \$ -                   | \$ 125,000.00          |
| Park/Recreation Area         | \$ 15,822.37           | \$ 4,758.90            |
| Power Generation             | \$ 18,680.87           | \$ 14,331.10           |
| Refinery Operation           | \$ 66,871.30           | \$ 9,026.24            |
| Residential                  | \$ 22,151.98           | \$ 29,451.14           |
| Salvage/Storage/Dump         | \$ 8,207.80            | \$ 13,013.38           |
| School *                     | \$ 726,888.28          | \$ 929,055.05          |
| Telecommunications           | \$ 20,620.57           | \$ 23,685.71           |
| Transmission Pipeline        | \$ 30,769.47           | \$ 33,074.65           |
| Vessel/Seafood/Water         | \$ 67,987.15           | \$ 62,268.89           |
| <b>Total</b>                 | <b>\$ 1,628,249.56</b> | <b>\$ 1,880,422.58</b> |

Projects span multiple years and costs are billed monthly, as such, the payments received may relate to prior fiscal year expenses.

\* School is not represented in the attached graph due to distortion of graph due to dollar amount.

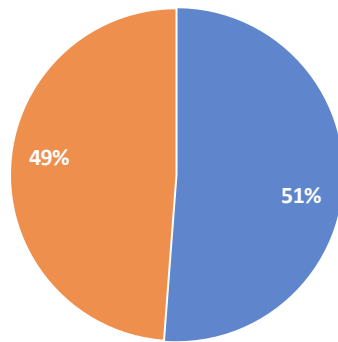
## TOTAL COST VS TOTAL PAYMENTS RECEIVED BY ENTITY

### Federal Total Cost Billed vs Total Payments Received



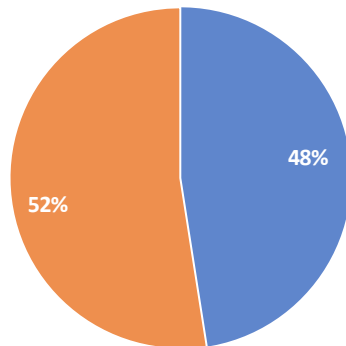
■ Costs Billed ■ Payments Received

### State Total Cost Billed vs Total Payments Received



■ Costs Billed ■ Payments Received

### Private Total Cost Billed vs Total Payments Received



■ Costs Billed ■ Payments Received

## 4.0 PREVENTION PREPAREDNESS AND RESPONSE PROGRAM

### PREVENTION AND PREPAREDNESS

#### FLOW LINE INSPECTIONS

Field inspections are crucial parts of SPAR’s efforts in oversight of plan holders’ oil spill prevention programs. Flow lines are vital components of oil production facilities. Flow line inspections on the North Slope this year have focused on pipeline integrity and inspection programs, both internal and external corrosion inspections. In Cook Inlet, buried pipelines are common and they have their own unique issues related to external corrosion.



**Photo:** Pipeline inspection crews performing external corrosion inspections using an ultrasonic pencil probe on 3-phase flowline 02E between DS-2 and Flow Station 1.

#### OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN REGULATIONS UPDATE

In FY23, SPAR finalized the draft of revisions to the oil discharge prevention and contingency plan regulations in 18 AAC 75, Article 4. The final regulations were adopted and became effective on February 5, 2023. The adoption of the regulations was the result of over three years of public scoping, outreach to the public and regulated industry, and drafting and revising the regulations. During the last two quarters of FY23, SPAR worked heavily on training, updating job aids, and implementing new administrative tools to help SPAR staff and the regulated industry transition to the new regulatory requirements. In addition, SPAR began developing a plan for addressing public comments that were provided during the project but were outside the scope of the proposed changes.

#### PLAN ADOPTION: ARCTIC AND WESTERN ALASKA, AND PRINCE WILLIAM SOUND AREA CONTINGENCY PLANS

SPAR, U.S. Coast Guard (USCG), and U.S. Environmental Protection Agency (EPA), finalized updates to the Arctic and Western Alaska Area Contingency Plan (ACP) and the Prince William Sound Area Contingency Plan. Draft versions of the plans were put out for public comment prior to their finalization. The Arctic and Western Alaska Area ACP and the Prince William Sound ACP represent a coordinated and cooperative effort by government agencies to develop operational plans in consultation with industry, local governments, tribes, and stakeholders. Plan content is intended to guide and support individuals that fill a response role, and to achieve a coordinated and effective response to a pollution event.

SPAR's Oil and Hazardous Substance Response Planning website hosts the Regional Contingency Plan, ACPs, and information about Area Committee working groups, meetings, and response preparedness efforts. The website is continuously improving and greatly promotes Area Committee transparency and ensures accessibility to response planning resources for all Alaskans.

#### ELECTRONIC FILES PROJECT

Work continues on the restarted file project. The project establishes an organizational structure for electronic files for SPAR with the goal of providing consistency across all units, ease of use and accessibility, and saving physical office space. Once electronic folder structures are in place and 20-plus years of files sorted out, the effort to put away all the scanned files to meet SPAR's mission to reduce paper will be smooth. The work being conducted puts in place an electronic folder structure that provides easy access to files, makes public records requests easier, and cuts down on staff time working in an antiquated file structure. Once completed, the work will provide unimaginable benefits long term. Standardizing SPAR's file structure will improve access to all staff regardless of where they work in the state and will move the program forward.

#### TANK BARGE INSPECTIONS

Routine inspection of laden oil barges is a strong component of oil spill prevention efforts and one that continued in FY23. SPAR conducts regular tank barge inspections to validate spill prevention operating practices and regulatory compliance. Our facility inspectors strive to work with the regulated community to provide technical assistance with proper implementation of Alaska's spill prevention and response preparedness requirement.

### **RESPONSE**

#### ONLINE SPILL REPORTING GOES LIVE

Starting in October 2022, oil and hazardous substance releases were able to be reported online (as opposed to reporting by phone as the only option) via *Spill Reporter*. Spills can be reported easily, without an account, using your smartphone, tablet, or computer. *Spill Reporter* will save information in the application if working offline, and the person making the report can submit when they are back within internet service. This has proved handy in remote areas. The questionnaire within *Spill Reporter* screens for emergency situations that require a call to the spill hotline, manned 24/7 by a real person. Spills that are reported via *Spill Reporter* can be migrated to our database automatically after staff review and follow-up. This has improved program efficiency and has been well received by those that report spills.

#### TUG TAGISH SINKING AT NATIONAL GUARD DOCK IN JUNEAU

On the morning of December 29, 2022, SPAR received reports of oil sheening and fuel odors in the Gastineau Channel. The pollution was coming from the tug vessel *Tagish* (vessel) that had sank at its dock overnight. The 107-foot wood plank hull vessel was built in 1943 as a WWII fireboat, was later repurposed for commercial use, and finally purchased by the responsible party, who had been renovating it. The responsible party speculates that freezing damage to a water line associated with the historic firefighting system caused the vessel to flood and sink.

Following the discovery, SPAR staff mobilized to gather spill response materials from the SPAR Local Response Conex. With the help of the responsible party, the City and Borough of Juneau (CBJ), and the USCG Incident Management Division SPAR staff deployed 250 feet of oil containment boom, lined with absorbent boom, around the vessel. Over the course of the response, SPAR continued to provide absorbent supplies which were eventually replenished in full by the responsible party.



On January 9, the USCG took over the response effort, utilizing the Oil Spill Liability Trust Fund to hire a cleanup contractor. Over the next month, the USCG, CBJ, and SPAR negotiated salvage tactics and mitigation plans. Logistical complexities included the size of the vessel, which was over 240 gross registered tons, the condition of the hull, which had become waterlogged and fragile, and the location of the sinking, which was within feet of a high-capacity force main sewer line operated by CBJ.

On February 9, the USCG-contracted barge and crane arrived from Seattle. Over the following week, contractors made incremental adjustments to prepare the vessel to be slowly and safely removed from the water. On February 17, the vessel was lifted, lashed to the barge, and pushed to a nearby tideland where it was decontaminated and dismantled. Pollution removal totals included a small amount of lagging (asbestos), several gallons of paint, 55 gallons of creosote, 100 gallons of lube oil, 120 gallons of hydraulic oil, two 100-gallon waste oil tanks, 1,500+ pounds of oily material, and 15,000 gallons of oily seawater. Field operations were completed on February 24, 2023, with debris and oily waste being shipped via barge to Washington for final disposal.

#### ADAK RED SHED AREA CLEAN UP

Four contaminated sites associated with the former Adak Naval Air Facility have been identified at the Red Shed property and surrounding vicinity: Solid Waste Management Unit (SWMU) 15 Future Jobs/DRMO, SWMU 25 Hazardous Waste Container Facility, SWMU 55 Public Works Waste Storage Area, and SWMU 56 Public Works Transportation UO UST. Of these sites, only SWMU 55 remains active. The remaining three sites are considered cleanup complete with institutional controls.

In 2004, ownership of the Red Shed was transferred to The Aleut Corporation (TAC). TAC leased the sheds to local businesses which used them for covered cold storage, used oil processing, vehicle maintenance, and spill response equipment testing and storage. A SPAR site visit in Adak in August 2022 identified concerns associated with solid waste management issues, oil-stained soil, containment system issues, and new and ongoing releases from various containers. On October 31, 2022, SPAR sent TAC a letter regarding the condition of materials staged outside the Red Shed property. The letter noted the concerns identified by the August site visit.

Field work occurred over two mobilizations in 2023 with follow up work planned for 2024. The first mobilization included site inspection and material characterization. The second mobilization involved profiling and managing materials (bulking, packaging, marking, labeling, and staging for transport). The 2024 mobilization will address remaining items, such as draining fluids from vehicles/equipment and disposing of hardened asphalt.

#### UNIVERSITY LAKE

On June 21, 2023 SPAR received a report of a sheen on University Lake in Anchorage but a source was not identified. On June 22, the Municipality of Anchorage (MOA) began recovery operations as the landowner in coordination with SPAR and the US Environmental Protection Agency (EPA). After review of storm drain mapping and multiple visits the source was found to be a fuel storage tank located in a below ground vault that had been flooded, owned by Anchorage Native Medical Clinic (ANMC). ANMC took over response actions until cleanup was complete. There was significant support from Alaska Department of Fish and Game (ADF&G), US Fish and Wildlife Service (USFWS), and US Department of Agriculture (USDA) Animal and Plant Health Inspections Service, for wildlife response and hazing during the response, as there were many ducks and ducklings using the lake. This lake is also heavily used for recreational activities which generated a large amount of public concern. SPAR, EPA, and MOA Public Information Officers worked closely together to provide the public with information on the temporary closure of the park during

response activities and to keep the public informed of the actions taken to protect public health and the environment. The cleanup was completed and ANMC has taken actions to prevent future discharges from this tank.

#### SHORESIDE PETROLEUM TANKER TRUCK ROLLOVER IN ANCHORAGE

On March 30, 2023, a Shoreside Petroleum tanker truck released an estimated 1,100 gallons of the

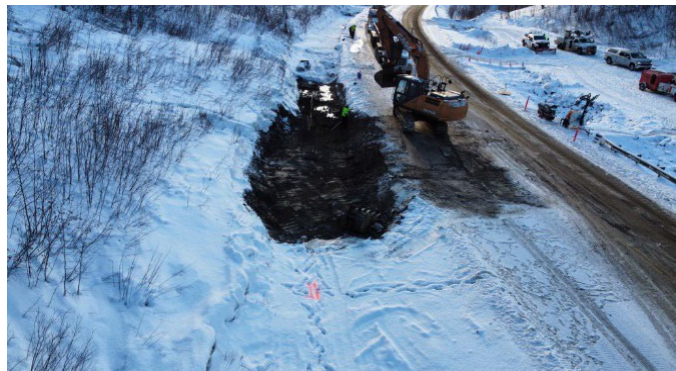
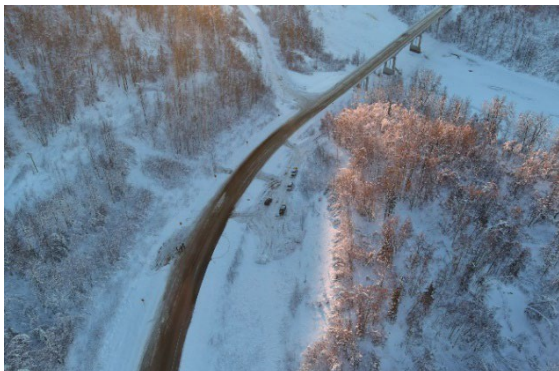


4,500 gallons of diesel it was hauling, when it left the roadway near Minnesota Drive and International Road in Anchorage. The impacted ditch contains a small wetland and seasonal pond that is designed to manage stormwater in the area. SPAR worked with Shoreside Petroleum and Alaska Department of Transportation (DOT&PF) to monitor the drainage system that moves stormwater throughout that corridor to avoid destabilization of the roadway. The wetland and pond are also used by resident and migrating birds. SPAR coordinated with Shoreside Petroleum, ADF&G, and USFWS to minimize impacts on wildlife by using passive and active bird hazing throughout the spring, summer, and fall, and daily monitoring. Contaminated snow was removed during the initial response activities, but excavations of contaminated soil has not yet been conducted at the site. This location presents several challenges and requires extensive engineering to safely excavate and repair the roadway following excavation. Characterization of the spill site is planned for December 2023 so that a cleanup plan can be developed.

**Photo:** Sorbent material to collect product and wildlife hazing fencing, September 2023. (Credit: EMI Consulting)

#### MULTIPLE TANKER TRUCK ACCIDENT PARKS HIGHWAY MILE POST 133.5

On December 15, 2022, the Alaska State Troopers and SPAR were notified of a collision involving two commercial vehicles near mile 133.5 of the Parks Highway that resulted in a release from one of the trailers. The tanker truck carrying jet fuel released approximately 3,400 gallons from one compartment of an 11,000-gallon tanker trailer. A response contractor removed snow from the area, over 2,000 cubic yards of contaminated soil was also excavated and treated. Response contractors completed excavation at the spill site on January 24, 2023. Contaminated soil was excavated to the extent possible without destabilizing the adjacent slope to the highway.



**Photos:** Spill site, and excavation of contaminated soils. (Credit: US Ecology)

On April 12, 2023, borings were drilled at the site to monitor migration of fuel within the soil and to identify groundwater depth and potential impacts. No imminent threat to public health or the



environment was identified during this monitoring. This case has been transferred to the Contaminated Sites Program for further case management.

#### SPRING FLOOD RESPONSE

SPAR supported the Alaska Department of Military and Veterans Affairs Division of Homeland Security and Emergency Management's response to the flooding in multiple communities across Alaska including Circle, Crooked Creek, Glennallen, and Kwethluk due to a dynamic spring breakup on the Yukon and Kuskokwim Rivers.

SPAR staff deployed to Circle multiple times in May and June to assess the impact to home heating tanks that were dislodged due to the reported 17 feet of water and vehicle-size ice boulders that inundated large areas of the community. After initial assessments were made, SPAR used funding from a Reimbursable Service Agreement to facilitate a term contractor to empty impacted fuel tanks and drums, filter the home heating oil found in tanks, and return the salvageable home heating oil back to the community. SPAR also set up a collection area to gather household hazardous chemicals and backhauled the collected solvents, paints, and batteries to Fairbanks for proper disposal.



**Photos:** SPAR staff conduct field assessments in Circle after the 2023 spring flooding and establish a collection site to stage household hazardous chemicals for backhaul and disposal in Fairbanks.

#### TELLER SCHOOL TANK FARM RELEASE

SPAR provided oversight and support to Bering Strait School District (BSSD) for a fuel release at the Teller School, approximately 30 feet from the bay of Port Clarence. Initially reported as a release to containment, it was determined to be a 4,200-gallon heating oil release to land and marine water due to a failed weld between the tank and fuel line from aging infrastructure. The release was initially reported to SPAR on May 25, 2023, though it was not certain when the release occurred.

After receiving the spill notification, additional conflicting information was received on if a release had occurred (or if fuel had drained due to gravity into a different tank) and the effectiveness of the secondary containment. In addition to the conflicting information, the response was challenging due to the road to Teller from Nome not being accessible, broken sea ice impeding on-water recovery, and ocean storms halting recovery efforts. SPAR facilitated interagency meetings with USCG, Alaska Department of Natural Resources (DNR), ADF&G, NOAA, USFWS, NOAA Fisheries, and US Department of Interior to address concerns with wildlife, communication with and impacts on the community, staffing of the response, waste management, and additional support that was needed to address the release. While the majority of the fuel migrated to the ocean and was not recoverable, delineation has occurred around the tank in preparation for replacement of the school tank farm, anticipated for 2024. SPAR receives weekly updates from BSSD on monitoring and resolving the issues at the tank farm.

## 5.0 CONTAMINATED SITES PROGRAM

### STATEWIDE PFAS

SPAR continues its efforts to respond to releases of per- and polyfluoroalkyl substances (PFAS) across the State, primarily at state-owned airports and Department of Defense installations. Previous efforts identified several sites where PFAS have impacted drinking water supplies. Efforts to secure long term alternative sources of drinking water continue for the communities of Gustavus, Dillingham, Yakutat, King Salmon, and Cold Bay. Several communities impacted by PFAS may be eligible for funding to address PFAS contamination in drinking water through the State Revolving Loan Fund, overseen by DEC. DOT&PF finished screening all State-operated airports for the presence of PFAS in drinking water wells. Through the efforts of SPAR and DOT&PF, all potentially impacted drinking water wells near state airports have been sampled for PFAS.

SPAR continues to work closely with both the private and public sectors on PFAS remediation pilot projects for soil and water, and Alaska has emerged as a national leader in piloting PFAS remediation techniques. An FAA-funded pilot project was executed at Fairbanks International Airport that included the use of Arctic Slope Regional Corporation's mobile thermal treatment unit for soil and a water treatment process pioneered by Aquagga. A soil washing pilot project is planned for Eielson Air Force Base and additional thermal treatment pilot projects are in the early planning stage at Joint Base Elmendorf-Richardson in Anchorage.



**Photos:** *Top:* Piloted water remediation technique used at the Fire Training Pit at Fairbanks International Airport. This is the first step of treatment in which PFAS are removed from water and concentrated into foam using a process called surface active foam fractionation (SAFF). Later steps destroy concentrated PFAS in foam using an innovative new method called hydrothermal alkaline liquid treatment (HALT). *Bottom Left;* Soil treatment operations at the Fairbanks International Airport using ASRC's Mobile Remediation System 1 (MRS-1). *Bottom Right;* a view of the operations from a closer angle. PFAS contaminated soil is loaded into the kiln where PFAS is desorbed from soils and destroyed at high temperatures. This system was also used to treat PFAS in composted biosolids from Golden Heart Utilities.

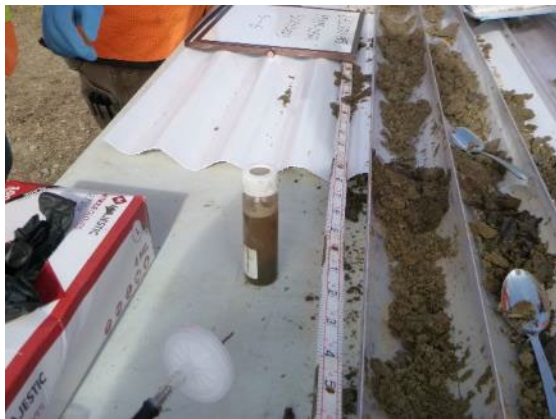


## USCG PFAS ASSESSMENT

SPAR approved a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Preliminary Assessment conducted by the U.S. Coast Guard assessing 65 units across the state for potential releases of PFAS. The report recommends conducting more detailed site inspections at six potential release locations at four sites.

## EIELSON AFB

SPAR continued its regulatory oversight and partnership with the United States Air Force (USAF) and the Environmental Protection Agency (EPA) to ensure proper management of contaminated sites at Eielson Air Force Base (AFB) and at locations where PFAS groundwater contamination has migrated off base from Eielson AFB. Upgrades to the Eielson AFB water treatment plant addressed on-base drinking water concerns with a granular activated carbon (GAC) treatment system in 2016. The offsite drinking water exposure pathway has been addressed by upgrading and extending the City of North Pole's public drinking water system to the community of Moose Creek. A total of 179 properties have been connected to the North Pole public water supply, and 170 drinking water wells have been decommissioned. The USAF continued its effort to define the nature and extent of contamination in soil, groundwater, and surface water with a PFAS remedial investigation (RI). Based on PFAS results from surface water sampling, the Eielson Natural Resources Office and the Alaska Department of Fish and Game have posted fishing advisory signs at impacted water bodies within the Eielson PFAS plume.



**Photos:** *Top:* Eielson soil sampling (note PFAS foam in sample), Eielson Water Treatment Plant with granular activated carbon treatment vessels shown. *Bottom:* Fishing advisory signs posted by the Eielson Natural Resources Office and by Alaska Department of Fish and Game.

## ANCHORAGE INTERNATIONAL AIRPORT

SPAR coordinated with Anchorage International Airport (AIA) on multiple development projects in PFAS contaminated areas. A DEC term contractor produced a characterization report for the fire training pit and results will be used to inform environmental management during a taxiway construction project that is in the early planning phases. The nearby FBI shooting range may also be decommissioned as part of this project. SPAR continues to work with AIA to identify site characterization needs for PFAS releases across the airport and to prioritize efforts to mitigate contaminant migration as needed.



**Photos:** *Left:* AIA's Fire Training Pit, view facing southeast. Water in the pit has high levels of PFAS. Overflow drains to a sump that is visible on the right side of the photograph, then to a pipe that leads to a nearby settling pond. *Right:* Overlooking Postmark Bog, an area that became contaminated with PFAS due to nearby fire training activities at the Airport Rescue and Firefighting (ARFF) building. SPAR is working with the Division of Water and proponent on environmental mitigation plans for planned construction.

## FORMER NORTH POLE REFINERY

The State won a legal trial against Williams Alaska Petroleum Inc. (WAPI) in Superior Court during 2019. The case was appealed to the Alaska Supreme Court. The State received another favorable decision by the Supreme Court in 2023, but a portion of the 2019 ruling was remanded back to the Superior Court. On remand, the Superior Court issued a revised injunction compelling Williams to comply with specific actions under the State's cleanup rules (18 AAC 75). Currently, Williams is monitoring offsite sulfolane and PFAS in the greater North Pole area, determining the need for alternative water for residents not hooked up to piped water, and conducting assessments which may lead to cleanup of onsite PFAS in soil and groundwater on the former refinery.



**Photo:** Former North Pole Refinery (now operated as fuel terminal by Marathon Petroleum).



## SALT CHUCK MINE

Progress has increased at Alaska's fund-lead Superfund site, the Salt Chuck Mine on Prince of Wales Island. SPAR coordinated with the Division of Environmental Health's Solid Waste Program and the EPA to evaluate a variety of options for remediating the site and disposing of contaminated materials. SPAR staff made a joint site visit with the EPA in October to inspect the site and scout key locations for potential remedies. Over 200,000 cubic yards of metals-contaminated mine tailings are spread across the intertidal zone of a narrow bay. A Feasibility Study is anticipated by the end of 2023, with a tentative schedule of a Record of Decision in spring 2024 and remediation work occurring by summer of 2025.



**Photos:** *Left:* The boundary between healthy, unimpacted beach and the contaminated mine tailings where nothing grows. Pilings from the former ore loading dock visible in the background. *Right:* a SPAR staff member watches EPA contractors prepare a plot for a pilot study of one treatment option.

## UMIAT LANDFILL AND SEASONAL SLOUGH

SPAR continues to work with the Formerly Used Defense Sites Program (FUDS) on the upcoming Umiat Landfill and Seasonal Slough project, which has entered the remedial design phase. The eight-acre landfill is located in a side channel of the Colville River and is thought to contain approximately 400 tons of junk equipment and scrap metal and approximately 87,000 crushed drums. Cleanup at the Umiat Landfill is slated to be one of the largest FUDS projects in history. The project is expected to begin in 2027.



**Photo:** In August 2023, staff from DEC, USACE, BLM, and contractors visited the Umiat Landfill site to scope the cleanup project and identify potential locations for an onsite monofill.

## GAFFNEY AREA SOIL GAS SAFE PROJECT

SPAR is coordinating with the EPA Office of Research and Development on techniques to better assess vapor intrusion in large buildings and communities. Previous efforts funded by the EPA during 2022 focused on intensive sampling of indoor air and soil gas to evaluate vapor intrusion over

the Gaffney Road contaminated groundwater plume in Fairbanks which resulted from past drycleaning establishments along Gaffney Road. The Soil Gas Safe project expanded during 2023 into nearby residential neighborhoods to encourage citizen science participation. Building occupants have been offered free soil gas and indoor air screening of their properties to assess the potential for indoor air health impacts. As part of the EPA-funded research, participants can monitor indoor radon and carbon dioxide with continuous monitoring equipment and learn of EPA sampling results of indoor air from exterior and sub-slab soil gas.



**Photo:** A portable filed gas chromatogram (GC Unit) operated by EPA ORD staff in the basement of a church in Fairbanks, measuring indoor air contaminants.

## ANCSA SITES

The U.S. Congress allocated \$27.5M to begin addressing the Alaska Native Claims Settlement Act (ANCSA) conveyed contaminated sites. SPAR signed a Cooperative Agreement with the EPA wherein DEC received \$7M to conduct site discovery, verification, and inventory work at contaminated sites conveyed to Alaska Native Corporations under ANCSA. Information obtained



**Photo:** Commissioner Designee Pokon addresses the ANCSA Partnership Group meeting, including representatives from federal agencies, non-profits, and Alaska Native Corporations, on the topic of contamination on ANCSA-conveyed lands.

through this process will be used to update the EPA's public inventory continually, ensuring that Alaska Native Corporations, tribes, and other stakeholders can identify which sites are eligible for federal cleanup funding. SPAR has continually sought to engage stakeholders in the development of this program, conducting public outreach at conferences such as the Alaska Federation of Natives and Alaska Forum on the Environment, as well as contacting specific stakeholders directly.



## BROWNFIELDS PROGRAM

SPAR provided technical assistance to tribes and communities on eligible assessment and cleanup projects, researched properties' use and ownership history, and supported grant applications for potential brownfields funding to support reuse and redevelopment of contaminated property. In 2023, seven Alaska communities and organizations received nearly \$12 million in EPA assessment, cleanup, and multipurpose grants. SPAR continues to aid recipients of these grants by providing technical support and assistance for complying with state cleanup regulations.

DEC's Brownfield Assessment and Cleanup (DBAC) services were provided to projects in five communities in FY23. These included assessment and cleanup services provided at the Thorne Bay Old Fire Hall. Asbestos in the building had become a health and safety risk to the community. Through its DBAC program, DEC removed the building, separating asbestos-containing materials and ensuring their safe and proper disposal. With the building removed, DEC conducted additional site characterization to assist the City of Thorne Bay reuse the property as a public park. DBAC services were also provided to the Delta Junction Trails Association and the City of Delta Junction, including the installation of fencing and signage around a historic dumpsite in Delta Junction, which has allowed for the expansion of a local recreational trail. Additionally, SPAR provided assessment services at two sites on Knight Island (Thumb Bay) and near Chenega (Sawmill Bay) to promote future development of cultural camps by the Chenega Corporation. SPAR also conducted soil and groundwater characterization of the Eklutna Tailrace site located off Old Glenn Highway and the Knik River. The contaminated site at the Palmer Arts Council for the former Palmer Power House site was closed following assessment and cleanup activities conducted using DBAC services.

## STATE-LEAD PROJECTS

SPAR leads assessment, interim actions, and cleanup at contaminated sites where legal settlements have relieved responsible parties (RPs) of their liability and no other viable RP exists, sites without viable RPs, select state-agency sites, sites without a willing or able RP, and sites where a significant risk is presented by a release of a hazardous substance but is not being adequately addressed by the RP. SPAR relies on contractors to conduct much of this work, but also draws on CIP funding for Contaminated Sites staff-led sampling on an as-needed basis.

Examples of progress made at state-lead sites in FY23 include the following:

**Soapstone Road Home Heating Oil Tank Site:** This was the first site funded under the Home Heating Oil Tank (HHOT) pilot project and as a result of SPAR's efforts, the site will be eligible for closure in FY24.

**Kaltag School Oil Seep:** Due to large releases of petroleum, heating oil would seep out of an embankment adjacent to the Kaltag School on a seasonal basis. SPAR began remediation activities at this site in 2014 that included the excavation and landfarming of a large volume of petroleum contaminated soil and re-contouring of the affected area. In FY23, sampling the soil in the landfarm indicated cleanup levels have been met, but the deeper soils in the phytoremediation plot still require more time before cleanup levels are achieved.



**Photo:** SPAR contractor working at Madcap Lane.

**Gaffney Road, Fairbanks:** This site is comprised of several former dry cleaners located within a few blocks of each other. Vapor intrusion is an ongoing



concern at the site, where perchloroethylene (PCE), a dry-cleaning solvent, in groundwater has impacted several blocks of commercial buildings. SPAR monitors the groundwater and soil-gas and mitigates vapor intrusion into one building. Well surveys were completed to ensure SPAR is aware of any water use within the contaminated plume.

**Madcap Lane Home Heating Oil Tank Site:** SPAR contractors conducted soil sampling at a residential property contaminated from a home heating oil tank. As a result of SPAR's efforts, this home heating oil release site will be likely be eligible for closure in FY24.

## SOIL TREATMENT FACILITIES

SPAR oversees the approval of operations plans for contaminated soil treatment facilities in Alaska. In FY23, SPAR oversaw compliance at five approved soil treatment facilities. Four facilities use thermal desorption to treat contaminated soil and one facility is a commercial landfarm. U.S. Ecology Moose Creek Facility and Arctic Slope Regional Corporation (ASRC) Energy Services LLC have thermal desorption units approved for treating soil contaminated with PFAS and other contaminants. In FY23, SPAR staff reviewed and approved an updated facility Operations Plan at Soil Treatment Technologies (STT) LLC in Nikiski and performed a facility inspection at the Bicknell Facility in Juneau. The inspection identified several instances of non-compliance with the approved operations plan which were corrected.



**Photos:** Bicknell Soil Treatment Facility inspection.

## UNDERGROUND STORAGE TANKS

The Underground Storage Tank (UST) Unit in SPAR oversees compliance for 842 federally regulated and active USTs at 385 facilities. During FY23, the UST unit implemented the third-party inspection program to ensure technical compliance with spill prevention, overfill prevention, corrosion protection, and release detection; provided technical assistance to the regulated community; administered facility registration fee and financial assurance; and worked with the Department of Commerce, Community, and Economic Development to maintain a tank worker certification program. UST staff reviewed third-party inspection reports for 267 UST at 131 facilities and conducted 35 inspection audit site visits. UST unit staff hosted an Alaska UST Certified Worker Summit in March 2023 presenting UST testing and inspection topics. During FY23, SPAR issued three notices of violation for violations of 18 AAC 78.

In FY23, SPAR conducted corrective actions at two leaking UST sites. Both sites have extensive groundwater plumes that extend across multiple properties. At the ZipMart Store in Sterling, DEC continued maintenance of the groundwater wells and operation of a soil vapor extraction and air sparging treatment system to remove fuel from the groundwater. DEC entered into a Memorandum Contaminated Sites Program

of Agreement with the Kenai Peninsula Borough (KPB) that facilitated the demolition of the dangerous structure following its collapse in April 2023. At the former Mom and Pop's Grocery & Gas in Palmer, DEC-funded actions included groundwater monitoring and soil gas sampling to provide direction on the next phase of remediation and worked with prospective purchasers on redevelopment of the property which has been derelict for years.



**Photos:** *Left:* Collapsed Zipmart structure in Sterling. *Right:* DEC contractors collecting soil gas samples at the Former Mom and Pops site in Palmer.

## 6.0 TABLES, CHARTS, GRAPHICS, AND STATISTICS

**TABLE 1: SPILL CASELOAD SUMMARY**

| SPILL CASELOAD SUMMARY  |       |
|---|-------|
| New spill cases (total spills reported in FY23)   | 2,695 |
| Oil and hazardous substance releases (some spill cases involve releases of multiple substances) | 2,770 |
| New spill cases characterized by highest level of ADEC response:                                |       |
| 1) Field visit  | 99    |
| 2) Phone follow-up  | 642   |
| 3) Took report  | 1,949 |
| Cases Carried Over from Previous Fiscal Years   | 278   |
| Cases Closed in FY23  | 2,831 |
| Cases Transferred to Contaminated Sites Program   | 21    |

**TABLE 2: OIL DISCHARGE PREVENTION AND CONTINGENCY (ODPCP) PLANS**

| OIL DISCHARGE PREVENTION AND CONTINGENCY (ODPCP) PLANS                        |     |
|---|-----|
| Number of Plans operational during FY23                                       | 123 |
| New Plans   | 2   |
| Plan renewals (plans are renewed every 5 years)                               | 30  |
| Major plan amendments (includes new owners and operators)                     | 2   |
| Other ODPCP applications (includes vessel additions and short-term approvals) | 117 |
| Exercises   | 22  |
| Inspections   | 52  |
| Enforcement Actions - Notice of Violation (NOV)                               | 0   |
| Enforcement Actions – referral to LAW / Environmental Crimes Unit             | 0   |

**TABLE 3: NON-TANK VESSEL (NTV) CONTINGENCY PLANS**

| NONTANK VESSEL (NTV) CONTINGENCY PLANS                            |     |
|---|-----|
| Total Plan Review Actions during FY23                             | 397 |
| Plan Renewals (plans are renewed every 5 years)                   | 34  |
| Plan Amendments   | 123 |
| Inspections   | 11  |
| Enforcement Actions - Notice of Violation (NOV)                   | 8   |
| Enforcement Actions – referral to LAW / Environmental Crimes Unit | 0   |

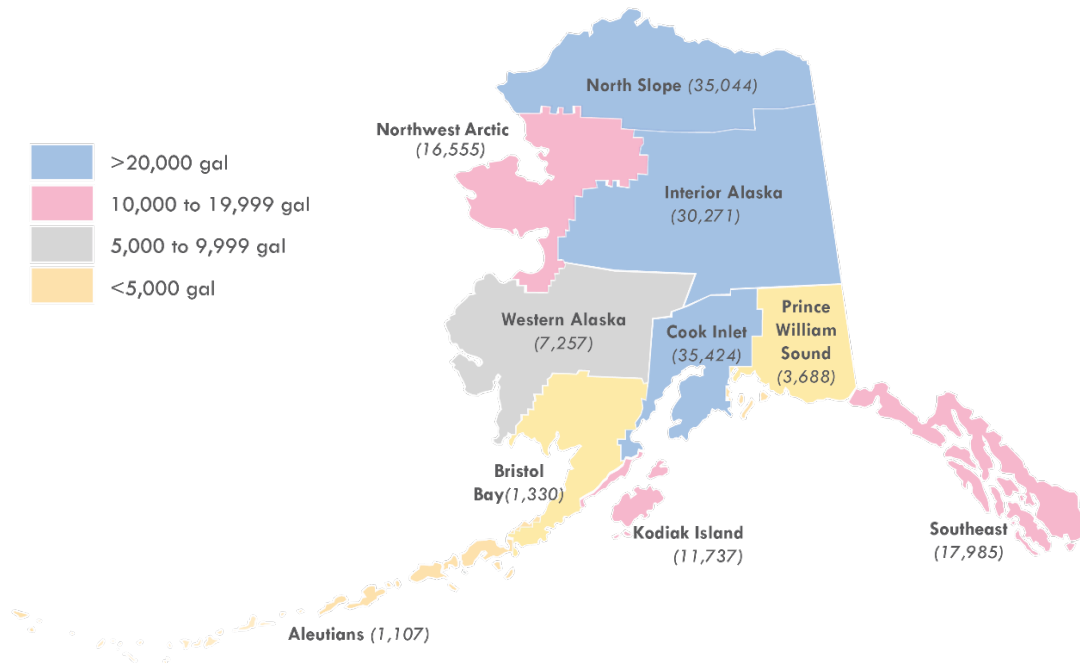
**TABLE 4: FINANCIAL RESPONSIBILITY CERTIFICATES (RENEWED ANNUALLY)**

| TOTAL FINANCIAL RESPONSIBILITY APPROVALS (NEW, AMENDMENTS, AND ANNUAL RENEWALS) |     |
|---|-----|
| Oil Discharge Prevention and Contingency Plan (ODPCP)                           | 126 |
| Nontank Vessels (NTV)   | 371 |
| Underground Storage Tanks (UST)   | 387 |
| Enforcement Actions - Notice of Violation (NOV)                                 | 5   |
| Enforcement Actions – referral to LAW / Environmental Crimes Unit               | 1   |

**TABLE 5: PRIMARY ACTION RESPONSE CONTRACTORS (PRAC)**

| PRIMARY RESPONSE ACTION CONTRACTORS (PRAC) |   |
|--|---|
| New Registration and Renewals              | 1 |

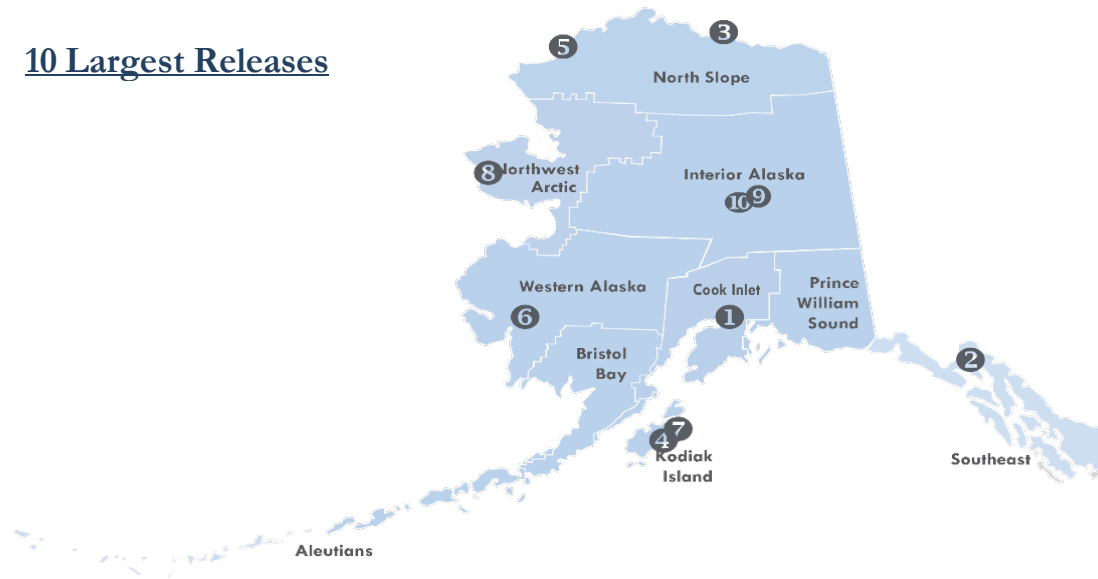
**GRAPHIC 1: TOTAL SPILL VOLUME BY GEOGRAPHIC ZONE FY23**



## TABLE 6 AND GRAPHIC 2: MOST SIGNIFICANT PETROLEUM RELEASES IN FY23

DEC established the top 10 significant petroleum releases by considering relative spill volume, spills with regional significance, high public interest, and spills that used a significant amount of resources.

### 10 Largest Releases



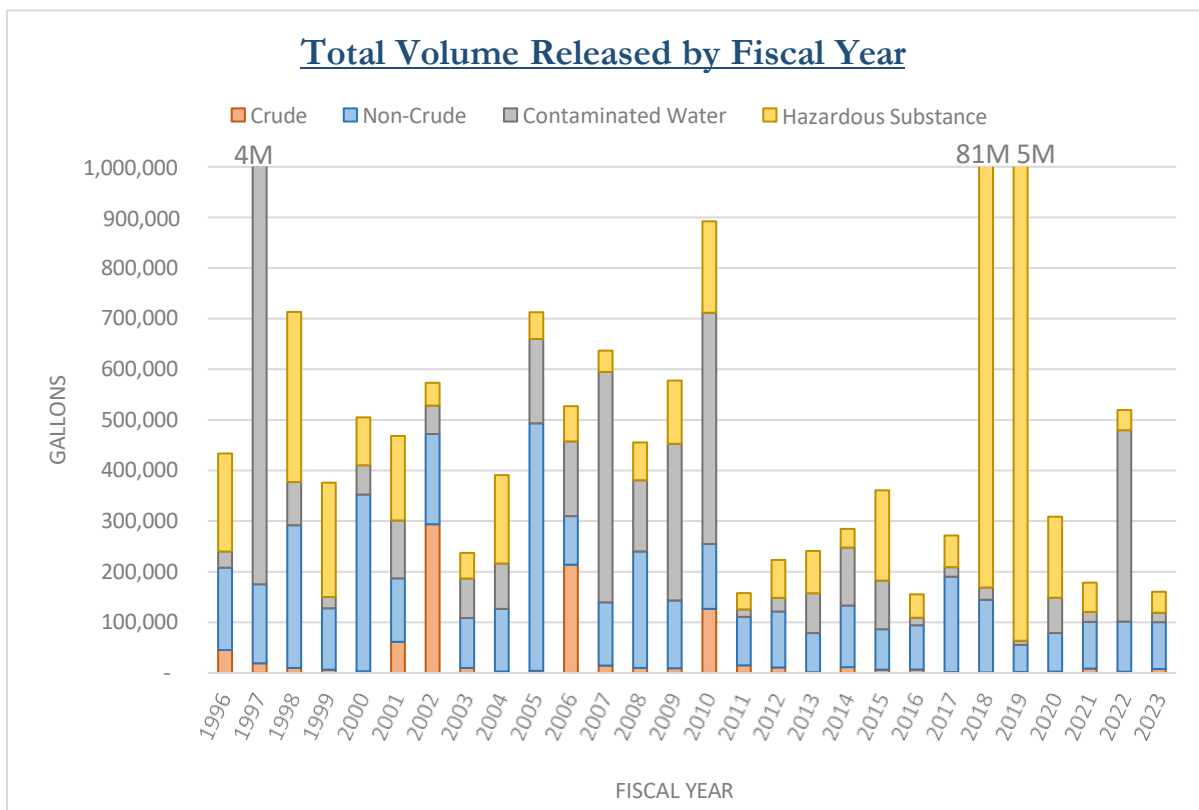
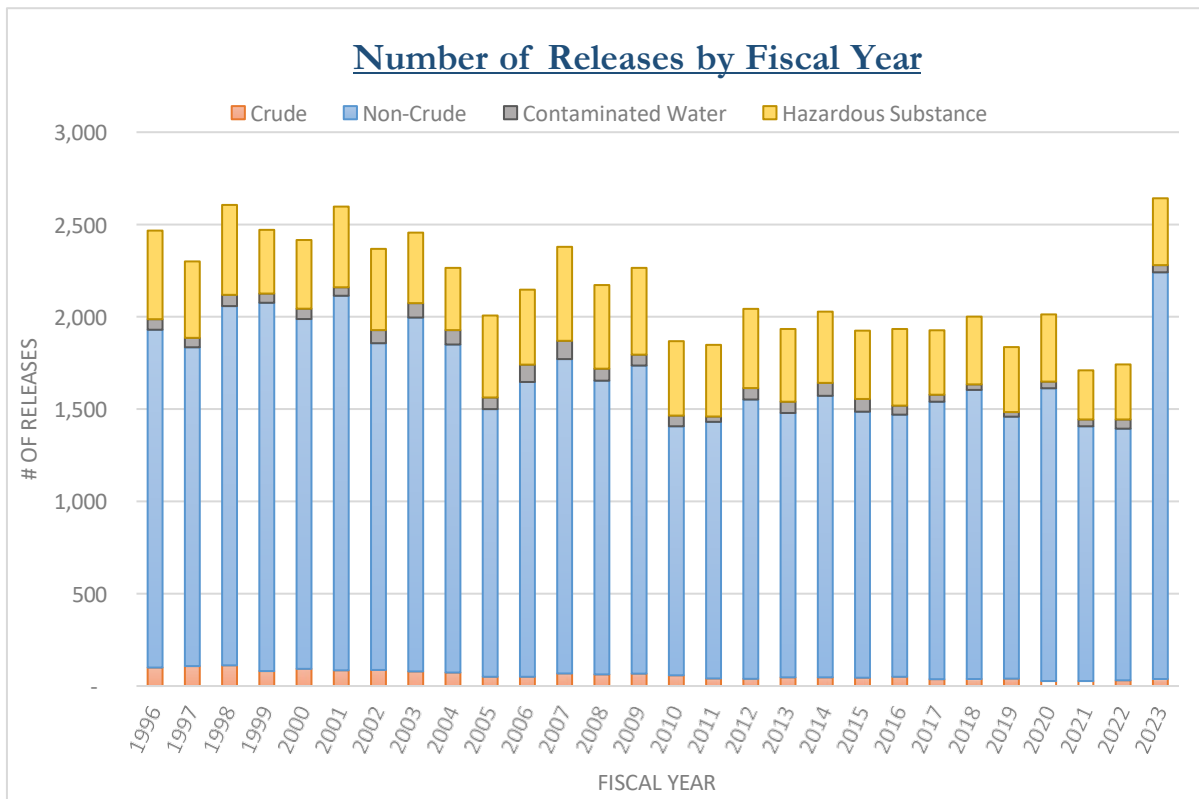
| MAP KEY | SPILL DATE | SPILL NUMBER | SPILL DESCRIPTION   | PRODUCT                         | GALLONS |
|---------|------------|--------------|---|---------------------------------|---------|
| 1       | 8/6/2022   | 22239921801  | Anchorage Costco, Holes in evaporative tubing of storage freezer, freon released via natural dispersion into atmosphere.  | Freon (Dichlorodifluoromethane) | 19,428  |
| 2       | 11/17/2022 | 22119932101  | Petro Marine Service Skagway, Diesel released to secondary containment due to human error.  | Diesel                          | 13,000  |
| 3       | 9/1/2022   | 22399924402  | Hilcorp Alaska, LLC, Loss of power resulted in fluid backing up and releasing into secondary containment.   | Crude                           | 6,804   |
| 4       | 1/10/2023  | 23249901002  | Alaska Aerospace Corp, An explosion occurred during a launch failure causing majority of fuel to be burned off. Resulted in contamination to land.                | Aviation Fuel                   | 5,200   |
| 5       | 8/10/2022  | 22399922201  | North Slope Borough, Bulk fuel terminal release to containment due to human error.  | Diesel                          | 4,727   |
| 6       | 6/7/2023   | 23479915801  | Crowley Fuels LLC, Bulk fuel terminal release to containment due to human error.  | Diesel                          | 4,456   |
| 7       | 12/31/2022 | 22249936501  | Petro Marine Services Kodiak, Bulk fuel terminal overflow to containment due to human error.  | Gasoline                        | 4,300   |
| 8       | 5/24/2023  | 23389914401  | Bering Strait School District, Teller School heating oil tank release to containment, land, and marine water due to a failed weld between the tank and fuel line. | Diesel                          | 4,200   |
| 9       | 7/26/2022  | 22309920701  | Ft Knox Mine, Release to land due to equipment failure.   | Other (Cyanide Solution)        | 4,000   |
| 10      | 9/8/2022   | 22309925102  | Fort Wainwright, Water line valve leak resulting in contamination to containment, land, and freshwater.   | Contaminated Water              | 3,500   |

Disclaimer: The data presented and summarized in these charts is provisional and will be further refined as cases are managed and come to closure. Data for these summaries was extracted from the database in September 2023 and does not reflect changes made to the data after that date.

Some spill cases involve releases of multiple substances. In FY23, there were 2,695 spill cases which resulted in 2,770 oil and hazardous substance releases.

Some releases (such as gases and solids) are reported in pounds rather than gallons. For graphing purposes, spill quantities reported in pounds were converted to gallons using an estimated conversion factor.

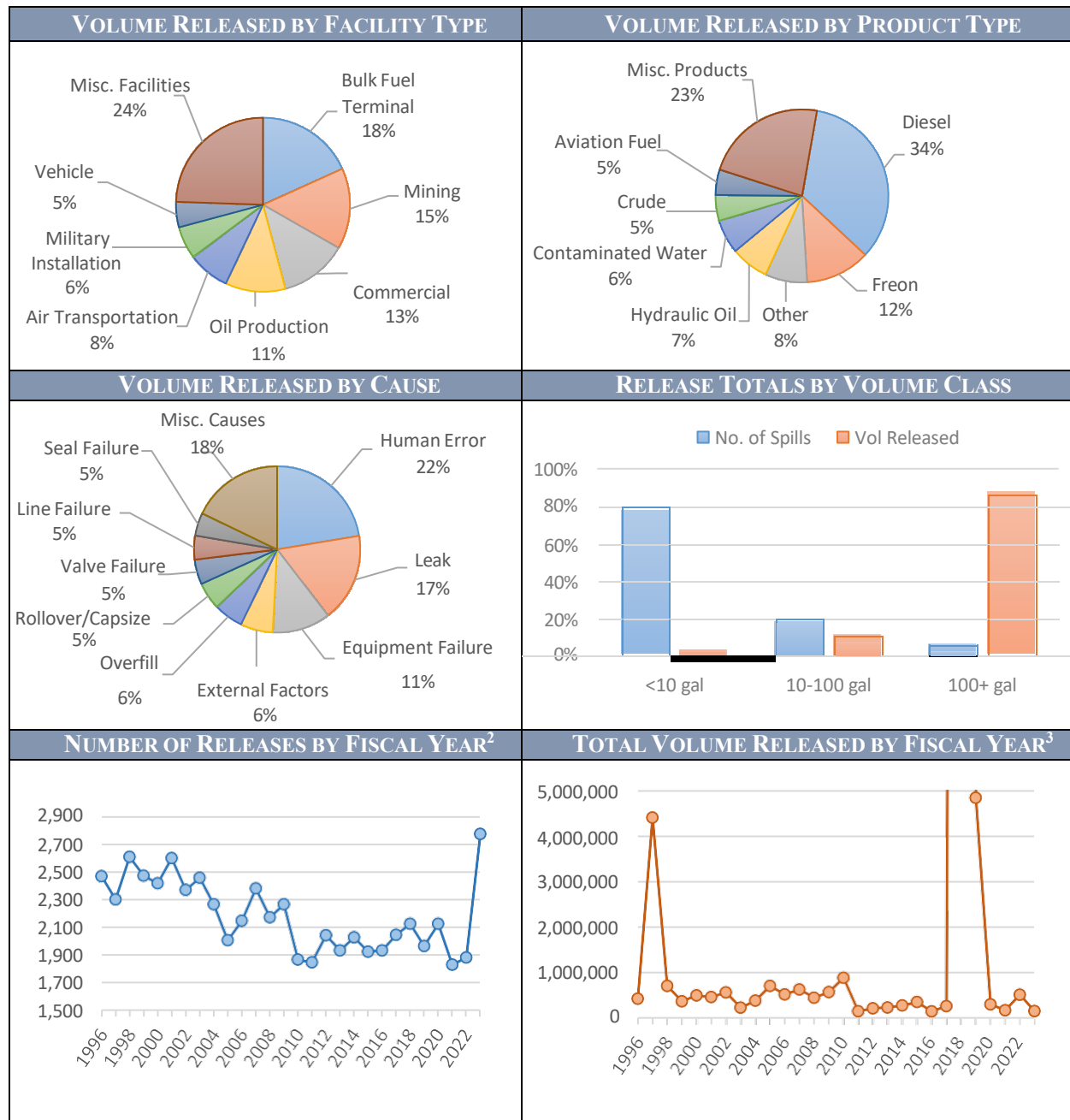
## CHARTS 6-1 AND 6-2: RELEASES AND VOLUME BY FISCAL YEAR





# CHART SET 1: ALL PRODUCTS<sup>1</sup>

Oil and Hazardous Substances Releases: 2,770  
Total Gallons: 160,398



<sup>1</sup> Facilities, Products, and Causes <5% of the total are combined as miscellaneous (Facilities, Products, Causes) for display.

<sup>2</sup> The spike in the number of releases (FY23) is due to an increase in reported non-crude cases. The Avg. (1996-2023) number for non-crude Spills is 1,642 and the FY23 non-crude spill count was 2,203. 78% of these Spills were <10 gals. Substance type of the small non-crude spills was mostly hydraulic oil.

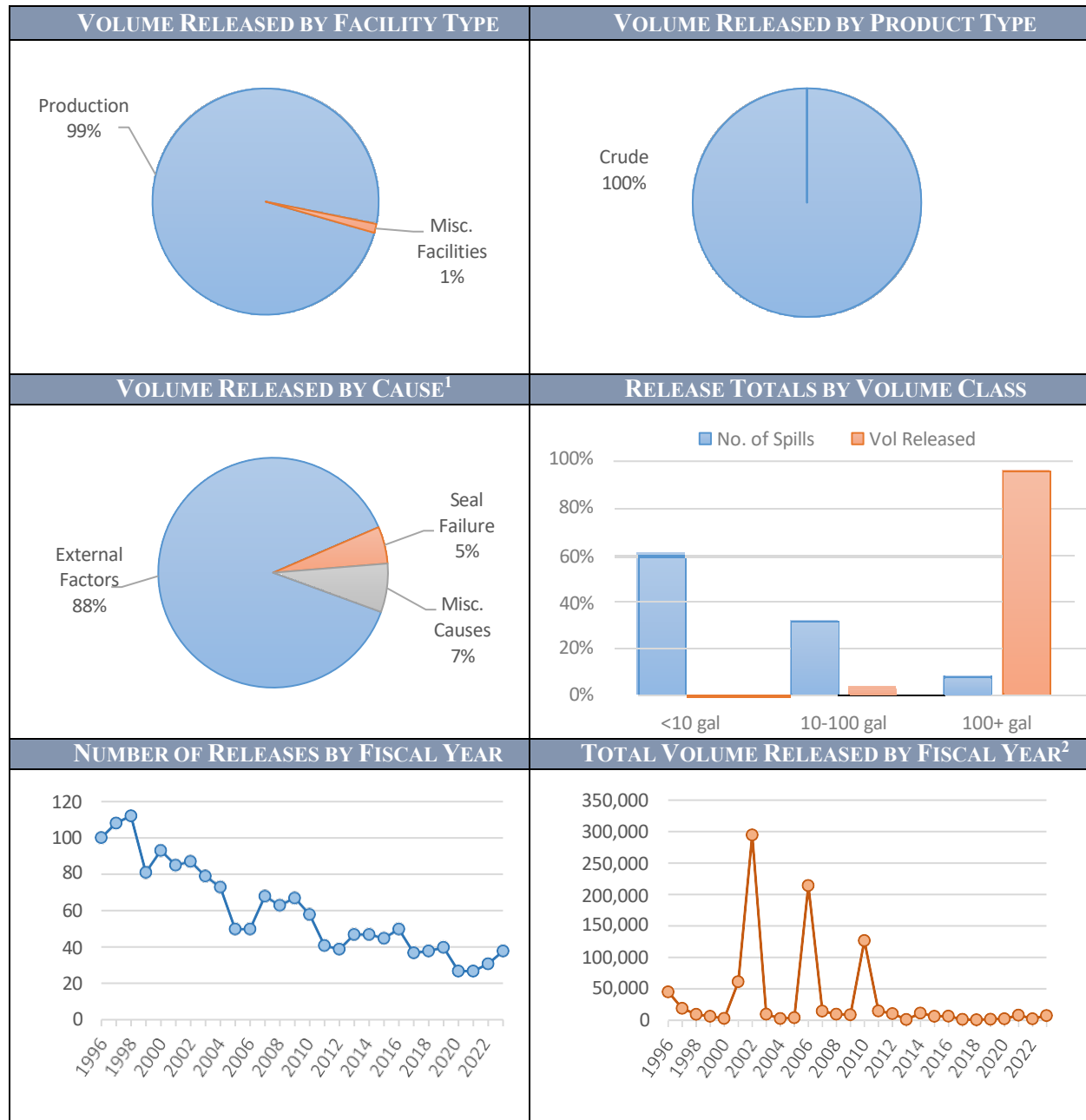
<sup>3</sup> In 2018 and 2019 the large spikes are due to the 81 M and the 4.6 M gallons PFOS/PFOA contaminated water discharge at Eielson Air Force Base; the large spike in 1997 is the result of two large spills, one in January when a barge capsized and lost 25,000,000 pounds of Urea (solid converted to gallons) and the other in March when 995,400 gallons of sea water were released at ARCO DS-14 in Prudhoe Bay.



## CHART SET 2: CRUDE OIL

Crude Oil Releases: 38

Total Gallons: 7,735



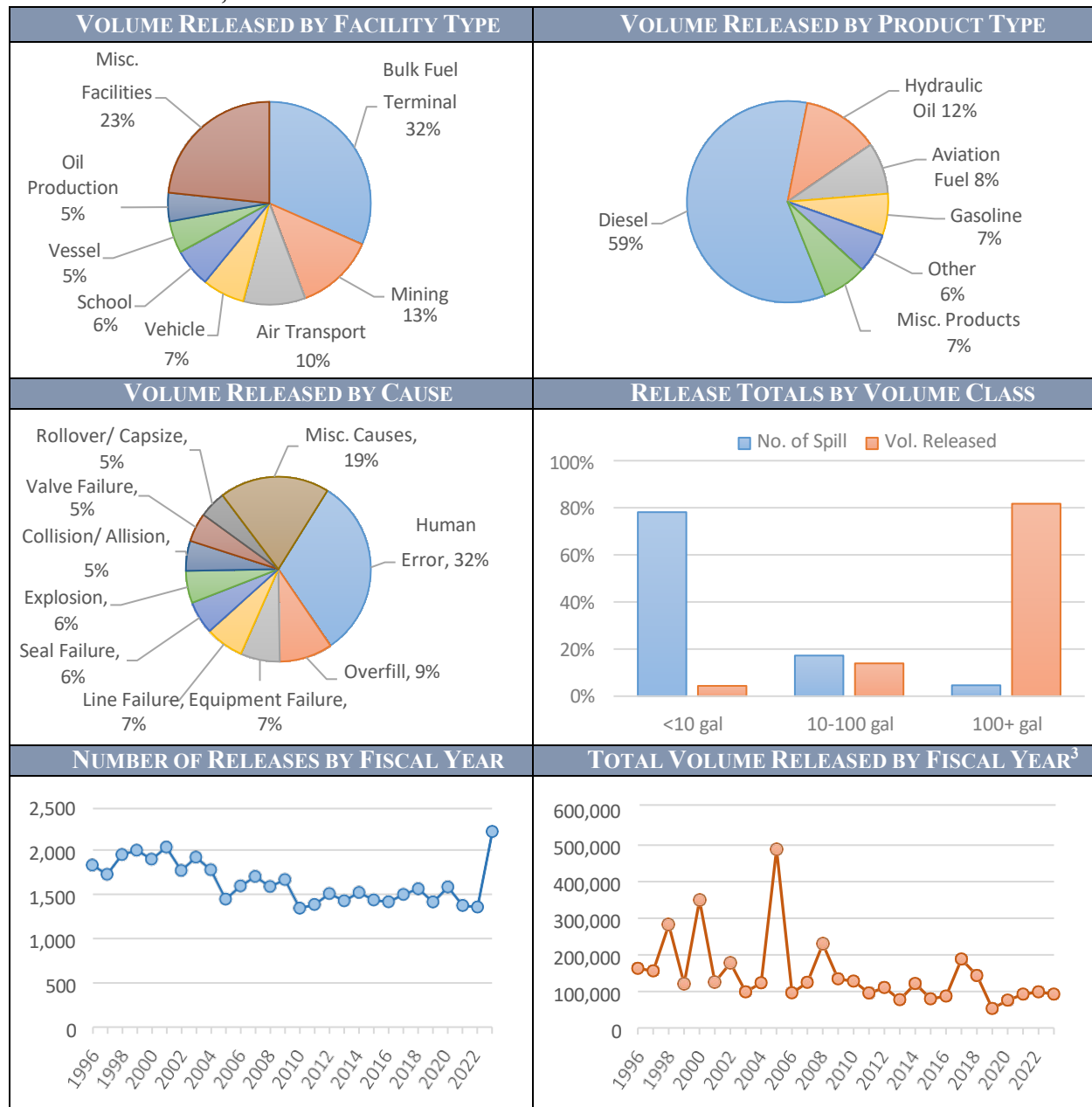
<sup>1</sup> Causes <5% of the total are combined as miscellaneous causes for display.

<sup>2</sup> The largest spill volumes resulted from a) Trans Alaska Pipeline (TAPS) bullet hole 285,600 gallons release on 10/4/2001, b) BP GC-2 oil transit line release of 212,252 gallons on 3/2/2006, and c) TAPS pump station 9 released 108,360 gallons on 5/25/2010 to secondary containment.

### CHART SET 3: NON-CRUDE OIL<sup>1,2</sup>

Non-Crude Oil Releases: 2,203

Total Gallons: 92,458



<sup>1</sup> Facilities, Products, and Causes <5% of the total are combined as miscellaneous (Facilities, Products, Causes) for display.

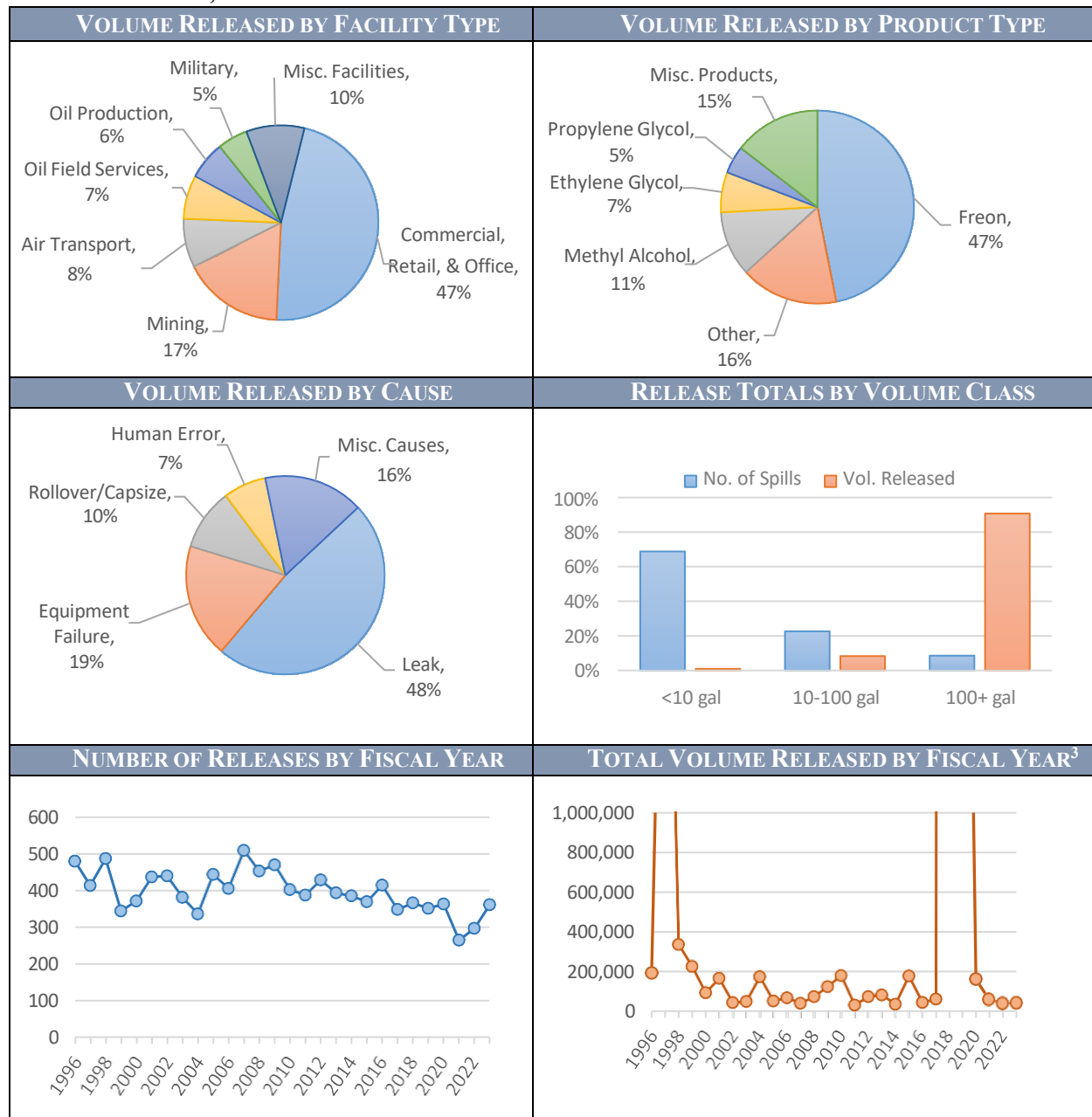
<sup>2</sup> FY23 Hydraulic oil was only 12% of non-crude released by volume but accounted for 49.43% of the non-crude spills cases (n=1,089).

<sup>3</sup> The large spike in spill volume was the result of the breaking apart of the M/V Selendang Ayu on 12/8/2004 (FY05), which released 321,052 gallons of intermediate fuel oil 380 and 14,680 gallons of diesel.

## CHART SET 4: HAZARDOUS SUBSTANCES<sup>1,2</sup>

Hazardous Substance Releases: 362

Total Gallons: 41,465



<sup>1</sup>“Other” includes routine testing of fire suppression systems.

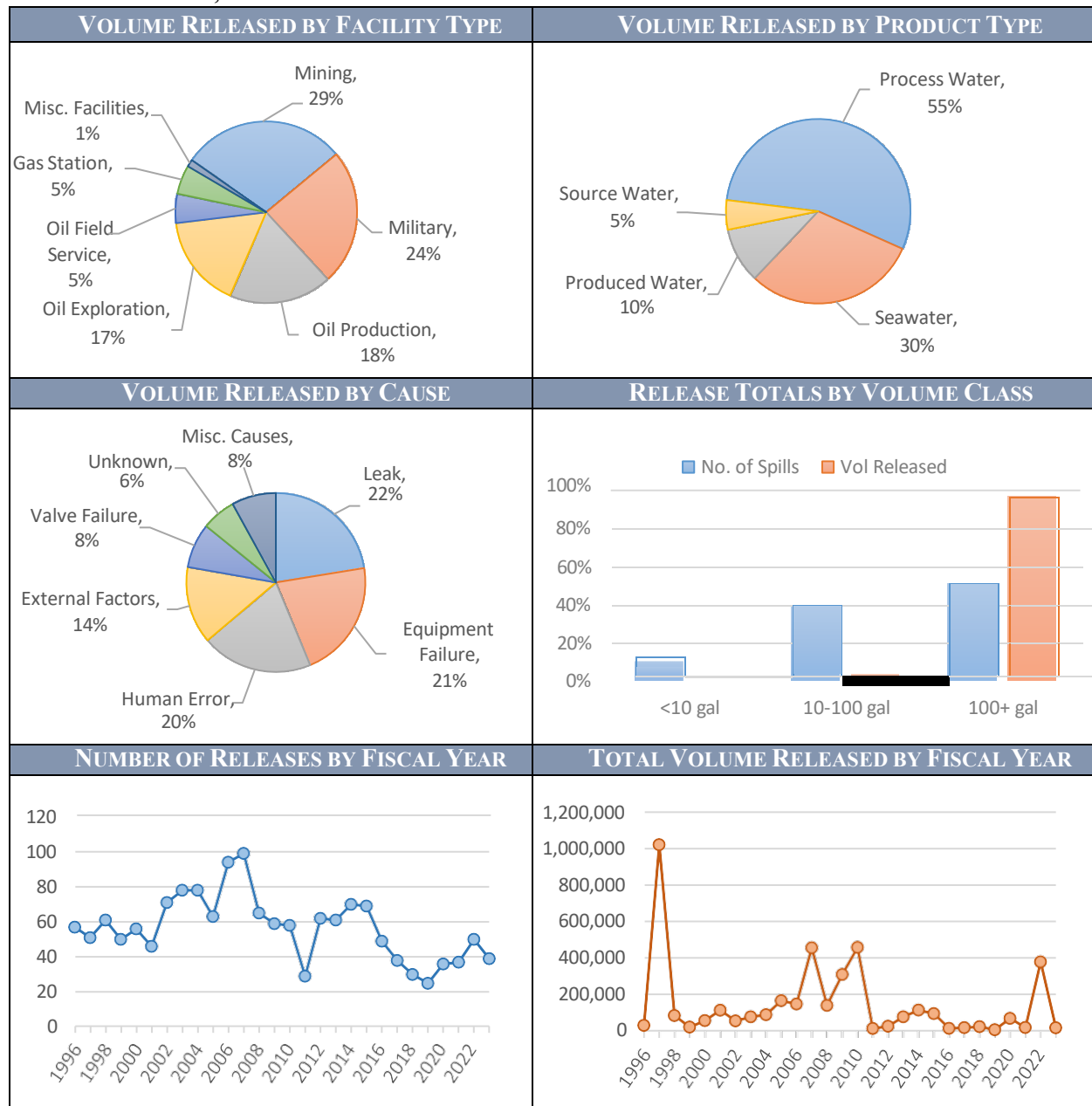
<sup>2</sup>Facilities, Products, and Causes <5% of the total are combined as Misc. (Facilities, Products, Causes) for display.

<sup>3</sup> The large spike in spill volumes from 4.6M gallons (FY19) and 81 M gallons (FY18) PFOS/PFOA contaminated water discharge that occurred at Eielson Air Force Base the large spike in 1997 is the result a large spill, in January when a barge capsized and lost 25,000,000 pounds of Urea (solid converted to gallons).

## CHART SET 5: CONTAMINATED WATER<sup>1,2</sup>

Process Water Releases: 39

Total Gallons: 18,614

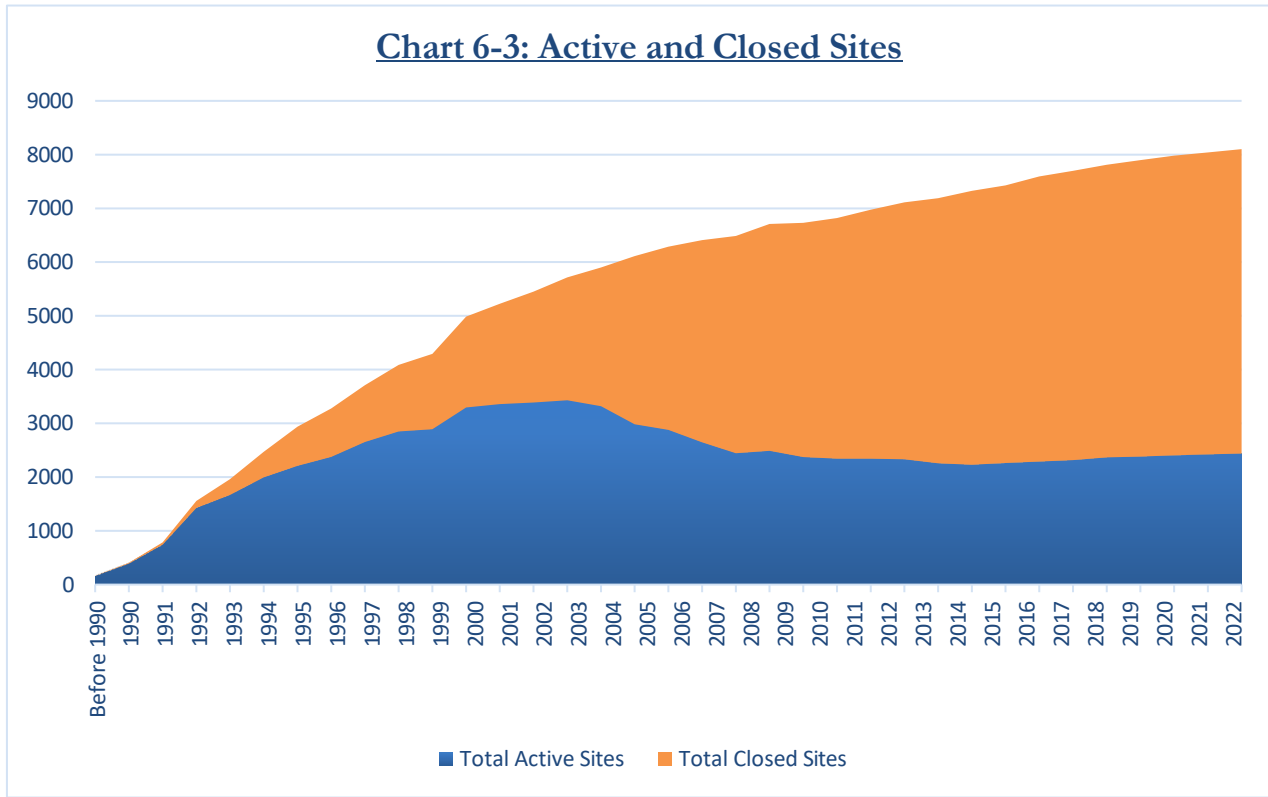


<sup>1</sup> Facilities and Causes <5% of the total are combined as Misc. (Facilities and Causes) for display.

<sup>2</sup> Process Water: water used in industry processes that include hazardous substances. Produced Water: water is separated during crude oil processing and may contain <1% crude oil and have saline concentration similar to seawater; Source Water: in North Slope oil production, water is extracted from aquifers and injected into an oil formation to maintain pressure, it contains elevated levels of salt and is toxic to freshwater tundra vegetation.

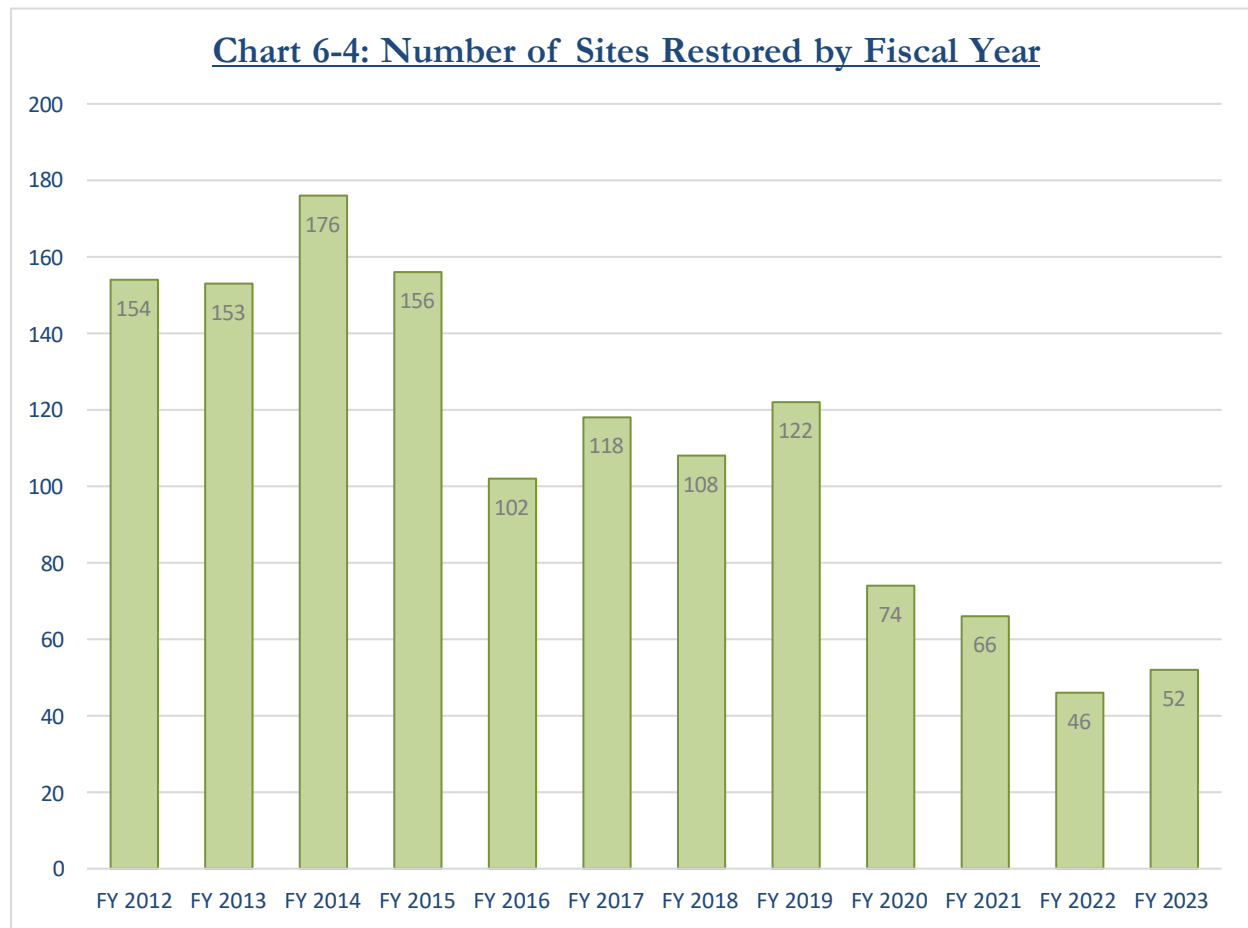
### CHART 6-3: NUMBER OF ACTIVE AND CLOSED SITES BY FISCAL YEAR

Chart 6-3 shows the open and closed sites trend since 1990. In 2005, the number of closed sites exceeded the number of open sites. This gap has widened steadily since 2005, indicating measurable progress and improvement in methods for reducing risk at the thousands of legacy contaminated properties in Alaska. In FY23, 65 new sites were identified, of those, 32% were the result of recent spills.



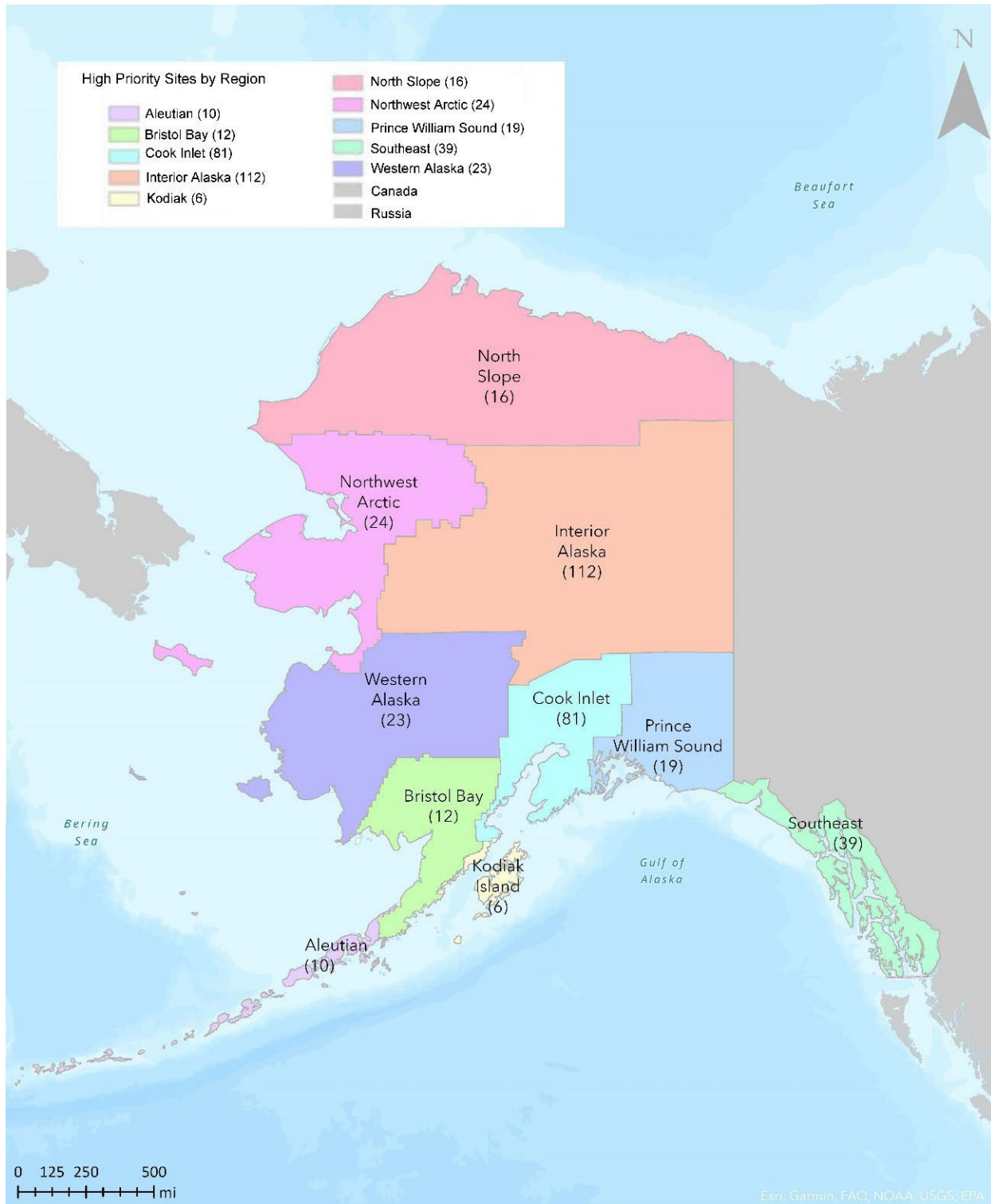
### CHART 6-4: NUMBER OF SITES RESTORED BY FISCAL YEAR

Chart 6-4 shows the number of contaminated sites where cleanup was determined to be complete by fiscal year. Since 2014, there has been a decline in the number of site closures due to several factors including a concerted focus on shifting efforts to address risks at the highest priority sites, where complete exposure pathways (such as contaminated groundwater used for drinking, or subsistence resources are impacted). However, cleanup and closure of these sites is often challenging and complex due to the type and extent of contamination, remote site locations, the existence of multiple responsible parties, a need to determine which will conduct the work and how costs will be allocated, and lack of willing or financially viable responsible parties to clean up the sites. During FY23, 92% of the closures were suitable for unrestricted future land use, 8% were risk-based closures that included institutional controls to limit future activities that could result in exposure to residual contamination.



### GRAPHIC 6-5: CONTAMINATED SITES BY GEOGRAPHIC ZONE

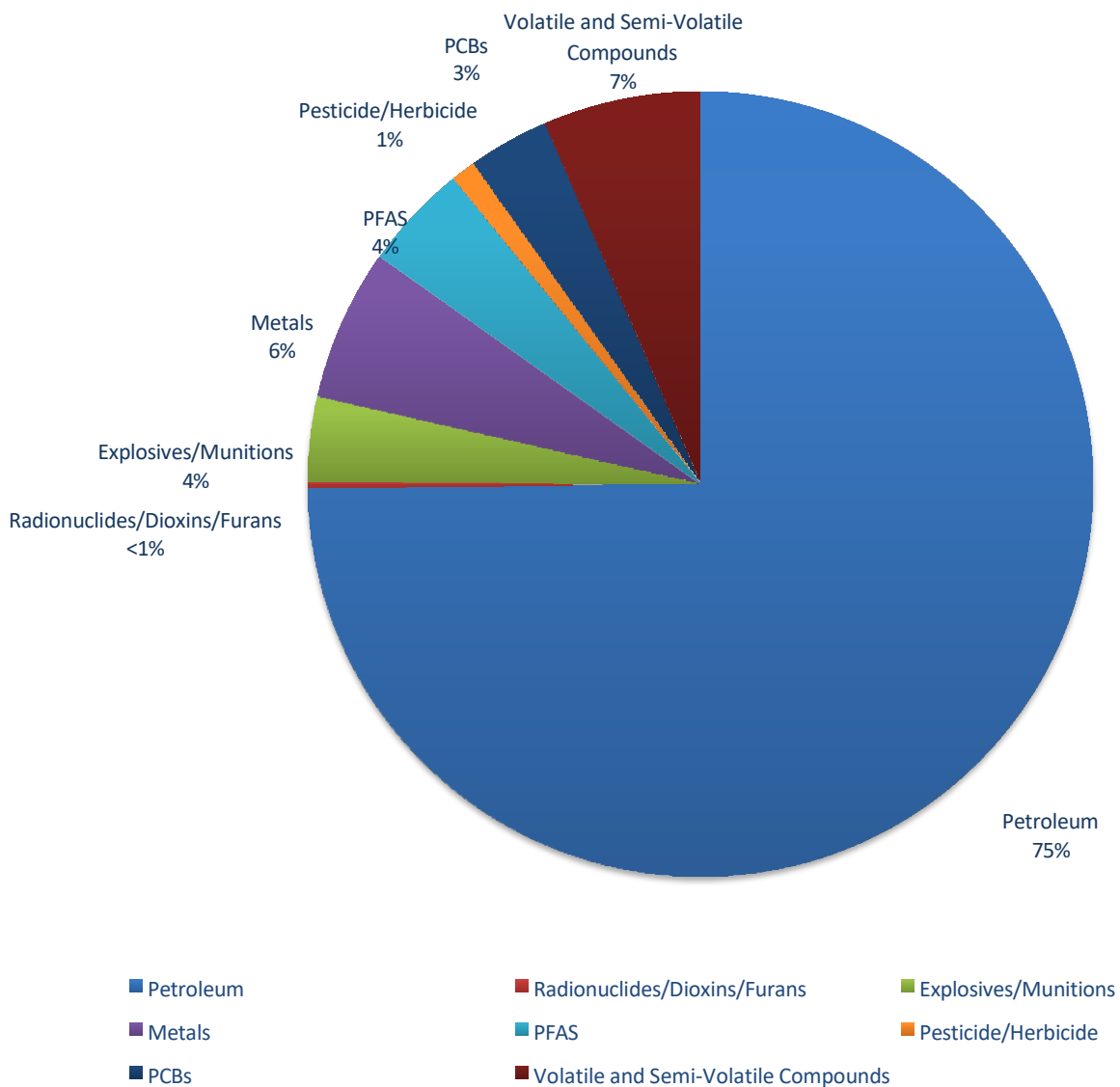
Graphic 6-5 show the total active, high priority contaminated sites by geographic zone.



### CHART 6-5, CHART 6-6 AND TABLE 6-7: CONTAMINANTS OF CONCERN AT CURRENT ACTIVE SITES

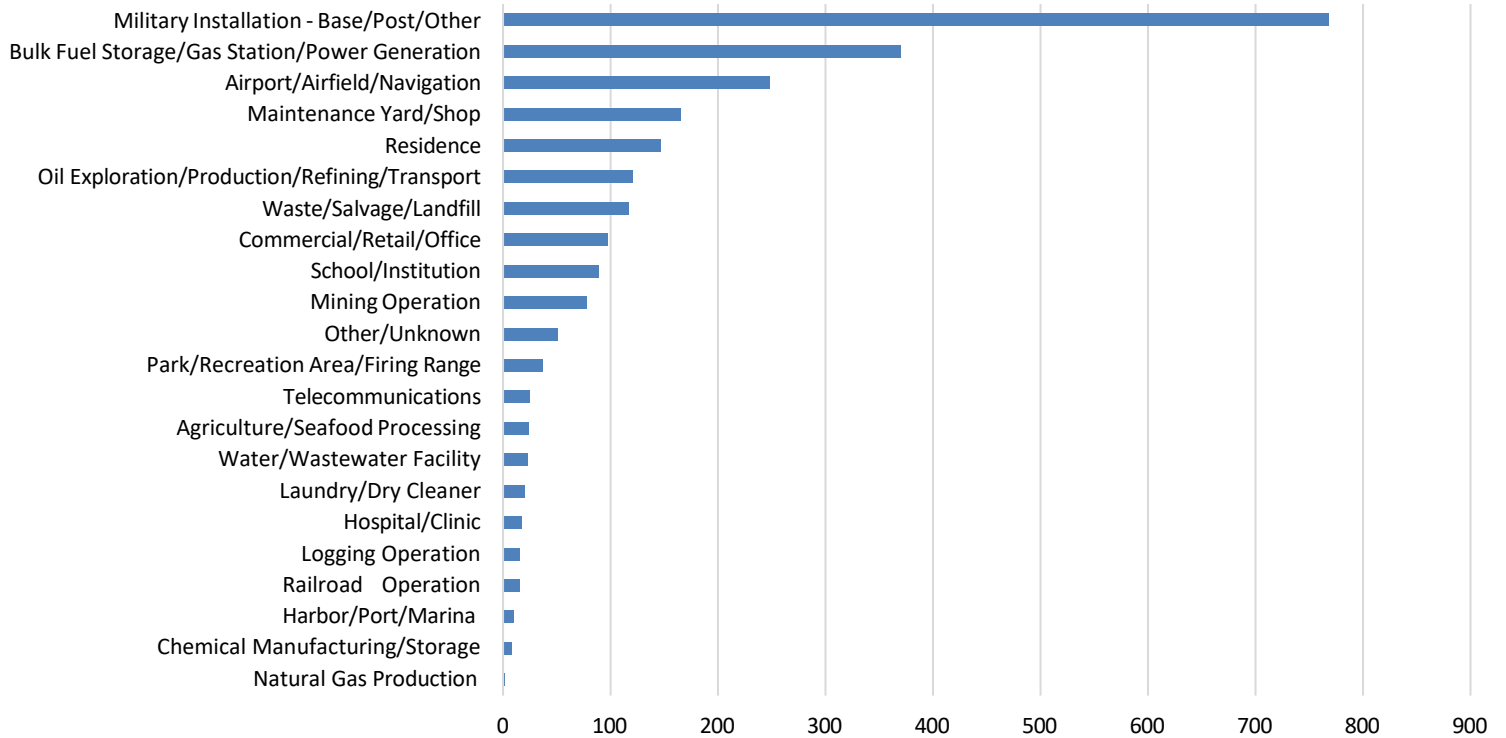
Chart 6-5 shows the number of active sites based on type of facility. Chart 6-6 and Table 6-7 show the percentage and number of current active sites that have been impacted by various contaminants of concern. Petroleum hydrocarbons are by far the most common and are the primary contaminant at 75% of the active sites. Other hazardous substances are the primary contaminant of concern at 25% of the active sites. PFAS have been identified as a contaminant of concern at 4% of the active sites; however, PFAS have been found to have impacted more drinking water wells than any other contaminants. Those sites are most often found at military installations, followed by bulk fuel storage, airports, gas stations and power generation facilities.

**Chart 6-5: Contaminants of Concern Percentages**





**CHART 6-6: NUMBER OF SITES BY TYPE**



**TABLE 6-7: NUMBER OF SITES WITH CONTAMINANTS OF CONCERN**

| Contaminant of Concern               | Number of Active Sites |
|--------------------------------------|------------------------|
| Petroleum                            | 1759                   |
| Volatile and Semi-Volatile Compounds | 152                    |
| Metals                               | 147                    |
| PFAS                                 | 99                     |
| Explosives/Munitions                 | 81                     |
| PCBs                                 | 79                     |
| Pesticide/Herbicide                  | 24                     |
| Radionuclides/Dioxins/Furans         | 7                      |

**TABLE 6-8: FY23 CONTRACTS**

| Contract Name                | Issue Date | End Date   | Contractor                                   | Program | Amount Not To Exceed | Invoice Amount | Balance     |
|------------------------------|------------|------------|--|---------|----------------------|----------------|-------------|
| <b>Tier II E-Plan</b>        | 1/1/2020   | 12/31/2023 | University of Texas                          | PPR     | \$20,000.00          | \$(13,469.96)  | \$33,469.96 |
| <b>Oil Spill Task Force</b>  | 7/1/2021   | 6/30/2023  | State of Washington<br>Department of Ecology | PPR     | \$26,000.00          | \$(26,000.00)  | \$<br>-     |
| <b>Crisis Media Training</b> | 8/26/2022  | 10/31/2022 | MSI<br>Communication Inc                     | CS      | \$18,000.00          | \$(18,000.00)  | \$<br>-     |

# CHART 6-9: PPR ORGANIZATIONAL CHART

## Division of Spill Prevention and Response Prevention Preparedness and Response Program

