Oil Discharge Prevention and Contingency Plan

Tank Vessel

Petro 49, Inc.

ADEC Plan 25-CP-5325

September 2025

Prepared for:

Petro 49, Inc.
2101 East 63rd Avenue
Anchorage, Alaska 99507

Prepared by:

Integrity Environmental LLC

(907) 854-7347
www.integrity-env.com

Tank Vessel Information

Vessel Names:	Please refer to Spot Charter Addendum
IMO Number:	Please refer to Spot Charter Addendum
Type:	Tank Vessel
Owner/Operator:	Petro 49, Inc. 2101 East 63rd Avenue Anchorage, Alaska 99507
Location:	Cook Inlet and Southeast Alaska Regions
Phone Number:	907-586-4400
Qualified Individuals:	Matthew Lindsey 907-224-3190 (office) (All Locations) 907-250-5935 (cell) David Simmerman 907-865-2325 (office) (All Locations) 907-315-6276 (cell) Russell Cooper 907-865-2309 (office) (Seward) 907-267-9167 (cell)
Products Transported:	Ultra-Low Sulfur Diesel, Diesel #1, Gasoline
Maximum Cargo Oil Transported:	9,240,000 gallons / 220,000 barrels
ADEC Response Planning Standard:	Southeast Alaska Region 819,000 gallons / 19,500 barrels Cook Inlet Region 1,386,000 gallons / 33,000 barrels
Authorized Person / Primary ODPCP Contact:	David Simmerman, Environmental Compliance Manager 907-865-2325 (office) 907-315-6276 (cell)

Distribution List

Petro 49, Inc.

Corporate Office
Petro 49, Inc.
2101 East 63rd Avenue
Anchorage, AK 99507

State of Alaska

Alaska Department of Environmental Conservation
Spill Prevention, Preparedness & Response Division
555 Cordova Street
Anchorage, AK 99501
dec.odpcp.submissions@alaska.gov

Alaska Department of Fish and Game
Habitat Division
333 Raspberry Road
Anchorage, AK 99518
dfg.hab.infoanc@alaska.gov

Alaska Department of Natural Resources
550 West 7th Avenue, Ste. 1600
Anchorage, AK 99501
dnr.sero.spill@alaska.gov

PRAC
Southeast Alaska Petroleum Response Organization
540 Water Street, Ste. 201
Ketchikan, AK 99901

Alaska Chadux Network
2347 Azurite Court
Anchorage, AK 99507

Promulgation Statement *18 AAC 75.448(d)*

The following information is being provided in accordance with 18 AAC 75.448(d):

Plan Holder Name:	Petro 49, Inc.
Covered Operation:	See Spot Charter Addendum
Plan Date:	September 2025
Plan Title:	Petro 49 Tank Vessel ODPCP

Management Approval and Manpower Authorization

This Oil Discharge Prevention and Contingency Plan (ODPCP) has been reviewed and approved by the management of Petro 49, Inc. This plan is approved for implementation as described herein. Manpower, equipment, and materials will be provided as required in accordance with this ODPCP.

David Simmerman 9-3-2025

David Simmerman
Environmental Compliance Manager
Petro 49, Inc.

Date

Plan Review Procedures *18 AAC 75.415(a)*

This Oil Discharge Prevention and Contingency Plan will be maintained and updated by Petro 49, Inc. (P49). The plan will be updated as needed and submitted to the State of Alaska and to the applicable resource agencies.

Updated materials will be transmitted to plan holders (see Distribution List section of this plan) by cover letter. The submission will contain a brief description of each amendment, the amended pages, and instruct the holder on making changes. Revisions will be recorded in the Record of Revisions section of this plan.

Routine Updates *18 AAC 75.415(b)*

Routine plan updates include revision to the list of names, addresses, or telephone numbers of the plan holder's spill command and response personnel; and a revision to a training procedure or course work requirement that does not reduce the amount or quality of training required by this plan. Routine updates to the plan will be submitted within ten working days after the date the proposed change occurs.

Plan Renewal Procedures *18 AAC 75.420* *18 AAC 75.460(d)*

Application for renewal must be submitted at least 180 days, or the number of days stated in the plan approval letter under 18 AAC 75.460(a), in advance of expiration of the plan to permit department review before the plan approval expired. Plans must be renewed every five years.

Notification of Non-readiness *18 AAC 75.475*

If a significant change occurs in, or is made to, any component of this plan that would diminish response capability, P49 will notify the department in writing within 24 hours.

PETRO 49, INC. ODPCP
LOG OF REVISIONS

PLAN REVIEW AND UPDATE PROCEDURES

The plan will be reviewed and updated annually for routine changes such as names and phone numbers or other changes that do not increase the capacity to spill nor reduce the response capability of the plan holder. Every revision will be logged on the form below. The revision number and date will be entered in the footer of each page changed. The remarks column is for comments or information to explain the revision. Revisions will be sent to every plan holder with a cover letter listing all revisions and instructions for removing and adding pages. If no changes are required, the fact the plan was reviewed will be logged.

If changes to the facility occur that necessitate a major amendment, such as changes to the type of oil stored, the response capabilities, or any change that significantly affects the plan, the changes must be approved by the department prior to implementation.

Plan approval expires every five years. The plan must be submitted to the Alaska Department of Environmental Conservation in sufficient time before its approval expires to allow the agency to review and re-approve the plan. Routine changes described above should be made before submitting the plan for renewal.

It is the responsibility of the plan holder to post the changes in the plan.

No.	Date	Section Number	Page	Remarks
1	Mar. 2019	All	All	Expand area of operation in Southeast Alaska to Skagway and new area of operation in Cook Inlet-Seward, AK. Addition of scenarios and administrative update throughout the ODPCP
	Dec. 2019			Major Amendment Approved
2	Jul. 2020	All	All	Plan Renewal
	Dec. 2020			RFAI Responses
	Mar. 2021			Plan Approval
0	Sep. 2025	All	All	Plan Renewal

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Section 1.0 Response Action Plan *18 AAC 75.449(a)*

This response action plan describes how the Petro 49 Inc. (P49) plans to meet its response planning standard requirements under state law. The plan addresses the requirements of the State of Alaska. The plan explains how the response equipment needed to recover the worst case discharge within the shortest time required is mobilized and deployed. See Section 5 of this plan for exact calculations and further discussion.

Integral parts of this plan are the Southeast Alaska Petroleum Response Organization (SEAPRO) Technical Manual and the Alaska Chadux Network (Chadux) Response Manual. See Section 3.11 of this plan for hyperlinks to the SEAPRO Technical Manual and the Chadux Response Manual. The SEAPRO Technical Manual and the Chadux Response Manual provide most of the information required for Sections 1 and 3 of the Alaska Oil Discharge Prevention and Contingency Plan (ODPCP). The SEAPRO Technical Manual and the Chadux Response Manual are adopted as part of this plan. Additional information specific to P49 operation is provided in this plan; however, all of the plans must be considered together.

P49 intends to transport fuel by spot charter tank vessel into State of Alaska waters. Vessel specific information will be submitted to the Alaska Department of Environmental Conservation (ADEC) during the amendment process.

Section 1.1 Emergency Action Checklist *18 AAC 75.449(a)(1) and (a)(2)*

Below is a short checklist of the immediate response and notification steps that the Vessel Master will follow in the event of an oil discharge. In addition, the Vessel Master for each tankship operating under this ODPCP must also follow their U.S. Coast Guard (USCG) Vessel Response Plan.

ASSESS SAFETY

- Check for fire hazards. (see Section 1.6.2).
- Shut off ignition sources.
- Implement and enforce safety precautions and policies; protect yourself and crew.
- Identify the character, exact source, amount, and extent of the release and other information needed for notification.
- If applicable, notify the Terminal Manager or senior staff on scene:
    - Skagway Bulk Plant Office 907-983-2259
    - Tim Cochran, Skagway Terminal Manager 907-612-0049
    - Seward Bulk Fuel Terminal Office 907-224-8040
    - Ken Moore, Seward Terminal Manager 907-615-9691

STOP THE FLOW

- Follow shutdown procedures.
- Stop pumps and close valves.
- Block drainage routes.

INITIATE CONTAINMENT

- Deploy containment boom for spills on water.
- Transfer product out of the damaged tank.
- Divert discharged oil to a collection area to stop oil from reaching water.
- Assess and implement prompt removal actions to contain and remove the oil.
- Deploy containment boom and response equipment.
- Divert discharged oil to a collection area.

REPORTING AND NOTIFICATIONS

- Notify Vessel Master.
- Notify onboard response personnel as needed.
- Report damage or injuries.
- Call for any assistance required.
- Report the size and nature of the spill.
- Contact regulating agencies as applicable.

The Incident Commander (IC) is responsible for making sure that needed notifications are made. The IC may either do it themself (or delegate this to other staff) or may ask the assistance of the Qualified Individual (QI) (see Table 1.2-1 Initial Notifications).

Section 1.2 Reporting and Notification *18 AAC 75.449(a)(2)*

Use the table below to make notifications and to log the calls. You must report any spill that threatens to enter the water, or is in the water, to the National Response Center (NRC) and ADEC. Figure 1.2-1 ADEC Spill Reporting Placard gives instructions about the requirements for reporting to ADEC. The Vessel Master or the Qualified Individual are responsible for notifying ADEC. See Table 1.2-3 for the Vessel Master's name and phone number. QIs are identified in Section 1.2.1.

Table 1.2-1 Spill Notifications

Agency/Affiliation	Contact	Time/Person Contacted
ADEC	1-800-478-9300 (toll-free) 1-90-269-0667 (International)	
NRC	800-424-8802 (24 hrs.)	
Environmental Protection Agency (EPA) Region 10[1]	907-271-5083 (business hrs.) 206-553-1263 (24 hrs.)	
Primary Response Action Contractors		
SEAPRO	907-225-7002 888-225-7676 (24 hrs.)	
Alaska Chadux Network	907-348-2365 (24 hrs.)	
Qualified Individuals		
All Locations Mathew Lindsey	907-250-5935 (primary) 907-224-3190 (alternate)	
Skagway David Simmerman	907-315-6276 (primary) 907-865-2325	
Seward Russel Cooper	907-267-9167 (primary) 907-865-2309 (alternate)	

[1]*NRC notifies EPA of spills.*

Table 1.2-2 Other Emergency Notifications

Name	Phone No.
Fire/Police	911
Skagway	
City of Skagway	907-983-2297
Skagway Harbor Master	907-983-2628
Health Clinic	907-983-2255
State Troopers (Juneau)	907-465-4000
Alaska Power & Telephone	907-983-2202
KHNS Radio	907-983-2850
Local weather, flight service, Juneau	907-586-7382
Public Works	907-983-2449
USCG Sector Western Alaska & U.S. Arctic	907-428-4100

Table 1.2-2 Other Emergency Notifications

Name	Phone No.
Seward	
Seward Harbormaster	907-224-3138
Local Emergency Planning Committee (LEPC) Kenai	907-262-4910
City of Seward	907- 224-3331
Seward Community Health Center	907-224-2273
USCG Marine Safety Detachment (MSD) Homer	907-235-3292
National Weather Service	907-266-5105
State Emergency Response Coordinator	907-428-7000
Alaska Division of Homeland Security/Emergency Management	907-428-7000
Alaska Regional Hospital	907-276-1131
South Peninsula Hospital	907-235-1801
Additional Emergency Contacts	
Kirk Leadbetter, Marsh USA (Insurance Broker)	907-276-5617 907-276-6292 (fax)
Republic Services	907-258-1558
Wildlife Response and Resources	
Alaska Department of Fish and Game (ADF&G) – Southcentral Alaska Region	907-267-2805 907-267-2342 (alternate)
ADF&G: Southeast Alaska Region	907-465-4105 907-465-6384 (alternate)
National Marine Fisheries Service (NMFS)	907-586-7630 (primary) 907-586-7285 (alternate)
US Fish & Wildlife Service (USFWS)	907-242-6893 907-786-6893 (alternate)

Table 1.2-3 Personnel and Response Team Emergency Contacts

Name	Number	Responsibility
Skagway		
Tim Cochran	907-983-2259 (Work) 907-612-0049 (Cell)	Initial Incident Commander, Plant Manager
Joseph Hosford	907-983-2259 (Work) 907-612-0680 (Cell)	Skiff Operator
Kenneth C. Mayo IV	907-983-2259 (Work) 907-612-0268 (Cell)	Communication/ Responder
Will Godbey	907-983-2259 (Work) 907-612-0309 (Cell)	Skimmer Operator
Brandon Lawrence	907-983-2259 (Work) 503-442-6916 (Cell)	Boom Deployment
On-call operator	612-0049	On-call Operator

Table 1.2-3 Personnel and Response Team Emergency Contacts

Name	Number	Responsibility
Seward		
Kenneth Moore	907-224-8040	Terminal Manager/ On Scene Commander(OSC) and Safety Officer
Bob Lechner	907-224-8040 (Work), 907-224-1681 (Cell)	Marine OPS Manager/ Alternate On Scene Commander (OSC) and Safety Officer
Dave Smith	907-224-8040	Skiff Operator, Boom Deployment
Jon Gerlach	907-831-6631	Skiff Operator, Boom Deployment
Ted DeWitt	907-224-8040 (Work) 907- 362-1673 (Cell)	Boom Deployment
Vladimir Stosic	907-224-8040	Boom Deployment
Lona Noyes	907-224-8040	Boom Deployment
North Backus	907-224-8040	Boom Deployment
24-hour Dispatch	907- 362-1674	

Table 1.2-4 State and Federal Agency Notifications

Area of Responsibility	Agency/Address	Contact(s)
General Oversight, Alaska Regional Response Team (ARRT)	U.S. Dept. of the Interior 1101 E. Tudor Road Anchorage, AK 99503	Regional Environmental Officer 907-786-3834
Migratory Birds[1], Bald & Golden Eagles, Marine Mammals (including sea otters, walruses, polar bears)[2], National Wildlife Refuges	U.S. Fish and Wildlife Service (USFWS) 1011 E. Tudor Road Anchorage, AK 99506	USFWS Regional Spill Response Coordinator 907-242-6893 (24 hour) Email: fwsakspillresponse@fws.gov
Marine Mammals (including whales, porpoises, seals and sea lions) [3]	National Marine Fisheries Services (NMFS) Federal Building, Room 453 222 W. 7th Avenue, #43 Anchorage, AK 99513-7577	Sadie Wright (Juneau) 907-586-7630 (work)
General Oversight[4], Migratory Birds Terrestrial Mammals, Fish Habitat Permit[5]	Alaska Dept. of Fish & Game (ADF&G) 333 Raspberry Road Anchorage, AK 99518	907-267-2805 (work) 907-267-2342 (alternate)
Temporary waste and oil storage sites, construction, transporting contaminated soils, & burning waste[6]	Alaska Dept. of Environmental Conservation (ADEC) 410 Willoughby Ave., Ste. 303 Juneau, AK. 99811	907-269-7510 (Anchorage) 1-800-478-9300 (24 hour)
State-owned lands and interests[7]	Alaska Dept. of Natural Resources (DNR) Div. of Mining, Land and Water Statewide Abatement of Impaired Land (SAIL) Section	907-465-3513 Email: dnr.sero.spill@alaska.gov
Historic, cultural, or archeology sites[8]	Alaska Department of Natural Resources Office of History and Archeology (DNR-OHA) 550 West 7th Ave. Suite 1310 Anchorage, AK 99501	907-269-8700
NOAA trajectory projections	National Oceanic Atmospheric Administration (NOAA) 49000 Army Guard Rd., Ste. G216 JBER, AK 99505	907-428-4143

[1-4] See table 1.2-7 for permits and authorizations.

[5.] Onshore activities involving a fish stream require ADF&G permitting. Title 16 fish habitat permit is required to boom the mouth of a fish stream or for other activities in a fish habitat.

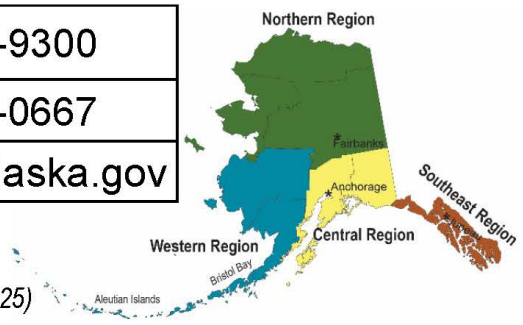
[6.] Approval is required for temporary waste & oil storage sites, transporting contaminated soils, and burning waste.

[7.] DNR requires a permit for activities that exceed the Generally Allowed Uses of State Land described in 11 AAC 96.20.

[8.] DNR-OHA requires a permit for work on historic archeological sites on State land. Contact the State Archaeologist. See Appendix B for Alaska Cultural Resources Permit Application.

Report Oil and Hazardous Substance Spills

TOLL-FREE	1-800-478-9300
INTERNATIONAL	1-907-269-0667
ONLINE	ReportSpills.alaska.gov



It's Required by Alaska Law!
(AS 46.03.755, AS 46.03.450, 18 AAC 75.300, 18 AAC 75.325)

Oil and Petroleum Product Reporting

Spills to Water

- Any amount spilled to water must be reported **immediately.**

Spills to Land

- Spills in **excess of 55 gallons** must be reported **immediately**.
- Spills in **excess of 10 gallons but less than 55 gallons** must be reported within 48 hours.
- Facilities shall maintain a spill log and report a record of oil discharges from **1 to 10 gallons** monthly.

Spills to Impermeable Secondary Containment

- Spills in **excess of 55 gallons** must be reported within 48 hours.

Hazardous Substance Reporting

Any hazardous substance spill, other than oil, must be reported **immediately.**

Underground Storage Tank (UST)* Reporting

You must report a suspected below ground release from a UST system, in any amount, within 24 hours. (18 AAC 78.212)

If a release is suspected the owner or operator of a UST shall investigate the UST site and shall report to the UST Unit within the period specified. (18 AAC 78.200)

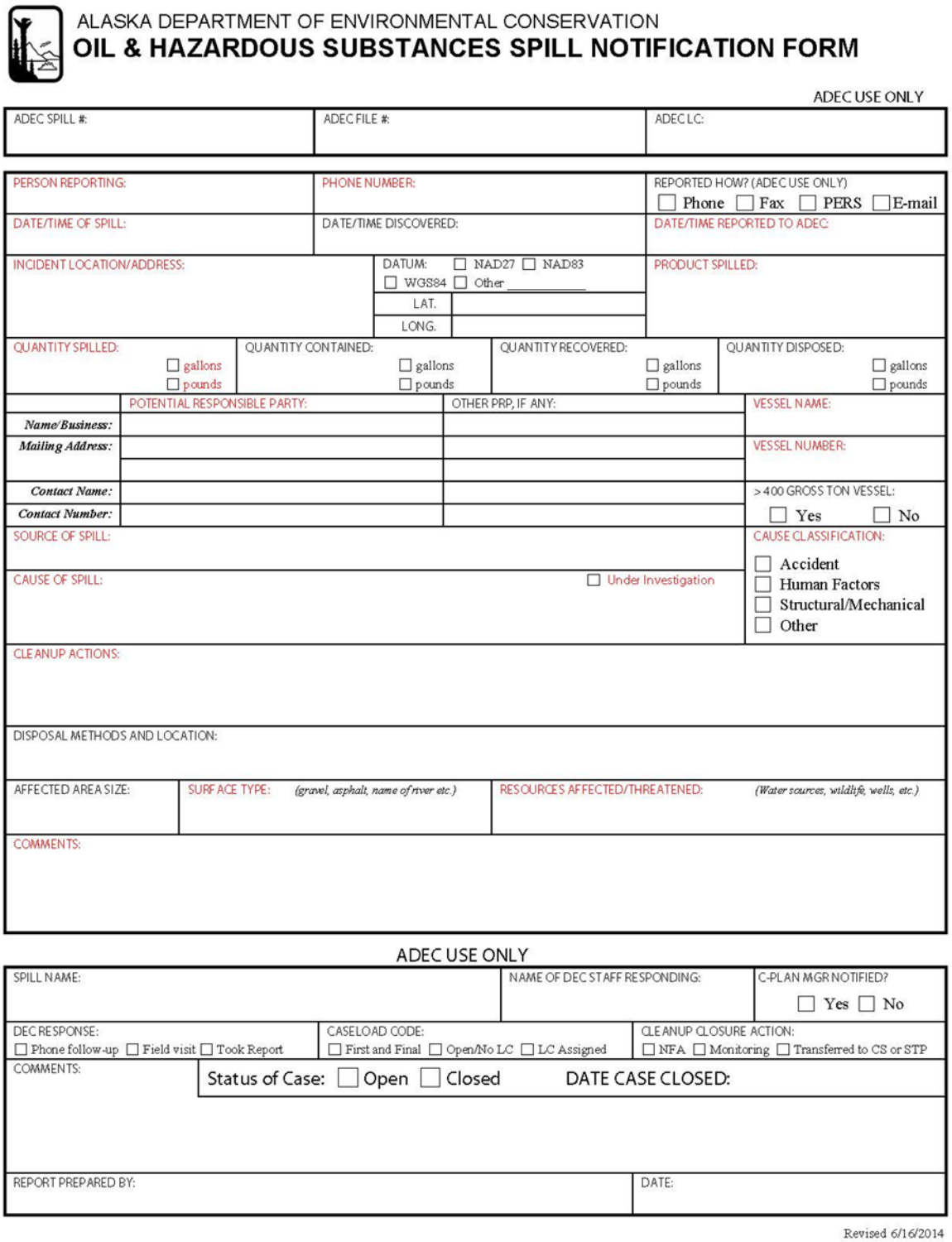
Alaska Department of Environmental Conservation
Division of Spill Prevention and Response
https://spills.alaska.gov

Contact us: (907) 465-5250
* Regulated UST as defined in AS 46.03.450(8)

Revised 10/10/2022

Figure 1.2-1 ADEC Spill Reporting Placard

DO NOT DELAY INITIAL NOTIFICATION TO THE NATIONAL RESPONSE CENTER PENDING THE COLLECTION OF ALL INFORMATION



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

ADEC USE ONLY

ADEC SPILL #:	ADEC FILE #:	ADEC LC:

PERSON REPORTING:	PHONE NUMBER:	REPORTED HOW? (ADEC USE ONLY) ☐ Phone ☐ Fax ☐ PERS ☐ E-mail
DATE/TIME OF SPILL:	DATE/TIME DISCOVERED:	DATE/TIME REPORTED TO ADEC:
INCIDENT LOCATION/ADDRESS:	DATUM: ☐ NAD27 ☐ NAD83 ☐ WGS84 ☐ Other _____ LAT. LONG.	PRODUCT SPILLED:
QUANTITY SPILLED: ☐ gallons ☐ pounds	QUANTITY CONTAINED: ☐ gallons ☐ pounds	QUANTITY RECOVERED: ☐ gallons ☐ pounds
QUANTITY DISPOSED: ☐ gallons ☐ pounds		

	POTENTIAL RESPONSIBLE PARTY:	OTHER PRP, IF ANY:	VESSEL NAME:
Name/Business:			
Mailing Address:			VESSEL NUMBER:
Contact Name:			>400 GROSS TON VESSEL: ☐ Yes ☐ No
Contact Number:			

SOURCE OF SPILL:	CAUSE CLASSIFICATION: ☐ Accident ☐ Human Factors ☐ Structural/Mechanical ☐ Other
CAUSE OF SPILL: ☐ Under Investigation	
CLEANUP ACTIONS:	
DISPOSAL METHODS AND LOCATION:	

AFFECTED AREA SIZE:	SURFACE TYPE: *(gravel, asphalt, name of river etc.)*	RESOURCES AFFECTED/THREATENED: *(Water sources, wildlife, wells, etc.)*
COMMENTS:		

ADEC USE ONLY

SPILL NAME:	NAME OF DEC STAFF RESPONDING:	C-PLAN MGR NOTIFIED? ☐ Yes ☐ No
DEC RESPONSE: ☐ Phone follow-up ☐ Field visit ☐ Took Report	CASELOAD CODE: ☐ First and Final ☐ Open/No LC ☐ LC Assigned	CLEANUP CLOSURE ACTION: ☐ NFA ☐ Monitoring ☐ Transferred to CS or STP
COMMENTS:	Status of Case: ☐ Open ☐ Closed	DATE CASE CLOSED:
REPORT PREPARED BY:		DATE:

Revised 6/16/2014

Figure 1.2-2 ADEC Oil and Hazardous Substances Spill Notification Form

All petroleum discharges will be reported as soon as possible to the Vessel Master who will become the Initial Incident Commander.

The Initial IC will initiate the response in accordance with the Emergency Action Checklist in Section 1.1. The IC will notify all required federal, state, and local agencies as detailed in Section 1.2. The NRC will be notified if a spill is to navigable water or adjoining shorelines or threatens to contaminate water. Immediate response actions will begin while the reporting is being carried out. The IC is responsible for keeping a log of events, communications, and instructions received from agencies concerning a discharge.

Section 1.2.1 Qualified Individuals *18AAC 75.449(a)(2)*

Duties and Authorities

QI and alternates meet the USCG requirements of 33 CFR 154.1026. The QI is responsible for the following:

- Make all agency notifications in accordance with the agency spill reporting requirements.
- Make other agency notifications as applicable.
- Complete and submit reporting documentation to applicable agencies.
- Activate PRAC, if necessary.

The CEO of P49 vests in the QI's authority to implement this plan as required in the citations above. The USCG requirements include authority to activate contracting resources, act as liaison with federal and state on-scene coordinators, and commit the funds necessary to conduct a response.

Table 1.2-5 P49 Qualified Individuals

Location	Name	Office	Cell Phone
All Locations	Matthew Lindsey	907-224-3190	907-250-5935
Skagway	David Simmerman	907-865-2325	907-315-6276
Seward	Russell Cooper	907-865-2309	907-267-9167

Section 1.2.2 Permits

Even if a permit were not required, it might be necessary to get the agency's permission for access. See Table 1.2-3 for state and federal contacts that would issue permits for activities related to oil spill cleanup. See Table 1.2-6 for permits required for wildlife response activities during oil spill cleanup activities. See the Alaska Spill Response Permits Tool page for more information on applicable permits (a link to this website is provided in Section 3.11 of this plan).

If federal lands were affected, a land use permit would be required for access. Authorizations required for hazing, capture, or holding injured animals are tabulated on the next page.

Excluding those lands conveyed or withdrawn, the State of Alaska DNR manages most tidelands and submerged lands from the line of mean high tide and seaward to a line three nautical miles distant from the mean low tideline. In addition, DNR manages most shorelands below ordinary high water, and over 100 million acres of uplands spread throughout the state. Spills impacting DNR land call for notification, consultation, and coordination with DNR. Certain response activities on state land may require permitting from DNR. Such activities include those that go beyond uses that are Generally Allowed, e.g., anchoring a response vessel in the same location for more than 14 days or using heavy equipment on state land. To inquire about whether a spill is impacting state land or if response strategies require permitting, please contact DNR.

Under AS 30.30.010, the abandonment of a vessel on waters or lands of the state without the consent of the state agency having jurisdiction is prohibited. Should the vessel sink or ground on state land, the vessel must be removed as soon as it is safe to do so. For questions about vessel removal requirements contact DNR.

Table 1.2-6 State and Federal Permits for Wildlife Response Activities

Activity	Migratory birds	Sea otters, walruses, and polar bears	Whales, porpoises, dolphins, seals, and sea lions	Terrestrial mammals, furbearers, and non-migratory birds	Fish, shellfish, and invertebrates	Bald or golden eagles	Threatened or endangered species[1]
Carcass Collection	USFWS Migratory Bird Salvage Permit & OLE Authorization[2]	USFWS Permit & OLE Authorization[2]	NMFS MMHSRP Permit[3]	ADF&G Wildlife Response Permit	ADF&G Wildlife Response Permit	USFWS Permit & OLE Authorization[2]	NMFS/USFWS ESA section 7 consultation[4] & USFWS OLE Authorization[2]
Haze/Deter	ADF&G Wildlife Response Permit	USFWS MMPA Authorization	NMFS MMHSRP Permit[3]	ADF&G Wildlife Response Permit	N/A	USFWS Eagle Depredation Permit	NMFS/USFWS ESA section 7 consulation[4]
Capture, Transport, Stabilize, or Rehabilitate	USFWS Migratory Bird Rehab Permit	USFWS MMPA section 112(c) LOA	NMFS MMHSRP Permit[3]	ADF&G Wildlife Response Permit	N/A	USFWS Eagle Depredation Permit	NMFS/USFWS ESA section 7 consulation[4]

Acronyms: ADF&G = Alaska Department of Fish and Game; EPA = U.S. Environmental Protection Agency; ESA = Endangered Species; LOA = Letter of Authorization; MMPA = Marine Mammal Protection Act; MMHSRP = Marine Mammal Health and Stranding Response Program (NMFS); NMFS = National Marine Fisheries Service; OLE = Office of Law Enforcement (USFWS); USCG = U.S. Coast Guard; USFWS = U.S. Fish and Wildlife Service

Note: See Initial Emergency Contacts in the WPG for a list of agency personnel to contact for appropriate authorizations and permits.

Source: Table 4-1 in the Wildlife Protection Guidelines for Oil Spill Response in Alaska (ADEC 2024d)

[1] An ADF&G permit is required to deter, collect, or hold any species on the state endangered species list that is not on the federal endangered species list.
[2] For species managed by USFWS (i.e., migratory birds, eagles, sea otters, walruses, and polar bears).
[3] Request verbal case-by-case authorization from the NMFS Regional Stranding Program Coordinator or associated co-investigator.
[4] ESA section 7 consultation between federal action agencies (i.e., USCG or EPA) and consulting agencies (USFWS and NMFS).

Section 1.3 Safety *18 AAC 75.449(a)(3)*

The Safety Officer is responsible for preparing a site safety plan based on the assessment of the guidelines discussed below in the initial site safety form located in Appendix C of this plan.

The Safety Officer is responsible for monitoring safety during a spill response and developing measures for protecting the safety of personnel. The Safety Officer will correct unsafe activities or conditions through the regular line of authority, although the Safety Officer has the authority to stop or prevent unsafe acts when immediate action is required.

The individuals identified as Safety Officers for each location of operation are provided below:

Location	Name	Phone Number(s)
Skagway	Tim Cochran, Plant Manager	907-983-2259 (Office) 907-612-0049 (Cell)
Seward	Kenneth Moore, Terminal Manger	907-224-8040 (Office) 907-615-9691 (Cell)
Seward	Bob Lechner (Alt.), Marine Ops. Manager	907-224-8040 (Office) 907-362-1681 (Cell)

Air Monitoring

If the Safety Officer is concerned about the air quality, before allowing people to enter the spill site and begin the response, the air will be checked by the vessel personnel, the responding spill response contractor, or the local fire department. A lower explosive limit (LEL) meter will be used to detect whether an explosive danger exists and whether there is sufficient oxygen present for people to enter safely. Benzene is not an issue with a diesel spill. If there is a large gasoline spill, the area will be quarantined, and no response will be undertaken until all safety issues are addressed. These include explosive levels, oxygen, and all aromatics such as benzene, toluene, and total hydrocarbons.

Specific duties of the Safety Officer include:

1. Check in at the Incident Command Post and receive briefing from IC.
2. Organize work area.
3. Brief and assign duties to subordinates.
4. Identify hazardous and unsafe situations associated with the spill response.
5. Participate in the planning meetings to identify any health and safety concerns inherent in the Incident Action Plan (IAP).
6. Prepare the safety message for the IAP.
7. Exercise emergency authority to stop or prevent unsafe acts.

Investigate accidents that occur within the spill response area of activities. In developing a site-specific safety plan using the following model, all government safety standards will be followed.

They include:

- 29 CFR Part 1910, Occupational Safety & Health Standards
- 29 CFR Part 1904, Record Keeping and Reporting Occupational Illnesses
- 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response
- 29 CFR Part 1910.132-37 Subpart 1, Personal Protective Equipment
- 29 CFR Part 1910.38, Employee Emergency Action Plans and Fire Prevention Plan
- 29 CFR Part 1910.1200, Hazard Communication Standards

State of Alaska Department of Occupational Safety & Health standards (8 AAC 61):

a) Subchapter 1, General Safety Code
b) Subchapter 4, Occupational Health & Environmental Control Code
c) Subchapter 5, Construction Code
d) Subchapter 8, Petroleum Code
e) Subchapter 10, Hazardous Waste Operations and Emergency Response
f) Subchapter 15, Hazard Communication Code

Section 1.4 Communications *18 AAC 75.449(a)(4)*

The communication management plan will be formed under the ICS using the SEAPRO Technical Manual or the Chadux Response Manual. The communication unit leader will supervise the communication unit and develop plans for using the communication resources to meet the incident requirements.

When SEAPRO or Chadux is mobilized, the Communication Unit Leader will coordinate the communication plan with SEAPRO's or Chadux's Communication Coordinator. The Communication Unit Leader will determine the requirement for expanded telephones, fax machines, cell phones, and radios.

A radio communication plan will assign equipment and frequencies for the field units. The Communication Unit Leader will assign equipment and frequencies. If more communication equipment is required, the Communication Unit Leader will order what is needed.

Section 1.4.1 Operational Communications

Each office has three phone lines: mainline for incoming/outgoing calls, a fax line that can be used for calls, and a line for the credit card machine, which could be converted to a phone line.

During large spill response operations, when many crews are involved and the response contractor is mobilized, the communication system employed by SEAPRO or Chadux will be adopted. This system follows the Incident Command System (ICS) guidelines. Radio frequencies and communication equipment will be assigned by the Communication Unit Leader operating within the Service Branch of the Logistics Section.

For small spills, adequate communication requires two or more portable VHF radios. The big spill scenario involving a command center, etc. will require setting up SEAPRO or Chadux's expanded communication network. See Section 1 of the SEAPRO Technical Manual or Section 4.1 of the Chadux Response Manual for more information on the communication plan. This Communication Unit Leader will oversee the communication center with its telephones (both fixed and mobile) radiotelephone, (VHF, UHF, Marine VHF, and Ground to Air), modems, facsimile machines, and satellite communications. The Communication Unit Leader would modify the communication plan to meet the specific needs of the spill response.

Field communications is achieved with a combination of devices, including mobile and portable handheld radios. It will include a repeater if one is needed to extend area coverage.

Marine operations will use Marine VHF for communication. SEAPRO and Chadux have marine VHF radios that can be assigned to vessels if needed.

Table 1.4-1 VHF Frequencies

Type	Description
Alaska State Emergency Frequency	Alaska State Emergency Frequency (for emergency use only): 155.295.
Marine Single Sideband Contact (Alaska waters)	The primary frequency for all Marine Single Sideband contact within Alaska waters is: 4125.00 MHz.
USCG Response Network – Single Sideband	The USCG Response Network uses Single Sideband: 4125 and 2182 MHz.
USCG Response Network – Marine VHF	The USCG Response Network uses the standard Marine VHF frequencies: 16, 21A, 22A, 23A, 83A.
Marine Band Channel 83A	Marine Band Channel 83A operates at 157.175 MHz and is the primary means of radio communication between the Sector/Group, field teams, and contractor teams in pollution cases.
Marine Band Channel 22A	Marine Band Channel 22A operates at 157.100 MHz and is the primary USCG-public liaison channel. Urgent marine broadcasts are announced on 16 and are broadcast on 22A. 22A is used to receive some pollution reports from the public. During a pollution case, 22A may be used by USCG Group to inform mariners of hazardous conditions or navigable waterway restrictions.
Marine Band Channel 16	Marine Band Channel 16 operates at 156.800 MHz and is the international hailing and distress frequency. The Sector is called on 16 by mariners reporting pollution. In a pollution case, 16 may be used by USCG Group to alert mariners to urgent Captain of the Port information broadcast on 22A. Only in the most extreme cases would Sector broadcast pollution response information directly on 16. FCC regulations prohibit the use of Channel 16 by land mobile stations and non-SAR land-fixed stations.
Marine Band Channels 21A and 23A	Marine Band Channels 21A and 23A operate at 157.050 MHz and 157.150 MHz respectively and MAY NOT BE USED unless specific permission has been granted by USCG.

Aircraft are equipped with air-to-ground VHF radios and usually monitor channel 16. The SEAPRO plan calls for using local Unicom for air operations.

Chadux does not possess communications equipment specifically designated for ground-to-air communication. However, some aircraft are equipped with VHF marine band radios, which may be used at the tactical or operational level (Chadux 2021).

Marine operations will use Marine VHF for communication. Most boats are equipped with Marine VHF radios, and they monitor channel 16. Each PRAC has marine VHF radios that can be assigned to vessels if needed.

ALASCOM marine radio service is available for ship-to-ship and ship-to-shore communication. This service uses either Marine VHF or single sideband radios connected to the telephone system.

Station	Call Sign	Channel	Telephone No.
Lena Point	WRN 40	25	907-434-2628

Provided below, please find the communications equipment lists for both the P49 Skagway facility and the Shoreside Petroleum Inc. (SPI) Seward facility.

Table 1.4-2 Communication Equipment

Description	Qty	Frequency (MHz) / VHF Channel	Location
Skagway			
VHF, portable intrinsically safe (marine)	3	10, 12, 13, 16, 22A, 68, 2 WX, 159.480, 155.595, 155.295	Skagway P49 Office
Telephone	1	—	Skagway P49 Office
Fax Machine	1	—	Skagway P49 Office
VHF, portable intrinsically safe (marine)	1	10, 12, 13, 16, 22A, 68, 2 WX, 159.480, 155.595, 155.295	Skagway Pickup Truck
Seward			
Com Dispatch base station	1	–	SPI Office
Motorola VHF handheld radios	2	–	SPI Office
Standard Horizon Intrinsically safe handheld VHF	3	–	SPI Office
Office telephones (224-8040)	8	–	SPI Office
iCom handheld radios	2	–	SPI Office
Fax Machine (224-8047)	1	–	SPI Office
Motorola truck radios	9	–	SPI trucks
Motorola VHF radio	1	–	MV Responder
Standard Horizon VHF radio	1	–	MV Responder

Section 1.5 Deployment Strategies *18 AAC 75.449(a)(5)*

The discharge planning volumes are provided in Section 5.0 of this plan.

The deployment strategy identifies the specific deployment activities required to respond to the worst case discharges. Below is a table that summarizes how equipment and personnel could be mobilized to deploy enough resources to contain and control the worst case spill in less than 72 hours. The scenario provided in Section 1.6.12 meets the planning standards for the State of Alaska.

Section 1.5.1 Transport of Resources *18 AAC 75.449(a)(5)(A)*

Tank vessels or the nearest ports may be accessed by air, road, or waterway. Extreme weather conditions or an earthquake might close the nearest airport. In the event of such weather, reinforcements from other locations across Southcentral and Southeast Alaska could be delayed and should be transported by vessel instead. Spill response resource locations are listed in Section 3.6 of this plan.

In addition to the following tables, vessel transportation time is estimated through company knowledge or the U.S. Coast Pilot 9 for the Pacific and Arctic Coasts, Alaska, Cape Spencer to Beaufort Sea (NOAA 2024a and NOAA 2024b).

Table 1.5-1 Resources Mobilization

Equipment & Personnel	From	To	Transport Method	Load (Hrs)	Travel (Hrs)	Deploy (Hrs)	Total (Hrs)
SEAPRO Equipment	Gustavus (Zone 6)	Response Site	Aircraft	2	1.2	1	4.2
SEAPRO Equipment & Response Team Personnel	Juneau (Zone 7)	Response Site	Aircraft	2	0.7	0.2	2.9
SEAPRO Equipment & Response Team Personnel	Haines (Zone 8)	Response Site	Vessel	2	3.0–4.1	0.5	5.5–6.6
SEAPRO Equipment	Ketchikan (Zone 1)	Response Site	Aircraft	2	4	0.5	4.5
SEAPRO Equipment & Response Team Personnel	Skagway	Response Site	Vehicle	0	1	1	2

Table 1.5-1 Resources Mobilization

Equipment & Personnel	From	To	Transport Method	Load (Hrs)	Travel (Hrs)	Deploy (Hrs)	Total (Hrs)
P49 Personnel	Skagway	Response Site	Vehicle	0	0.5	0	0.5
P49 Equipment	Skagway	Response Site	Vehicle	0	1	1	2
Petro Mariner Barge & Assoc. Tug (28,000 bbl.)	SE Alaska (avg 175 nm)	Response Site	Barge/Tug	0	27	2	29
SPI-Owned Equipment	Seward	Response Site	Vehicle	0	0.25	0.75	1
SPI Personnel	Seward	Response Site	Vehicle	0	0.5	0	0.5
SPI-Owned Equipment	Anchorage or Kenai	Response Site	Vehicle	2	3	2	6
Chadux-Owned Equipment	Seward	Response Site	Vehicle	0.5	1	1	2.5
Chadux-Equipment & Personnel	Anchorage	Response Site	Vehicle Aircraft	2 2	1 3	1 2	4 6
Petro Barge & Assoc Tug (55,000 bbl.) Avg range is 175 nm from Seward	Cook Inlet/ Kodiak	Response Site		0	27	2	29

Sources: (SEAPRO 2022) and (Chadux 2021)

Section 1.5.2 Primary Response Action Contractor Mobilization

18 AAC 75.449(a)(5)(B)

If necessary, the QI will request assistance from the Primary Response Action Contractor (PRAC) under the terms of the contract included in Section 3.7 of this plan. Below is a description of the interim actions to be performed until the PRAC initiates a full response to a discharge. To initiate mobilization of the PRAC, call SEAPRO or Chadux.

Response Contractor:	SEAPRO
Address:	540 Water Street, Suite 201 Ketchikan, Alaska 99901
Phone:	907-247-1117

Response Contractor:	Alaska Chadux Network
Address:	2347 Azurite Court Anchorage, Alaska 99507
Phone:	907-348-3365

When an ADEC Response Planning Standard (RPS) discharge occurs, the Vessel Master notifies the P49 Plant Manager, who acts as the Initial IC and calls the QI. The Initial IC briefs the QI on the situation. The QI reports the damages and injuries and lists the resources and assistance needed to respond. The QI obtains all the information needed to mobilize the requested assistance and the appropriate Spill Management Team. The QI will assist with notification if requested to do so by the IC.

The QI calls SEAPRO or Chadux to request the specific assistance and resources needed. To provide a written record, a resource order is signed by the QI for everything requested. The resource order is emailed or faxed to SEAPRO or Chadux for confirmation of the order, and a copy is faxed to the IC for documentation of what was ordered and when it is expected to arrive at the staging site.

Upon arrival of SEAPRO or Chadux personnel, they will immediately be briefed on the spill and assigned to applicable task forces. Additionally, SEAPRO or Chadux equipment will be staged and deployed where it is needed without interruption of any ongoing response actions.

Details of how the equipment will be transported to the spill site are in the SEAPRO Technical Manual or Chadux Response Manual. SEAPRO or Chadux will mobilize its own resources in accordance with their manual which is by reference a part of this plan (SEAPRO 2022) and (Chadux 2021).

Sector 1.6 Response Scenario *18 AAC 75.449(a)(6)*

All products carried as cargo onboard tank vessels covered by this ODPCP under spot charter are non-crude, refined petroleum products.

The primary response strategy for spills from a vessel is to contain the product with response equipment carried onboard the vessel. Boom can be used to contain and collect the product into concentrations so that skimmers can effectively recover product. Products carried all use the same equipment and techniques for response and clean up, with the exception of gasoline products.

Response strategies for oil spills are described in this section. This section is organized in two parts:

Presentation of General Strategies and Guidelines: Assists in the decision-making process by spill response personnel. These strategies are applicable to many different types of incidents. It is important to note that the actual procedures that will be followed will depend on the spill characteristics, weather, and other environmental conditions. These strategies are to be used as guidelines only.

Response Scenarios: Present the possible sequence of events and tactics that might occur in the event of a hypothetical oil spill. The worst case discharge scenario is intended to demonstrate compliance with the ADEC Response Planning Standards. See Section 5.0 of this plan for the response planning standard calculations.

Section 1.6.1 Procedures to Stop the Discharge *18 AAC 75.449(a)(6)(C)*

To stop a discharge from a damaged vessel, the procedures will vary from ship to ship. A vessel specific listing of the procedures to stop a discharge will be submitted with the Spot Charter Addendum.

The following are general descriptions of how to "stop the flow" of discharges from tankships. All of these procedures may be executed immediately when a discharge is detected to minimize the amount of discharge entering the water.

- Notify the Vessel Master.
- Ensure the safety of the vessel crew and turn off any ignition sources.
- Cease all transfer operations—pumps, valves, hose, scuppers, and other equipment.
- Identify the source of the spill by measuring the oil level in tanks and visual observations.
- Crew will put on appropriate personal protective equipment (PPE).
- If it is safe to do so, use damage control equipment, plugs, patches, and reroute flow.
- Initial assessment of spill volume, oil movement, weather, environmentally sensitive areas at risk.
- Transfer oil from damaged tank or damaged piping to another serviceable tank using piping or hoses.

- If product has escaped the vessel, deploy containment boom around the vessel to prevent the oil from spreading.

The vessel crew shall take all possible actions to prevent, stop or minimize the discharge of oil resulting from shipboard operational activities associated with internal or external cargo transfers. In the event of a spill, the Vessel Master shall evaluate the particular circumstances associated with the spill and determine appropriate actions for stopping or minimizing the discharge.

Dropping the cargo into the pump room bilges or into tanks that would result in cargo contamination should be used only as a last resort.

Condition	Mitigation Procedures
Tank system leak	• If on-deck pipeline leaks, drain affected sections into an available tank. • Contain oil on deck and use a pump to move the oil from the deck to an available tank. • Make temporary repairs, if possible.
Tank overflow	• The transfer operations should be stopped immediately upon discovery of the tank overfill. • One method to immediately lower the cargo level in an over-filled tank is to drop the cargo to an empty or slack tank. • Contain oil on deck and use a pump to move the oil from the deck to an available tank.
Suspected cargo tank, fuel tank, or hull leak	• Allow water to enter the tank through the hole, counter flooding the tank; the oil will float. • Transfer cargo out of damaged tank. Care must be taken not to exceed hull stress limits.
Moving the vessel	• Move vessel into a safe anchorage and control spread of oil. • Move the vessel to a safe harbor if possible, and beach if there is the possibility of the vessel sinking. After the vessel has been safely beached a bladder can be deployed for additional fuel storage or the bow or stern rake/void could be used for fuel storage. • Any decision to move the stricken vessel shall be made with the concurrence of the Vessel Master, DW IMT, and the UC unless the USCG directs the vessel to take a specific action.
Hose or line failure during fuel transfer	• Stop the flow from the vessel. • Shut down pumps on the vessel and ensure valves on the tank(s) are closed. • There are two methods to shut down the pump on the vessel: normal shut down and the emergency shutdown • Closing the tanks and shutting down the barge pumps stops the flow of product.

Section 1.6.2 Fire Prevention and Control *18 AAC 75.449(a)(6)(D)*

To stop a discharge from a damaged vessel, the procedures will vary from ship to ship. A vessel specific listing of the procedures to stop a discharge will be submitted with the Spot Charter Addendum.

The personnel safety section of this plan deals generally with fires and safety procedures. In general, fire response procedures are:

1. Sound general alarm.
2. Isolate and terminate source of fire (for example, stop fuel transfer).
3. Eliminate all ignition sources.
4. Designated person should:
    a. Notify local fire department via 911
    b. Evacuate personnel from the area of the vessel and account for personnel
    c. Alert vessels in the area if necessary
5. If fire is too large to be extinguished in 15 seconds with the vessel's extinguishing equipment, evacuate the area on the vessel completely and stand off at a safe distance, maintaining control of the vessel if possible.
6. No one may enter a hot zone without authorization.
7. Use non-sparking tools when working in a hot zone.
8. Use intrinsically safe radio equipment in the hot zone.

Related general safety procedures, such as testing areas with explosion meters when there is a potential fire or explosion threat and establishing an exclusion and safety zone at an incident, are also relevant to all facilities and explained in Section 1.3.

If there were a product discharge, particularly if it is a volatile product like gasoline or aviation fuel, electricity would be shut off and ignition sources prevented. This status would remain until it was verified that wind had dissipated any fire hazard in the vicinity of the spill. If appropriate, occupants of downwind structures, and/or marine traffic would also be immediately notified to control any ignition sources.

Section 1.6.3 Surveillance and Tracking *18 AAC 75.449(a)(6)(E)*

Tracking of the discharge will begin immediately. This will allow forecasting of where the discharge will go and which shores and areas may be impacted. During the forecasting, clean-up crews and shoreline protection methods can be determined and put into place. It is important to label and retain plots in sequence, together with the available meteorological and oceanographic data, to permit appropriate review and study.

During the initial actions taken after a discharge, tide and wind information will be gathered and used to determine the direction the discharge will travel. During hours of darkness, this may be the only way to estimate the direction of travel. During daylight hours, the use of marine vessels and aircraft will be the most effective. To order aircraft for aerial surveillance call:

Through the contract with SEAPRO, a waterproof drone may be used for aerial surveillance. This is the preferred method for aerial tracking because it is safer and logistically simple to transport to a spill site.

TEMSCO helicopters will provide aerial tracking capabilities through an MOU with SEAPRO. TEMSCO has ensured they have the following aircraft available at the following locations to

meet the oil tracking requirements of 33 CFR § 154.1045(j). Contact information is also provided below.

Description	Asset Type	Quantity	Location
Helicopter	MD 500	8	SE Alaska
Helicopter	AS 350	18	SE Alaska
Helicopter	AS 350 B2	1	SE Alaska

Source: (SEAPRO 2022)

Business Name	Location	Number
Temsco Helicopters	Juneau	789-9501

At the direction of the Unified Command, the USCG will request trajectory projections from the National Oceanic Atmospheric Administration (NOAA). See Table 1.2-4 for NOAA contact information.

See (STAR) Manual Section B-II-2 Discharge Tracking on Water for more information.

Diesel moves downstream with a current at the same speed that the surface waters are moving. Wind will influence the movement of a slick by pushing it or opposing it, depending on current direction, at about three percent of the wind speed. There will be some tendency for the slick to spread laterally as it moves down current due to the tidal, viscous, and surface tension forces at work. As a result, the discharge will assume a “teardrop” shape so that the moving front of the slick will become increasingly wide downstream from the origin of the discharge.

Section 1.6.4 Protection of Environmentally Sensitive Areas

18 AAC 75.449(a)(6)(F)

Tankships are navigating the routes included in Section 1.8 of this plan. Maps depicting sensitive areas and wildlife along the Cook Inlet and Southeast regions, and further discussion of environmentally sensitive areas, are in Section 3.9 of this plan. This includes discussion of sensitive environments and public resources in the region. The Arctic and Western Alaska Area Contingency Plan (ACP) and the Southeast Alaska ACP establishes and ranks sensitive areas and provides information on Geographic Response Strategies (GRSs) in the region. See Section 3.9.3 of this plan for discussion on anadromous streams in the region. Exclusion and deflection booming tactics will be deployed at any threatened environmentally sensitive areas.

See STAR Manual Sections B-III-12 and B-III-13 for full descriptions of exclusion and deflection booming tactics.

Fisheries, Processors, and Hatcheries

The majority of fisheries and processors are active in the Cook Inlet and Southeast region areas during the summer season only. Their operating times throughout the year can vary. Should one or more of the operating fisheries or processors be threatened in the event of an

oil spill, the Vessel Master or designee will notify them so they can turn off their water intake. See Table 1.2-2 for contact information for local fish processors.

Section 1.6.5 Containment and Control Strategies *18 AAC 75.449(a)(6)(G)*

The strategy is to contain the discharge first and to control what oil escapes containment to prevent it from impacting the shore. The most sensitive shorelines will have the highest priority for protection. The least sensitive shorelines may be used for collection and recovery of the oil that escapes initial containment.

On Water

Oil is contained on the water with containment boom. The boom is deployed around the oil. Sorbent boom should be placed inside the curtain boom to improve the effectiveness of the containment. If the slick escapes to open water before it can be contained, different techniques must be used. Boom must be deployed ahead of the slick in an attempt to capture it. An oil slick tends to spread out as it moves and to form a tear drop shape. It will move with the current at the same speed and with the wind at about 3% of the wind speed. STAR Manual Section B-III-2 has further information on the containment boom tactic.

To capture a slick on open water, two vessels are required. One vessel controls each end of the boom which is deployed in front of the slick. The slick can then be captured by pulling the boom up to the slick and closing around it. The slick can then be held in place while a third vessel, with a skimmer or absorbents, recovers the oil; or it can be towed elsewhere for recovery. When sweeping or moving a slick in this manner, boom velocity should be less than one knot, or the slick is liable to escape. Refer to STAR Manual Section B-III-6.

If the slick is not contained before reaching shore, it must be stopped from contaminating critical shores and then trapped against shores where impact would be minimal and cleanup easiest. Exclusion booming techniques are used for protection of critical shores. Where there is a long-shore current, exclusion booming is used. Refer to STAR Manual Sections B-III-12 and B-III-13 for further information on the diversion boom and exclusion boom tactics.

Nearshore

Spills on the water can occur from the dock or vessel during a transfer operation. If no dangerously volatile fuels are handled, the best action is to contain the slick as quickly as possible in the vicinity of the shore or dock. The general procedure is to use a floating containment boom to encircle the slick. Specific deployment methods depend on the situation. Generally, the containment boom can be attached to a pile at the dock or anchored onshore. The deployment skiff then tows the boom so as to encircle the slick. The second end is then tied to a dock pile or again anchored onshore. Refer to STAR Manual Section B-III-5 for further information.

Section 1.6.6 Recovery Strategies *18 AAC 75.449(a)(6)(H)*

Shorelines

Spills that are not contained on the open water will contaminate the shoreline. The cleanup methods employed will depend on the type of shoreline affected. See Section 1.6.11 Shoreline Cleanup Teams, for detail on shoreline cleanup.

Open Water

To recover oil from water, it must first be contained. If the oil on the water is thick, weir skimmers can be used effectively to recover it. When the oil is in a thin film, it is better to use oleophilic skimmers. The skimmer will be placed in the containment area with the greatest concentration and thickness. Skimming operations will become inefficient when most of the spill has been removed. Sorbent materials will then be used to pick up the remaining oil.

Spills that have not spread over a large area or that have been driven into streamers by the wind and waves may be recovered using booms and skimmers. Small slicks may be successfully skimmed using two booms, 100 to 150 feet each, to concentrate the oil, with a skimmer boat to remove the oil. Streamers or "wind rows" which are the long parallel rows of oil created by wave action can be skimmed using this configuration beginning downwind and moving upwind along the streamer. The relative skimming velocity will not exceed one knot for these cases.

Sorbent materials will be used for small volume spills in calm seas and to pick up small quantities of oil that are difficult to remove with mechanical equipment, such as skimmers and vacuum devices. Sorbent materials can present a recovery problem if they are placed in an area where tidal action, currents or winds cause them to float away. A tether line can be attached to the sorbent materials to aide recovery.

To increase the efficiency of sorbent materials, they will be moved and turned frequently, and caution will be exercised in removing them from the oil-contaminated area so that oil does not drip on to clean surfaces.

Section 1.6.7 Damaged Tank Transfer and Storage *18 AAC 75.449(a)(6)(I)*

In the event of a damaged storage tank and fuel that needs to be removed from the tank, pumps will be used to transfer the fuel to alternate storage. Transfer to alternate storage will be accomplished with available piping or portable pumps and hoses. If a marine vessel is to be used as alternate storage, the transfer will be accomplished with the use of a pipe or hose. Variations to these procedures may be used if circumstances necessitate.

When available, a tank barge will be brought alongside the stricken tanker and made fast to the beam per industry standards and procedures. A safety and transfer briefing will be held between the barge tankermen and the ship’s transferring personnel, to include emergency shut down and departure plans. All appropriate and required paperwork will be exchanged. Communication plans will be discussed and communications established. Transfer hoses and equipment will be deployed, and transfer of fuel will be conducted per tanker and lightering

barge standard procedures. When the lightering barge is full, the transfer will stop, and all hoses and equipment will be recovered per standard operating procedures. The barge will depart, making room for additional lightering barges if necessary. The process will repeat as necessary until all cargo required by regulatory authorities is removed. The lightering barges will take the lightered product to the appropriate facility and offload to storage tanks ashore.

Section 1.6.8 Transfer and Storage of Recovered Oil *18 AAC 75.449(a)(6)(J)*

The STAR manual marine-based tactics for storage and transfer of recovered liquid (STAR Manual Section B-III-17) are used. The primary storage for recovered liquid is barges and bladders. Full bladders will be rotated with empty ones to minimize interruption of recovery operations.

Estimating the amount of recovered oil can be done by gauging the bladders, barges, and tanks with a hand gauge, or by using visual estimation. The Operations Section Lead is responsible for collecting this data and notifying the Unified Command.

Correct handling of oil and oily debris is imperative to prevent recontamination and to protect unaffected areas.

Anticipated recovered oil/oily water transfer and storage strategies that would be utilized are outlined on the ICS 201s and scenario and task resource matrices later in this section.

Decanting *18 AAC 75.449(a)(6)(L)*

Decanting is a method used to remove water from recovered liquid. Decanting is an option which may be used whenever temporary storage capacity is insufficient to hold all the recovered liquid. Application must be made to ADEC for a permit to operate a decanting system. Appendix B of this plan contains a decanting permit application. No decanting is allowed without an approved permit from the State of Alaska. See Section 3.11 Bibliography of this plan for a link to State of Alaska information on decanting.

Before decanting, the liquid must be allowed to sit for some time (generally 30 minutes) to permit settlement and separation of the oil and water (Ross 1999). Note that a longer settling time must be allowed because of dynamic forces (wave action) exerted on a barge. Water is then removed from the bottom of the storage container. The water may be drained if the storage container has a bottom drain. Otherwise, the water may be pumped from the bottom of the container through a suction hose inserted through the oil into the water at the bottom of the container. The discharged water should be returned to the recovery area so any oil accidentally discharged will be recovered (Ross 1999).

To determine the amount of water versus oil in a temporary storage container use a method called "sticking the tank." This means sounding the container with a stick or rod with "Kolor Kut" paste (or another similar product) on it. Kolor Kut paste will change color when it comes in contact with water, thereby indicating the level of water in the container. Standard operating procedure is to leave some water in the container to avoid losing any recovered oil. Leaving 20 percent of the water in the container will conservatively prevent oil from being discharged during decanting.

Barge Storage of Recovered Oil

A contracted barge is estimated to arrive at the spill site in Cook Inlet and Southeast regions within 48 hours and would be available for additional temporary storage and oil collection upon arrival in addition to accepting lightered fuel from the damaged tank. Personnel will follow the procedures listed in the barge manuals for internal movement of recovered product. Utilizing the cascading capabilities of the barge tanks, operators will consolidate petroleum product and oily water into separate tanks. If decanting from the barge is desired, an application must be submitted to the Unified Command for decanting consideration. Note that a longer settling time must be allowed for due to dynamic forces (wave action) exerted on a barge.

Section 1.6.9 Temporary Storage and Ultimate Disposal *18 AAC 75.449(a)(6)(K)*

General Discussion

Two types of waste may be generated during a spill response, contaminated solid waste and liquid waste, which is usually a mixture of oil and water. Each tankship operating under this ODPCP will have some temporary storage available onboard. This includes ullages of other tanks and ballast and slop tanks, which can be used immediately without jeopardizing the overall stability of the vessel. PRAC resources such as floating bladders and portable tanks can also be brought to the site and utilized, if needed.

All waste should be quantified and characterized. P49 will contract a waste management contractor to test, classify, and quantify waste. Each container will be labeled to indicate its contents and will be given an identification number for tracking. If approved by the ADEC, recovered liquid will be decanted to reduce the volume of recovered liquid. Any remaining contaminated water or off-spec fuel will be shipped to an approved disposal facility.

Oily debris will be double bagged and placed in dumpsters or shipped to an approved storage site. Contents will be classified and recorded. If any oily liquids have been identified that require off-site disposal, they will be manifested and transported by permitted carrier to the designated disposal site. Should the need arise for disposal off site, the following facilities have been identified for waste disposal. The approved disposal plan will designate the facility for disposal.

Company	Location	Phone
Capital Disposal	Juneau, AK	907-780-7801
Republic Services	Anchorage, AK	907-258-1558
Alaska Soil Recycling	Anchorage, AK	907-349-3333
Stericycle Environmental	Anchorage, AK	907-272-9007

STAR Manual, B-III-16, B-III-17, and B-III-18 describe procedures for marine based storage and transfer, land-based storage and transfer, and pumping oily liquids, respectively. STAR Manual, A-III-7 additionally provides a waste management checklist.

Section 1.6.10 Wildlife Protection *18 AAC 75.449(a)(6)(M)*

The Vessel Master is responsible for understanding wildlife response tasks and the qualifications necessary to perform the tasks. SEAPRO and Chadux have contracted wildlife response capabilities. The contracted experts can assess the impact on wildlife, obtain permits necessary, and engage in wildlife hazing or rescue and rehabilitation. They have contracts with wildlife responders recognized in Alaska and are authorized to implement primary, secondary, and tertiary response. See Section 3.11 of this plan for a link to the SEAPRO Technical Manual and the Chadux Response Manual for more information on the specific capabilities of each PRAC.

A summary of response tasks concerning wildlife:

Level of Response	Activity
Primary	Keep oil from reaching wildlife or habitat. Prevention of secondary contamination through scavenging of dead and oiled wildlife.
Secondary	Haze wildlife away from contaminated habitat.
Tertiary	Capture and treat contaminated wildlife.

Chadux has contracted wildlife response capability. The contracted experts can assess the impact on wildlife, obtain permits necessary, and engage in wildlife hazing or rescue and rehabilitation. Refer to the Chadux Technical Manual for wildlife response strategies.

Chadux has a contract with International Bird Rescue (IBR). The IBR provides the experts with the training necessary to rescue and rehabilitate birds and some small terrestrial furbearers, not including sea otters. The wildlife expert shall assess the spill in terms of potential impact on wildlife, as well as obtain permits necessary to engage in wildlife hazing or rescue and rehabilitation.

Responders will report whether sea otters, or other marine mammals, are in the area of the spill and, if so, will observe the animals to determine if they were impacted. Chadux also has a contract with the Alaska SeaLife Center in Seward, Alaska. The Alaska SeaLife Center is a National Marine Fisheries Service (NMFS) approved wildlife responder. They have the capability to treat and rehabilitate oiled marine mammals. The Alaska SeaLife Center has the training necessary and the capability to treat and rehabilitate oiled marine mammals. See the Wildlife Protection and Response section in the Chadux Response Manual for detailed information (see Section 3.11 of this plan for a link to the manual).

The Alaska SeaLife Center is capable, and has the authorization for, working with live or dead individuals of other cetacean species, but the size of the individual may limit the scope of the response. Limitations would vary depending upon the exact size of the individual, the weather conditions, the exact location and accessibility of the individual, the individual's level of activity, the number of people available to assist, the availability of heavy equipment to assist with moving the individual, the availability of appropriate sources of water in which to care for them (i.e. pools, natural lagoons, net pens), and other factors. Additionally, the Alaska SeaLife Center is authorized by NOAA to work with any live or dead individual otariid, phocid, or cetacean not routinely present in the area (C. Arnold [Chief Operating Officer of Alaska SeaLife Center], personal communication, February 25, 2022).

SEAPRO has contracts with the International Bird Rescue (IBR) and International Wildlife Research (IWR). IBR provides wildlife experts with the training necessary to rescue and rehabilitate birds and some small terrestrial furbearers, not including sea otters. IWR is permitted by the USFWS for the response and treatment of sea otters. IWR is capable of responding to marine mammals under NMFS jurisdiction but may only do so with explicit permission from NMFS (R. Davis [President of IWR], personnel communication, June 15, 2025). The wildlife expert shall assess the spill in terms of potential impact on wildlife and obtain permits necessary to engage in wildlife hazing or rescue and rehabilitation.

Responders will report whether sea otters or other marine mammals are in the area of the spill and, if so, will observe the animals to determine if they are impacted. For handling species that are outside of SEAPRO's contracted ability, SEAPRO has an understanding with IBR that IBR will be responsible for contracting an NMFS-approved wildlife responder.

A specialist from NOAA NMFS will provide oversight and permitting/authorizations for carcass collection, deterrence, and capture of marine mammals under their jurisdiction (NMFS 2017). A specialist from USFWS will provide oversight for any actions that are taken with regards to sea otters, migratory birds, and eagles. ADF&G has permitting responsibility for migratory bird hazing and terrestrial mammal response strategies. NOAAs Pinniped and Cetacean Oil Spill Response Guidelines and the Arctic Marine Mammal Disaster Response Guidelines provide guidance on dealing with marine mammals during a spill response (Ziccardi, et. al. 2015 and NMFS 2017).

Federal and state laws and regulations limit the activities of P49 personnel with respect to handling of all fish and wildlife. Under these laws and regulations, it is illegal for anyone to take or handle marine wildlife except personnel from the responsible government entities or individuals authorized to take or handle marine wildlife by the proper authorities. Carcass disposal will not occur without coordination with wildlife agencies.

Plans for protection, recovery, disposal, rehabilitation, and release of wildlife affected by an oil spill are described in and will follow the guidance provided the *Wildlife Protection Guidelines for Oil Spill Response in Alaska* (ARRT 2020). Wildlife Response Plans are addressed in Sections 3650 and 9740.3.8 of the *Wildlife Protection Guidelines for Oil Spill Response in Alaska* (see Section 3.11 of this plan for a link to the Area Plan References and Tools website). Contracted wildlife experts would be responsible for preparing Wildlife Response Plans and submitting them for agency approval.

Dead, oiled wildlife must be collected and disposed of to prevent secondary contamination of other wildlife. Dead wildlife may only be collected if applicable permits and authorizations have been obtained from the appropriate wildlife agency. The dead wildlife will then be submitted to the appropriate wildlife agency representatives. Disposition of carcasses will be done under their direction. A data sheet for collected dead oiled wildlife can be found in the *Wildlife Protection Guidelines for Oil Spill Response in Alaska* (see Section 3.11 of this plan for a link to the Area References and Tools website).

For wildlife permit contacts, refer to Table 1.2-4 State and Federal Agency Notifications. Authorizations required for hazing, capture, carcass collection, or holding injured animals are tabulated in Table 1.2-6 State and Federal Permits for Wildlife Response Activities.

Section 1.6.11 Shoreline Cleanup Teams *18 AAC 75.449(a)(6)(N)*

The techniques and equipment used for shoreline cleanup will be determined by the Shoreline Cleanup Assessment Technique (SCAT) team. The SCAT team is composed of the NOAA representative in Alaska, State, federal and local government representatives.

Shoreline will be identified by type, sensitivity, and the degree of impact. This information will be obtained from the SCAT team through field inspections that will be conducted at the spill site. The SCAT team will recommend shoreline cleanup strategies and methods. The Unified Command will approve the method to be used in accordance with proper agency approval.

Shoreline cleanup must be coordinated with affected landowners. Permits may be required to enter and to operate on private land.

Only non-invasive manual cleanup techniques and bio-remediation are proposed due to evidence indicating that invasive cleanup operations do more harm than good. Such things as the removal and erosion of beach gravel not only disturb resident life but can hinder recovery.

The primary shoreline cleanup methods SEAPRO and Chadux will use are manual collection. Sorbent boom and sorbent sweeps are good for low impact beach cleaning, and sorbent pads may be used to clean rocky shoreline. Water washing may be used with the sweeps if the Unified Command agrees to its use. The tools required for manual shoreline cleanup are available at the facilities. They include:

- rakes,
- shovels (pointed and flat),
- sorbent booms,
- sorbent sweeps,
- survey stakes,
- barrier tapes,
- pitch forks, and
- plastic bags with wire ties.

A description of shoreline types in the region is provided in Table 3.9-3 Shoreline Type Predicted Oil Behavior.

Section 1.6.12 Spill Scenarios *18 AAC 75.449(a)(6)(A) and (B)*

The spill response scenarios found in this section of the plan were developed in accordance with ADEC regulations, 18 AAC 75.449 and are used to demonstrate the manner in which response actions may unfold during an incident. Two scenarios are presented:

- Scenario 1 – Southeast Alaska Region, Skagway ADEC RPS
- Scenario 2 – Cook Inlet Region, Seward Area ADEC RPS

The response strategy is the plan of action that is the framework P49 follows when responding to an oil spill. This determines the focus of the efforts which are then translated into action through the step-by-step tactics employed.

The strategy for responding to a spill is to stop it, to contain it, and to recover it. Since part of the purpose of containing the spilled product is to prevent it from damaging the environment, P49 has defined the following strategies to govern response to oil spills.

- Stop the source of the spill as soon as possible.
- Contain the spilled product.
- Protect threatened sensitive environments and wildlife.
- Recover product and clean up contaminated areas.

The situation may not always allow the response to step sequentially through these strategies. Although the Incident Commander will be guided by this strategy, logic and judgment will always be relied upon to determine when exceptions are necessary.

For example, usually the product spilled would be diesel fuel, but it is possible that responders face a gasoline spill. In this case, containment would not be correct. Dispersion or evacuation would be safer because of the possibility of explosion and fire.

In case of a diesel spill that was not quickly contained and was threatening wildlife or a sensitive environment, the priority of the response might shift to protecting the threatened environment or wildlife instead of containment.

The Incident Commander is expected to use judgment and to modify the plan to meet the circumstances.

The scenarios provided in this section are not written to be followed in a real spill response. They illustrate hypothetical responses to spills by describing how response resources might be used to respond to imaginary spills. They are not prescriptive. In the case of a real spill, the Unified Command would consult with the agencies having jurisdiction to decide what resources should be protected and what methods should be used.

Section 1.6.12.1 Southeast Alaska Region, Skagway ADEC RPS Scenario
18 AAC 75.449(a)(6)(A)

Scenario Summary:

On September 24 at 0900, an inbound tank vessel strikes a submerged object in the waters of Lynn Canal near the P49 Skagway Facility, Alaska. The vessel was preparing to dock and offload cargo at the port at the time of the incident. The impact results in grounding, damaging the hull, and causing the release of 19,500 barrels of #2 diesel into the surrounding waters. Diesel enters the water at the following rate:

Hour 1-4 = 1,350 bbl/hr = 5,400 barrels
Hour 5-12 = 910 bbl/hr = 6,370 barrels
Hour 13-24 = 600 bbl/hr = 6,600 barrels
Hour 25-36 = 113 bbl/hr = 1,130 barrels

At the time of the accident, the tide is flooding, the wind is from the southwest at two knots, and the seas range from choppy to calm with wave heights of one to two feet. The sky is overcast, visibility is approximately four miles, and the air temperature is 46°F.

Scenario Assumptions

- SEAPRO barges and oil spill vessels (OSV) have deck lighting for nighttime operations allowing for continued on-water recovery into darkness hours.
- All vessels/aircraft requisitioned or chartered come with an experienced and qualified operator, who is not counted in the responder personnel calculations.
- SEAPRO responders arrive in waves to accommodate crew rotations and shift work. Once on site, they assume positions as needed and as directed by the Incident Management Team (IMT).
- The full version of the STAR Manual was used for reference to applicable spill response tactics throughout the scenario.
- NOAA's WebGNOME spill modeling software was used to determine the spill trajectory as depicted the ICS 204 form for Task Force-6 Aerial Surveillance.
- Ninety percent of the towable bladders and mini-barge capacity is available. Once at capacity, towable bladders or mini barges will be offloaded to the primary storage device(s) or barge to allow for the settling and separation of oil and water and decanting.
- The scenario described below is conjectural and depends on assumptions that may not always apply to a real spill. During an actual spill, a major spill response will be conducted under the direction of the Unified Command, who will respond to the real situation, following the principles set forth and using the resources described in this plan.
- Due to the extensive geographical area covered by vessel operations, it is not practicable to identify and list all environmentally sensitive areas and sites of concern

across the entire operating region. The spill scenario provided represents a localized example within this larger area. During an actual spill response, site-specific response tactics shall be assessed and implemented based on the area, trajectory of the spill, and resources at risk as identified on the ICS 232.

ICS 201 Skagway RPS Scenario

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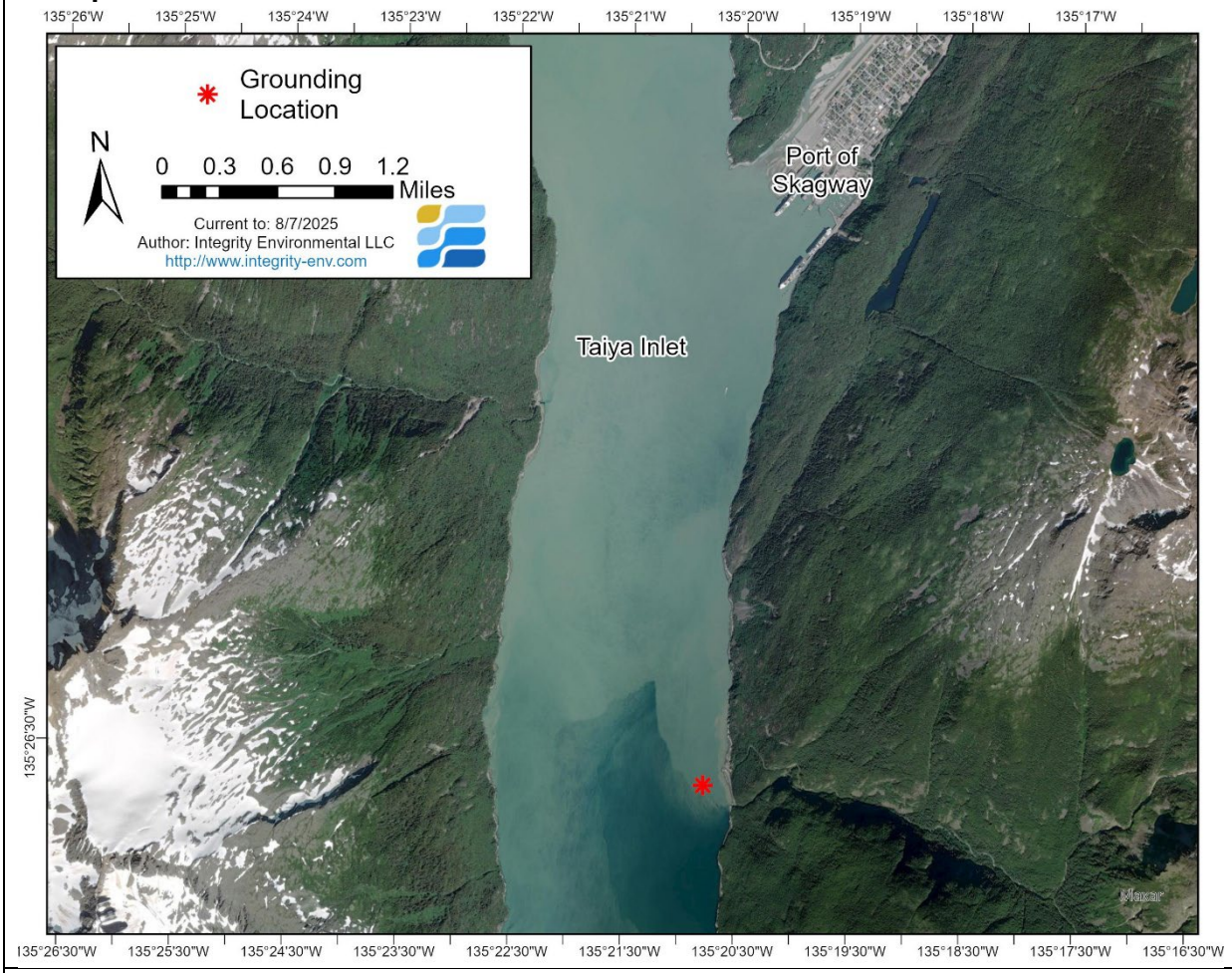
3. Map/Sketch



4. Incident Timeline

DAY 1 0900-1000: Vessel Master sounds the vessel alarm and secures the TV in safe position at anchor; take all measures to prevent escalation of incident. Secure all valves on TV, sound and inventory cargo tanks, fuel spaces, ballast tanks, and other spaces to find if TV is taking water or leaking cargo. Assessment is conducted to determine the extent of damage to compartments. Crew evaluate options for source control and initial mitigation measures.

Vessel Master notifies QI of incident and requests the mobilization of transfer pumps, hoses, etc. to facilitate lightering needs. QI notifies the Salvage and Marine Fire Fighting (SMFF) Contractor to mobilize emergency lightering equipment and salvage resources. Establish liaison with USCG Marine Safety Center and SMFF Contractor. QI makes regulatory agency, local and PRAC notification. Mobilization of PRAC's response resources (SEE ICS 213rr for ETA of resource, personnel and assignments).

Vessel Master ensures that the crew is taking steps to identify damage and stop the flow of oil, ensures safety/proper PPE is in place, briefs crew, and activates vessel crew to prepare deployment of onboard response equipment. Crew sounds, inventory cargo tanks, fuel space and void space. Assess the extent of damage to TV. Holes found above and below the water

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line. Water enters the damaged tank. Estimate discharge rate as variable (See Initial Conditions).

Possible ignition sources or open lights in the spill area are identified and eliminated. Notification to Skagway Harbor Master and Fire Department. TV firefighting equipment mobilized and placed on standby as a precaution. TV crew reports no firefighting necessary.

Initial visual assessment is maintained by vessel crew and reported to QI.

Day 1 1000-1200: P49 Safety Officer prepares initial Site Safety Plan for on-scene personnel. No smoking rule is strictly enforced near the vessel and spill area. Fire extinguishers are readied and standing nearby spill recovery operations. Engineer verifies no ignition source. On-scene crew formed into Task Forces 1 (TF-1) for source control and lightering operations.

SEAPRO and P49 resources mobilized to form TF-2 Open Water Containment and Recovery at the vessel with the goal of preventing the spread of oil (SEE TF-2 204). TF-2 arrives on-scene with boom at 1100. TF-6 (Aerial Tracking) formed with USCG, SEAPRO and state representative. Initial aerial overflight conducted at 1200 and directs TF-2 for effective boom deployment to contain spilled oil at vessel. Boom deployed around grounded vessel at 1230 (Containment). TF-2 awaits arrival of Haines equipment (SEE TF-2 204) skimmer and bladders; maintains containment boom. Recovery equipment ETA 1400.

Overflight team observes oil outside of containment boom drifting up Lynn Canal towards Skagway, pushed by the wind and tides. SEAPRO readies Juneau responders and equipment to form TF-3 On-water containment and recovery (SEE TF-3 204) and TF-4B Nearshore containment and recovery. TF-3 and TF-4B departs SEAPRO Juneau facility and dock at 1100 with an on-scene ETA of 1900.

SEAPRO readies Gustavus responders and equipment to form TF-4A Nearshore containment and recovery (SEE TF-4 204). TF-4 departs Gustavus at 1100 with an on-scene ETA of 1900.

ICP established at P49 office. Incoming agency and IMT personnel directed to report to the Command Post for assignments.

Day 1 1300–2000: TF-2 Haines resources arrive on scene at 1400. Skimmer placed in primary containment boom at vessel and begins recovery operation at 1500. Additional 2,000-ft of open water containment boom (ORB7) deployed around vessel (Secondary containment). TF-2 crew continues skimming operations and observes oil still discharging at vessel. TF-1 crew confer with marine architect, SMFF provider regarding stability of vessel and options to conduct internal transfer oil to uncompromised tanks.

TF-6 continues overflight during daylight hours tracking oil movement in Lynn Canal. TF-3 arrives at 1900 and begins skimming operation at 1930. Remains operational for 2-hours. When on-water storage devices reach 90% capacity, they're towed to Ore dock for offloading by TF-9 Waste management. When bladders are emptied, they're returned into service.

TF-4A & B arrive Skagway and report to ICP for briefing and prepare for deployment at 0500 on Day 2.

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TF-5 Sensitive area protection resources identified and ordered. Environmental Unit develops ICS232 for protection of priority sites. Exclusion and diversion boom deployed to protect sites identified by TF-6 for potential impact. While on-water (nearshore and open water) are mobilizing to spill location. SEAPRO Haines boom readied for deployment at Skagway River and Dewey Creek.

Waste management plan developed for UC review and approval.

LAP developed for next operational period. TF-7 Shoreline Assessment and TF-8 Wildlife Assessment established for field deployment on Day 2 at 0800.

Night operations: TF-3 to Skagway at 2130 to offload recovered liquids and prepare for deployment at 0500. TF-9 establishes accounting for recovered oily liquids from on-water recovery operations. TF-2 maintains primary containment boom and skimming (end 0:00–D1) at grounded vessel.

DAY 2: TF2, 3, 4A & B continue on-water containment and recovery operations from 0500–1930, as directed by TF-6. Recovery devices rotated to Ore dock facility for offload by TF-9. TF-5 maintains diversion and exclusion boom at sensitive areas.

TF-1, SMFF Provider with equipment arrive Skagway and develop salvage/lightering plan for UC review and approval. Tug with Petro Mariner tug/barge arrives at 1300. SMFF readies lightering equipment (pumps/hose) to begin transfer of remaining product in compromised tanks.

TF-7 develops Shoreline Assessment plan. TF-8 conducts on-water wildlife assessment. IAP developed for next operational period.

At 2100 (+36 hours), the Vessel Master notifies P49 IOSC that the release has stopped.

Day 3: TF2, 3, and 4A&B continue on-water containment and recovery operations from 0500-1930, as directed by TF-6.

Recovery devices rotated to Ore dock for offload by TF-9. TF-5 maintains diversion and exclusion boom at sensitive areas. TF-1, SMFF Provider implements salvage plan. TF-7 implements Shoreline Assessment plan approved by UC. TF-8 conducts on-water wildlife assessment. IAP developed for next operational period. The skimmers used in TF-2 & 3 are demobilized.

Day 4: TF 4A & B continue on-water containment and recovery operations from 0500-1030, as directed by TF-6. Recovery devices rotated to Ore Dock for offload by TF-9. TF-5 maintains diversion and exclusion boom at sensitive areas. TF-1, SMFF Provider implements tow plan to bring the tank vessel into the dock at Skagway. TF-7 implements Shoreline Assessment plan approved by UC. TF-8 conducts on-water wildlife assessment. All oil recovered. IAP developed for next operational period.

Day 5: Shoreline and wildlife assessment continues. Decontamination of demobilized equipment conducted. TF-9 continues waste management and accounting of recovered liquids. UC conducts overflight and inspection of shorelines. UC meeting with community leaders and public.

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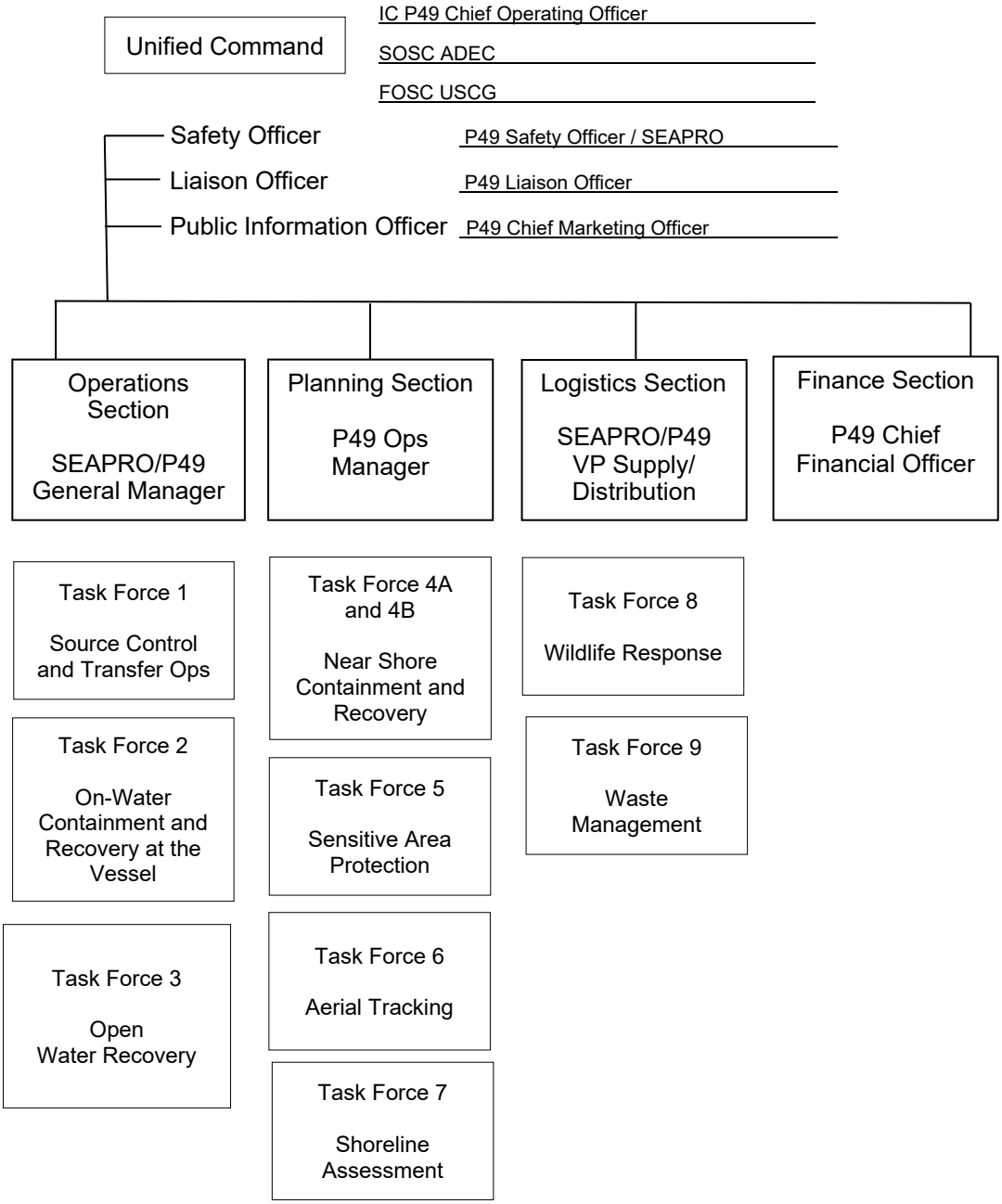
5. Initial Response Objectives, Current Actions, Planned Actions Set by Initial IC

Ensure safety of responders and public
Contain, control and recover spilled oil
Complete all required notifications
Mobilized resources
Protection of ESAs and economic areas

6. Current Organization (fill in additional appropriate organization)



ICS 201 Skagway RPS Scenario

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7. Resources Summary (using ICS 213rr)

Resource	Resource Identifier	Time Ordered	ETA	On-Scene (X)	Notes (Location/ assignment/status)
Sorbent boom, 30 sacks	P49	1000	1100	X	Warehouse
Sorbent pads, 100 per bale (53 bales)	P49	1000	1100	X	Warehouse
Sorbent material, 12 rolls	P49	1000	1100	X	Warehouse
Sorbent sweeps, 24 sacks	P49	1000	1100	X	Warehouse
Tank truck, 66 bbl. Each (2)	P49	1000	1100	X	Warehouse
Tanker Trailers 196 bbl. Each (12)	P49	1000	1230		North 60, Whitehorse
Petro Mariner, or similar, (28,571 bbl.) (1)	P49	1000	9/25 @ 1300		Varies
BPA Contracted tug/barge (55,000 bbl) (1)	SE AK	1000	9/26 @ 0700		TF-1
Lightering Pumps w/hose (2)	TV SMFF Provider	1000	9/25 @ 0900		TF-1
SMFF Provider Personnel (6)	TV SMFF Provider	1000	9/25 @ 0900		TF-1
19-ft Workboat (1)	SEAPRO BPA	1000	1300		Skagway/TF-2
18’aluminum skiff w/90HP outboard (1)	P49	1000	1200	X	Fuel Float/TF-2
1,000 ft. containment boom	P49	1000	1200	X	W. Beach Marina/TF-2
500’ containment boom	P49	1000	1100	X	Warehouse/TF-2
Class 3 vessel (1)	SEAPRO	1000	1600		Haines/TF-2
ORB 7 249 bbl. response barge (1)	SEAPRO	1000	1600		Haines/TF2
2,000’-Open water boom with ORB7	SEAPRO	1000	1600		Haines/TF-2
LORI HK 3-3.5 EDRC: 3,715 bbl./day w ORB 7 (1)	SEAPRO	1000	1600		Haines/TF-2
ORB 8 249 bbl. response barge (1)	SEAPRO	1000	1600		Haines/TF2
ORB 9 249 bbl. Response barge (1)	SEAPRO	1000	1900		Juneau/TF-3
LORI HK 3-3.5 EDRC: 3,715 bbl./day w ORB 9 (1)	SEAPRO	1000	1900		Juneau/TF-3

1. Incident Name Skagway RPS Scenario	**2. Prepared By:** P49 **Date:** 09/24 **Time:** 1000	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary (using ICS 213rr)

Resource	Resource Identifier	Time Ordered	ETA	On-Scene (X)	Notes (Location/ assignment/status)
Canflex “Sea Slug” FCB 60 Bladder (157 bbl. capacity) (1)	SEAPRO	1000	1900		Juneau/TF-3
Canflex “Sea Slug” FCB 43E Bladder (102 bbl. capacity) (1)	SEAPRO	1000	1900		Juneau/TF-3
Open water boom with ORB 8 (2,000’)	SEAPRO	1000	1600		Haines/TF-3
Class 3 Vessel (2)	SEAPRO BPA	1000	1900		Juneau/TF-3
ORB 1 249 bbl. Response barge (1)	SEAPRO	1000	1900		Gustavus/TF-4A
19-ft Work boat with ORB 1 (1)	SEAPRO	1000	1900		Gustavus/TF-4A
Open water boom with ORB 1 (2,000’)	SEAPRO	1000	1900		Haines
LORI HK 3-3.5 EDRC: 3,715 bbl./day w ORB 9 (1)	SEAPRO	1000	1900		Gustavus/TF-4A
Canflex “Sea Slug” FCB 60 Bladder (157 bbl. capacity) (1)	SEAPRO	1000	1900		Ketchikan/TF-4A (air)
Canflex “Sea Slug” FCB 43E Bladder (102 bbl. capacity) (1)	SEAPRO	1000	1900		Ketchikan/TF-4A (air)
Class 3 Vessel (1)	SEAPRO BPA	1000	1900		Gustavus/TF-4A
OSRV Neka Bay	Neka Bay	1000	1900		Juneau/TF-4B
LORI HK 2-2.5 EDRC 516 bbl./day each (1)	SEAPRO	1000	1900		Juneau/TF-4B
Unitor 100m3 bladders (629 bbl.) (2)	SEAPRO	1000	1900		Ketchikan/TF-4B
Protected water boom, 8x12” (1,000’)	SEAPRO	1000	1300	X	Skagway/TF-5
Protected water boom, 8x12” (2,000’)	SEAPRO	1000	1400		Haines/TF-5
Protected water boom, 20’ (3,700’)	SEAPRO	1000	1900		Juneau/TF-5
Tidal seal boom (490’)	SEAPRO	1000	1900		Juneau/TF-5
Sorbent boom (2,000’)	SEAPRO	1000	1900		Ketchikan, Juneau/TF-5
Truck (1)	SEAPRO	1000	1300		Skagway/TF-5
Class 6 vessels (2)	SEAPRO BPA	1000	1300		Skagway/TF-5
Contracted Aircraft w/pilot	P49 (Contract)	1000	1200		Skagway/TF-6
Workboat (BPA)	SEAPRO	1000	9/25 @ 0900		Haines or Skagway/TF-7 and TF-8

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7. Resources Summary (using ICS 213rr)

Resource	**Resource Identifier**	**Time Ordered**	**ETA**	**On-Scene (X)**	**Notes (Location/ assignment/status)**
IBR Personnel (2)	SEAPRO Contract	1000	9/25 @ 0800		Anchorage/TF-8
IWR Personnel (3)	SEAPRO Contract	1000	9/25 @ 0800		Anchorage/TF-8
Wildlife Hazing Kit (1)	SEAPRO	1000	9/25 @ 0800		Skagway/TF-8
Wildlife recovery unit	SEAPRO	1000	9/25 @ 0800		Juneau/TF-8
Transfer pump 2”x2” (160 gpm) and 250-ft hose (1)	P49	1000	1400	X	Skagway/TF-9
2-Unitor bladders (6,290 bbl. ea.)	SEAPRO	1000	1700		Ketchikan/TF-9 (air)
SEAPRO Personnel (36)	SEAPRO	1000	Varies		Skagway, Haines, Juneau, Gustavus, Ketchikan
P49 Personnel (8)	P49	0900	Varies		Skagway, Anchorage

BPA- Blanket Purchase Agreement
ORB- Oil Spill Response Barge
OSRV- Oil Spill Response Vessel
TV- Tank Vessel
SMFF- Salvage and Marine Fire Fighting
TF- Task Force
IBR- International Bird Rescue
IWR- International Wildlife Research

ICS 204 Task Force 1 Source Control and Lightering

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

3. Task Force 1	4. Source Control and Lightering

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
T/V Personnel	5	Contract TV	Grounding Location	On-Scene	☒
Petro Mariner or similar Tug/Barge (28,571 bbl.)	1	P49/ SEAPRO	Grounding Location	To store oil lightered from damaged tanks (ETA D2@1300)	☒
BPA Contracted tug/barge (55,000 bbl.)	1	Contract	Grounding Location	To store oil lightered from damaged tanks (ETA D3 @ 0700)	☒
Lightering Pump w/ hoses	2	SMFF Provider	Grounding Location	To transfer oil in undamaged tanks to BPA Chartered Barge	☒
SMFF Provider responders	6	SMFF Provider	Grounding Location	Implement stability and lightering activities	☒

7. Assignments

TV crew to isolate damaged tanks, activate SMFF Provider to mobilize personnel and equipment to grounding location. SMFF Provider will assess vessel stability via Marine architect, develop stability and lightering plan for implementation once Petro Mariner or BPA-chartered tug/barge arrives.

Secure tug/barge alongside tank vessel. Oil is pumped from vessel or lighter oil using barge.

STAR Manual Section B-III-16, Marine-Based Storage & Transfer of Oily Liquids and Section B-III-2, Containment Boom.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
T/V Personnel (5)	Channel 10	N/A
SMFF Responders (6)	Channel 10	N/A
	Total Responders:	11

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief) Date:
Planning Section	

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 2 On-Water Containment and Recovery at the Vessel

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 07/29 To: End	ICS 204-OS

3. Task Force 2	4. On-Water Containment and Recovery at the Vessel

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SEAPRO Responders	6	SEAPRO	Skagway	Perform containment and recovery ops	☒
19' Work skiff	1	SEAPRO/ BPA	Skagway	Deploy containment boom and maintain boom placement for recovery ops.	☒
18' Work skiff	1	P49	Skagway	Deploy containment boom and maintain boom placement for recovery ops.	☒
P49 Containment Boom	1,500-ft	P49	Skagway	Contain spilled oil at the vessel (Primary)	☒
BPA Class 3 Vessel (Haines)	1	SEAPRO/ BPA	Grounding Location	Skimming and recovery platform.	☒
249-bbl Oil Response Barge (ORB) 7 (Haines)	1	SEAPRO/ Haines	Grounding Location	Storage of recovered liquid.	☒
Open water boom (2000") with ORB 7	2,000-ft	SEAPRO/ Haines	Grounding Location	Contain spilled oil at the vessel (Secondary)	☒
Lori Brush HK 3-3.5with ORB 7	1	SEAPRO/ Haines	Grounding Location	Recovery of spilled oil in primary containment at the vessel.	☒
249-bbl ORB 8 (Haines)	1	SEAPRO/ Haines	Grounding Location	Storage of recovered liquid.	☒

7. Assignments: Deploy containment boom and recover concentrated free oil using skimmers at the vessel. Store recovered liquid in temporary storage devices. Rotate ORB's when 90% capacity to Ore dock for offloading.

See STAR Manual Section B-III-6, On-water Free-oil Recovery.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responders (6)	Channel 10	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 3 Open Water Containment & Recovery

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

3. Task Force 3	4. On-Water Containment and Recovery

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SEAPRO Responders	6	SEAPRO	Skagway	Perform containment and recovery ops	☒
249 bbl. ORB 9	1	SEAPRO	Skagway	On-Water Skimming-collection and storage system platform	☒
Lori 3-3.5 brush skimmers (EDRC 774 bbl./hr.) w ORB 9	1	SEAPRO	Skagway	On-water skimming	☒
Canflex "Sea Slug" FCB-60 bladder (157 bbl.)	1	SEAPRO	Skagway	Storage of recovered liquid	☒
Canflex "Sea Slug" FCB-43 bladder (102 bbl.)	1	SEAPRO	Skagway	Rotate bladders to Ore Dock for offloading of recovered liquids	☒
Open Water Containment boom w ORB 9	2,000'	SEAPRO	Skagway	Collection of spilled oil	☒
Class 3 vessel	2	SEAPRO BPA	Skagway	Assist with rotation of bladders. Assist with containment/skimming ops.	☒

7. Assignments: Review spill trajectories and obtain on-scene reports of oil movement from field responders. Target leading edge of spill to contain oil and prevent impact to sensitive resources. Anticipate tidal changes and shift assets to maximize oil recovery efforts. Refer to STAR Manual Figure FO-5 J-configuration for on-water recovery. Once at 90% capacity, towable bladders to be rotated to Ore Dock for offloading of recovered product and placed back in service.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responders (6)	Channel 10	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 4A Nearshore Containment Recovery Operations

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

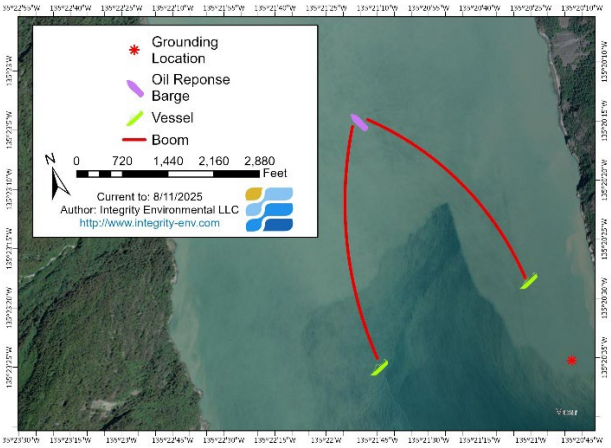
3. Task Force 4A	4. Nearshore Containment and Recovery

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SEAPRO Responders	6	SEAPRO	Skagway	Perform recovery ops	☒
ORB 1 (249 bbl.)	1	SEAPRO	Skagway	On water storage, collection and work platform	☒
Work boat (19-ft)	1	SEAPRO	With ORB	Assist with boom and collection	☒
Containment boom	2,000'	SEAPRO	With ORB	Containment of oil	☒
LORI HK 3-3.5 skimmer	1	SEAPRO	With ORB	On water recovery	☒
Canflex bladder FCB-60 (157 bbl.)	1	SEAPRO	Skagway	Storage of recovered liquid	☒
Canflex bladder FCB-43 (102 bbl.)	1	SEAPRO	Skagway	Storage of recovered liquid	☒
Class 3 vessel	1	SEAPRO/ BPA	With ORB	Transport and rotate bladder	☒

7. Assignments: Target leading edge of oil in nearshore environment, as directed by aerial surveillance (TF-6). Once at 90% capacity, towable bladders to be rotated to Ore Dock for offloading of recovered product and placed back in service. See STAR Manual Section B-III-6, On-water Free-oil Recovery.



8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responders (6)	Channel 22	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 4B Nearshore Containment and Recovery

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

3. Task Force 4B	4. Nearshore Containment and Recovery

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
OSRV Neka Bay	1	SEAPRO	Skagway	On water storage, collection and work platform	☒
Lori 2-2.5	1	SEAPRO	With OSRV	On water recovery	☒
Unitor 100m3 Bag (629 bbl.)	2	SEAPRO	Skagway	Storage of recovered liquid	☒

7. Assignments:
Target leading edge of oil in nearshore environment, as directed by aerial surveillance (TF-6). Once at 90% capacity, towable bladders to be rotated to Ore Dock for offloading of recovered product and placed back in service. See STAR Manual Section B-III-6, On-water Free-oil Recovery.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responders (6)	Channell 22	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 5 Sensitive Area Protection

1. Incident Name Skagway RPS Scenario	2. Operational Period (Date/Time) From: 09/24 To: End	Assignment List ICS 204-OS
3. Task Force 5	4. Sensitive Area Protection	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SEAPRO Responders	6	SEAPRO	Skagway	To deploy exclusion and diversion boom	☒
8 x 12" protected water boom	3,000'	SEAPRO	Skagway	Contain, exclude and divert oil	☒
20" protected water boom	3,700'	SEAPRO	Skagway	Contain, exclude and divert oil	☒
Sorbent boom	2,000'	SEAPRO	Skagway	Contain and absorb oil	☒
Truck	1	SEAPRO	Skagway	Transport containment boom for shoreside deployment	☒
Class 6 vessels	2	SEAPRO	Skagway	Work platform for boom deployment	☒

7. Assignments: Mobilize and deploy exclusion, diversion and containment boom at environmentally sensitive areas identified for protection by Environmental Unit. See ICS 232 for priority protection and GRS implementation.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responders (6)	Channel 22	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time:

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 6 Aerial Surveillance & Tracking

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

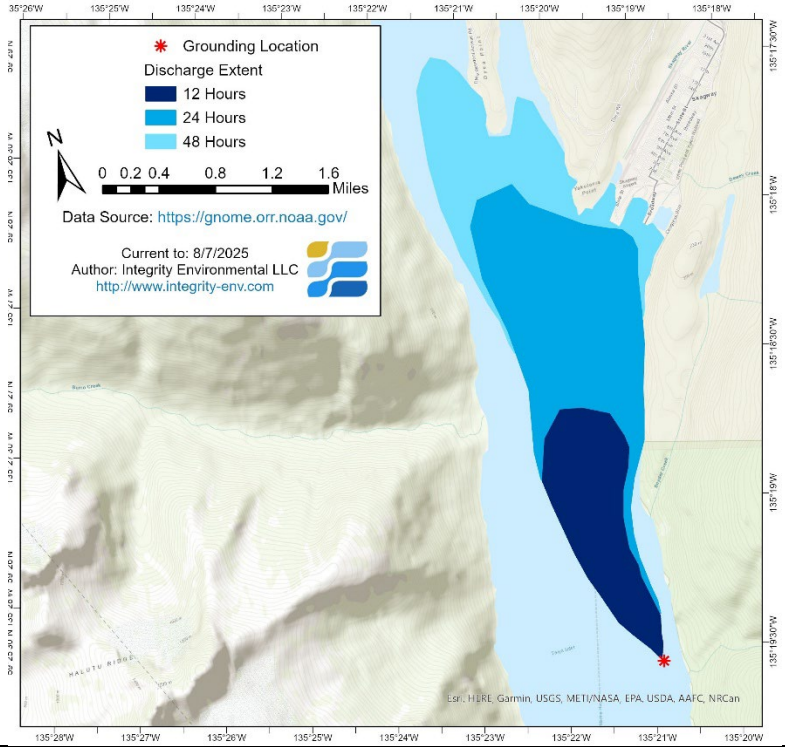
3. Task Force 3D	4. Aerial Surveillance & Tracking

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Contracted Aircraft with Pilot	1	Private	Airport	On water spill tracking & wildlife observations	☒
Overflight Team	3	Agency /SEAPRO	ICP	Report to ICP before/after each overflight	☒

7. Assignments: Spill trajectory at hour 12 and 40 without containment or recovery operations.



8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responder (1)	Channel 22	N/A
Agency Personnel (2)	Channel 22	N/A
	Total Responders:	3

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

Assignment List ICS 204-OS

ICS 204 Task Force 7 Shoreline Assessment

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

3. Task Force 7	4. Shoreline Assessment

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SCAT Team Personnel	4	Agency/ SEAPRO	ICP	Report to ICP to develop SCAT plan EUL/Planning review and UC approval	☒
Workboat	1	SEAPRO	Small boat harbor	Capacity to hold a minimum of 4 passenger with gear	☒

7. Assignments:
Implement the SCAT Plan as prepared by the Environmental Unit. Based on spill trajectory and overflights determine shoreline accessibility by skiff. Obtain necessary permits from land managers. Once on water recovery efforts are completed and based on tide/currents, implement plan approved by the Unified Command.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responder (1)	Channel 10	N/A
Agency personnel (3)	Channel 10	N/A
	Total Responders:	4

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

Assignment List ICS 204-OS

ICS 204 Task Force 8: Wildlife Response

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

3. Task Force 8	4. Wildlife Response

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Bird and Marine Mammal Responders	5	SEAPRO Contract	Fuel Float	Includes 2 IBR personnel (who are certified to haze) and 3 IWR (who are qualified to respond to otters) under contract to SEAPRO	☒
Wildlife Hazing Kit	1	SEAPRO			☒
Work boat	1	SEAPRO	Small boat harbor	Capacity to hold a minimum of 4 passenger with gear	☒
Wildlife Recovery Unit	1	SEAPRO	SEAPRO	Standby	☒

7. Assignments: Based on spill trajectory and overflights, determine accessibility and protection needs. Confer with P49 Skagway Terminal Manager to assess current wildlife populations and issues in spill zone. IBR contractors will follow approved wildlife hazing plan.

Report wildlife observations to environmental unit for situation status updates.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Agency Personnel (2)	Channel 10	N/A
IBR Personnel (2)	Channel 10	N/A
IWR Personnel (3)	Channel 10	N/A
	Total Responders:	7

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

Assignment List ICS 204-OS

ICS 204 Task Force 9: Waste Management

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Skagway RPS Scenario	From: 09/24 To: End	ICS 204-OS

3. Task Force 9	4. Shoreline Assessment

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	SEAPRO	SEAPRO	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SEAPRO Responders	6	SEAPRO	P49 Facility	Manage, monitor and track waste	☒
P49 Facility Personnel	2	P49	P49 Facility	Manage, monitor and track waste	☒
Transfer Pumps	2	P49	P49 Facility	Transfer of recovered liquids	☒
Unitor 1000m3 bladders (6,290 bbl. ea)	2	P49	P49 Facility	Storage of recovered liquids	☒

7. Assignments:
Conduct waste management activities as outlined in the UC-developed waste disposal plan. Maintain documentation that accounts for quantity of product transferred from each device throughout the response. ADEC requires a permit to transport contaminated media. Waste management contractor will be responsible for filling out the permit application and submitting it to ADEC prior to transporting any contaminated media offsite.

https://dec.alaska.gov/spar/ppr/response-resources/permits-tool/

Recovered Liquids: Set up shuttle rotation of on-water storage devices/barges to offload at P49 Skagway Ore dock. Transfer pump set up to transfer oily liquid collected in bladders/barges to Unitor 1000m3 bladders.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
SEAPRO Responders (6)	Channel 10	N/A
P49 Personnel (2)	Channel 10	N/A
	Total Responders:	8

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

Assignment ICS 204-OS

ICS 215 Skagway RPS Scenario

1. Incident Name Skagway RPS Scenario		2. Operational Period (Date/Time) From: 09/24 To: End										OPERATIONAL PLANNING WORKSHEET ICS 215-OS			
3. Division/Group or Location	**4. Work Assignments**	**5. Resource/Equipment**										**9. "X" here if 204A is Needed**			
		Resource	Containment Boom (ft)	Skimmer	Vessels	Temporary Storage	Personnel	Aircraft	Pumps and Hoses	Trucks	Wildlife Hazing Kit	**6. Notes/ Remarks**	**7. Reporting Location**	**8. Req. Arrival Time**	
TF-1	Source Control and Lightering	Req.	0	0	0	2	11	0	2	0	0	* Vessels used for TF-7 and TF-8	On scene	0900 on D1	☒
		Have	0	0	0	2	11	0	2	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-2	On-Water Containment and Recovery	Req.	3,500'	1	3	2	6	0	0	0	0		On scene	1100	☒
		Have	3,500'	1	3	2	6	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-3	On Water Containment & Recovery	Req.	2,000'	1	2	3	6	0	0	0	0		On scene	1900 on D1	☒
		Have	2,000'	1	2	3	6	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-4A and B	Nearshore Containment and Recovery Ops	Req	2,000'	2	3	4	6	0	0	0	0		On scene	1900 on D1	☒
		Have	2,000'	2	3	4	6	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-5	Sensitive Area Protection	Req.	6,700	0	2	0	6	0	0	1	0		Small boat harbor	1900 on D1	☒
		Have	6,700	0	2	0	6	0	0	1	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-6	Aerial Surveillance & Tracking	Req.	0	0	0	0	3	1	0	0	0		Airport	1200 on D1	☒
		Have	0	0	0	0	3	1	0	0	0				
		Need	0	0	0	0	0	1	0	0	0				
TF-7	Shoreline Assessment	Req.	0	0	1	0	4	0	0	0	0		On scene	0800 on D2	☒
		Have	0	0	1	0	4	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-8	Wildlife Response	Req.	0	0	1	0	5	0	0	0	1		On scene	0800 on D2	☒
		Have	0	0	1	0	5	0	0	0	1				
		Need	0	0	0	0	0	0	0	0	0				
TF-9	Waste Management	Req.	0	0	0	2	8	0	2	0	0		Skagway		☒
		Have	0	0	0	2	8	0	2	0	0				
		Need	0	0	0	0	0	0	0	0	0				
10. Total Resources Required			**14,200**	**4**	**11***	**13**	**55**	**1**	**4**	**1**	**1**	**13. Prepared by:** Operations Section			
11. Total Resources On Hand			**14,200**	**4**	**11***	**13**	**55**	**1**	**4**	**1**	**1**				
12. Total Resources Needed			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**				
OPERATIONAL PLANNING WORKSHEET														**ICS 215-OS**	

ICS 232 Skagway RPS Scenario Resources at Risk

1. Incident Name	2. Operational Period (Date/Time)	Resources at Risk Summary
Skagway RPS Scenario	From: 09/24 To: End	ICS 232-OS

3. Environmentally Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues
1	1	Skagway River	Anadromous waters; Dolly varden (rearing), coho, chum, chinook, and eulachon are all present.
2	2	Pullen Creek	Anadromous waters; coho, pink, dolly varden, chum and chinook are present.
2	2	Tiaya River	(GRS: SE08-02) Area hosts marine mammal habitat, spawning eulachon and salmon habitat, waterfowl and shorebird concentrations. The area is part of a national park and has high recreational use.
4	4	Nelson Creek	Anadromous waters; coho and pink salmon are present in this waterway

Narrative: At the discretion of the IC, the Operations Section Chief, and OSRO additional response tactics may be required to prevent the release from reaching nearby ESAs. Response tactics include dikes, berms, and trenches, containment boom, exclusion boom, and passive recovery with sorbent materials, including snow. See STAR Manual, Sections B-III-2-1, B-III-3-1, B-III-11-1, and B-III-12-1.

Immediately report sightings of oiled wildlife to the IC.

See Sections 1.6 and 3.9 of this plan for more information recovery strategies, containment and control strategies, wildlife protection, and archeo-cultural and socio-economic factors in the region.

4. Archeo-cultural and socio-economic issues

Site #	Priority	Site Name and/or Physical Location	Site Issues
1	1	Port of Skagway	The Port of Skagway is a busy port that provides berthing space and infrastructure for barge services, cruise ships, fishing vessels, etc. Notifications to threatened facilities at the Port may be necessary.
2	2	Taiya Inlet	High recreational use area (June-Nov).
3	3	Residential properties	Numerous residential properties are located along the shoreline.
4	4	Recreational Sites	Various recreational sites are located along the shoreline.

Narrative: Response tactics to prevent a release from impacting on of these sites includes exclusion boom, deflection boom, or a diversion booming site that will impede the flow path from reaching a sensitive area. See STAR Manual, Sections B-III-12, B-III-13, and B-III-8.

Protection prioritization to be conducted by IC and Operations Section Chief in concurrence with the Unified Command.

All responders are instructed to report any cultural resources found during operations to the Federal On Scene Coordinator (FOSC) Historic Properties Specialist (see Section 3.9.4 of this plan for more information).

Prepared by: Environmental Unit Leader	**Date/Time:**

RESOURCES AT RISK SUMMARY **ICS 232-OS**

ICS 209 Incident Status Summary

1. Incident Name	2. Operational Period (Date/Time)	Time of Report	INCIDENT STATUS SUMMARY ICS 209-OS
Skagway RPS Scenario	From: Sept. 24 To: End of Response	4 day summary	

3. Spill Status (Estimated, in Barrels) [Ops & EUL/SSC]

Source Status: Remaining Potential (bbl.): 0

☒ Secured Rate of Spillage (bph): 0

☐ Unsecured

	Since Last Report	Total
Volume Spilled (bbl)	19,500	19,500
Volume Spilled (gal)	819,000	819,000

Mass Balance/Oil Budget

	Gal	BBL
Recovered Oil Current		
Evaporation	NA	NA
Chemical Dispersion	NA	NA
Burned	NA	NA
Floating, Uncontained	Se Oil Recovery Table	See Oil Recovery Table
Total spilled oil accounted for:	819,000	19,500

4. Waste Management (Estimated) [Ops/Disposal]

	Project Recovered	Stored	Disposed
Oil (bbl.)	19,500	19,500	0
Water (bbl.)	78,000	78,000	0
Total (bbl.)	97,500	97,500	0

5. Shoreline Impacts (Estimated, in miles) [PSC/EUL/SSC]

Degree of Oiling	Affected	Cleaned	To Be Cleaned
Light	0	0	0
Medium	0	0	0
Heavy	0	0	0
Total	0	0	0

6. Wildlife Impacts [Ops/Wildlife Br.]

Numbers in () indicate subtotal that are threatened/endangered species.

					Died in Facility	
Mammals	0	0	0	0	0	0
Marine Mammals	0	0	0	0	0	0
Fish	0	0	0	0	0	0
Total	0	0	0	0	0	0

7. Safety Status [Safety Officer]

	Since Last Report	Total
Responder Injury	0	0
Public Injury	0	0

8. Equipment Resources [RUL]

Description	Ordered	Available/ Staged	Assigned	Out of Service

See ICS 215 and ICS 204s

9. Personnel Resources [RUL]

Description	People in Cmd. Post	People in the Field	Total People On Scene
Federal	3	5	8
State	5	9	14
Local	1	1	2
RP	5	11	16
SEAPRO	2	35	37
IBR	0	4	4

Total Response Personnel from all Organizations: 81

10. Special Notes

11. Prepared by: (Situation Unit Leader)

INCIDENT STATUS SUMMARY ICS 209-OS

Section 1.6.12.1.1 Scenario Recovery Efficiency Skagway

18 AAC 75.451(h)(2) and (3)

Table 1.6-1 Oil Recovery Efficiency-Skagway

Skimmer/Pump	EDRC[1] (bbl/day)	EDRC (bbl/hr)	EDRC (gal/hr)
LORI Brush 3-3.5	3,715	155	6,501
LORI Brush 2-2.5	2,477	103	4,335

[1] Effective Daily Recovery Capacity (EDRC): Manufacturer's rate in BPH times 24 hours times 20% = EDRC. The EDRC or Oil Recovery Efficiency Factor is the ratio, expressed as a percentage, of the volume of oil recovered to the volume of total liquids recovered; it does not count down time of the equipment when it is being set up, or when recovery is halted to empty out temporary storage.

Table 1.6-2 calculates the effective daily oil recovery capacity for each skimming system in accordance with 18 AAC 75.451(h)(3) using the following equation.

R = T x U x E

R = Effective daily oil capacity in barrels;
T = Manufacturer's rated throughput capacity as defined in (o) of this section, in barrels per hour;
U = Hours that an operator can document capability to operate equipment during a 24-hour period under spill conditions; this figure may not exceed 20 hours per day unless an operator can demonstrate that the recovery rate can be sustained for longer periods;
E = Oil recovery efficiency rate; 0.2 unless otherwise approved by the department;

Table 1.6-2 Recovery Capacity Per Operational Period-Skagway

Skimmer	Manufacturer's Rated Capacity (bbl/hr)	Oil Recovery Efficiency Rate[1]	Hours Operating	Effective daily oil capacity (barrels)
	T	***E***	***U***	***R***
LORI Brush 3-3.5 (A)	774	.2	4	619.2
Total Op Period 1				**619.2**
LORI Brush 3-3.5 (A)	774	.2	9	1,393.2
LORI Brush 3-3.5 (B)	774	.2	9	1,393.2
LORI Brush 3-3.5 (C)	774	.2	9	1,393.2
LORI Brush 2-2.5	516	.2	9	928.8
Total Op Period 2				**5,108.4**
LORI Brush 3-3.5 (A)	774	.2	17	2,631.6
LORI Brush 3-3.5 (B)	774	.2	17	2,631.6
LORI Brush 3-3.5 (C)	774	.2	17	2,631.6
LORI Brush 2-2.5	516	.2	17	1,754.4
Total Op Period 3				**9,649.2**
LORI Brush 3-3.5 (A)	774	0.2	8	1,238.4
LORI Brush 3-3.5 (B)	774	0.2	7	1,083.6
LORI Brush 3-3.5 (C)	774	0.2	7	1,083.6

Table 1.6-2 Recovery Capacity Per Operational Period-Skagway

Skimmer	Manufacturer's Rated Capacity (bbl/hr)	Oil Recovery Efficiency Rate[1]	Hours Operating	Effective daily oil capacity (barrels)
	T	***E***	***U***	***R***
LORI Brush 2-2.5	516	0.2	7	722.4
Total Op Period 4				**4,128**
TOTAL RECOVERY			**1,083,803.7 gal / 19,504.8 bbl**	

Table 1.6-3 demonstrates there is sufficient contingency storage available to accommodate each of the recovery devices and the recovery rates.

Table 1.6-3 Water-Based Recovery Table Skagway (1 of 3)

		EDRC in barrels (bbl/day)					(bbl/hr)									
Time	HR	LORI Busk HK 3-3.5 (A)	LORI Brush HK 3-3.5 (B)	LORI Brush HK 3-3.5 (C)	LORI Brush 2-2.5	Total EDRC	Fuel Recovered	Total Fuel Recovered	Total Oily Water Recovered	Total Liquid Recovered	TSC	Empty TSC	Offsite storage	TSC delivered	Available Storage	Capacity
7:00	0					0	0.0	0.0	0	0	0	0				
8:00	1					0	0.0	0.0	0	0	0	0				
9:00	2					0	0.0	0.0	0	0	0	0				
10:00	3					0	0.0	0.0	0	0	0	0				
11:00	4					0	0.0	0.0	0	0	0	0				
12:00	5					0	0.0	0.0	0	0	0	0				
13:00	6					0	0.0	0.0	0	0	0	0				
14:00	7					0	0.0	0.0	0	0	747	747		747	ORB 1, 7 and 8	747
15:00	8					0	0.0	0.0	0	0	747	747				
16:00	9					0	0.0	0.0	0	0	747	747				
17:00	10	3715				3715	154.8	154.8	619	774	2005	1231		1258	Unitor 100 m3 Bladder x 2	1258
18:00	11	3715				3715	154.8	309.6	1238	1548	2005	457				
19:00	12	3715				3715	154.8	464.4	1858	2322	15981	13659		13976	ORB 9	249
20:00	13	3715				3715	154.8	619.2	2477	3096	15981	12885			Canflex "Sea Slug" FCB-60	157
21:00	14					0	0.0	619.2	2477	3096	15981	12885			Canflex "Sea Slug" FCB-43	102
22:00	15					0	0.0	619.2	2477	3096	15981	12885			Unitor 100 m3 Bladder x 2	629
23:00	16					0	0.0	619.2	2477	3096	15981	12885			Canflex Bladder FCB-60	157
0:00	17					0	0.0	619.2	2477	3096	15981	12885			Canflex Bladder FCB-43	102
1:00	18					0	0.0	619.2	2477	3096	15981	12885			Unito m3 1000 x 2	12,580
2:00	19					0	0.0	619.2	2477	3096	15981	12885				
3:00	20					0	0.0	619.2	2477	3096	15981	12885				
4:00	21					0	0.0	619.2	2477	3096	15981	12885				
5:00	22					0	0.0	619.2	2477	3096	15981	12885				
6:00	23					0	0.0	619.2	2477	3096	15981	12885				
7:00	24					0	0.0	619.2	2477	3096	15981	12885				
8:00	25					0	0.0	619.2	2477	3096	15981	12885				
9:00	26					0	0.0	619.2	2477	3096	15981	12885				
10:00	27					0	0.0	619.2	2477	3096	15981	12885				
11:00	28					0	0.0	619.2	2477	3096	15981	12885				
12:00	29					0	0.0	619.2	2477	3096	15981	12885				
13:00	30	3715	3715	3715	2477	13622	567.6	1186.8	4747	5934	44552	38618		28571	1 x Petro Mariner Barge	28571
14:00	31	3715	3715	3715	2477	13622	567.6	1754.3	7017	8772	44552	35780				
15:00	32	3715	3715	3715	2477	13622	567.6	2321.9	9288	11610	44552	32942				
16:00	33	3715	3715	3715	2477	13622	567.6	2889.5	11558	14448	44552	30105				
17:00	34	3715	3715	3715	2477	13622	567.6	3457.1	13828	17285	44552	27267				
18:00	35	3715	3715	3715	2477	13622	567.6	4024.7	16099	20123	44552	24429				
19:00	36	3715	3715	3715	2477	13622	567.6	4592.3	18369	22961	44552	21591				

Daylight Hours
Darkness Hours
First Operational Period
Second Operational Period
Third Operational Period
Fourth Operational Period

Table 1.6-3 Water-Based Recovery Table Skagway (2 of 3)

		EDRC in barrels (bbl/day)					(bbl/hr)									
Time	HR	LORI Busk HK 3-3.5 (A)	LORI Brush HK 3-3.5 (B)	LORI Brush HK 3-3.5 (C)	LORI Brush 2-2.5	Total EDRC	Fuel Recovered	Total Fuel Recovered	Total Oily Water Recovered	Total Liquid Recovered	TSC	Empty TSC	Offsite storage	TSC delivered	Available Storage	Capacity
20:00	37	3715	3715	3715	2477	13622	567.6	5159.8	20639	25799	44552	18753				
21:00	38	3715	3715	3715	2477	13622	567.6	5727.4	22910	28637	44552	15915				
22:00	39					0	0.0	5727.4	22910	28637	44552	15915				
23:00	40					0	0.0	5727.4	22910	28637	44552	15915				
0:00	41					0	0.0	5727.4	22910	28637	44552	15915				
1:00	42					0	0.0	5727.4	22910	28637	44552	15915				
2:00	43					0	0.0	5727.4	22910	28637	44552	15915				
3:00	44					0	0.0	5727.4	22910	28637	44552	15915				
4:00	45					0	0.0	5727.4	22910	28637	44552	15915				
5:00	46	3715	3715	3715	2477	13622	567.6	6295.0	25180	31475	44552	13077				
6:00	47	3715	3715	3715	2477	13622	567.6	6862.6	27450	34313	44552	10239				
7:00	48	3715	3715	3715	2477	13622	567.6	7430.2	29721	37151	99552	62401		55000	Contract Barge	55000
8:00	49	3715	3715	3715	2477	13622	567.6	7997.8	31991	39989	99552	59563				
9:00	50	3715	3715	3715	2477	13622	567.6	8565.3	34261	42827	99552	56725				
10:00	51	3715	3715	3715	2477	13622	567.6	9132.9	36532	45665	99552	53887				
11:00	52	3715	3715	3715	2477	13622	567.6	9700.5	38802	48503	99552	51050				
12:00	53	3715	3715	3715	2477	13622	567.6	10268.1	41072	51340	99552	48212				
13:00	54	3715	3715	3715	2477	13622	567.6	10835.7	43343	54178	99552	45374				
14:00	55	3715	3715	3715	2477	13622	567.6	11403.3	45613	57016	99552	42536				
15:00	56	3715	3715	3715	2477	13622	567.6	11970.8	47883	59854	99552	39698				
16:00	57	3715	3715	3715	2477	13622	567.6	12538.4	50154	62692	99552	36860				
17:00	58	3715	3715	3715	2477	13622	567.6	13106.0	52424	65530	99552	34022				
18:00	59	3715	3715	3715	2477	13622	567.6	13673.6	54694	68368	99552	31184				
19:00	60	3715	3715	3715	2477	13622	567.6	14241.2	56965	71206	99552	28346				
20:00	61	3715	3715	3715	2477	13622	567.6	14808.8	59235	74044	99552	25508				
21:00	62	3715	3715	3715	2477	13622	567.6	15376.3	61505	76882	99552	22670				

Daylight Hours
Darkness Hours
First Operational Period
Second Operational Period
Third Operational Period
Fourth Operational Period

Table 1.6-3 Water-Based Recovery Table Skagway (3 of 3)

		EDRC in barrels (bbl/day)					(bbl/hr)									
Time	HR	LORI Busk HK 3-3.5 (A)	LORI Brush HK 3-3.5 (B)	LORI Brush HK 3-3.5 (C)	LORI Brush 2-2.5	Total EDRC	Fuel Recovered	Total Fuel Recovered	Total Oily Water Recovered	Total Liquid Recovered	TSC	Empty TSC	Offsite storage	TSC delivered	Available Storage	Capacity
22:00	63					0	0.0	15376.3	61505	76882	99552	22670				
23:00	64					0	0.0	15376.3	61505	76882	99552	22670				
0:00	65					0	0.0	15376.3	61505	76882	99552	22670				
1:00	66					0	0.0	15376.3	61505	76882	99552	22670				
2:00	67					0	0.0	15376.3	61505	76882	99552	22670				
3:00	68					0	0.0	15376.3	61505	76882	99552	22670				
4:00	69					0	0.0	15376.3	61505	76882	99552	22670				
5:00	70	3715	3715	3715	2477	13622	567.6	15943.9	63776	79720	99552	19832				
6:00	71	3715	3715	3715	2477	13622	567.6	16511.5	66046	82558	99552	16995				
7:00	72	3715	3715	3715	2477	13622	567.6	17079.1	68316	85395	99552	14157				
8:00	73	3715	3715	3715	2477	13622	567.6	17646.7	70587	88233	99552	11319				
9:00	74	3715	3715	3715	2477	13622	567.6	18214.3	72857	91071	99552	8481				
10:00	75	3715	3715	3715	2477	13622	567.6	18781.8	75127	93909	99552	5643				
11:00	76	3715	3715	3715	2477	13622	567.6	19349.4	77398	96747	99552	2805				
12:00	77	3715				3715	154.8	19504.2	78017	97521	99552	2031				

Daylight Hours
Darkness Hours
First Operational Period
Second Operational Period
Third Operational Period
Fourth Operational Period

Section 1.6.12.2 Cook Inlet Region, Seward ADEC RPS Scenario

18 AAC 75.449(a)(6)(A)

Scenario Summary:

On October 1 at 0900 hours, an inbound tank vessel lost power and drifted aground south of Thumb Cove while making its final approach to the Port of Seward, Alaska. The grounding caused damage to both hulls in a cargo tank, resulting in the release of approximately 33,000 barrels of #2 ultra-low sulfur diesel (ULSD) into the surrounding waters at a rate of 717 barrels per hour over a 46-hour period before the leak was stopped. At the time of the incident, air temperature was 42°F, wind was from the NNW at seven mph, visibility was four miles under overcast skies, and sea conditions ranged from choppy to calm with small waves (1–2 ft.). The tide was flooding at approximately 0.5 knots. The ULSD has an API gravity of 43.0 and a pour point of 51°C. Spill trajectories have been developed based on aerial overflights.

Scenario Assumptions

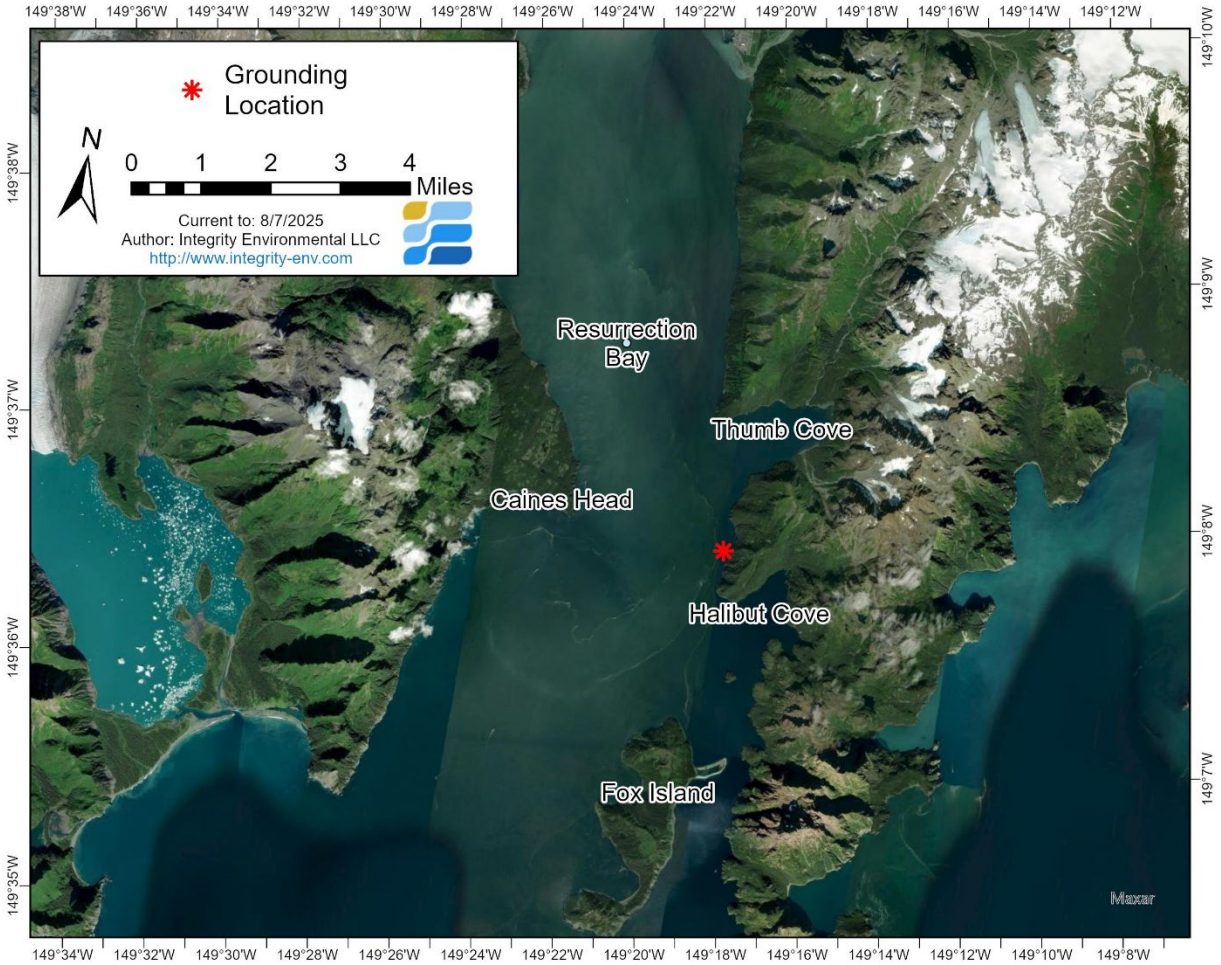
- Chadux barges and oil spill vessels (OSV) have deck lighting for nighttime operations allowing for continued on-water recovery into darkness hours.
- All vessels/aircraft requisitioned or chartered come with an experienced and qualified operator, who is not counted in the responder personnel calculations.
- Chadux responders arrive in waves to accommodate crew rotations and shift work. Once on site, they assume positions as needed and as directed by the Incident Management Team (IMT).
- The full version of the STAR Manual was used for reference to applicable spill response tactics throughout the scenario.
- NOAA's WebGNOME spill modeling software was used to determine the spill trajectory as depicted the ICS 204 form for Task Force-6 Aerial Surveillance.
- Ninety percent of the towable bladders and mini-barge capacity is available. Once at capacity, towable bladders or mini barges will be offloaded to the primary storage device(s) or barge to allow for the settling and separation of oil and water and decanting.
- The scenario described below is conjectural and depends on assumptions that may not always apply to a real spill. During an actual spill, a major spill response will be conducted under the direction of the Unified Command, who will respond to the real situation, following the principles set forth and using the resources described in this plan.
- Due to the extensive geographical area covered by vessel operations, it is not practicable to identify and list all environmentally sensitive areas and sites of concern across the entire operating region. The spill scenario provided represents a localized example within this larger area. During an actual spill response, site-specific response tactics shall be assessed and implemented based on the area, trajectory of the spill, and resources at risk as identified on the ICS 232.

- The scenario assumes a Unified Command is established and the agency on-scene coordinators and other agency officials will grant requested permits and approve all plans in a timely manner.

ICS 201 Seward RPS Scenario

1. Incident Name	2. Prepared By: P49	INCIDENT BRIEFING
Seward RPS Scenario	**Date:** 10/01 **Time:** 1000	ICS 201-CG

3. Map/Sketch



4. Incident Timeline

Day 1 0900-1000: Vessel Master sounds the vessel alarm and secures the TV in safe position at anchor; take all measures to prevent escalation of incident. Secure all valves on TV, sound and inventory cargo tanks, fuel spaces, ballast tanks, and other spaces to find if TV is taking water or leaking cargo. Assessment is conducted to determine the extent of damage to compartments. Crew evaluate options for source control and initial mitigation measures.

Vessel Master notifies QI of incident and requests the mobilization of transfer pumps, hoses, etc. to facilitate lightering needs. QI notifies SMFF Contractor to mobilize emergency lightering equipment and salvage resources. Establish liaison with USCG Marine Safety Center and SMFF Contractor. QI makes regulatory agency, local, and PRAC notification. Mobilization of PRAC's response resources (SEE ICS 213rr for ETA of resource, personnel and assignments).

Vessel Master ensures that the crew is taking steps to identify damage and stop the flow of oil, ensures safety/proper PPE is in place, briefs crew and activates vessel crew to prepare

deployment of onboard response equipment. Crew sounds, inventory cargo tanks, fuel space, and void space. Assess the extent of damage to TV. Holes found above and below the water line. Water enters the damaged tank. Estimate discharge rate as variable (See Initial Conditions). Possible ignition sources or open lights in the spill area are identified and eliminated. Notification to Seward Harbor Master and Fire Department. TV firefighting equipment mobilized and placed on standby as a precaution. TV crew reports no firefighting necessary. Initial visual assessment is maintained by vessel crew and reported to QI.
Day 1 (1000-1200): SPI Safety Officer prepares initial Site Safety Plan for on-scene personnel. No smoking rule is strictly enforced near the vessel and spill area. Fire extinguishers are readied and standing nearby spill recovery operations. Engineer verifies no ignition source. On-scene crew formed into Task Forces 1 (TF-1) for source control and lightering operations. Chadux and SPI resources mobilized to form TF-2 Open Water Containment and Recovery at the vessel with the goal of preventing the spread of oil (SEE TF-2 204). TF-2 arrives on-scene with boom at 1130. TF-6 (Aerial Tracking) formed with USCG, Chadux, and state representative. Initial aerial overflight conducted at 1230 and directs TF-2 for effective boom deployment to contain spilled oil at vessel. Boom deployed around grounded vessel at 1300 (Containment). TF-2 awaits arrival of Anchorage equipment (SEE TF-2 204) bladders before deploying skimming device; maintains containment boom. Recovery equipment ETA to scene1400. The damaged cargo tanks are continued to be sounded to determine how much fuel has been released.
Overflight team observes oil outside of containment boom drifting up Resurrection Bay towards Thumb Cove, pushed by the wind and tides. Chadux mobilizes TF-3 On-water containment and recovery (SEE TF-3 204) from Kodiak, ETA 0800, Day 2. Chadux resources to support TF-4A&B Nearshore free oil containment and recovery in Thumb Cove and Humpy Cove identified and mobilized (via road and air charter) to Seward. ICP established at Shoreside Petroleum Inc. (SPI) office. Incoming agency and IMT personnel directed to report to the Command Post for assignments.
Day 1 1300-2000: TF-2 Anchorage resources arrive on scene at 1400. Skimmer placed in primary containment boom at vessel and begins recovery operation at 1500. Additional 2,000-ft of open water containment boom (42” open water) deployed around vessel (Secondary containment). TF-2 crew continues skimming operations and observes oil still discharging at vessel. TF-1 crew confer with marine architect, SMFF provider regarding stability of vessel and options to conduct internal transfer oil to uncompromised tanks. TF-6 continues overflight during daylight hours tracking oil movement in Resurrection Bay. TF-5 Sensitive area protection resources identified and ordered. Environmental Unit develops ICS232 for protection of priority sites. Resources to arrive Seward for deployment on Day 2. Waste management plan developed for UC review and approval. IAP developed for next operational period. TF-7 Shoreline Assessment and TF-8 Wildlife Assessment established for field deployment on Day 2 at 0800.

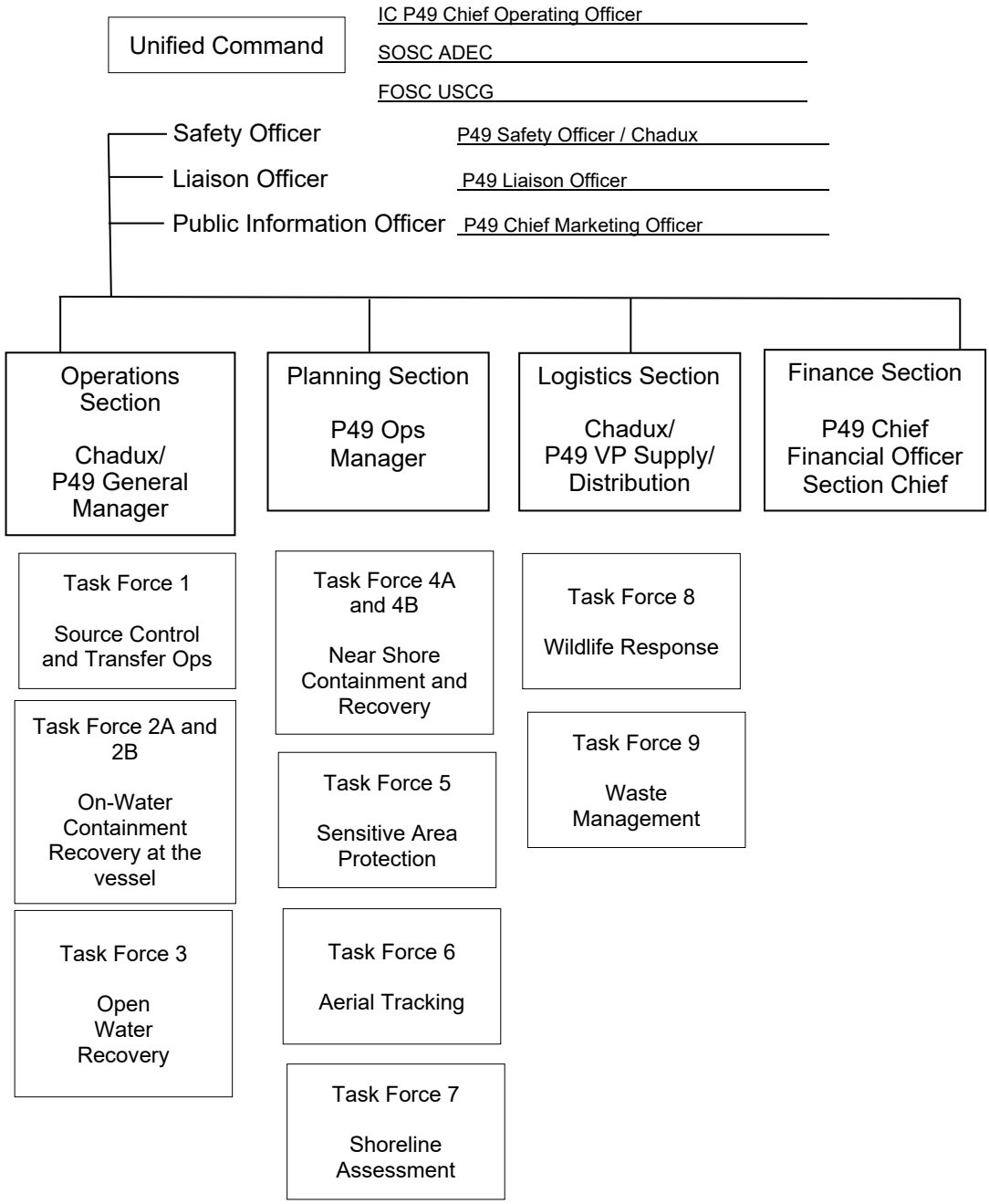
Night operations: TF-2 towable bladders rotated to SMIC for offload recovered liquids and prepare for deployment at 0500. TF-9 establishes accounting for recovered oily liquids from on-water recovery operations. TF-2 maintains primary containment boom and skimming (end 0:00-D1) at grounded vessel.
Day 2: TF-3 arrives at 0800 and begins skimming operation at 0830. Remains operational for 18 hours. When ORB reaches 90% capacity, the ORB is towed to the SMIC dock for offloading by TF-9 Waste management. When the barge is emptied, it's returned into service. TF-4A (Thumb Cove) & 4B (Humpy Cove) arrive on scene and begin nearshore recovery efforts at 0500. TF-1, SMFF Provider with equipment arrive in Seward and develop salvage/lightering plan for UC review and approval. DBL 54 and Tug arrive on scene at 1000. SMFF readies lightering equipment (pumps/hose) to begin transfer of remaining product in compromised tanks. TF-2 continues on-water containment and recovery operations pumping recovered oil into available tankage on DBL 54 barge. TF-5, Exclusion boom deployed to protect sites identified by TF-6 for potential impact. TF- 4A&B continue on-water containment and recovery operations, as directed by TF-6. Recovery devices rotated to SMIC facility for offloading. TF-7 develops Shoreline Assessment plan. TF-8 conducts on-water wildlife assessment. IAP developed for next operational period. At +46 hours, the Vessel master notifies P49 IOSC that the release has stopped.
DAY 3: TF-2, -3 and -4A&B continue on-water containment and recovery operations beginning at 0500, as directed by TF-6. Recovery devices rotated to DBL 54 or SMIC facility for offload by TF-9. TF-5 maintains diversion and exclusion boom at sensitive areas. TF-1, SMFF provider implements salvage plan. TF-7 implements Shoreline Assessment plan approved by UC. TF-8 conducts on-water wildlife assessment. IAP developed for next operational period. TF-2 skimmer demobilized.
DAY 4: TF 3, 4A & B continue on-water containment and recovery operations beginning at 0500, as directed by TF-6. Recovery devices rotated to DBL 59 or SMIC for offload by TF-9. TF-5 maintains diversion and exclusion boom at sensitive areas. TF-1, SMFF Provider implements tow plan to bring the tank vessel into the dock at Seward. TF-7 implements Shoreline Assessment plan approved by UC. TF-8 conducts on-water wildlife assessment. All oil recovered. IAP developed for next operational period
DAY 5: Shoreline and wildlife assessment continues. Decontamination of demobilized equipment conducted. TF-9 continues waste management and accounting of recovered liquids. UC conducts overflight and inspection of shorelines. UC meeting with community leaders and public.

5. Initial Response Objectives, Current Actions, Planned Actions Set by Initial IC	
Ensure safety of responders and public Contain, control and recover spilled oil Complete all required notifications	Mobilized resources Protection of ESAs and economic areas

ICS 201 Seward RPS Scenario

1. Incident Name	2. Prepared By: P49	INCIDENT BRIEFING
Seward RPS Scenario	Date: 10/01 Time: 1000	ICS 201-CG

6. Current Organization (fill in additional appropriate organization)



ICS 201 Cook Inlet RPS Scenario

1. Incident Name Seward RPS Scenario	2. Prepared By: P49 Date: 10/01 Time: 1000	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary (using ICS 213rr)

Resource	Resource Identifier	Time Ordered	ETA	On-Scene (X)	Notes (location/ assignment/status)
T/V Personnel (5)	Contract	1000	1000	X	TF-1
Pacific Wolf Tug, DBL 54 barge or similar- 52,381 bbl. Capacity	P49	1000	10/02 @1000		South Central AK/TF-1
Lightering Pump w/ hoses (2)	SMFF	1000	10/02 @1000	X	TF-1
20-foot vessel –M/V Responder (1)	SPI	1000	1130	X	Bulk Plant/TF-2
21-foot vessel-M/V Deploy (1)	SPI	1000	1130	X	Bulk Plant/TF-2
Containment boom, 20”-(1,000’)	SPI	1000	1130	X	South Tank Yard-Spill Trailer ST-1/TF-2
Containment boom, 20”(1,500’)	SPI	1000	1130	X	South Tank Yard- Spill Trailer ST-3/TF-2
Class 3 Vessel	Chadux/ VOO	1000	1200		SWD/TF-2
157 bbl. towable bladders (2)	Chadux	1000	1300		ANC/TF-2 (air)
119 bbl towable bladder (1)	Chadux	1000	1300		SWD/TF-2
Ocean boom. 42” (2,500-ft.)	Chadux	1000	10/02 @ 0800		KOD/TF-2
13# Danforth Anchors (7)	SPI	1000	1130	X	South Warehouse/TF-2
Elastec TDS-118 skimmer (1)	SPI	1000	1100	X	South Warehouse/TF-2
OSRB (23,000 bbl) (1)	Chadux	1000	10/02 @0800		KOD/TF-2 and TF-3
16-25’ Skiff (2)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-3
Lamor 50 Skimmer (1)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-3
Skimpak 18000 Skimmer (1)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-3 (Road)
Containment boom (300 feet)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-3 (Road)
63-barrel towable bladder (8)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-3 (Road)
157-barrel towable bladder (1)	Chadux/ Contract	1000	10/02 @ 0800		KOD/TF-3
120-barrel micro-barge (1)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-3 (Road)
Class 3 Vessel (1)	Chadux/ Contract	1000	10/02 @ 0800		SWD/TF-3
Landing Craft (1)	Chadux	1000	10/02 @ 0500		ANC/TF-4A (Road)
Containment boom, 20” (500’)	Chadux	1000	10/02 @ 0500		ANC/TF-4A (Road)

1. Incident Name Seward RPS Scenario	**2. Prepared By:** P49 **Date:** 10/01 **Time:** 1000	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary (using ICS 213rr)

Resource	Resource Identifier	Time Ordered	ETA	On-Scene (X)	Notes (location/ assignment/status)
Lamor 50 Skimmer (2)	Chadux	1000	10/02 @ 0500		ANC/TF-4A (Road)
119 bbl. towable bladders (2)	Chadux	1000	10/02 @ 0500		ANC/TF-4A (Road)
63 bbl. towable bladders (8)	Chadux	1000	10/02 @ 0500		ANC/TF-4A (Road)
Class 4 vessel (1)	Chadux/ VOO	1000	10/02 @ 0500		SWD/TF-4A
Class 4 vessel (2)	Chadux/ VOO	1000	10/02 @ 0500		SWD/TF-4B
Harbor boom (300')	Chadux	1000	10/02 @ 0500		SWD/TF-4B
Lamor 50 skimmer (2)	Chadux	1000	10/02 @ 0500		ANC/TF-4B (Road)
63 bbl. towable bladders (8)	Chadux	1000	10/02 @ 0500		ANC/TF-4B (Road)
Harbor boom, 24" (3,000')	Chadux	1000	10/02 @ 0500		SWD & ANC/TF-5
Tidal Seal boom (200')	Chadux	1000	10/02 @ 0500		ANC/TF-5
Sorbent boom (2,000')	Chadux	1000	10/02 @ 0500		TF-5
22# Anchors -6 anchors per kit – 1 kit	Chadux	1000	1400		SWD/TF-5
40# Anchors – 6 anchors per kit -1 kit	Chadux	1000	1400		SWD/TF-5
Class 6 vessels (2)	Chadux/ Contract	1000	10/02 @ 0500		TF-5
Contract Aircraft with pilot (1)	Chadux/ Contract	1000	1200		TF-6
Class 6 vessel (1)	Chadux/ Contract	1000	10/02 @ 0800		TF-7
IBR Personnel (2)	Chadux/ Contract	1000	10/02 @ 0800		ANC/TF-8
Alaska SeaLife Personnel	Chadux/ Contract	1000	10/02 @ 0800		SWD/TF-8
Wildlife Hazing Kit (1)	Chadux	1000	10/02 @ 0800		ANC/TF-8
Inflatable vessels (2)	Chadux	1000	10/02 @ 0800		ANC/TF-8
Republic Services Personnel (6)	RS/SPI Contract	1000	1700		TF-9
Transfer pumps with hose (2)	SPI	1000	1100	X	SPI Facilities/TF-9
571 bbl. Cont. Tank. single cell wall (4)	SPI	1000	1100	X	North Tank Yard/TF-9
476 bbl. Cont. Tank double wall (1)	SPI	1000	1100	X	North Tank Yard/TF-9

1. Incident Name Seward RPS Scenario	**2. Prepared By:** P49 **Date:** 10/01 **Time:** 1000	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary (using ICS 213rr)

Resource	Resource Identifier	Time Ordered	ETA	On-Scene (X)	Notes (location/ assignment/status)
238 bbl. tank truck (1)	SPI	1000	1100	X	Bulk Plant/TF-9
59 bbl. tank truck (1)	SPI	1000	1100	X	Bulk Plant/TF-9
66 bbl. tank trucks (3)	SPI	1000	1200	X	Bulk Plant/TF-9
95 bbl. tank truck (2)	SPI	1000	1130	X	Bulk Plant/TF-9
333 bbl. tank truck/trailers (3)	SPI	1000	1630		ANC/TF-9
238 bbl. tank truck/trailers (5)	SPI	1000	1630		ANC/TF-9
238 bbl. tank truck/trailers (4)	SPI	1000	1630		Kenai/TF-9
66 bbl. tank trucks (4)	SPI	1000	1630		KenaiTF-9
111 bbl. tank trucks (2)	SPI	1000	1630		Kenai/TF-9
Contracted barge (~84,000 barrels) (1)	Contract	1000	10/03 @ 0700		Varies/TF-9
Chadux Personnel (35)	Chadux	1000	Varies		Anchorage, Kenai, Kodiak
SPI Personnel (11)	SPI	0900	Varies		Seward, Anchorage

SPI- Shoreside Petroleum Inc
SMFF- Salvage & Marine Fire Fighting
TV, T/V- Tank Vessel
M/V- Motor Vessel
OSRB- Oil Spill Response Barge
OSRV- Oil Spill Response Vessel
TF- Task Force
ANC- Anchorage, AK
KOD- Kodiak, AK
SWD- Seward
IBR- International Bird Rescue

ICS 204 Task Force 1 Source Control and Lightering

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Assignment List ICS 204-OS
3. Task Force 1	4. Source Control and Lightering	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
T/V Personnel	5	Contract	Grounding Location	On-Scene	☒
DBL 54 or similar Tug/Barge (52,381 bbl.)	1	P49/Chadux	Grounding Location	To transfer & store oil lightered from damaged tanks (ETA D2@1000)	☒
Lightering Pump w/ hoses	2	SMFF Provider	Grounding Location	To transfer oil in undamaged tanks to BPA Chartered Barge	☒
SMFF Provider responders	6	SMFF Provider	Grounding Location	Implement stability and lightering activities	☒

7. Assignments

TV crew to isolate damaged tanks, activate SMFF Provider to mobilize personnel and equipment to grounding location. SMFF Provider will assess vessel stability via Marine architect, develop stability and lightering plan for implementation once DBL 54 barge or similar chartered tug/barge arrives.

Secure tug/barge alongside tank vessel. Oil is pumped from vessel or lighter oil using barge.

STAR Manual Section B-III-16, Marine-Based Storage & Transfer of Oily Liquids and Section B-III-2, Containment Boom.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
T/V Personnel (5)	Channel 10	N/A
SMFF Provider responders (6)	Channel 10	N/A
	Total Responders:	11

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time
ASSIGNMENT LIST	ICS 204-OS

ICS 204 Task Force 2 On-Water Containment and Recovery at the Vessel

1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Seward RPS Scenario	From: 10/01 To: End	ICS 204-OS

3. Task Force 2	4. On-Water Containment and Recovery at the Vessel

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Chadux Responders	6	Chadux	Grounding Location	Perform on-water ops at vessel	☒
20' MV Responder	1	SPI	Grounding Location	Deploy containment boom and maintain boom placement for recovery ops.	☒
21' MV Deploy	1	SPI	Grounding Location	Deploy containment boom and maintain boom placement for recovery ops.	☒
20" Containment Boom	2,500'	SPI	Grounding Location	Contain spilled oil at the vessel (Primary)	☒
Class 3 Vessel	1	Chadux	Grounding Location	Skimming and recovery platform.	☒
157 bbl. towable bladders	2	Chadux	Grounding Location	Storage of recovered liquid.	☒
119 bbl towable bladder	1	Chadux	Grounding Location	Storage of recovered liquid.	☒
42" Ocean Boom (Large booming package)	2,500'	Chadux	Grounding Location	Contain spilled oil at the vessel (Secondary)	☒
Elastec TDS-118 skimmer	1	SPI	Grounding Location	Recovery of spilled oil in primary containment at the vessel.	☒
OSRB (ETA 0800-D2) 23,000 bbl. capacity	1	P49	Grounding Location	Storage of lightered and recovered liquid.	☒

7. Assignments: Deploy containment boom and recover concentrated free oil using skimmers at the vessel. Store recovered liquid in temporary storage devices. Rotate bladders when 90% capacity to SMIC for offloading.

See STAR Manual Section B-III-6, On-water Free-oil Recovery.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responders (6)	Channel 10	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 3 Open Water Containment and Recovery

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Assignment List ICS 204-OS
3. Task Force 3	4. Open Water Containment and Recovery	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Chadux Responders	8	Chadux	SMIC	On Scene D2 at 0800: Perform on water ops	☒
16-25' Skiff	2	Chadux	SMIC	On Scene D2 at 0800: Assist with collection and skimming	☒
Containment boom	300'	Chadux	SMIC	On Scene D2 at 0800: on-water containment	☒
Lamor 50 skimmer	1	Chadux	With skiff	On Scene D2 at 0800: On water recovery	☒
Skimpak 18000 skimmer	1	Chadux	With skiff	On Scene D2 at 0800: On water recovery	☒
63-barrel towable bladder	8	Chadux	With skiff	On Scene D2 at 0800: Storage of recovered liquid.	☒
157-barrel towable bladder	1	Chadux	SMIC	On Scene D2 at 0800: Storage of recovered liquid.	☒
120-barrel micro-barge	1	Chadux	SMIC	On Scene D2 at 0800: Storage of recovered liquid.	☒
OSRB (23,000 bbl.)	1	Chadux/ Contract	SMIC	On Scene D2 at 0800: Storage of lightered and recovered liquid.	☒
Class 3 vessel	1	Chadux/ VOO	SMIC	On Scene D2 at 0800: Assist with containment/skimming ops.	☒

7. Assignments: Review spill trajectories and obtain on-scene reports of oil movement from field responders. Target leading edge of spill to contain oil and prevent impact to sensitive resources. Anticipate tidal changes and shift assets to maximize oil recovery efforts. Refer to STAR Manual Figure FO-5 J-configuration for on-water recovery. Once at 90% capacity, transport OSRB to SMIC for offloading of recovered product and placed back in service. Rotate bladders when 90% capacity to SMIC for offloading.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responders (8)	Channel 10	N/A
	Total Responders:	8

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time:
ASSIGNMENT LIST	ICS 204-OS

ICS 204 Task Force 4A Nearshore Containment and Recovery

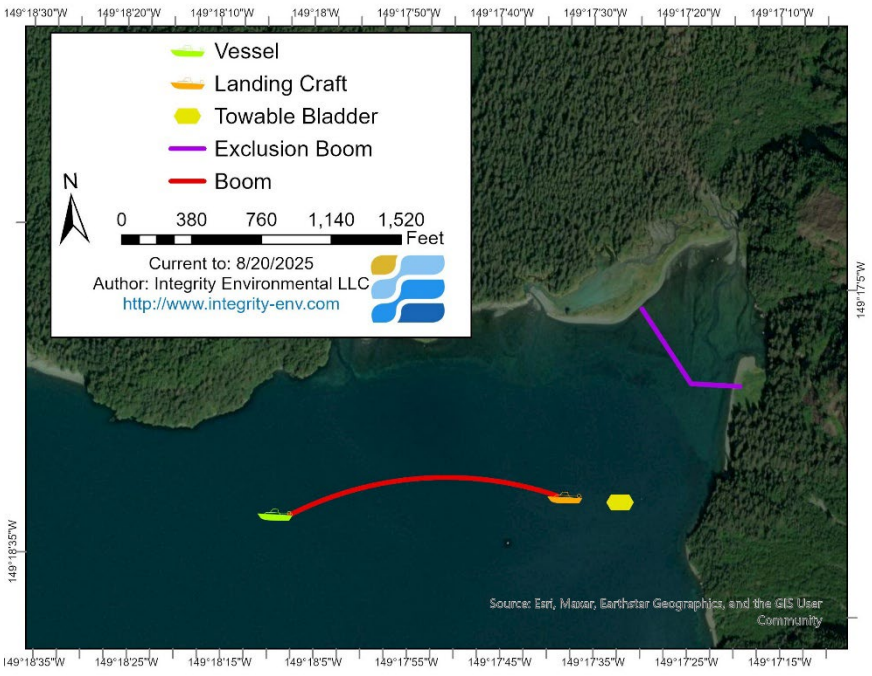
1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Seward RPS Scenario	From: 10/01 To: End	ICS 204-OS
3. Task Force 4A	**4. Nearshore Containment and Recovery**	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Chadux Responders	6	Chadux	SMIC	Perform nearshore ops	☒
Landing Craft	1	Chadux	SMIC	Assist with collection and skimming	☒
Containment boom	500'	Chadux	With Landing Craft	Containment of oil	☒
Lamor 50 Skimmer	2	Chadux	With Landing Craft	On water recovery	☒
119 bbl. towable bladders	2	Chadux	With Landing Craft	Storage of recovered liquid	☒
63 bbl. towable bladder	8	Chadux	With Landing Craft	Storage of recovered liquid	☒
Class 4 vessel	1	Chadux/ VOO	SMIC	Transport and rotate bladder	☒

7. Assignments:
Target leading edge of oil in nearshore environment, as directed by aerial surveillance (TF-6). Once at 90% capacity, towable bladders to be rotated to DBL-54 barge or SMIC for offloading of recovered product and placed back in service. See STAR Manual Section B-III-6, On-water Free-oil Recovery.



8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responders (6)	Channel 22	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 4B Nearshore Containment and Recovery

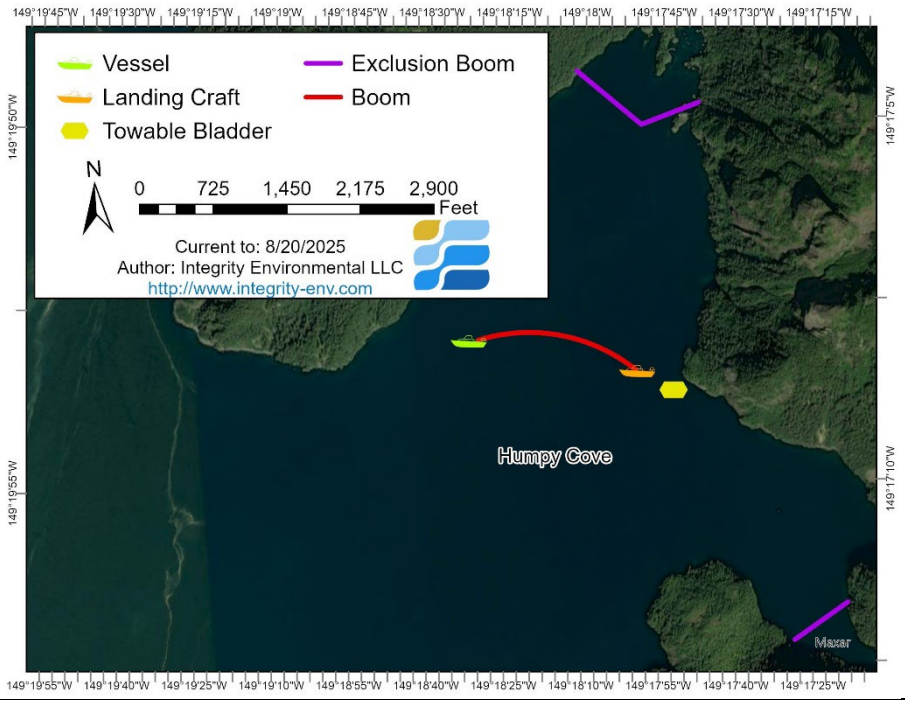
1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Seward RPS Scenario	From: 10/01 To: End	ICS 204-OS
3. Task Force 4B	**4. Nearshore Containment and Recovery**	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Chadux Responders	6	Chadux	SMIC	Perform nearshore ops	☒
Class 4 vessel	1	Chadux	SMIC	Assist with collection and skimming	☒
Containment boom	300'	Chadux	With Class 4 vessel	Containment of oil	☒
Lamor 50 Skimmer	2	Chadux	With Class 4 vessel	On water recovery	☒
63 bbl. towable bladders	8	Chadux	SMIC	Storage of recovered liquid	☒
Class 4 vessel	1	Chadux/VOO	SMIC	Transport and rotate bladder	☒

7. Assignments: Target leading edge of oil in nearshore environment, as directed by aerial surveillance (TF-6). Once at 90% capacity, towable bladders to be rotated to DBL 54 barge or SMIC for offloading of recovered product and placed back in service. See STAR Manual Section B-III-6, On-water Free-oil Recovery.



8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responders (6)	Channel 22	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 5 Sensitive Area Protection

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Assignment List ICS 204-OS
3. Task Force 5	4. Sensitive Area Protection	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Chadux Responders	6	Chadux	SMIC	To deploy exclusion and diversion boom	☒
24" harbor boom	3,000'	Chadux	SMIC	Contain and exclude oil	☒
Tidal shore seal boom	200'	Chadux	SMIC	Contain and exclude oil	☒
Sorbent boom	2000'	Chadux	SMIC	Contain and absorb oil	☒
Class 6 vessels	2	Chadux/ Contract	Seward	Work platform for boom deployment	☒

7. Assignments: Mobilize and deploy exclusion and containment boom at environmentally sensitive areas identified for protection by Environmental Unit. See ICS 232 for priority protection and GRS implementation.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responders (6)	Channel 22	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time:

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 6 Aerial Surveillance & Tracking

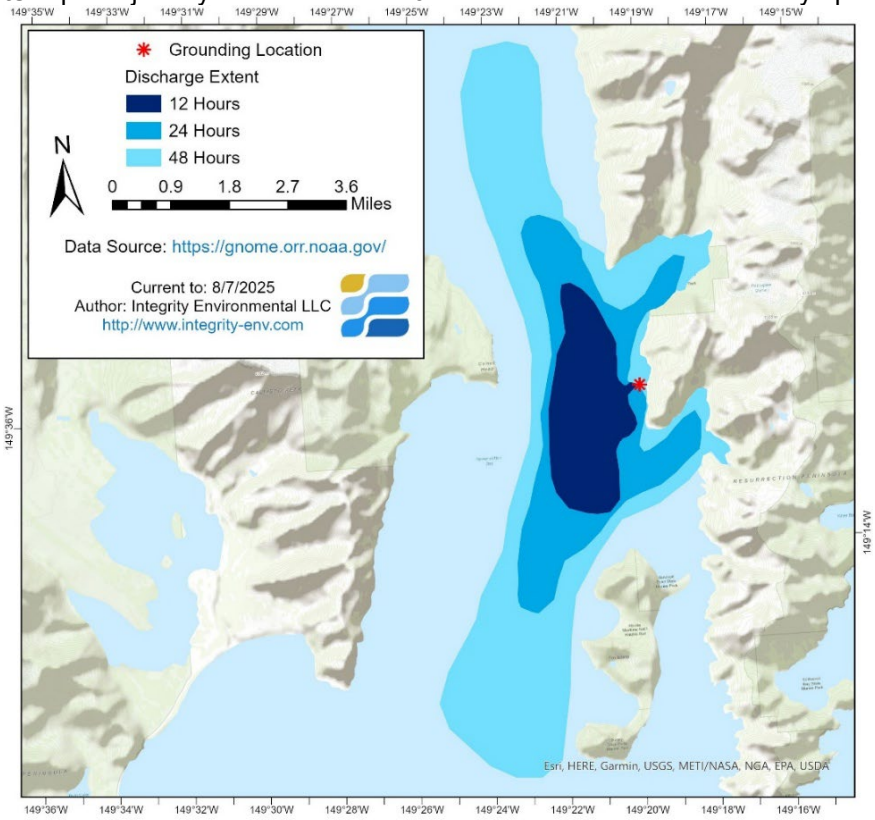
1. Incident Name	2. Operational Period (Date/Time)	Assignment List
Seward RPS Scenario	From: 10/01 To: End	ICS 204-OS
3. Task Force 6	**4. Aerial Surveillance & Tracking**	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Contracted Aircraft with Pilot	1	Private	Airport	On-water spill tracking & wildlife observations	☒
Overflight Team	3	Agency/ Chadux	ICP	Report to ICP before/ after each overflight	☒

7. Assignments: Spill trajectory at hour 12 and 40 without containment or recovery operations.



8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responder (1)	Channel 22	N/A
Agency Personnel (2)	Channel 22	N/A
	Total Responders:	3

10. Prepared By (Resource Unit Leader)	11. Approved By (Planning Section Chief)
Planning Section	**Date/Time:**

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 7: Shoreline Assessment

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Assignment List ICS 204-OS
3. Task Force 7	4. Shoreline Assessment	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
SCAT Team Personnel	4	Agency/ Chadux	ICP	Report to ICP to develop SCAT plan for EUL/Planning review and UC approval	☒
Work boat	1	Chadux Contract	Small boat harbor	Capacity to hold a minimum of 4 passengers with gear.	☒

7. Assignments: Implement the SCAT Plan as prepared by the Environmental Unit. Based on spill trajectory and overflights determine shoreline accessibility by skiff. Obtain necessary permits from land managers. Once on water recovery efforts are completed and based on tide/currents, implement plan approved by the Unified Command.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Chadux Responders (1)	Channel 10	N/A
Agency Personnel (3)	Channel 10	N/A
	Total Responders:	4

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time:

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 8: Wildlife Response

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Assignment List ICS 204-OS
3. Task Force 8	4. Wildlife Response	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Bird and Marine Mammal Responders	4	Chadux Contract	Fuel Float	Includes 2 IBR personnel (who are certified to haze) and 2 AK SeaLife Center under contract to Chadux	☒
Wildlife Hazing Kit	1	Chadux	SMIC		☒
Inflatable boats	2	Chadux	Small boat harbor	Capacity to hold a minimum of 3 passengers with gear	☒

7. Assignments: Based on spill trajectory and overflights determine accessibility and protection needs. Confer with SPI Seward Terminal Manager to assess current wildlife populations and issues in spill zone. IBR contractors will follow approved wildlife hazing plan.

Report wildlife observations to environmental unit for situation status updates.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Agency Personnel (2)	Channel 10	N/A
IBR Personnel (2)	Channel 10	N/A
AK SeaLife Personnel (2)	Channel 10	N/A
	Total Responders:	6

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time:

ASSIGNMENT LIST ICS 204-OS

ICS 204 Task Force 9: Waste Management

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Assignment List ICS 204-OS
3. Task Force 9	4. Waste Management	

5. Operations Personnel	Name	Affiliation	Contact # (s)
Incident Commander:	Chief Operating Officer	P49	VHF Radio/cell
Operations Section Chief:	Chadux	Chadux	VHF Radio/cell

6. Resources Assigned This Period "X" indicates special instructions

Type	Qty.	Ownership	Staging Area	Notes/Remarks	
Republic Services Personnel	6	Republic Services	SPI Facility	Manage, monitor and track waste	☒
SPI Facility Personnel	2	SPI	SPI Facility	Manage, monitor and track waste	☒
Transfer Pumps	2	SPI	SPI Facility	Transfer of recovered liquids	☒
Tank Trucks & Trailers; Contingency Tanks	See 213rr	SPI	SPI Facility	Storage of recovered liquids	☒
Contracted barge	1	Contract	SMIC	Storage of recovered liquids	☒

7. Assignments:
Conduct waste management activities as outlined in the UC developed waste disposal plan. Maintain documentation that accounts for quantity of product transferred from each device throughout the response. ADEC requires a permit to transport contaminated media. Waste management contractor will be responsible for filling out the permit application and submitting it to ADEC prior to transporting any contaminated media offsite.

https://dec.alaska.gov/spar/ppr/response-resources/permits-tool/

Recovered Liquids: Set up shuttle rotation of on-water storage devices/barges to offload at SMIC dock. Transfer pump set up to transfer oily liquid collected in bladders/barges to Tank trucks, contingency tanks and trailers.

8. Special Instructions for Division/Group Water operations – requires PFD; read tides and currents when provided. All operations require PPE. All responders must sign tailgate safety brief and read SSHP (when available). Read tides and currents when provided. Immediately report sightings of oiled wildlife to the IC.

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq/System/Channel	Phone
Republic Services Personnel (6)	Channel 10	N/A
SPI Personnel (2)	Channel 10	N/A
	Total Responders:	8

10. Prepared By (Resource Unit Leader) Planning Section	11. Approved By (Planning Section Chief) Date/Time:

ASSIGNMENT LIST ICS 204-OS

ICS 215 Seward RPS Scenario

2. Incident Name Seward RPS Scenario			2. Operational Period (Date/Time) From: 10/01 To: End									OPERATIONAL PLANNING WORKSHEET ICS 215-OS			
3. Division/ Group or Location	**4. Work Assignments**	**5. Resource/Equipment**													**9. "X" here if 204A is Needed**
		Resource	Containment Boom (ft)	Skimmer	Vessels	Temporary Storage	Personnel	Aircraft	Barge	Pump/ Hoses	Wildlife Hazing Kit	**6. Notes/ Remarks**	**7. Reporting Location**	**8. Req. Arrival Time**	
TF-1	Source Control and Lightering	Req.	0	0	0	0	11	0	1	2	0	*The OSRB (barge) is used in multiple task forces. **Vessel & Aircraft are used for TF-6, -7, and -8	On scene	1000	☒
		Have	0	0	0	0	11	0	1	2	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-2	On-Water Containment and Recovery	Req.	5,000'	1	3	3	6	0	1	0	0		On scene	1130	☒
		Have	5,000'	1	3	3	6	0	1	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-3	Open Water Containment and Recovery	Req.	300'	2	3	11	8	0	0	0	0		On scene	0800 on Day 2	☒
		Have	300'	2	3	11	8	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-4A and 4B	Nearshore Containment and Recovery	Req	800'	4	4	12	12	0	0	0	0		Thumb and Humpy Cove	0500 on Day 2	☒
		Have	800'	4	4	12	12	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-5	Sensitive Area Protection	Req.	5,200'	0	2	0	6	0	0	0	0		On Scene	0500 on Day 2	☒
		Have	5,200'	0	2	0	6	0	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-6	Aerial Surveillance & Tracking	Req.	0	0	0	0	3	1	0	0	0		On scene	1230	☒
		Have	0	0	0	0	3	1	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-7	Shoreline Assessment	Req.	0	0	1	0	4	1	0	0	0		On scene	0800 on Day 2	☒
		Have	0	0	1	0	4	1	0	0	0				
		Need	0	0	0	0	0	0	0	0	0				
TF-8	Wildlife Response	Req.	0	0	2	0	6	0	0	0	1		On Scene	0800 on Day 2	☒
		Have	0	0	2	0	6	0	0	0	1				
		Need	0	0	0	0	0	0	0	0	0				
TF-9	Waste Management	Req.	0	0	0	0	8	0	1	2	0			0800 on Day 2	☒
		Have	0	0	0	0	8	0	1	2	0				
		Need	0	0	0	0	0	0	0	0	0				
10. Total Resources Required			**11,300**	**7**	**14****	**26**	**64**	**1****	**2***	**4**	**1**	**13. Prepared by:** Operations Section			
11. Total Resources On Hand			**11,300**	**7**	**14****	**26**	**64**	**1****	**2***	**4**	**1**				
12. Total Resources Needed			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**				
OPERATIONAL PLANNING WORKSHEET															**ICS 215-OS**

ICS 232 Seward RPS Scenario Resources at Risk

1. Incident Name Seward RPS Scenario	2. Operational Period (Date/Time) From: 10/01 To: End	Resources at Risk Summary ICS 232-OS

3. Environmentally Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues
1	1	Thumb Cove	TF-4A Free oil recovery operation; TF-5 SZ-04-03 and SZ-04-04 Exclusion booming
2	2	Humpy Cove	TF-4B Free oil recovery operation; TF-5 SZ-03-02 Diversion; SZ-03-03 and SZ-03-04 Exclusion booming

Narrative: At the discretion of the IC, the Operations Section Chief, and OSRO, additional response tactics may be required to prevent the release from reaching nearby ESAs. Response tactics include dikes, berms, and trenches, containment boom, exclusion boom, and passive recovery with sorbent materials, including snow. See STAR Manual, Sections B-III-2-1, B-III-3-1, B-III-11-1, and B-III-12-1.

Immediately report sightings of oiled wildlife to the IC.

See Sections 1.6 and 3.9 of this plan for more information regarding recovery strategies, containment and control strategies, wildlife protection, and archeo-cultural and socio-economic factors in the region.

4. Archeo-cultural and socio-economic issues

Site #	Priority	Site Name and/or Physical Location	Site Issues
1	1	Thumb Cove State Marine Park	Recreational and private cabins
2	2	Humpy Cove	Private cabins, aquaculture
3	3	Sandspit Point State Marine Park	NE tip of Fox Island; Recreational Site

Narrative: Response tactics to prevent a release from impacting on of these sites includes exclusion boom, deflection boom, or a diversion booming site that will impede the flow path from reaching a sensitive area. See STAR Manual, Sections B-III-12, B-III-13, and B-III-8.

Protection prioritization to be conducted by IC and Operations Section Chief in concurrence with the Unified Command.

All responders are instructed to report any cultural resources found during operations to the Federal on Scene Coordinator (FOSC) Historic Properties Specialist (see Section 3.9.4 of this plan for more information).

Prepared by: Environmental Unit Leader	**Date/Time:**

RESOURCES AT RISK SUMMARY **ICS 232-OS**

ICS 209 Incident Status Summary

1. Incident Name	2. Operational Period (Date/Time)	Time of Report	INCIDENT STATUS SUMMARY ICS 209-OS
Seward Location Scenario	From: 10/01 To: End of Response	4- day summary	

3. Spill Status (Estimated, in Barrels) [Ops & EUL/SSC]

Source Status: Remaining Potential (bbl.): 0

☒ Secured Rate of Spillage (bph): 0

☐ Unsecured

	Since Last Report	Total
Volume Spilled (bbl)	33,000	33,000
Volume Spilled (gal)	1,386,000	1,386,000

Mass Balance/Oil Budget

	Gal	BBL
Recovered Oil Current		
Evaporation	NA	NA
Chemical Dispersion	NA	NA
Burned	NA	NA
Floating, Contained & Recovered	See Oil Recovery Table	See Oil Recovery Table
Total spilled oil accounted for:	1,386,000	33,000

4. Waste Management (Estimated) [Ops/Disposal]

	Project Recovered	Stored	Disposed
Oil (bbl.)	33,000	33,000	0
Liquids (bbl.)	165,000	165,000	0

5. Shoreline Impacts (Estimated, in miles) [PSC/EUL/SSC]

Degree of Oiling	Affected	Cleaned	To Be Cleaned
Light	0	0	0
Medium	0	0	0
Heavy	0	0	0
Total			

6. Wildlife Impacts [Ops/Wildlife Br.]

Numbers in () indicate subtotal that are threatened/endangered species.

					Died in Facility	
Mammals	0	0	0	0	0	0
Marine Mammals	0	0	0	0	0	0
Fish	0	0	0	0	0	0
Total	0	0	0	0	0	0

7. Safety Status [Safety Officer]

	Since Last Report	Total
Responder Injury	0	0
Public Injury	0	0

8. Equipment Resources [RUL]

Description	Ordered	Available/ Staged	Assigned	Out of Service

See ICS 215 and ICS 204s

9. Personnel Resources [RUL]

Description	People in Cmd. Post	People in the Field	Total People On Scene
Federal	3	5	8
State	5	9	14
Local	1	1	2
RP	5	11	16
Chadux	2	37	39
Wildlife Responders	0	6	6
IBR	0	4	4
Total Response Personnel from all Organizations:			89

10. Special Notes

11. Prepared by: (Situation Unit Leader)

INCIDENT STATUS SUMMARY ICS 209-OS

Section 1.6.12.2.1 Scenario Recovery Efficiency Seward

18 AAC 75.451(h)(2) and (3)

Table 1.6-4 Oil Recovery Efficiency-Seward

Skimmer/Pump	EDRC[1] (bbl/day)	EDRC (bbl/hr)	EDRC (gal/hr)
Elatec TDS-118	1,092	45.5	1,911
Lamor 50	2,136	50.86	2,136.12
Skimpak 18000	2,054	85.58	3,594.36

[1] *Effective Daily Recovery Capacity (EDRC): Manufacturer's rate in BPH times 24 hours times 20% = EDRC. The EDRC or Oil Recovery Efficiency Factor is the ratio, expressed as a percentage, of the volume of oil recovered to the volume of total liquids recovered; it does not count down time of the equipment when it is being set up, or when recovery is halted to empty out temporary storage.*

Table 1.6-2 calculates the effective daily oil recovery capacity for each skimming system in accordance with 18 AAC 75.451(h)(3) using the following equation.

R = T x U x E

R = Effective daily oil capacity in barrels;
T = Manufacturer's rated throughput capacity as defined in (o) of this section, in barrels per hour;
U = Hours that an operator can document capability to operate equipment during a 24-hour period under spill conditions; this figure may not exceed 20 hours per day unless an operator can demonstrate that the recovery rate can be sustained for longer periods;
E = Oil recovery efficiency rate; 0.2 unless otherwise approved by the department;

Table 1.6-5 Recovery Capacity Per Operational Period-Seward

Skimmer	Manufacturer's Rated Capacity (bbl/hr)	Oil Recovery Efficiency Rate[1]	Hours Operating	Effective daily oil capacity (barrels)
	T	***E***	***U***	***R***
Elastec TDS-118	227.5	0.2	5	227.5
Total Op Period 1				**227.5**
Elastec TDS-118	227.5	0.2	15	682.5
Lamor 50 (A)	445	0.2	14	1,246
Lamor 50 (B)	445	0.2	14	1,246
Lamor 50 (C)	445	0.2	14	1,246
Lamor 50 (D)	445	0.2	14	1,246
Lamor 50 (E)	445	0.2	14	1,246
Skimpak 18000	427.9	0.2	14	1,198.12
Total Op Period 2				**8,110.62**
Elastec TDS-118	227.5	0.2	15	682.5
Lamor 50 (A)	445	0.2	15	1,335

Table 1.6-5 Recovery Capacity Per Operational Period-Seward

Skimmer	Manufacturer's Rated Capacity (bbl/hr)	Oil Recovery Efficiency Rate[1]	Hours Operating	Effective daily oil capacity (barrels)
	T	***E***	***U***	***R***
Lamor 50 (B)	445	0.2	15	1,335
Lamor 50 (C)	445	0.2	15	1,335
Lamor 50 (D)	445	0.2	15	1,335
Lamor 50 (E)	445	0.2	15	1,335
Skimpak 18000	427.9	0.2	15	1,283.7
Total Op Period 3				**8,641.2**
Elastec TDS-118	227.5	0.2	15	682.5
Lamor 50 (A)	445	0.2	15	1,335
Lamor 50 (B)	445	0.2	15	1,335
Lamor 50 (C)	445	0.2	15	1,335
Lamor 50 (D)	445	0.2	15	1,335
Lamor 50 (E)	445	0.2	15	1,335
Skimpak 18000	427.9	0.2	15	1,283.7
Total Op Period 4				**8,641.2**
Elastec TDS-118	227.5	0.2	13	591.5
Lamor 50 (A)	445	0.2	13	1,157
Lamor 50 (B)	445	0.2	13	1,157
Lamor 50 (C)	445	0.2	13	1,157
Lamor 50 (D)	445	0.2	13	1,157
Lamor 50 (E)	445	0.2	12	1,068
Skimpak 18000	427.9	0.2	13	1,112.54
Total Op Period 5				**7,400.04**
TOTAL RECOVERY			**~1,386,865.2 gal /33,020.6 bbl**	

Table 1.6-6 demonstrates there is sufficient contingency storage available to accommodate each of the recovery devices and the recovery rates.

Table 1.6-6 Water-Based Recovery Table Seward (1 of 3)

		EDRC in barrels (bbl/day)								(bbl/hr)									
Time	HR	Elastec TDS-118	Lamor 50	Lamor 50	Lamor 50	Lamor 50	Lamor 50	Skimpak 18000	Total EDRC	Fuel Recovered	Total Fuel Recovered	Total Oily Water Recovered	Total Liquid Recovered	TSC	Empty TSC	Offsite storage	TSC Delivered	Available Storage	Capacity
7:00	0								0	0.0	0.0	0	0	2760	2760		2,760	Contingency Tank x 4	2,284
8:00	1								0	0.0	0.0	0	0	0	0			Contingency Tank	476
9:00	2								0	0.0	0.0	0	0	0	0				
10:00	3								0	0.0	0.0	0	0	0	0				
11:00	4								0	0.0	0.0	0	0	0	0				
12:00	5								0	0.0	0.0	0	0	0	0				
13:00	6								0	0.0	0.0	0	0	433	433		433	157- bbl Towable Bladders x 2	314
14:00	7								0	0.0	0.0	0	0	433	433			119-bbl Towable Bladder x 1	119
15:00	8								0	0.0	0.0	0	0	433	433				
16:00	9	1092							1092	45.5	45.5	182	228	433	206				
17:00	10	1092							1092	45.5	91.0	364	455	4745	4290		4312	Tank Truck x 13	1171
18:00	11	1092							1092	45.5	136.5	546	683	4745	4063			Tank Truck/Trailer x 12	3141
19:00	12	1092							1092	45.5	182.0	728	910	4745	3835				
20:00	13	1092							1092	45.5	227.5	910	1138	4745	3608				
21:00	14								0	0.0	227.5	910	1138	4745	3608				
22:00	15								0	0.0	227.5	910	1138	4745	3608				
23:00	16								0	0.0	227.5	910	1138	4745	3608				
0:00	17								0	0.0	227.5	910	1138	4745	3608				
1:00	18								0	0.0	227.5	910	1138	4745	3608				
2:00	19								0	0.0	227.5	910	1138	4745	3608				
3:00	20								0	0.0	227.5	910	1138	4745	3608				
4:00	21								0	0.0	227.5	910	1138	4745	3608				
5:00	22								0	0.0	227.5	910	1138	5487	4350		742	119-bbl Towable Bladders x 2	238
6:00	23	1092							1092	45.5	273.0	1092	1365	5487	4122			63-bbl Towable Bladders x 8	504
7:00	24	1092	2136	2136	2136	2136	2136	2054	13826	576.1	849.1	3396	4245	5487	1242				
8:00	25	1092	2136	2136	2136	2136	2136	2054	13826	576.1	1425.2	5701	7126	29272	22146		23785	OSRB	23000
9:00	26	1092	2136	2136	2136	2136	2136	2054	13826	576.1	2001.3	8005	10006	29272	19266			63-bbl Towable Bladders x 8 157-bbl Towable Bladder x 1 120-barrel Microbarge x1	785
10:00	27	1092	2136	2136	2136	2136	2136	2054	13826	576.1	2577.3	10309	12887	81653	68766		52,381	Pacific Wolf Tug or DBL 54 barge	52,381
11:00	28	1092	2136	2136	2136	2136	2136	2054	13826	576.1	3153.4	12614	15767	81653	65886				
12:00	29	1092	2136	2136	2136	2136	2136	2054	13826	576.1	3729.5	14918	18648	81653	63006				
13:00	30	1092	2136	2136	2136	2136	2136	2054	13826	576.1	4305.6	17222	21528	81653	60125				
14:00	31	1092	2136	2136	2136	2136	2136	2054	13826	576.1	4881.7	19527	24408	81653	57245				
15:00	32	1092	2136	2136	2136	2136	2136	2054	13826	576.1	5457.8	21831	27289	81653	54364				
16:00	33	1092	2136	2136	2136	2136	2136	2054	13826	576.1	6033.8	24135	30169	81653	51484				
17:00	34	1092	2136	2136	2136	2136	2136	2054	13826	576.1	6609.9	26440	33050	81653	48603				
18:00	35	1092	2136	2136	2136	2136	2136	2054	13826	576.1	7186.0	28744	35930	81653	45723				
19:00	36	1092	2136	2136	2136	2136	2136	2054	13826	576.1	7762.1	31048	38810	81653	42843				
20:00	37	1092	2136	2136	2136	2136	2136	2054	13826	576.1	8338.2	33353	41691	81653	39962				

Daylight Hours
Darkness Hours
First Operational Period
Second Operational Period
Third Operational Period
Fourth Operational Period
Fifth Operational Period

Table 1.6-6 Water-Based Recovery Table Seward (2 of 3)

		EDRC in barrels (bbl/day)								(bbl/hr)									
Time	HR	Elastec TDS-118	Lamor 50	Lamor 50	Lamor 50	Lamor 50	Lamor 50	Skimpak 18000	Total EDRC	Fuel Recovered	Total Fuel Recovered	Total Oily Water Recovered	Total Liquid Recovered	TSC	Empty TSC	Offsite storage	TSC Delivered	Available Storage	Capacity
21:00	38								0	0.0	8338.2	33353	41691	81533	39842				
22:00	39								0	0.0	8338.2	33353	41691	81533	39842				
23:00	40								0	0.0	8338.2	33353	41691	81533	39842				
0:00	41								0	0.0	8338.2	33353	41691	81533	39842				
1:00	42								0	0.0	8338.2	33353	41691	81533	39842				
2:00	43								0	0.0	8338.2	33353	41691	81533	39842				
3:00	44								0	0.0	8338.2	33353	41691	81533	39842				
4:00	45								0	0.0	8338.2	33353	41691	81533	39842				
5:00	46								0	0.0	8338.2	33353	41691	81533	39842				
6:00	47	1092	2136	2136	2136	2136	2136	2054	13826	576.1	8914.3	35657	44571	81533	36962				
7:00	48	1092	2136	2136	2136	2136	2136	2054	13826	576.1	9490.3	37961	47452	165533	118081		84000	Contracted Barge (~84,000 bbl)	84000
8:00	49	1092	2136	2136	2136	2136	2136	2054	13826	576.1	10066.4	40266	50332	165533	115201				
9:00	50	1092	2136	2136	2136	2136	2136	2054	13826	576.1	10642.5	42570	53213	165533	112321				
10:00	51	1092	2136	2136	2136	2136	2136	2054	13826	576.1	11218.6	44874	56093	165533	109440				
11:00	52	1092	2136	2136	2136	2136	2136	2054	13826	576.1	11794.7	47179	58973	165533	106560				
12:00	53	1092	2136	2136	2136	2136	2136	2054	13826	576.1	12370.8	49483	61854	165533	103679				
13:00	54	1092	2136	2136	2136	2136	2136	2054	13826	576.1	12946.8	51787	64734	165533	100799				
14:00	55	1092	2136	2136	2136	2136	2136	2054	13826	576.1	13522.9	54092	67615	165533	97918				
15:00	56	1092	2136	2136	2136	2136	2136	2054	13826	576.1	14099.0	56396	70495	165533	95038				
16:00	57	1092	2136	2136	2136	2136	2136	2054	13826	576.1	14675.1	58700	73375	165533	92158				
17:00	58	1092	2136	2136	2136	2136	2136	2054	13826	576.1	15251.2	61005	76256	165533	89277				
18:00	59	1092	2136	2136	2136	2136	2136	2054	13826	576.1	15827.3	63309	79136	165533	86397				
19:00	60	1092	2136	2136	2136	2136	2136	2054	13826	576.1	16403.3	65613	82017	165533	83516				
20:00	61	1092	2136	2136	2136	2136	2136	2054	13826	576.1	16979.4	67918	84897	165533	80636				
21:00	62								0	0.0	16979.4	67918	84897	165533	80636				
22:00	63								0	0.0	16979.4	67918	84897	165533	80636				
23:00	64								0	0.0	16979.4	67918	84897	165533	80636				
0:00	65								0	0.0	16979.4	67918	84897	165533	80636				
1:00	66								0	0.0	16979.4	67918	84897	165533	80636				
2:00	67								0	0.0	16979.4	67918	84897	165533	80636				
3:00	68								0	0.0	16979.4	67918	84897	165533	80636				
4:00	69								0	0.0	16979.4	67918	84897	165533	80636				
5:00	70								0	0.0	16979.4	67918	84897	165533	80636				
6:00	71	1092	2136	2136	2136	2136	2136	2054	13826	576.1	17555.5	70222	87778	165533	77756				
7:00	72	1092	2136	2136	2136	2136	2136	2054	13826	576.1	18131.6	72526	90658	165533	74875				
8:00	73	1092	2136	2136	2136	2136	2136	2054	13826	576.1	18707.7	74831	93538	165533	71995				
9:00	74	1092	2136	2136	2136	2136	2136	2054	13826	576.1	19283.8	77135	96419	165533	69114				

Daylight Hours
Darkness Hours
First Operational Period
Second Operational Period
Third Operational Period
Fourth Operational Period
Fifth Operational Period

Table 1.6-6 Water-Based Recovery Table Seward (3 of 3)

		EDRC in barrels (bbl/day)								(bbl/hr)									
Time	HR	Elastec TDS-118	Lamor 50	Lamor 50	Lamor 50	Lamor 50	Lamor 50	Skimpak 18000	Total EDRC	Fuel Recovered	Total Fuel Recovered	Total Oily Water Recovered	Total Liquid Recovered	TSC	Empty TSC	Offsite storage	TSC Delivered	Available Storage	Capacity
10:00	75	1092	2136	2136	2136	2136	2136	2054	13826	576.1	19859.8	79439	99299	165533	66234				
11:00	76	1092	2136	2136	2136	2136	2136	2054	13826	576.1	20435.9	81744	102180	165533	63353				
12:00	77	1092	2136	2136	2136	2136	2136	2054	13826	576.1	21012.0	84048	105060	165533	60473				
13:00	78	1092	2136	2136	2136	2136	2136	2054	13826	576.1	21588.1	86352	107940	165533	57593				
14:00	79	1092	2136	2136	2136	2136	2136	2054	13826	576.1	22164.2	88657	110821	165533	54712				
15:00	80	1092	2136	2136	2136	2136	2136	2054	13826	576.1	22740.3	90961	113701	165533	51832				
16:00	81	1092	2136	2136	2136	2136	2136	2054	13826	576.1	23316.3	93265	116582	165533	48951				
17:00	82	1092	2136	2136	2136	2136	2136	2054	13826	576.1	23892.4	95570	119462	165533	46071				
18:00	83	1092	2136	2136	2136	2136	2136	2054	13826	576.1	24468.5	97874	122343	165533	43191				
19:00	84	1092	2136	2136	2136	2136	2136	2054	13826	576.1	25044.6	100178	125223	165533	40310				
20:00	85	1092	2136	2136	2136	2136	2136	2054	13826	576.1	25620.7	102483	128103	165533	37430				
21:00	86								0	0.0	25620.7	102483	128103	165533	37430				
22:00	87								0	0.0	25620.7	102483	128103	165533	37430				
23:00	88								0	0.0	25620.7	102483	128103	165533	37430				
0:00	89								0	0.0	25620.7	102483	128103	165533	37430				
1:00	90								0	0.0	25620.7	102483	128103	165533	37430				
2:00	91								0	0.0	25620.7	102483	128103	165533	37430				
3:00	92								0	0.0	25620.7	102483	128103	165533	37430				
4:00	93								0	0.0	25620.7	102483	128103	165533	37430				
5:00	94								0	0.0	25620.7	102483	128103	165533	37430				
6:00	95	1092	2136	2136	2136	2136	2136	2054	13826	576.1	26196.8	104787	130984	165533	34549				
7:00	96	1092	2136	2136	2136	2136	2136	2054	13826	576.1	26772.8	107091	133864	165533	31669				
8:00	97	1092	2136	2136	2136	2136	2136	2054	13826	576.1	27348.9	109396	136745	165533	28788				
9:00	98	1092	2136	2136	2136	2136	2136	2054	13826	576.1	27925.0	111700	139625	165533	25908				
10:00	99	1092	2136	2136	2136	2136	2136	2054	13826	576.1	28501.1	114004	142505	165533	23028				
11:00	100	1092	2136	2136	2136	2136	2136	2054	13826	576.1	29077.2	116309	145386	165533	20147				
12:00	101	1092	2136	2136	2136	2136	2136	2054	13826	576.1	29653.3	118613	148266	165533	17267				
13:00	102	1092	2136	2136	2136	2136	2136	2054	13826	576.1	30229.3	120917	151147	165533	14386				
14:00	103	1092	2136	2136	2136	2136	2136	2054	13826	576.1	30805.4	123222	154027	165533	11506				
15:00	104	1092	2136	2136	2136	2136	2136	2054	13826	576.1	31381.5	125526	156908	165533	8626				
16:00	105	1092	2136	2136	2136	2136	2136	2054	13826	576.1	31957.6	127830	159788	165533	5745				
17:00	106	1092	2136	2136	2136	2136	2136	2054	13826	576.1	32533.7	130135	162668	165533	2865				
18:00	107	1092	2136	2136	2136	2136		2054	11690	487.1	33020.8	132083	165104	165533	429				

	Daylight Hours
	Darkness Hours
	First Operational Period
	Second Operational Period
	Third Operational Period
	Fourth Operational Period
	Fifth Operational Period

Section 1.6.13 General Procedures for Responding to Greatest Possible Discharge *18 AAC 75.449(a)(10)*

The greatest possible discharge from vessels included in this plan or by spot/time charter is estimated to be 220,000 barrels.

The tank vessels included in this plan are constructed of steel and are double hulled. In the event of a collision, the outer hull takes the impact, while the inner hull remains sound preventing the release of oil. Additionally, cargo tanks are separated by steel walls allowing for only the compartment that is impacted to potentially release oil if both hulls fail. The likelihood of a greatest possible discharge at the facilities is extremely low.

Safety would be the top priority before attempting to clean up the release. A full assessment of the facilities would be necessary as follows. Please see Sections 1.1 and 1.3.

Once established, the IMT would assess if additional notifications beyond what is required for an ADEC RPS spill scenario are necessary, including local businesses, local government, state government agencies, among others.

Once it has been determined that the area is safe to enter, the response would follow similar initial steps as outlined in the ADEC RPS spill scenario. See Section 1.6.12 of this plan for more information. To respond to a spill of this magnitude, additional responders and spill response equipment would be necessary. Through P49's contract with SEAPRO and Chadux, additional responders and equipment would be mobilized to the facilities from other equipment hubs (see Section 1.5 of this plan).

Additional equipment that may be necessary is as follows:

- Containment boom
- Skimming units for on-water, shoreside, and land recovery operations
- Multiple contingency storage devices including tanks and bladders
- Barges for contingency storage

Contaminated solid waste and liquid waste would be anticipated to be significantly higher than the ADEC RPS spill scenario. For this reason, a larger temporary storage site for waste would be necessary. The appropriate permits would be obtained before constructing the storage site (see Section 1.2.2).

Lastly, with such a large volume being released to the environment, there is potential that the release would reach further than the five-mile planning distance and may threaten or impact other environmentally sensitive areas. At the IC's discretion, exclusion booming may be deployed to protect these areas. Additional shorelines could also potentially be impacted and would require cleanup (see Section 1.6.11 for information on shoreline cleanup).

Section 1.7 Nonmechanical Response Options *18 AAC 75.449(a)(8)*

P49 does not intend to use nonmechanical response options. However, the STAR Manual, Part IV discusses dispersant and in-situ burning tactics should either option become necessary (ADEC 2014).

Section 1.8 Vessel Diagrams

18 AAC 75.449(a)(9)
18 AAC 75.451(b)(3)(A) and (B)

This section of the plan includes a general vicinity map and general charts showing the routes normally used for transportation of oil products within state waters.

Diagrams and descriptions of vessels operating under this plan under a spot/time charter will be submitted to the ADEC as part of a spot charter addendum.

Figure 1.8-1 General Vicinity Map

Current to: 7/24/2025
Author: Integrity Environmental LLC
http://www.integrity-env.com

Petro 49, Inc.
Tank Vessels
Within: Seward Meridian, Alaska and
Copper River Meridian, Alaska.
Coordinate System: NAD 1983 Alaska Albers

● Destination Facilities

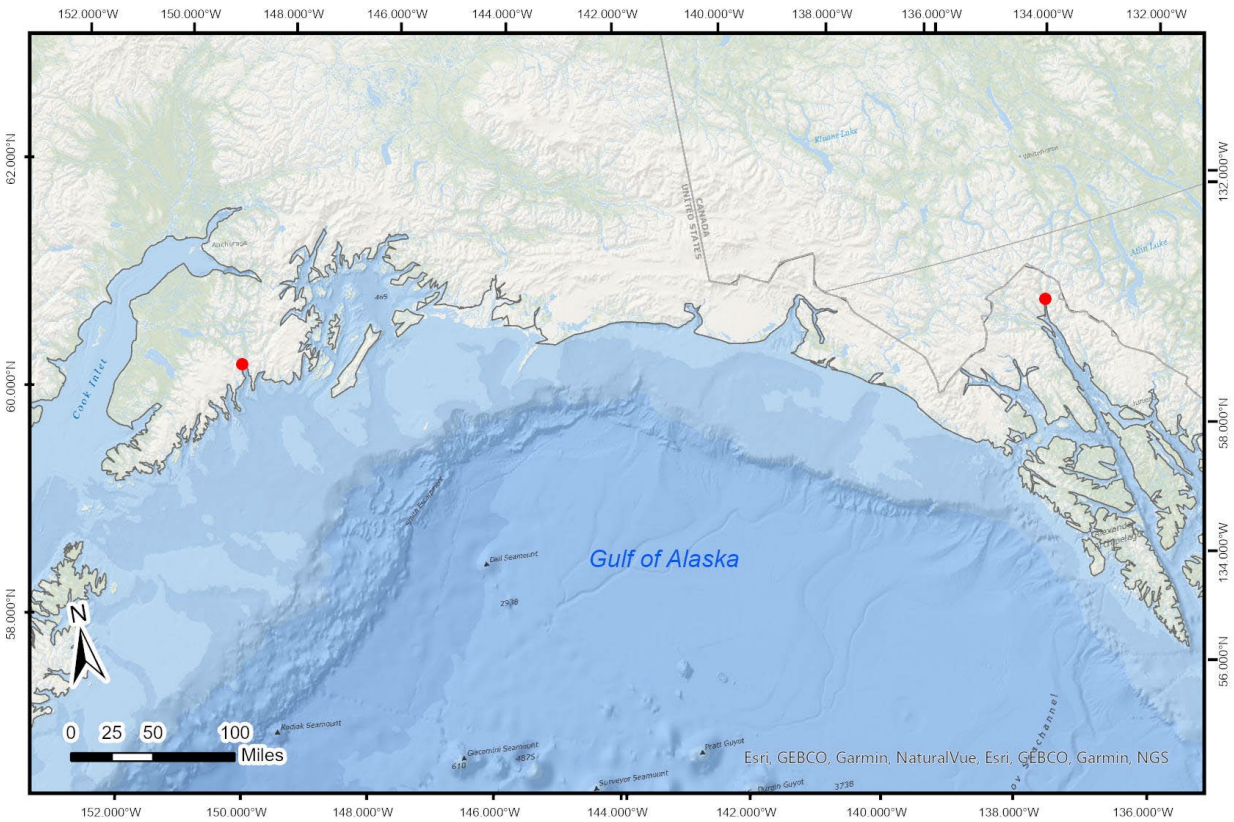


Figure 1.8-2 General Route Information for Vessel Route to Seward

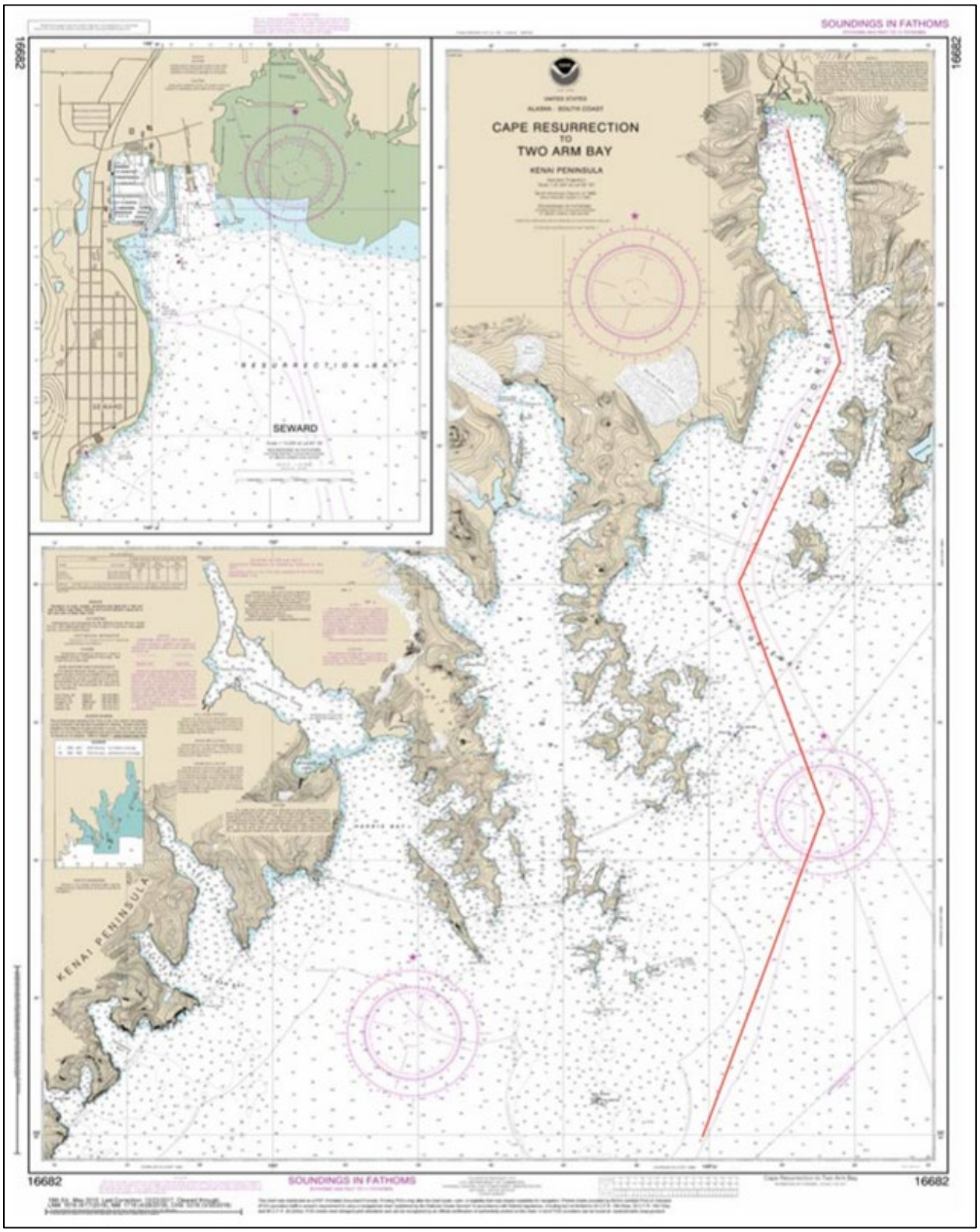
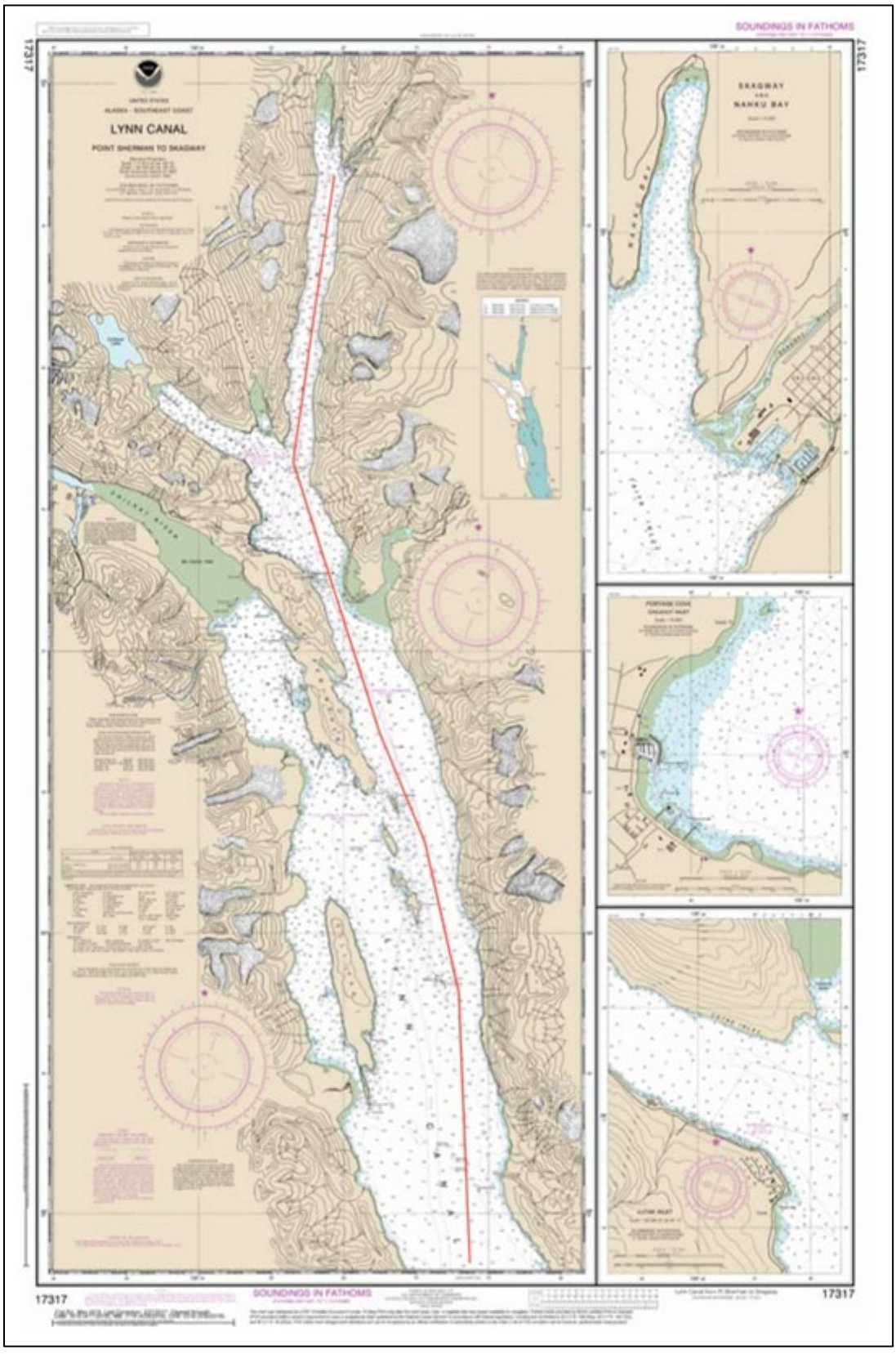


Figure 1.8-3 General Route Information for Vessel Route to Skagway



Section 2.0 Prevention Programs *18 AAC 75.450(a)*

The prevention program is made up of several parts which together reduce the chance that a spill will occur or minimize its size. The prevention measures and policies include inspection and maintenance programs, training, drug abuse program, medical examinations, and security.

The prevention programs in place are described in this section. The subsections below describe the spill prevention programs for key personnel training, substance abuse, medical monitoring, security, product transfer, storage tank maintenance, secondary containment, and facility piping.

Section 2.1 Discharge Prevention Programs *18 AAC 75.450(b)(1)*

Section 2.1.1 Oil Discharge Prevention Training Program

All P49 personnel involved in onshore and offshore operations will receive the proper spill prevention training. Each position involved in transfer operations has a job description with specific knowledge level requirements. See Section 3.8 for a more comprehensive description of P49's training program for spill prevention and response. All vessels chartered by P49 will have a prevention program that meets the requirements of the USCG regulations including 33 CFR 155.1055. Training records are maintained at the P49 offices and are available upon request.

Section 2.1.2 Substance Abuse and Medical Monitoring Program

It is company policy to provide a healthy, safe, and secure work environment for employees, citizens of the community, and clients. A substance abuse program is established as well as a voluntary employee health and wellness program.

Substance Abuse: P49 operations personnel are subjected to pre-employment, random, and unannounced substance abuse testing. The testing protocol and procedures are carried out by a private contractor. Vessels chartered by P49 will comply with 46 CFR Part 16, which is applicable to those crewmembers who serve on U.S. flag commercial vessels. These regulations require pre-employment, random, reasonable cause, periodic, and post-casualty drug testing (serious marine incident).

46 CFR Part 4 requires chemical testing for all persons, including foreign crewmembers who are directly involved in a serious marine incident while serving onboard any commercial vessel upon the navigable waters of the United States, its territories, or possessions.

All vessels chartered by P49 will have a substance abuse program that meets the requirements of the 49 CFR Part 40 and/or their flag state.

Medical Monitoring: All P49 operations personnel are required to undergo a medical physical examination at time of hire. This examination includes assessment as to fitness in the operations field. Medical records for each P49 operations person is retained at the P49 Seward office.

All vessels chartered by P49 will have a medical monitoring program. The program requires that tank vessel operational personnel undergo a medical examination prior to employment to verify that all personnel are medically fit to perform their prescribed duties.

Section 2.1.3 Security Program

P49 complies with all applicable federal regulations regarding vessel security. The vessels included in this plan by spot/time charter have security measures in place to reduce the chances of unauthorized boarding, vandalism, and sabotage.

All vessels included in this plan by spot/time charter will comply with CFR 33 Part 105. Refer to the Facility Security Plan and Facility ODPCPs for further details. The Plant Manager is the Facility Security Officer (FSO). The Director of Operations is the Company Security Officer (CSO).

Additional Security Measures include:

- When a tank vessel moors to the dock, there is minimal lag time between the cargo transfer.
- During all vessel transfers, there is a Person in Charge (PIC), for both the facility and the vessel, and a security watch provided to monitor for oil spills and to provide dock and vessel security.
- The fuel dock, as well as the vessel, is well lit at night.

A chain-link security fence restricts access to both P49 facilities. Entrance into the fenced enclosures is possible only through the main entrance, and the entrance is completely visible from the P49 offices. The dock areas are monitored by the PIC and security watch during transfers of cargo. If a P49 person is not present, the fence gate is locked.

Police conduct regular surveillance in Skagway and Seward. Police are immediately available through telephone and radio communications.

Section 2.1.4 Requirements for Laden Tank Vessels *18 AAC 75.027*

P49 vessels have a designated person onboard as the oil spill prevention and response officer who is responsible for training and drilling the crew on state and federal oil pollution prevention and response requirements. All vessels also have access to sufficient oil transfer equipment to facilitate lightering to and from other vessels if necessary. The equipment is sufficient to lighter the volume of the largest cargo tank within 24 hours.

The Vessel Master will be fluent in English, or if necessary, will make arrangements for an interpreter prior to entry into State of Alaska waters.

If a vessel escort is necessary for any vessel operating under this plan, the escort regulations will be followed. Emergency towing will be performed in accordance with the Mooring Equipment Guidelines (OCIMF), “Peril and Sea and Salvage Guide” (OCIMF), and the Emergency Towing Booklet per Safety of Life at Sea (SOLAS) requirements.

While in state waters, all vessels operating under this plan will have a towing line made up and prepared for rapid deployment to a towing vessel. The tow line will be fitted to allow tow vessels commonly available in the area of operations to take the vessel in tow rapidly.

If a vessel escort is ever necessary, the required information will be submitted to ADEC.

Section 2.2 Discharge History *18 AAC 75.450(b)(2)*

Oil spill discharge histories for each spot charter vessel will be requested from the vessel owners and provided to the ADEC as part of the spot charter addendum.

Section 2.3 Potential Discharge Analysis *18 AAC 75.450(b)(3)*

The intent of this section is to identify potential spills and to estimate their size, frequency, cause, duration, and location. Prevention measures to mitigate each potential spill are described.

Source	**Equipment failure**
Cause of discharge	Equipment failure during a transfer operation.
Size/rate of flow	Size depends on rate of flow and duration.
Frequency	Very low because of regular inspection and maintenance.
Duration	Operating personnel would notice the leak immediately since they are present during all transfer operations. Maximum duration up to five minutes.
Location	Varies.
Prevention	Inspection, maintenance, training, transfer procedures, and pressure testing.
Source	**Grounding, collision, or fire/explosion**
Cause of discharge	There is a risk of vessels running aground, colliding with other vessels or structures, and spontaneous equipment fires/explosions aboard the vessel.
Size/rate of flow	Variable. Small to catastrophic.
Frequency	Variable – there is a low probability due to the vessel route through deep and marked waters and experienced Vessel Masters.
Duration	Variable due to the collision or incident.
Location	Cook Inlet/Southeast Alaska Region – collision/grounding is likely to be nearshore.
Prevention	Vessels operate in good weather when practicable with properly maintained equipment. The vessel should adhere to international, federal, and state requirements for vessel construction, crew manning, training, operational awareness, and inspections. Double-hulled construction of all tank vessels provides a level of protection against vessel impacts. The risk of a vessel grounding has been greatly decreased by the prescribed vessel route and tug escort prevention program that has been instituted by P49. Marine pilots are very familiar with the navigation hazards. USCG navigation markers are established and maintained in the area. Fire/explosion risks are minimized as a result of normal tank vessel operating procedures.
Source	**Terrorism/sabotage**
Cause of discharge	An act of terrorism or sabotage from someone aboard the vessel.
Size/rate of flow	Variable. Small to catastrophic.
Frequency	Very low probability and low frequency.

Duration	Variable depending on the size and location of the incident.
Location	Variable – pipes or tanks on the vessel.
Prevention	Inspection, maintenance, training. All valves are kept closed and locked when not in use. Employees are instructed to report suspicious persons and packages during working hours.
Source	**Cargo tank overfill**
Cause of discharge	Transfer spills are most commonly the result of operator error. Infrequently they are caused by equipment failure.
Size/rate of flow	Small.
Frequency	Very low because of regular training.
Duration	Operating personnel would notice the leak immediately since they are present during all transfer operations. Maximum duration up to five minutes.
Location	Cargo tank fuel headers.
Prevention	Transfer procedures and personnel training are the primary means of preventing transfer spills.
Source	**Catastrophic earthquake**
Cause of discharge	Loading hose rupture due to lateral movement of the dock versus a stationary vessel.
Size/rate of flow	Size depends on rate of flow and duration.
Frequency	Low. Although there is regular seismic activity in Alaska, significant earthquakes are less frequent.
Duration	The transfer of cargo would immediately be terminated should a major earthquake occur. Maximum duration up to five minutes.
Location	At the dock in Skagway or Seward.
Prevention	Risk is minimized since the transfer hoses are flexible and there is inherent slack (in the dock and the hoses) to absorb these movements. The Master would also maintain contact with the dock watch after a significant earthquake for information concerning tsunami warnings and would take appropriate action at that time.

Section 2.4 Conditions that Might Increase Risk of Discharge

18 AAC 75.450(b)(4)

The intent of this section is to identify conditions or operations that might increase the risk of a spill and to describe measures being taken to reduce the risk for each one identified.

Seismic Activity and Tsunamis: Earthquakes are common throughout Alaska. If an earthquake occurs, all transfer operations would immediately cease until all systems are inspected for operational and structural integrity. Transfer operations would resume only after the Vessel Master or shoreside representative approves that it is safe to do so. If a tsunami warning is issued by the U.S. Tsunami Warning System, all loading operations will be secured, and the ship will depart from the dock and move to deeper water (NOAA 2025c).

Volcanic Activity: Volcanic eruptions have the potential to impact vessel operations. There are active and dormant volcanoes present in Southeast and Southcentral Alaska. Volcanic eruptions can impact vessel operations in several ways, including ash and debris reducing visibility, causing damage to combustion engines, and causing general navigational hazards. During a volcanic eruption, the Vessel Master must confirm all applicable NOAA seismic advisories and all USCG Notice to Mariner broadcasts and bulletins.

Navigational Hazard: Tidal currents and sea states at docks can increase the risk of a discharge due to an allision with the dock or similar structure. Vessels will utilize an experienced pilot, where required due to local regulations and/or conditions to assure the vessel will arrive safely at the dock. Vessels are equipped with state-of-the-art navigation equipment and procedures to ensure precise navigation and allision/collision prevention. The U.S. Department of Homeland Security in conjunction with the USCG posts bulletins on the Broadcast Notice to Mariners website available at https://www.navcen.uscg.gov/broadcast-notice-to-mariners**.**

Act of Vandalism/Sabotage: Spills resulting from sabotage or vandalism are considered unlikely and have not been an issue on vessels. See Section 2.1.3 of this plan for a description of the security program.

Equipment/Operator Failure: Failure of equipment is a cause of spills, and old, poorly maintained equipment is more likely to fail than new, well-maintained equipment. P49 performs regular inspections and maintenance to find and eliminate equipment at risk of failure. This ongoing maintenance program is one of the most important measures being taken to mitigate against spills caused by equipment failure.

An operating factor that would increase the risk of a spill is having unqualified or untrained employees transferring fuel. P49 screens applicants by checking their qualifications before hiring anyone. Once hired, employees are given specific job training. Throughout their tenure, employees attend regular safety meetings and attend periodic refresher training in operations and spill response. Crew motivation and training are the first line of spill prevention.

Ice: The Port of Seward is considered an ice-free port, and ice is generally not a concern. However, waters partially freeze after December 1, and some floating ice is seen through

May. The ice usually does not interfere with navigation (NOAA 2024a). The Port of Skagway is ice-free year-round, thus ice and debris are not a hindrance to the effectiveness of a spill response in Taiya Inlet (NOAA 2024b).

Section 2.5 Discharge Detection *18 AAC 75.450(b)(5)*

This section provides a description of the existing and proposed means of discharge detection, including surveillance schedules, leak detection, spill detection instrumentation, and monitoring systems. If electronic or mechanical instrumentation is employed, detailed specifications, including threshold detection, sensitivities, and limitations of equipment will be provided.

Section 2.5.1 Vessel Inspection *18 AAC 75.450(b)(1)*

Direct Observation: Oil spills will be primarily detected by direct observation of the event. Prior to marine oil transfers, transfer equipment is visually inspected by personnel. During marine oil transfers, personnel will keep a continuous watch for any sign of a spill.

During bulk fuel deliveries to/from the tank vessel, a watchman will be stationed at the cargo tank receiving or offloading fuel. They will be in radio communication with the person in charge of the transfer who will be keeping watch at the delivery point. If any irregularity occurs, including overflowing a tank, the watchman will notify the person in charge of the transfer who will immediately order the pumps to be shut down. Except for overfill alarms, there is no electronic monitoring to detect spills.

Personnel immediately clean up any spilled oil using containment, sorbents, and skimmers as needed for the specific situation.

Periodic Inspections: All vessels comply with USCG vessel inspection requirements. Vessel inspection checklists include inspecting the vessel's towing equipment, hull, pump room, engine room, cargo control room, cargo tanks, other oil containers, fire fighting equipment, and other vessel components.

In addition, as required per 33 CFR 156.170, all cargo piping is hydrostatically tested at the maximum allowable working pressure (MAWP), on an annual basis. The cargo piping system is hydrotested to 1.5 times the maximum allowable working pressure. The reports of the hydrotests are maintained onboard the vessels and are available for examination by USCG Inspectors.

Maintenance and documentation of operating equipment is conducted in compliance with applicable USCG and/or country of registry protocol and/or classification society requirements. Records of maintenance and inspections are maintained onboard the vessel and are available for agency review.

Dry-Dock Inspections: U.S.-registered vessels that operate in seawater undergo a dry-dock inspection twice within a five-year period, with the inspections not exceeding three years between. If approved by the USCG, the tank vessel operator may request an underwater inspection in place of one of the dry-dock inspections within the five-year period. These inspections are performed in accordance with 46 CFR 91.40-3.

Foreign Flag Charter Vessels: Vessel operators of all foreign flag vessels that enter U.S. navigable waters must submit specified materials to the USCG for evaluation to determine, "whether a foreign licensing (training) and certification program has standards that are comparable to or more stringent than U.S. standards." All vessels included in this plan will comply with flag state requirements and the International Safety Management code.

Section 2.5.2 Existing and Proposed Discharge Detection *18 AAC 75.450(b)(1)*

Overfill Prevention and Leak Detection

The risk of an oil discharge from a tank vessel while at sea is minimal. Discharge detection for tank vessels includes the normal cargo monitoring system on the tank vessel (system type and capabilities vary with each chartered vessel) and the normal surveillance of the vessel and surrounding water surface that is conducted by the vessel master and deck watch personnel.

During transfer of cargo at the fuel dock, discharge detection is achieved by the following:

- Vessel Master conducting normal surveillance of vessel.
- Vessel PIC and Security Watch maintaining watch over the vessel's cargo transfer system and immediate water surface around the vessel.
- P49 PIC and Security Watch maintaining watch over the dock-side cargo transfer system and the immediate water surface around the vessel and the dock.

Because containment boom is placed around the entire vessel perimeter prior to and during cargo transfers (when weather conditions permit), any oil that is discharged from the sides or bottom of the tank vessel will be collected within the containment boom, increasing the probability of quick detection. At night, the dock area and vessel are also well lit.

Please refer to Spot Charter Addendum for information regarding leak detection systems specific to each vessel.

Section 2.6 Waivers and Compliance Schedule *18 AAC 75.450(b)(6)*

Operations covered under this ODPCP are not subject to a waiver, alternate compliance schedule, or existing condition of plan approval.

Section 3.0 Supplemental Information *18 AAC 75.451*

This section is the location for background information needed to support the plan. It also contains general information about the setting, layout, and operation of the vessels.

Section 3.1 Vessel Description and Operational Overview *18 AAC 75.451(b)*

For each vessel to be chartered that is not currently included in the approved plan, P49 will obtain and submit to the ADEC the required vessel specific information as part of the request for a plan amendment. Please see Appendix A for a list of the required vessel information. A copy of the vessel specific information will be maintained for P49's records for five years.

Section 3.1.1 Oil Storage Container Information *18 AAC 75.451(b)(1) and (b)(2)*

When spot/time charter amendments are submitted to ADEC, oil storage container information, including a list of cargo tanks and storage capacities, will be provided to ADEC. This information will include a tank diagram depicting the location of each tank and alphanumeric designation.

Section 3.1.2 Type and Amount of Oil

Vessels under this plan will be transporting the following products:

- Ultra-Low Sulfur Diesel Fuel
- #1 Diesel Fuel
- Gasoline

Copies of the safety data sheets (SDS) for each product are located on the vessel(s) and provided in Appendix E of this plan.

The maximum cargo capacity of the chartered tank vessels covered by this plan is listed in Section 5.0 of this plan.

Section 3.1.3 Vessel Routes *18 AAC 75.451(b)(3)*

The typical vessel routes for chartered vessels are submitted to ADEC as part of the amendment approval process. Figures 1.8-2 and 1.8-3 show general route information for vessels navigating to Seward and Skagway respectively.

Section 3.1.4 Vessel Plans and Diagrams *18 AAC 75.451(b)(3)*

Vessel plans and diagrams for each spot charter vessel will be provided to the ADEC as part of the spot charter vessel amendment. Plans and diagrams will include the following information:

- A cover letter that includes the vessel name and International Maritime Organization (IMO) or Official Number; plan holder name and plan number; dates spot charter amendment is in effect; types and volume of all cargo (includes petroleum and non-petroleum cargo); and written assurance that all vessel specific items in P49's Prevention Plan have been addressed.
- ADEC's amendment application.
- Vetting questionnaire (Oil Companies International Marine Forum [OCIMF] or equivalent).

- Primary Response Action Contractor (PRAC) contract between the plan holder and vessel owner/operator.
- Vessel operational control.
- Specific oil transfer procedures for the terminal and vessel.
- Vessel routing information into and out of State of Alaska waters.
- SDS for all cargo being transported.
- Drawings that identify cargo, bunker and ballast tanks, tank capacities, cargo piping, ballast piping, winches, emergency towing equipment, power plants, manifold pipe size, containment structures and equipment, locations of response equipment, fire suppression equipment, main power shutoff switches, and any other relevant fire control features.
- A description of the methods for containing a discharge from fuel oil tank vent overflow and fill pipes.
- A description of the methods for retention and disposal of oily waste and bilge slops.
- A list of discharges greater than 55 gallons that have occurred in Alaskan waters.
- Assurance that correspondence has been forwarded to the designated PRAC and USCG Marine Safety Detachment for Region.
- Ensure adequate financial responsibility coverage as required by 18 AAC 75 Article 2.

A complete copy of the spot charter checklist is provided in Appendix A of this plan.

Section 3.1.5 Transfer Procedures *18 AAC 75.025 and 75.451(b)(5)*

After the persons in charge of transfer operations for the vessel and the shoreside facility have completed their respective pre-transfer operations and prior to transfer of oil, the P49 PIC and the tank vessel PIC will conduct a pre-transfer conference and complete a Declaration of Inspection (DOI) as required by 33 CFR 156.120. The pre-transfer conference will include, but is not limited to, the following items:

1. **Transfer Rate:** Agreement will be reached on the initial startup, normal and topping offloading rates based on the transferring and receiving systems capacities and product characteristics. PMS cargo transfer procedures require a gradual ramp up of pressure when cargo transfers begin. Communication between ship PIC and P49 PIC is by VHF radio and continuous communication is required at all times.

2. **Name, Title, and Location of each PIC:** The PICs will know the identity of his counterpart, his location, and how to communicate with him. Communications procedures will be tested initially and frequently thereafter.

3. **The particulars of the transferring and receiving systems.**

4. **Federal, State, and Local Rules:** The PICs will have a good working knowledge of the laws and regulations applicable to petroleum cargo transfer operations.

5. **Emergency Procedures:** The PICs will discuss the procedures to be followed in the case of a spill or other potential emergencies or conditions peculiar to the situation, climate, or location.

6. **Transfer Shutdown Procedures:** The PICs will discuss the procedures to be followed in the case of an emergency as well as those for normal cargo transfer completion.

7. **Discharge Containment Procedures:** The PICs will discuss the deployment and operation of vessel and facility containment and recovery equipment, as well as the role of vessel and facility personnel.

8. **Spill Reporting Procedures:** The PICs will discuss and understand federal, state and local spill reporting requirements and procedures.

9. **DOI:** A DOI will be completed and signed by each of the PICs prior to the commencement of transfer operations. Each successive or relieving person-in-charge must review and sign the DOI prior to assuming responsibility as PIC of the transfer operation.

10. **Watch and Shift Arrangements:** Upon each watch or shift change the PICs will, in addition to familiarizing themselves with and signing the DOI, discuss the transfer procedures with their counterpart prior to changing the watch or shift to ensure each understands the contents thereof.

The cargo transfer procedures are in accordance with 18 AAC 75.025 and detailed in each vessel's Fuel Transfer Procedures. They include, in part, the following:

- Protective Booming: Unless technically unfeasible to do so, oil containment boom will be deployed around the vessel during transfer.
- Communication: Radio communication between all transfer personnel on shore and on the vessel is verified. Procedures for stopping the transfer are agreed upon.
- Line-up: The PIC on the vessel will set the vessel's tank valves and line block valves in a manner consistent with the requirement of the cargo plan and pre-transfer conference.
- Hook-up: The cargo hose is usually the weakest link in the transfer system. Removing blanks from hoses and headers must be done carefully with drip pans placed under the hose and under each connection. Couplings will be made to meet federal requirements.
- Transfer Pipe Valve Settings: Detailed written procedures and checklists have been established for the dock-to-tank transfer pipe valves. The checklists require that the person operating the valves opens and closes specific valves in accordance with a specific procedure, and that person is required to sign off on each valve operation.
- Initial Transfer: When it is determined that cargo flow to or from the vessel has begun, an inspection will be made to ensure there are no leaks, and all transfer equipment is working properly.
- During all cargo transfer operations there will be at least two (2) deck-watchmen on the vessel, one (1) shoreside tank-watchman, and one (1) dock-watchman on duty at all times. All personnel assisting the operation will be in continuous communication by hand-held radios.
- Upon completion of the transfer, blanks shall be placed on all vessel manifolds using proper methods specific to the vessel.

Section 3.2 Receiving Environment *18 AAC 75.451(c)*

This section is not applicable to tank vessel operations. For more information on environmentally sensitive areas, see Section 3.9 of this plan.

Section 3.3 Command System *18 AAC 75.451(d)*

Organization of the company's response is based on Incident Command System (ICS) principles. In the event of a spill, response management will be established by P49.

The key roles and structures of the incident command system for oil spills are summarized in this plan. For further detailed descriptions, the following resources contain additional information:

- National Response Framework (FEMA)
- U.S. Coast Guard Incident Management Handbook (IMH)
- Arctic and Western Alaska Area Contingency Plan, Section 2000
- Southeast Alaska Area Contingency Plan, Section 2000
- National Incident Management System (NIMS) Incident Command System (ICS) Forms Booklet (Appendix C of this plan)

Section 3.3.1 Incident Commander and Emergency Response Team

The Plant Manager will act as the initial Incident Commander (IC). Refer to Section 1.2 of this plan for personnel and contact information for the Skagway and Seward locations. The IC will be able to perform the following duties:

- Activate internal alarms and hazard communication systems to notify all applicable facility personnel;
- Notify all response personnel, as needed;
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;
- Notify and provide necessary information to the appropriate federal, state, and local authorities with designated response roles, including the National Response Center, State Emergency Response Coordinator, and the Location Emergency Planning Committee;
- Assess the interaction of the discharged substance with water and/or other substances stored at the applicable facility and notify response personnel at the scene of that assessment;
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);
- Assess and implement prompt removal actions to contain and remove the substance released;
- Coordinate rescue and response actions as previously arranged with all response personnel;
- Use authority to immediately access company funding to initiate cleanup activities; and
- Direct cleanup activities until properly relieved of this responsibility.

Section 3.3.2 Incident Command Posts

In the event of an oil spill, an incident command post will be established by P49 for management of the spill.

For any size spill, the forward incident command post will be established at the P49 office(s) in Skagway or Seward, depending on the location of the spill. These locations have telephone and radio communications capabilities (See Section 1.4) and will be utilized to provide operations leadership, supervision, and support.

Section 3.3.3 Incident Command System (ICS) Management Structure

Figure 3.3-1 depicts the ICS structure that will be established and utilized by P49 in a large spill event. It must be noted that the ICS structure is flexible, allowing for expansion, contraction, or modification as warranted and desired.

Precise names, titles, and contact information for each of the ICS roles are provided to ADEC in a separate document. This list is kept up to date and revisions are provided to ADEC on a quarterly basis in accordance with 18 AAC 75.451(d).

The Incident Management Team (IMT) is expected to maintain applicable training. Refer to Section 3.8 and Appendix C of this plan for further details on ICS training for P49 personnel.

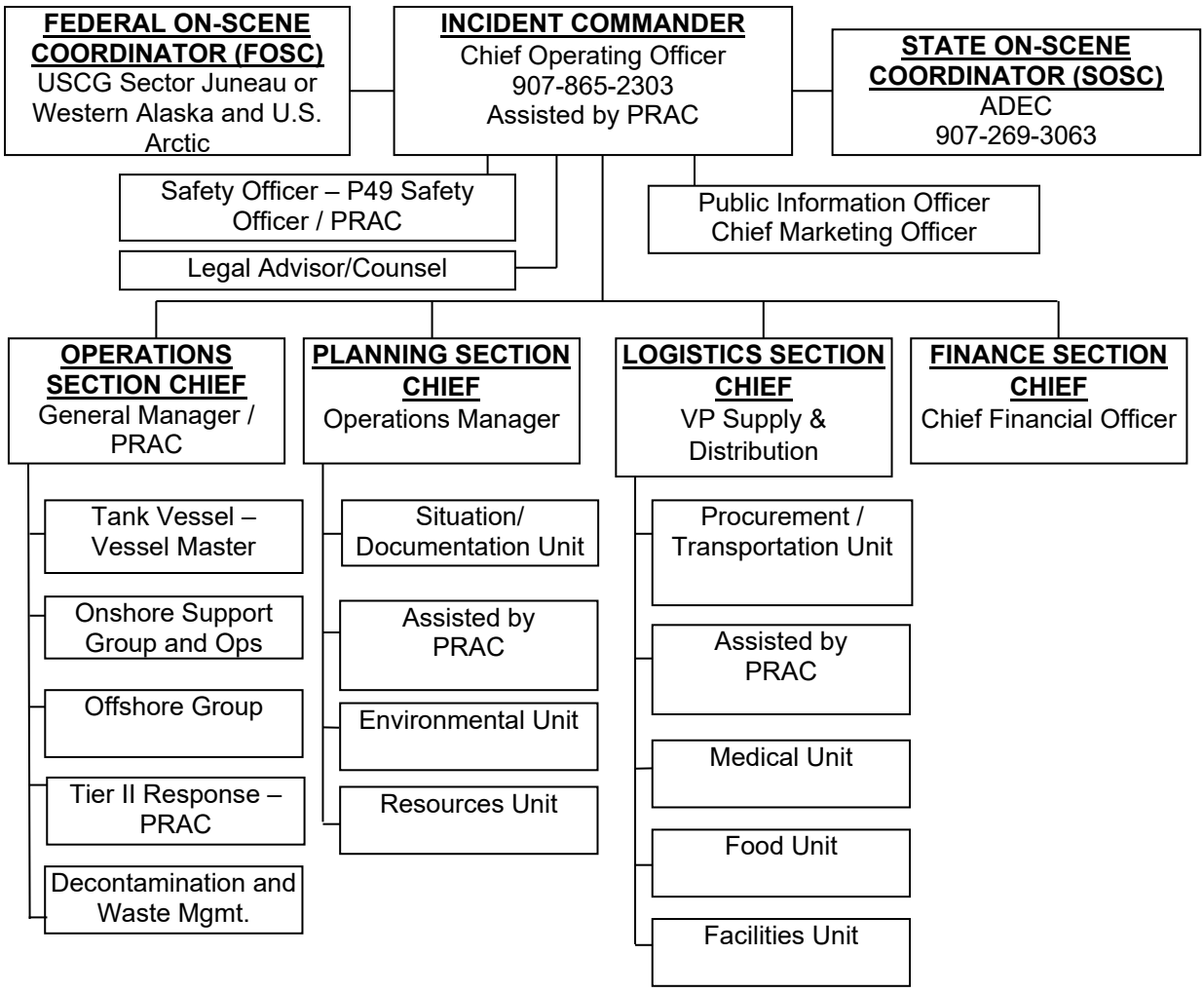


Figure 3.3-1 Initial Incident Command System Structure for P49

Section 3.3.4 ICS Positions and Duties

For personnel assigned to major ICS positions, please refer to Section 1.2 of this plan. In addition to P49 staff, the PRAC's have staff and contracted personnel who can fill ICS positions as required. Descriptions for each ICS position in the ICS chart are presented in Appendix C of this plan.

Section 3.3.5 Incident Action Plans

Incident Action Plans (IAPs) consist of standardized forms that assist in the development and publishing of response plans for a specific operational period. The IAP is completed for larger complex spills that require multiple teams, multiple shifts, and that will continue past one operational period (more than 24 hours). Different parts of the IAP are completed by different sections, but the overall development of the IAP is coordinated by the Planning Section Chief. The IAP serves as a checklist to ensure that proper considerations have been in the development of the plan for the next operational period, and it serves as a tool to document the plan, environmental conditions, and response activities.

It is extremely important for the IMT team to ensure that their first priority is to ensure safety of the responders and public, then to focus on the support of the operational team. The development of the IAP is a lesser priority to these tasks.

The link to access Incident Action Plan forms can be found in Appendix C of this plan.

Section 3.4 Realistic Response Operating Limits *18 AAC 75.451(e)*

This section describes the realistic maximum response operating limitations that could be encountered, along with response strategies within those limitations to reduce environmental consequences.

If environmental conditions are severe and personnel or vessels are at risk, fueling operations will cease until conditions improve. The Plant Manager is responsible for making such decisions based on experience and understanding of such conditions described in this section.

Prevention Action Measures: Only the most experienced vessel PIC will oversee transfer operations in situations where environmental conditions are severe. Examples of specific prevention actions are:

Modified DOI – Identifying steps to prevent a spill during harsh environmental conditions are addressed in the DOI between the barge and the applicable facility PICs. This may include such steps as:

- Delaying transfer operations until environmental conditions improve to safely transfer.
- Stopping transfer operations if environmental conditions deteriorate considerably and make operations dangerous for barge and the applicable facility personnel.
- Increasing the number of personnel watching connections of transfer lines and mooring arrangement of the barge.

Marine transfers are conducted only when the applicable facility and vessel PICs determine environmental conditions will not jeopardize safe, spill-free operations. If the weather is severe enough to place fueling personnel at risk, operations will cease until the weather improves. Such weather conditions may include wind over 40 knots, chop over four feet, and poor visibility due to snow, darkness, etc.

Weather: Weather conditions vary considerably throughout the year in the Cook Inlet and Southeast Alaska regions.

Cook Inlet Region

Temperature –The warmest temperatures in Cook Inlet occur in July and August, and the coolest temperatures occur in January. The high temperature maximums can reach mid to upper 80s, and the lowest extreme temperatures can reach -48°F (NOAA 2024a).

Precipitation – Precipitation in Cook Inlet is greatly influenced by surrounding topography; precipitation averages range from 16 inches to 146 inches throughout the region. The wettest months are September and October with snow likely from October to April. The driest months are April through June. (NOAA 2024a).

Wind Speed – Winds are commonly from the north in Cook Inlet with northeast and northwest winds in sections due to topography. Winds vary throughout the region (NOAA 2024a).

Visibility – Cook Inlet experiences sea fog in the summer months and land fog in the winter months. During winter, Cook Inlet ports can expect to experience visibility limited to one-half mile. January is typically the month with the most fog, but fog can be present during any month throughout the year. The months with the average lowest daily visibility are October through April (NOAA 2024a).

Sea States, Tides, Currents: Cook Inlet experiences the greatest daily range of tide in the entire United States, where tidal fluctuations typically range from minus five feet up to 33.3 feet. Currents within the Cook Inlet vary by location. Tidal currents average two to three knots at the entrance of Cook Inlet and tend to increase up the inlet. The current floods northeast at an average velocity of 1.5 knots and ebbs southwest at an average velocity of 2.5 knots. Mid channel currents can reach four knots or more. NOAA Tides & Currents provides specific information about times, directions, and velocities of the current at numerous locations throughout the area; the link is provided in Section 3.11 (NOAA 2024a).

Ice: Ports located in the lower end of Cook Inlet are ice free year around. Generally, Resurrection Bay is ice free year around also. Floating ice can appear originating from rivers, bays, and coastlines, but the majority of ice originates from glaciers. Glacial ice in the form of icebergs, growlers, and ice flows can create navigational hazards in the area (NOAA 2024a).

Hours of Daylight: Darkness can exacerbate difficult response conditions if severe weather conditions exist at the time of a spill. Darkness has little effect in the summer due to prolonged daylight; however, late fall, winter, and early spring can present response challenges caused by darkness for more than half the day.

Table 3.4-1 Hours of Daylight Near Cook Inlet on Solstices and Equinoxes

Season	Hours of Daylight (% of day)
Winter	25%
Spring	50%
Summer	75%
Fall	50%

(Sunrise Sunset 2025)

During darkness, ships with sufficient lighting to illuminate the spill area allowing observation of boom would be used if possible. Also, shoreside efforts at lighting will be enhanced.

Southeast Alaska Region

Temperature – The warmest temperatures in Southeast Alaska occur in July and August, and the coolest temperatures occur in February. The high temperature maximums can reach lower 80s, and the lowest extreme temperatures can reach -14°F (NOAA 2024b).

Precipitation – Precipitation in Southeast Alaska is greatly influenced by the Gulf of Alaska and surrounding topography. Precipitation averages range from nine to 19 inches throughout the region. The wettest months are September and October with snow likely from November to March. The driest months are April through July (NOAA 2024b).

Wind Speed – In Southeast Alaska, winds are commonly from the west and southeast. Winds vary throughout the region (NOAA 2024b).

Visibility – September is the foggiest month in Southeast Alaska, and visibility at ports can be reduced below one mile. Reduction in visibility is usually caused by precipitation or snowfall, particularly during winter (NOAA 2024b).

Sea States, Tides, Currents: Tides vary considerably throughout Southeast Alaska. On average, the tide ranges from 10 to 17 feet. Currents in the area flood northwest at an average velocity of 1.5 knots and can reach four to six knots in inside passages. NOAA Tides & Currents provides specific information about times, directions, and velocities of the current at numerous locations throughout the area; the link is provided in Section 3.11 (NOAA 2024b).

Ice: Generally, ports located in Southeast Alaska are ice free year around. Floating ice can appear originating from rivers, bays, and coastlines, but the majority of ice originates from glaciers. Glacial ice in the form of icebergs, growlers, and ice flows can create navigational hazards in the area (NOAA 2024b).

Hours of Daylight: Darkness can exacerbate difficult response conditions if severe weather conditions exist at the time of a spill. Darkness has little effect in the summer due to prolonged daylight; however, late fall, winter, and early spring can present response challenges caused by darkness for more than half the day.

Table 3.4-2 Hours of Daylight Near Southeast Alaska on Solstices and Equinoxes

Season	Hours of Daylight (% of day)
Winter	25%
Spring	50%
Summer	75%
Fall	50%

(Sunrise Sunset 2025)

During darkness, ships with sufficient lighting to illuminate the spill area allowing observation of boom would be used if possible. Also, shoreside efforts at lighting will be enhanced.

Response Limitations:

Skimmers/boom – Skimming and boom equipment have varying limitations dependent on the vessel being used and the type of water they will be operating in. In open water, using large vessels with high volume skimmers and large primary storage devices, they can operate in seas up to six feet and in winds up to 30 knots. In protected waters, using vessels of opportunity (fishing vessels), they can operate in seas to three feet and winds up to 25 knots. In calm water, using small fishing vessels, work boats, or skiffs, they can operate in seas of one foot and winds up to 15 knots. And in fast water, including rivers and areas with significant tidal current, using small vessels or skiffs, they can operate in rivers up to two feet and winds up to 15 knots, or tidal waters up to one foot and winds up to 15 knots (ADEC 2014).

If a spill is moving in excess of one knot, or if the spill site is exposed to potential wave conditions greater than two feet, consider the diversion boom tactic (B-III-8 of the STAR

Manual) instead of the containment boom tactic (B-III-2 of the STAR Manual). If seas are under the realistic maximum response operating limits, but not in an optimal state, a second layer of containment boom, outside the primary boom, can break the sea chop and reduce its impact on the primary boom, and it may capture oil that has escaped if the primary boom fails. Sorbent materials can be deployed during times when sea conditions prevent skimmer operations and hamper boom performance. Response actions would shift to protection of sensitive areas and shoreline cleanup.

Vessels – Sea states can limit the size of vessel capable of responding. P49 maintains contracts with SEAPRO and Chadux allowing them access to vessels of varying sizes. The appropriately sized vessel will be utilized for the type of response necessary.

Personnel – Colder air and water temperatures during the winter season will likely make response operations on the water more hazardous and less effective. P49 understands this situation and is prepared for adverse weather. Examples of this preparation include enhanced personal protective equipment (PPE) for working in severe weather conditions, and training for severe weather with modified response strategies.

Logistics – Resources are available through P49's contract with SEAPRO and Chadux; aircraft and vessels can be used to mobilize equipment and personnel. Required air transit restriction zone requirement will be coordinated with the Federal Aviation Administration (FAA). Required vessel transit restriction zone requirements or Notices to Mariners will be coordinated with the FOSC and the USCG Captain of the Port (COTP).

Rest and Maintenance: Personnel and equipment require periodic rest and maintenance. For personnel, shifts are generally limited to 12 hours per 24 hours. For equipment, maintenance is performed on a schedule determined by the type of equipment and operational environment. Section leaders will take these limitations into account when planning operations during a spill response.

Section 3.5 Logistical Support *18 AAC 75.451(f)*

P49 is a member of approved Primary Response Action Contractors (PRAC) and Oil Spill Removal Organizations (ORSOs) SEAPRO and the Alaska Chadux Network, with whom P49 maintains Statements of Contractual Terms (SOCT).

The overall spill response shall be coordinated as described in Section 1.6 (Spill Scenarios) and in Section 3.3 (Command). During a response, SEAPRO and Chadux responder vessels will transport equipment and personnel.

SEAPRO and Chadux maintain contracts and purchase agreements with contractors throughout the Cook Inlet and Southeast Alaska regions to maintain availability of contract vessels, response action contractors, and supplies for rapid access to personnel, equipment, and services to be used during a spill response scenario.

Section 3.5.1 Equipment

Any significant response effort will require dedicated areas for equipment delivery, inventory, repair, and temporary storage. P49 will identify areas to serve as dedicated areas for equipment staging and temporary waste storage areas in the event of an emergency.

The list of response equipment aboard the vessel will be provided to ADEC during the amendment process.

Table 3.5-1 Logistical Support Services: Cook Inlet and Southeast Alaska

Services	Location	Contact
Air Support		
Alaska Airline (passengers)	Anchorage	800-252-7522
Alaska Air Cargo	Anchorage	800-225-2752
ACE Air Cargo	Anchorage	907-334-5100
Lynden Air Cargo	Anchorage	907-243-7248
Alaska Seaplanes	Skagway	907-983-2479
Mountain Flying Service	Haines	907-766-3007
Telephone Services		
GCI	Anchorage	800-800-4800
TelAlaska	Seward	907-224-5224
Alaska Power & Telephone	Skagway	907-983-2202
Shipping Service		
Lynden Transport (Alaska Marine Lines)	Anchorage	888-596-3361
	Skagway	907-983-2281
Waste Disposal		
Alaska Soil Recycling (ASR)	Anchorage	907-348-6700
National Response Corporation	Anchorage	907-258-1558

Section 3.5.2 Personnel

Lodging – Commercial lodging facilities are available in Seward and Skagway. The municipality websites have details regarding commercial lodging availability in the area.

During the summer tourist season, most lodging facilities are booked at capacity and availability will be limited. Some possible alternatives to traditional lodging may be the use of portable work camps/shelters, school gyms, Alaska National Guard armories, etc.

Food – A significant response to an oil spill will necessitate substantial amounts of food over a brief period, along with the necessary equipment for proper handling, storage, preparation, and disposal of food. These tasks would depend on food services contract support from the surrounding area, ensuring the local capabilities are sufficient to meet the demands.

Clothing – Alaska's environmental conditions during the late fall-winter-early spring seasons dictate that response personnel are equipped to operate in the potentially harsh environment. Additional responders arriving to support response activities must have adequate clothing for the season to begin working immediately. There are local resources for seasonal clothing; however, they would be limited and should not be relied upon exclusively.

Training and Safety Equipment – Personnel involved in oil spill response activities must comply with all applicable worker federal and state health and safety laws and regulations. (See the Occupational Safety and Health Administration (OSHA) standards for hazardous waste operations and emergency response found in 29 CFR 1910.120 and 8 AAC 10.010, respectively.) Responders must be Hazardous Waste Operations & Emergency Response (HAZWOPER)-trained with up-to-date certification. PPE requirements will be determined by the Site Safety Officer. Response personnel should report with the proper PPE.

Communications – Adequate communications equipment along with a well-thought-out communications plan are imperative to a coordinated response. Section 1.4 details communication capacity. For advanced spill response communications on larger spills, the resources (portable communication centers) of SEAPRO, Chadux, and the State of Alaska would be utilized.

Table 3.5-2 Personnel Mobilization Schedule

Description	Method	Est. Mob. Time
Skagway based responders	Personal vehicles	0-1 hours
Haines based responders travelling to Skagway	Contracted or Commercial flights	2-4 hours
Juneau based responders travelling to Skagway	Contracted or Commercial flights	6-12 hours
Seward based responders	Personal vehicles	0-1 hours
Anchorage based responders travelling to Seward	Contracted ground transportation	4-6 hours

Section 3.5.3 Transportation

Marine Highway – Equipment can be loaded onto scheduled ferries, or contracted vessels for transport to various locations via the marine highway.

Roadway – Local transportation companies are available for transporting equipment. Chadux member companies are available throughout the Cook Inlet area. Transportation times are affected seasonally by weather.

Aircraft – Commercial flights are available throughout the surrounding Cook Inlet and Southeast Alaska areas on a daily basis from Alaska Airlines and contract flights. Flight availability is affected seasonally by tourist traffic. Contracted flights are available for transporting equipment and personnel.

Both fixed wing and helicopters are available throughout the Cook Inlet and Southeast Alaska areas to provide aerial spill tracking, and/or shuttle personnel between the response site and the staging area if vessel transport is untimely or impossible.

Vessels – Fishing vessels operate in and around the area as well as the nearby communities. Vessel availability will depend on the season and the location of the oil spill. SEAPRO and Chadux maintain listings of vessels-of-opportunity (VOO) and trained personnel (typically fishing vessels and crew) that are available through the proper contractual agreements.

Table 3.5-3 Equipment Mobilization Schedule

Location	Description	Method	Est. Mob. Time
Skagway	Skagway based equipment	Vehicle, vessel, skiff	0-2 hours
	Haines based vessels	By water	2-3 hours
	Haines based ORB & equipment (SEAPRO)	By water	3-4 hours
	SEAPRO Haines equipment	Charter plane	2-3 hours
	SEAPRO Juneau equipment	Charter plane	4-6 hours
	Juneau based ORB & equipment	By water	11-12 hours
	Sitka based equipment	Charter plane	4-6 hours
	Petro Mariner or similar barge	Tug	27 hours
Seward	Seward based equipment	Vehicle, vessel	0-3 hours
	Chadux contracted VOO	Fishing vessel and crew	12-16 hours
	Anchorage based equipment	Contracted ground	4-6 hours
	Anchorage based equipment	Rail	12-24 hours

Section 3.6 Response Equipment *18 AAC 75.451(g)*

P49, through contracts with SEAPRO and Chadux, maintain sufficient discharge, containment, control, cleanup, storage, transfer, lightering, and related response equipment to meet their applicable response planning standard (see Section 5 of this plan) and to protect environmentally sensitive areas and areas of public concern. To have access to equipment sufficient to meet this requirement, the facilities rely on a combination of company-owned equipment and contractual arrangements with SEAPRO and Chadux for equipment and personnel. The readiness of contractor equipment is the responsibility of that contractor.

The list of onboard equipment for vessels operating under this plan will be submitted to ADEC during the amendment approval process.

Section 3.6.1 Contracted Equipment Inventory *18 AAC 75.451(g)(1) and (l)*

Spill response equipment needed for lightering, transferring, containing, recovering, and cleaning up spills are available from barges, tugs, oil storage facilities, and PRACs. See Section 3.7 for a list of contracts. In cases of catastrophic spills, resources from secondary response contractors can also be utilized.

The most current and up to date inventory of SEAPRO and Chadux equipment is available on their respective websites (see Section 3.11 for links). Specific information on resources, procedures, specifications, and other information are include in the SEAPRO Technical Manual and the Chadux Response Manual, both of which are linked in Section 3.11 of this plan.

Section 3.6.2 Operational Characteristics and Limitations *18 AAC 75.451(g)(3)*

The manufacturer's rated capacities, limitations, and operational characteristics for each item of oil recovery equipment are provided in the SEAPRO Technical Manual and the Chadux Response Manual, both of which are linked in Section 3.11 of this plan. Further information on all the equipment is available at the referenced websites for each of the PRACs.

Section 3.6.3 Storage, Maintenance, and Inspection Program *18 AAC 75.451(g)(8)*

SEAPRO and Chadux maintain equipment inventory and lists, which are available in their Technical Manuals, to meet the applicable response planning standard. Equipment contracted through the PRACs is maintained on a regular basis and inspected annually by the PRACs.

Section 3.6.4 Time Frame for Delivery *18 AAC 75.451(g)(2)*

This section is reserved for describing procedures for bringing equipment outside the region of operation to meet the response planning standard. This plan does not call for bringing in outside equipment to meet the response planning standard. The time frame for delivering equipment to meet the response planning standard is provided in the mobilization table in Section 3.5, Table 3.5-3 Equipment Mobilization Schedule.

Section 3.6.5 Oil Spill Recovery Vessels *18 AAC 75.451(g)(4) & (5)*

Vessels used for oil spill recovery are listed in the SEAPRO Technical Manual and the Chadux Response Manual (Alaska Chadux Network 2021) and (SEAPRO 2022).

Section 3.6.6 Efficiencies of Spill Response Equipment *18 AA 75.451(h)*

The type and amounts of boom, boom connectors, and anchorage devices will be of the appropriate design for response to an oil spill from vessels operating under this plan.

See Sections 1.6.12.1.1 and 1.6.12.2.1 for the Scenario Recovery Efficiency tables and figures that demonstrate the Effective Daily Recovery Capacity (EDRC) for all recovery devices is sufficient for the amount of available contingency storage for each of the spill scenarios.

Section 3.7 Contracted Resource Information *18 AAC 75.451(i)*

Section 3.7.1 PRAC Information *18 AAC 75.451(i)*

P49 is a member of the Southeast Alaska Petroleum Response Organization (SEAPRO) and the Alaska Chadux Network (Chadux) which are oil spill response contractors. SEAPRO and Chadux provide oil spill response personnel and equipment at the request and under the direction of member companies. Copies of the statements of contractual terms (SOCT) are provided on the following pages. PRAC addresses and phone numbers are listed below.

Response Contractor:	SEAPRO
Address:	540 Water Street, Suite 201 Ketchikan, Alaska 99901
Phone:	907-225-7002
Fax:	907-247-1117

Response Contractor:	Alaska Chadux Network
Address:	2347 Azurite Court Anchorage, Alaska 99507
Phone:	907-348-2365
Toll Free:	888-831-3438
Fax:	907-348-2330

A listing of response equipment and services related to spill response scenarios are listed in Section 1.6.12 of this plan. A complete and updated listing of all the response equipment and services available is accessible on their websites (see Section 3.11 for links).

In the event of a spot charter, an updated contract including coverage of the chartered vessel will be submitted with the spot charter addendum.

STATEMENT OF CONTRACTUAL TERMS

(PLEASE COMPLETE BOTH SIDES)

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.451(i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Petro 49, Inc. Tank Vessel Oil Discharge Prevention and Contingency Plan,

PLAN HOLDER: Petro 49, Inc.,

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Petro 49, Inc., the oil discharge prevention and contingency plan holder (hereafter "PLAN HOLDER"), and Southeast Alaska Petroleum Response Organization, Inc., the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereafter "CONTRACTOR"), executed on October 1997, and the original of which is located at 540 Water Street, Ketchikan, AK 99901, as evidence of the PLAN HOLDER's access to the containment, control and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 -- 18 AAC 75.495. The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

(A) provide the response services and equipment listed for the CONTRACTOR in the contingency plan;

(B) respond if a discharge occurs;

(C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;

(D) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;

(E) respond to a Department-conducted discharge exercise required of the PLAN HOLDER; and

(F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.

STATEMENT OF CONTRACTUAL TERMS

I hereby certify that, as representative of the PLAN HOLDER, I have the authority to legally bind the PLAN HOLDER in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

David Simmerman — Digitally signed by David Simmerman Date: 2025.09.04 09:08:27 -08'00' — 9/4/2025

Signature Date

Name: David Simmerman

Title: Environmental Compliance Manager

FOR: Petro 49, Inc.

PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

David Owings — Digitally signed by David Owings Date: 2025.09.04 09:02:17 -08'00' — 9/4/2025

Signature Date

Name: David Owings

Title: General Manager

FOR: Southeast Alaska Petroleum Response Organization, Inc.

CONTRACTOR

ALASKA CHADUX CORPORATION

AMENDMENT No. 1

Response Action Contract

Member: Harbor Enterprises, Inc. dba Petro Marine Services

Contract Dated: 1/1/2010

WHEREAS Pursuant to Section 19, Integration Headings and Construction, of the Standard Response Action Contract (RAC) executed by the parties on the date referenced above may be modified or amended by written instrument signed by both parties; and,

WHEREAS the parties now want to amend the RAC such that the term of the agreement renews automatically for annual terms;

NOW THEREFORE Section 2, Term and Automatic Renewal, shall now read as follows:

2. TERM AND AUTOMATIC RENEWAL

The term of this agreement shall commence upon execution by both parties and continue for one year thereafter, and upon conclusion of such annual term this agreement shall automatically renew annually for each year thereafter, provided that Member has paid all fees, charges and expenses owed to Alaska Chadux when and as due and provided further that Member has met all federal, state and local legal requirements applicable to its owned/leased Vessels and Facilities, and its and their respective operations, including approved contingency response plans, financial responsibility limits and resources, etc., as may be required by any applicable federal, state and/or local governmental entity.

BE IT FURTHER RESOLVED that all other terms and conditions of the RAC shall remain unchanged.

EFFECTIVE AS OF THE 16TH DAY OF August, 2013.

ALASKA CHADUX:

Alaska Chadux Corporation

Signature

Name and Title

MEMBER:

Harbor Enterprises, Inc. dba Petro Marine Services

Signature

Carol Ann Lindsey, Chief Executive Officer
Name and Title

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Section 3.8 Training and Exercises *18 AAC 75.451(j)*

P49 recognizes that all oil-handling personnel must be trained and kept current in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; and general operations. Records of training will be retained for five years.

The goal is to provide each employee the training necessary to do his or her job effectively and to respond to anticipated emergencies. The training will be designed to provide the necessary skills and knowledge to perform assigned tasks safely and proficiently. The ultimate aim is to protect the health and welfare of the employees and the public and to make sure that service is provided in a professional and competent manner. The training will qualify employees for the following:

- To operate the transfer and loading equipment properly and to prevent spills.
- To understand the purpose, operation, and limitations of all safety equipment so that spills do not occur.
- To be alert to potential hazards and to respond with minimal risk to personal health and safety.
- To be familiar with spill response operations.
- To know proper notification procedures in the event of a spill.

The Plant Manager is responsible for ensuring that every employee receives both general and task specific job, safety, health, and environmental training required by federal and state regulations and by this program. Training must be based on the duties and functions to be performed by each person. P49 does not use casual labor nor volunteers for spill response and therefore has no such training program.

The Office Manager is responsible for maintaining records of all training provided to employees. These records will include the employee's name, a description of the training received, the date of the training, and who conducted the training. These records should be maintained at the operations office and should be available for inspection. Copies of these records should also be maintained in the employee's personnel file. Three kinds of training will be given to all employees:

- Initial training and employee indoctrination, including prevention training.
- Annual refresher training, including prevention.
- Safety meetings.

Section 3.8.1 Qualifications and Initial Training

The initial training includes four programs:

1. Company/Job Training: This is the training and orientation required of all new employees. It is designed to familiarize the employee with the company policies and procedures. Specific training required to teach each employee his particular job will be included, as well as training in the prevention of oil spills.

2. Incident Command System (ICS): This training is required for all management, supervisory and staff personnel who will participate in controlling response to spills.
3. Hazardous Waste Operations and Emergency Response (HAZWOPER): This is training required for employees who may discover spills or who will supervise or work on emergency response operations.
4. Spill Response: This training consists of deployment exercises conducted in addition to the control and containment training included as part of the HAZWOPER training.

Each employee's training is based on the individual employee's regular duties and on the level of involvement the employee will have in spill response activity. In addition to the employee's regular job duties, each employee will have responsibilities for responding to oil spills and other emergencies. These emergency responsibilities fall into the following categories.

FIRST RESPONDER AWARENESS LEVEL – This training is for employees who are likely to witness or discover a spill but would not take any action beyond notifying the proper authorities. They will be trained to recognize and understand the hazards of any substance spilled. They will know what security measures and additional resources are necessary to respond and whom to notify of the emergency (No specified time requirement - typically four hours annually).

HAZARDOUS MATERIAL TECHNICIAN – Technician level training is for employees who provide initial emergency response to spills. Their function will include containment and control of a spill and may involve working at the point of release to plug, patch, or otherwise stop the flow (24 hours plus eight hours annual refresher).

INCIDENT MANAGEMENT TEAM – IMT members must receive a 24- or 40-hour HAZWOPER training and certification. Training for IMT position duties may be accomplished by participating in spill exercises and drills, resident training courses, attendance during spill events, and other means to maintain expertise in the assigned job position. The command staff shall be knowledgeable in responsibilities of ICS.

INCIDENT COMMANDER – Incident Commanders will take control of the spill site. In addition to the Technician-level training, Incident Commanders must be competent to implement the response plan and generally manage the spill response effort.

QUALIFIED INDIVIDUAL (QI) – The QIs receive the appropriate Incident Management Training, OSHA HAZWOPER, and must receive the level of training equal to 24-hour oil spill responders. Annual HAZWOPER Refresher Training of eight hours must be taken. The QI will have adequate knowledge and sufficient training or experience to demonstrate competence in implementing this ODPCP, committing resources and obtaining funds during an incident, liaising between Vessel Owner/Operator and the federal and state on-scene coordinators, assessing the need for additional resources, making the appropriate notifications, and supporting contractual arrangements.

Oil Transfer Operations

Vessel procedures for oil loading and transferring operations are designed to prevent oil spills. The transfer procedures are described in detail in the applicable facility operations manual, vessel transfer procedures, and is summarized in Section 3.1 of this plan.

Person-In-Charge – Training for this advanced leadership position of an oil transfer team requires experienced understanding of fuel handling systems and ways to ensure the team is spill prevention-oriented in their work. The Vessel Master (or his designee) keeps an updated list of personnel qualified to act as person-in-charge.

Annual Refresher Training

Employees must annually demonstrate competency in the above areas of training. A record of the method used to demonstrate competency will be maintained. Refresher training must be conducted, as required, to correct any deficiencies discovered.

Safety Meetings

Safety meetings are conducted regularly. Records of the subjects discussed and any actions taken are kept in the minutes of each meeting. These minutes are signed by every employee attending and are filed in the operations office to confirm the training and provide the necessary records.

Section 3.8.2 Evaluating Program Effectiveness

A critical component of the training program is a method of measuring the effectiveness of the training. A plan for evaluating the training should be developed along with the objectives and contents of the training. Methods of evaluating the training include:

1. Trainee opinions: Questionnaires or informal discussions with employees help determine the effectiveness and relevance of the training.
2. Supervisor's observations: By critically observing employees' performance before and after training, a supervisor can determine whether the training has been effective.
3. Improved results: The most important indication of the success of the training is job performance. This can be measured by:
    - Improved work habits.
    - Reduced incidents of spills.
    - Rapid, effective response to emergencies by employees.

Evaluation of the program will indicate to the employer whether additional or modified training is required. If the employees do not demonstrate an understanding of their work and the hazards involved and do not perform acceptably during exercises or actual emergencies, the training program should be revised. To make revisions that will improve the program, those conducting the training should work with the employees and review the following items.

1. What parts of the training are unnecessary?
2. What material is confusing or poorly understood?
3. What is missing from the program?

4. What material should be more emphasized?

A critical examination followed by implementation of the valid suggestions will improve the program. The process of training, followed by evaluation and implementation of improvements, is a continuing cycle. Such an evolutionary process will ensure that the program is always being improved and updated to provide superior and appropriate training for employees.

Section 3.8.3 Exercise Procedures

Spill response equipment and tactics are regularly drilled in accordance with the National Prevention, Response Exercise Program (PREP), see Appendix B of this plan.

In addition, when there are government initiated regional drills (these occur approximately every three years), P49 personnel participate. All drills and deployment training are recorded on a form located in Appendix B of this plan, which is kept for five years.

ADEC requires a minimum of one operations-based exercise for each five-year renewal cycle of the ODPCP. The exercise must be performed in coordination with ADEC and in accordance with ADEC's Oil Spill Response Exercise Manual. The Oil Spill Response Exercise Manual is based on the doctrine and methodology laid out in the Department of Homeland Security Federal Emergency Management Agency's Homeland Security Exercise and Evaluation Program (HSEEP). For an exercise to meet the requirements of 18 AAC 75.485(b)(1), ADEC must be included in the planning phase through the execution and evaluation phases of the exercise. Additionally, the exercise must be based on a spill scenario in the ODPCP. See the Oil Spill Response Exercise Manual for more information. A link to the document is provided in Section 3.11 of this plan.

Section 3.9 Environmentally Sensitive Areas *18 AAC 75.451(k)*

The ADEC, Environmental Protection Agency (EPA) –Region 10, and USCG Sector Western Alaska and U.S. Arctic manage response operations in accordance with the Alaska Regional Contingency Plan (RCP) and four Area Contingency Plans (ACP). P49 operations outlined in this plan are covered under the Arctic and Western Alaska Area Contingency Plan (ADEC 2022b) and the Southeast Alaska Area Contingency Plan (ADEC 2025a). See Section 3.11 for links to these plans.

Contact information for all federal and state agencies mentioned in this section are found in Table 1.2-1 in Section 1.2 of this plan. If there is oiled wildlife that needs to be captured, treated, and rehabilitated, that exceeds local capabilities, P49 will mobilize appropriate wildlife contractor(s) to respond, in coordination with NMFS, USFWS, and ADF&G. More information regarding wildlife protection is provided in Section 1.6.10 of this plan.

Section 3.9.1 Seasonal Conditions *18 AAC 75.451(k)(2)(A)*

The seasonal effect on environmental sensitivity is limited to whether or not some forms of wildlife or aquatic plant life are in critical periods of life. Critical periods are generally defined as time periods where species are involved in migration, breeding, nesting, and/or rearing young. It may also refer to time periods during the life cycle of a species, such as the juvenile stages for fish or larvae stage for aquatic insects.

Table 3.9-1 identifies critical periods for wildlife observed in the Cook Inlet Region. Table 3.9-2 identifies critical periods for wildlife observed in the Southeast Alaska region. This information can be used to determine additional ESA's during a spill response.

Table 3.9-1 Critical Life Periods of Wildlife and Aquatic Plant Life in the Cook Inlet Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Birds												
Short-tailed albatross[1]					X	X	X	X				
Aleutian tern				X	X	X	X	X	X	X	X	
Arctic tern	X	X	X						X	X	X	X
Yellow-billed loon			X	X	X	X	X	X	X	X	X	
Loons (other)				N	N	N	N	N	N	N		
Grebes			X	X	X	X	X	X	X	X	X	
Trumpeter swans			X	X	X	X	X	X	X	X	X	
Greater white-fronted goose			X	X	X	X	X	X	X	X	X	
Snow goose			X	X	X	X	X	X	X	X	X	
Black Brant			X	X	X	X	X	X	X	X	X	
Canada Goose			X	X	X	X	X	X	X	X	X	

Table 3.9-1 Critical Life Periods of Wildlife and Aquatic Plant Life in the Cook Inlet Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Long-tailed duck						X						
Greater scaup			X	X	X	X	X	X	X	X	X	
Common merganser			X	X	X	X	X	X	X	X	X	
Red-breasted merganser				X	X							
Northern pintail			X	X	X	X	X	X	X	X	X	
Bufflehead			X	X	X	X	X	X	X	X	X	
Goldeneye			X	X	X	X	X	X	X	X	X	
Northern shoveler			X	X	X	X	X	X	X	X	X	
Steller's eider[2]	X	X	X	X			X	X	X	X	X	X
Common eider	X	X	X									X
Harlequin duck			X	X	X	X	X	X	X	X	X	
American Widgeon			X	X	X	X	X	X	X	X	X	
Green-winged teal			X	X	X	X	X	X	X	X	X	
Scoter			X	X	X	X	X	X	X	X	X	
Bald eagle	X	X	N	N	N	N	N	N	N	X	X	X
American golden plover					N	N	N	N				
Oystercatcher	X	X	X						X	X	X	X
Rhinoceros Auklet	X	X	X						X	X	X	X
Parakeet Auklet	X	X	X						X	X	X	X
Murres	X	X	X	N	N	N	N	N	X	X	X	X
Guillemots	X	X	X	X	X	X	X	X	X	X	X	X
Ancient Murrelet	X	X	X						X	X	X	X
Puffins	X	X	X		NX	LX	HX	HX	X	X	X	X
Fork-tailed storm-petrel	X	X	X						X	X	X	X
Leach's storm petrel									X	X	X	
Northern Fulmar	X	X	X	X	X	X	X	X	X	X	X	X
Red-legged kittiwake									X	X	X	
Mew Gull	X	X	X						X	X	X	X
Glaucous-winged gull	X	X	X	X	X	X	X	X	X	X	X	X
Herring Gull									X	X	X	
Black-legged kittiwake	X	X	X						X	X	X	X
Cormorants	X	X	X						X	X	X	X
Waterfowl	X	X	X	NX	NX	N	N	X	X	X	X	X
Shorebirds	X	X	X	NX	NX	N	N	X	X	X	X	X

Table 3.9-1 Critical Life Periods of Wildlife and Aquatic Plant Life in the Cook Inlet Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Seabirds				X	X	X	X	X	X	X		
Fish												
Pacific herring				SE A	SE A	SE JA	SE JA	SE JA				
Chinook salmon	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
Chum salmon						SA	SA	SA	SA	SA		
Coho salmon			EA	EA	JA	JA	SA	SA	SA	SA	SA	
Pink salmon		EA	EA			SA	SA	SA	SA	SA		
Sockeye salmon			JA		SA	SA	SA					
Halibut				X	X	X	X	X	X			
Pacific cod						JA	JA	JA	JA	JA	JA	JA
Sablefish	JA	JA	JA	JA	JA	JA	JA	JA	JA	JA	JA	JA
Walleye Pollock	A	A	A									
Dolly varden				X	X	X	X	X	X			
Pacific herring				SE A	SE A	SE JA	SE JA	SE JA				
Invertebrates												
Razor Clams	X	X	X	X	BX	BX	BX	SL X	SLX	LX	LX	LX
Dungeness crab	JA	JA	JA	JA	SJ A	SE JA	SE JA	SE JA	SEJ A	SJ A	SJ A	SJ A
King crab	JA	SJ A	SJ A	SE JA	SE JA	SE JA	EJ A	EJ A	JA	JA	JA	JA
Tanner crab	SJ A	SJ A	SJ A	SE JA	SE JA	SE JA	EJ A	EJ A	EJA	JA	JA	SJ A
Blue mussels	X	X	X	X	BX	BX	BX	BX	BX	X	X	X
Marine Mammals												
Northen sea otter[2]	X	X	X	PX	PX	PX	X	X	X	X	X	X
Northern fur seal[3]	X	X							X	X	X	X
Steller sea lion[1]	X	X	X	PX	PX	PX	PM X	MX	MX	MX	MX	X
Harbor seal	X	X	X	X	PM X	PM X	PM X	MX	MX	MX	X	X
Gray whale[1]				X	X	X	X	X	X	X		
Fin whale[1]				X	X	X	X					
Humpback whale[1]				X	X	X	X	X	X	X	X	
Minke whale				X	X	X	X	X				
Cook Inlet beluga whale[1]	X	X	X	X	X	X	CX	CX	CX	CX	X	X
Killer whale	X	X	X						X	X	X	X
Blue whale[1]						X	X	X				
Sei whale[1]						X	X	X				

Table 3.9-1 Critical Life Periods of Wildlife and Aquatic Plant Life in the Cook Inlet Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
North Pacific right whale[1]			X	X	X	X	X	X	X	X	X	X
Harbor porpoise	X	X	X	X	X	X	X	X	X	X	X	X
Dall's porpoise	X	X	X	X	X	BC X	BC X	X	X	X	X	X
Pacific white-sided dolphin			CX	CX	CX	CX	CX	BC X	BC X			
Terrestrial Mammals												
Brown bear	DX	DX	DX	DX	X	X	X	X	X	X	DX	DX
Black bear	DX	DX	DX	DX	X	X	X	X	X	X	DX	DX
Caribou/reindeer	X	X	X	X	CX	CX	X	X				
Moose	X	X	X	X	X	X	X	X	X	X	X	X
Red fox	X	X	X	P	P	X	X	X	X	X	X	X

Sources: (ERMA 2025), (ADEC 2025b), (Audubon 2025), (ADF&G 2024b, 2024c, 2024d), and (ARRT 2020)
[1] Endangered species
[2]Threatened species
[3]Depleted population under Marine Mammal Protection Act

Code	Life Stage	Code	Life Stage
N	Nesting	C	Calving
S	Spawning	J	Juvenile
E	Eggs	A	Adult
P	Pupping	D	Denning
M	Molting	X	Multiple, undetermined
B	Breeding	--	Blank cells indicate species is not present

Table 3.9-2 Critical Life Periods of Wildlife and Aquatic Plant Life in the Southeast Alaska Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Birds												
Gulls				X	X	X	X	X	X			
Shorebirds				X	X			X	X	X	X	
Waterfowl	X	X	X	X	X	M	M	M	X	X	X	X
Black-capped Chickadee	X	X	X	X	NE	EF	X	X	X	X	X	X
Boreal Chickadee	X	X	X	X	NE	EF	X	X	X	X	X	X
Chestnut-backed Chickadee	X	X	X	X	NE	EF	X	X	X	X	X	X
Sandhill Crane					N	X	X	X				
Harlequin Duck					N	X	X	X	X			
Marbled Murrelets	X	X	X	XN	XN	XN	XN	XN	X	X	X	X
Kittlitz's Murrelet	X	X	X	X	X	XN	XN	XN	X	X	X	X

Table 3.9-2 Critical Life Periods of Wildlife and Aquatic Plant Life in the Southeast Alaska Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Canada Goose			X	X	X	X	X	X	X	X	X	
Northern Goshawk					H	H	F	X				
Ruffed Grouse	X	X	X	E	E	X	X	X	X	X	X	X
Sooty Grouse	X	X	X	E	E	X	X	X	X	X	X	X
Yellow-billed Loon	X	X							X	X	X	X
Osprey				X	X	X	X	X	X	X		
Raven	X	X	N	E	X	X	X	X	X	X	X	X
Ptarmigan					E	H	H					
Short-tailed albatross[1]	X									X	X	X
Bald eagle	XF	XF	XF	NF	NF	HF	HF	F	XF	XF	XF	XF
Fish												
Pacific herring	X	X	S	S	S	X	X	X	X	X	X	X
Chinook salmon	E	E	E	E	X	X		S	E	E	E	E
Coho salmon	E	E	E	E	X	X		S	S	S	E	E
Chum salmon	E	E	E	X	X	X		S	S	E	E	E
Sockeye salmon	E	E	E	E	X		S	S	S	E	E	E
Pink salmon	E	E	E	X	X	X		S	S	E	E	E
Eulachon			SX	SX	SX							
Dolly varden	E	E	E	X	X			S	S	E	E	E
Coastal cutthroat trout				S	S	E	E					
Pacific cod	X	X	X	X	X	X	X	X	X	X	X	X
Pacific halibut	S			X	X	X	X	X	X			
Invertebrates												
Dungeness crab	E	E	E	E	E	E	X	S	S	ES	E	E
Golden king crab	E	E	E	E	E	E	X	S	S	ES	E	E
Red king crab	E	E	E	E	E	E	X	S	S	ES	E	E
Red sea urchin	X	X	X	X	X	X	X	X	X	X	X	X
Tanner crab	E	E	E	E	E	E	X	S	S	ES	E	E
Littleneck clam	X	X	X	X	X	X	X	X	X	X	X	X
Coonstripe shrimp	X	X	X	X	X	X	X	X	X	X	X	X
Northern shrimp	X	X	X	X	X	X	X	X	X	X	X	X
Sidestriped shrimp	X	X	X	X	X	X	X	X	X	X	X	X
Spot shrimp	X	X	X	X	X	X	X	X	X	X	X	X
Marine Mammals												
Northern sea otters[2]	X	X	X	X	P	X	X	X	X	X	X	X
Harbor seal					P	X	X	X	X			
Stellar sea lion[1]	X	X	X	X	P	P	X	X	X	X	X	X
Humpback whale[1]				X	X	X	X	X	X			
Terrestrial Mammals												
Brown bear				X	X	X						

Table 3.9-2 Critical Life Periods of Wildlife and Aquatic Plant Life in the Southeast Alaska Region

	MONTH											
SPECIES	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Black bear				X	X	X						
Aquatic Plants												
Rockweed	X	X	X	X	X	X	X	X	X	X	X	X

Sources: (ERMA 2025), (ADEC 2025a), (ADF&G 2024b, 2024c, 2024d), (ARRT 2020), (NOAA 2025e)
[1] Endangered species
[2]Threatened species
[3]Depleted population under Marine Mammal Protection Act

Code	Life Stage	Code	Life Stage
N	Nesting	H	Hatching
S	Spawning	F	Fledging
E	Eggs	X	Multiple, undetermined
P	Pupping	--	Blank cells indicate species is not present
M	Molting		

Section 3.9.2 Product Toxicity *18 AAC 75.451(k)(2)(B)*

Hydrocarbon-based fuels are complex mixtures of hundreds of chemicals. Smaller, light-end chemicals are more acutely toxic to organisms, but they volatilize rapidly into the atmosphere and are not persistent in the water column. In contrast, larger multi-ringed chemicals are more persistent in the environment and are more commonly associated with the fouling of fur and feathers of exposed wildlife. Fuels vary by the relative percentage of these two types of chemicals.

Highly volatile fuels such as gasoline and aviation gasoline are relatively less persistent in the environment (as opposed to viscous oils), because they contain a higher percentage of small, “light end,” volatile chemicals that are rapidly volatilized from the water column. Solubility of various compounds found in fuels is low in relation to volatility, so very little dissolves into the water column. What does dissolve tends to volatilize out of the water. Diesel fuel is slightly more persistent in the environment.

While the bulk of the fuel dissipates, “trace” contaminants, such as polycyclic aromatic hydrocarbons (PAHs), may persist in the environment. PAHs are chronically toxic and can be responsible for toxicity and environmental impacts for years after a spill. Very low levels can cause mortality to early life stages of fish.

Potential Effects of Oil on Marine Plants and Animals:

Kelp Beds – If oil contamination occurs during plant reproduction, this and other annuals rarely recover. Kelp loss would then affect those that depend upon this resource (e.g., many species of algae, invertebrates, fish, and marine mammals).

Eelgrass Beds – Small quantities of oil can weaken the beds, affecting potential habitat for many birds, fish, and invertebrates.

Salt Marsh Vegetation – Evidence indicates little long-term damage from light oil contamination. However, heavy pollution can damage growth potential and cause plant death. Loss of this habitat would adversely affect many species.

Fish – Direct or indirect toxicity may affect adult or juvenile fish, while eggs or larvae may be damaged by coating or direct toxicity. Crustaceans, shellfish, and benthic fish species may be affected by direct coating or by eating contaminated food.

Birds – Spilled oil can harm birds in a variety of ways. Direct contact is toxic and can oil their feathers. This may result in a loss of their thermo-regulating abilities, their ability to maintain the proper salt balance as well as their ability to fly or float. Ingestion may affect reproduction. Embryo and chick survival may be reduced as a result of oil-coated eggs.

Marine Mammals – All marine mammals may be poisoned by feeding on oil-contaminated marine organisms or from ingesting oil while cleaning their fur. They may survive with small amounts of oil on their fur; however, oil will reduce the insulation capabilities of the fur and hypothermia may result. Sea otters are the most susceptible to reduction in insulation due to oil spills because, unlike other marine mammals, they do not have a blubber layer for insulation. Instead, sea otters rely on their thick fur to trap air, providing insulation and buoyancy. Otters have a very high metabolic rate and must eat about 25 percent of their body weight in forage each day to survive. Oiled otters often groom rather than foraging, leading to internal oil toxicity and insufficient caloric uptake. Oiled otters must be rescued quickly, or they rapidly succumb to hypothermia, oil toxicity, and/or starvation.

Inhalation of hydrocarbon vapors is a primary concern for marine mammal exposure to spilled oil. Potential effects can include decreases to individual fitness and mortality. Oil can irritate the mucous membranes of marine mammals.

Terrestrial Mammals – Throughout the year, oil discharges affecting streams and beach fringe areas may affect terrestrial mammals, including furbearers, by contaminating habitat and/or food sources.

Section 3.9.3 Identified ESAs for Cook Inlet *18 AAC 75.451(k)(2)(C)*

Geographic Response Strategies (GRSs): Due to the large geographical area of operations, it is not practicable to list all GRSs and areas of concern. There are three GRSs that overlap with the vessel route to Seward and operations at the Seward Bulk Plant (Appendix D), and they are listed below (ADEC 2025c):

- Spring Creek, SZ-05
- Tonsina Creek, SZ-06
- Resurrection Bay/Seward Lagoon, SZ-35
- Thumb Cove, SZ-04
- Humpy Cove, SZ-03

Endangered Species and Critical Habitats: Steller sea lion haul outs and rookeries are present in the waters surrounding the Cook Inlet. Steller sea lions are classified as an endangered species under the Endangered Species Act. The critical habitat for Steller sea lions overlaps with the vessel route to Seward (ADF&G 2025d).

The Northern sea otter's critical habitat overlaps with the vessel route to Seward and the area surrounding the Seward Bulk Plant. This species is classified as a threatened species and is protected under the Marine Mammal Protection Act (ADF&G 2025c).

The range of humpback whales overlaps with the vessel route to Seward and the area surrounding the Seward Bulk Plant. The species can be found in the waters surrounding Alaska any time of year, but they are more commonly found in the spring and summer when they come to Alaska to feed. They are listed as an endangered species and a critical habitat has been designated for the Western or Mexican Distinct Population Segment in portions of the waters of Cook Inlet and Resurrection Bay (NOAA 2025f).

The ranges of North Pacific right whales, fin whales, and sperm whales overlap with the vessel route to Seward and the area surrounding the Seward Bulk Plant. Migration of whales to the area commonly occurs during the summer months for feeding. All three species are listed as endangered species (NOAA 2025f).

Anadromous Waters: Salmon spawn in most of the streams and rivers that drain into Cook Inlet and Resurrection Bay. See Figure 3.9-1 for most anadromous waters within the area of the vessel route to Seward (ADF&G 2025a).

Other Sensitive Areas: There are two aquatic plant and shellfish farms/hatcheries within five miles of the vessel route to Seward and the Seward Bulk Plant (ADF&G 2025f).

Section 3.9.4 Identified ESAs for Southeast Alaska *18 AAC 75.451(k)(2)(C)*

Geographic Response Strategies (GRSs): Due to the large geographical area of operations, it is not practicable to list all GRSs and areas of concern. There is one GRS that overlaps with the vessel route to Skagway and the Skagway Bulk Plant (Appendix D), and it is listed below (ADEC 2025c):

- Taiya River, SE08-02

Endangered Species and Critical Habitats: Steller sea lion haul outs and rookeries are present in the waters surrounding Southeast Alaska. Steller sea lions are classified as an endangered species under the Endangered Species Act. The critical habitat for Steller sea lions overlaps with the vessel route to Skagway (ADF&G 2025d).

The Northern sea otter's critical habitat overlaps with the vessel route to Skagway. This species is classified as a threatened species and is protected under the Marine Mammal Protection Act (ADF&G 2025c).

The range of humpback whales overlaps with areas surrounding the vessel route to Skagway and the Skagway Bulk Plant. The species can be found in the waters surrounding Alaska any time of year, but they are more commonly found in the spring and summer when they come to Alaska to feed. They are listed as an endangered species, and a critical habitat has been designated for the Western or Mexican Distinct Population Segment in portions of the waters of the Lynn Canal and Taiya Inlet (NOAA 2025f).

The ranges of North Pacific right whales, fin whales, and sperm whales overlap with the area surrounding the vessel route to Skagway and the Skagway Bulk Plant. Migration of whales to the area commonly occurs during the summer months for feeding. All three species are listed as endangered species (NOAA 2025f).

Anadromous Waters: Salmon spawn in most of the streams and rivers that drain into Taiya Inlet. See Figure 3.9-2 for most anadromous waters within the area of the vessel route to Skagway (ADF&G 2025a).

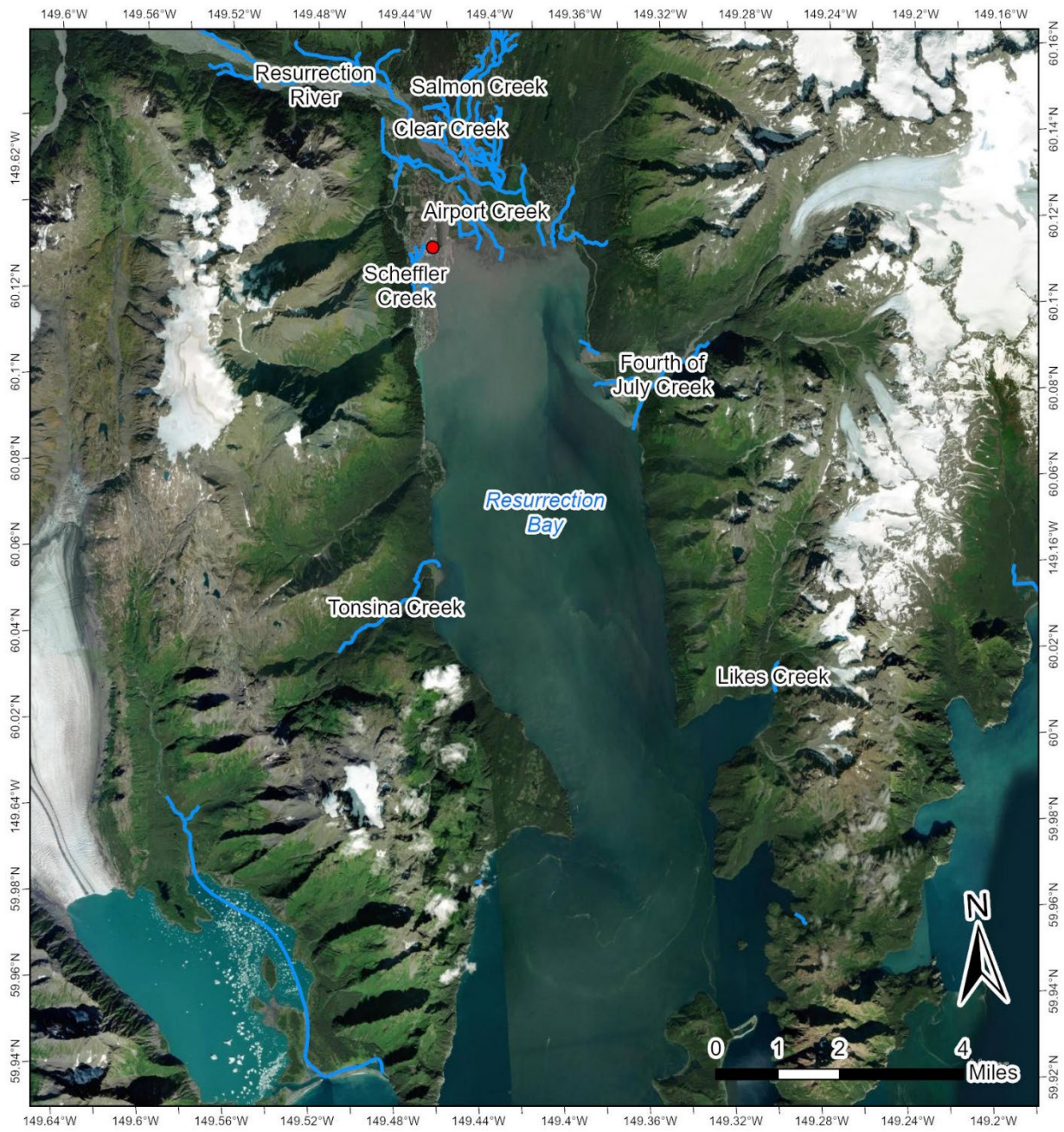
Other Sensitive Areas: There are several aquatic farms in Southeast Alaska and within five miles of the vessel route to Skagway. See Section 3.11 for a link to all aquatic farming operations in the region.

Due to the large geographical area of operations, it is not practicable to list all ESAs and areas of concern. The list of reference materials provided is not comprehensive. The Alaska MESAs and GRSs and the Alaska Sensitive Areas Compendium are resources for identifying sensitive areas, which may be affected by an oil spill, as well as the distribution of marine resources and the location of subsistence activities described through a series of tables and maps. The Alaska Sensitive Areas Compendium includes a prioritized list indicating areas of major, moderate, and lesser concern for initial spill response activities. This list should be used with spill-specific information to determine actual protection priorities for that discharge. These documents can be accessed from a link to the Area Plan and Reference Tools website located in Section 3.11 of this plan.

Figure 3.9-1 Anadromous Waters - Resurrection Bay
(Cook Inlet Region)

Current to: 7/25/2025
Author: Integrity Environmental LLC
http://www.integrity-env.com

Petro 49, Inc.
Tank Vessels
Within: Seward Meridian, Alaska
Coordinate System: NAD 1983 Alaska Albers

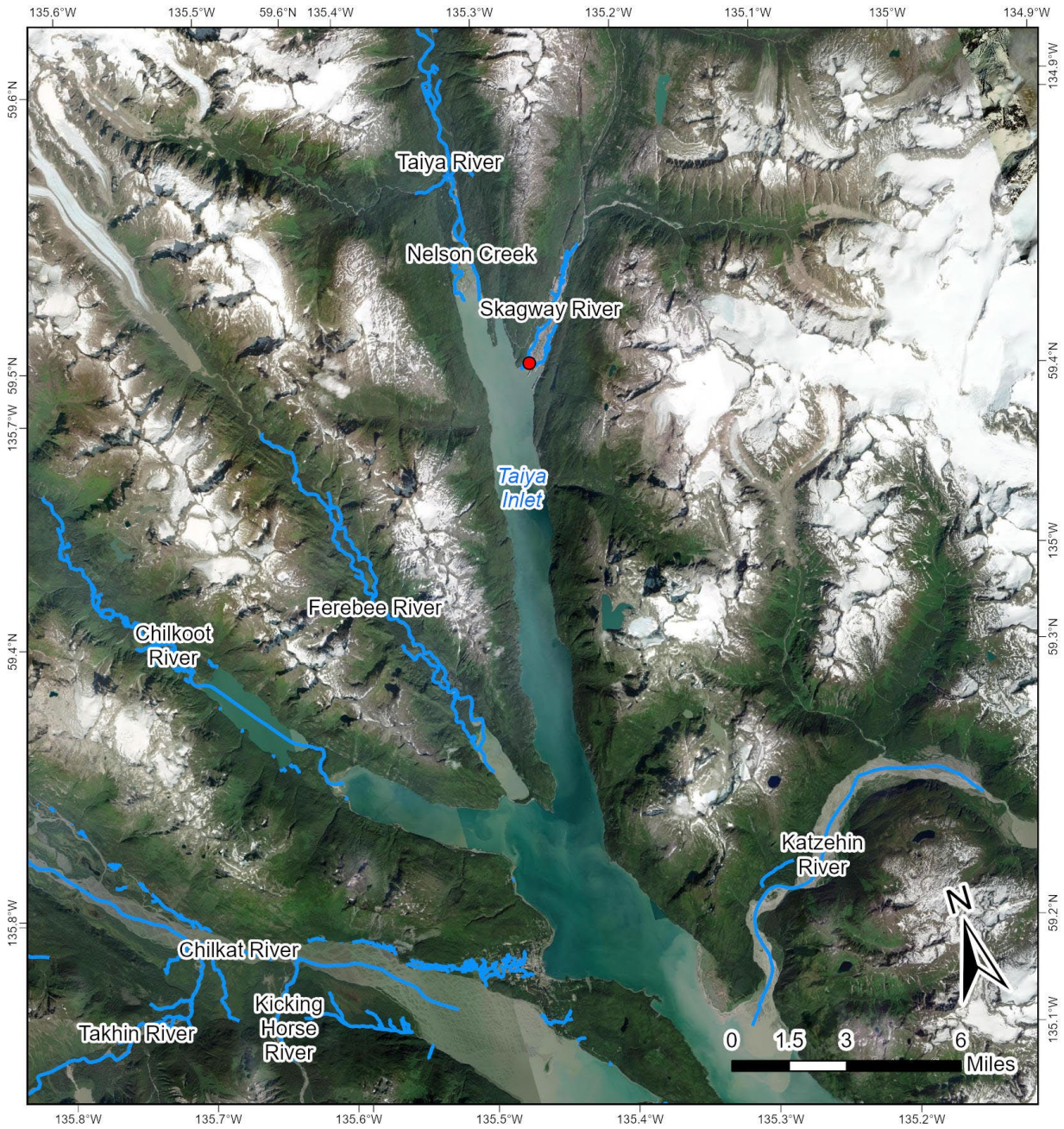


Source: (ADF&G 2025a)

Figure 3.9-2 Anadromous Waters - Taiya Inlet

Current to: 7/25/2025
Author: Integrity Environmental LLC
http://www.integrity-env.com

Petro 49, Inc.
Tank Vessels
Within: Copper River Meridian, Alaska
Coordinate System: NAD 1983 Alaska Albers



Source: (ADF&G 2025a)

Sensitive Shorelines: Table 3.9-3 describes the common shoreline types in the Cook Inlet and Southeast Alaska regions, predicted oil behavior, and response considerations (NOAA 2017 and NOAA 2025g).

Most Sensitive

- Salt- and brackish-water marshes
- Sheltered tidal flats
- Sheltered rocky shores

Least Sensitive

- Exposed rocky shores
- Exposed rocky platforms
- Fine-grained sand beaches

In planning response actions (setting collection booms, etc.), try to avoid collection sites that are obvious sensitive areas, such as stream mouths, marsh areas, freshwater intakes, etc.

Table 3.9-3 Shoreline Type and Predicted Oil Behavior

Shoreline	Description
Exposed Rocky Shores	• Steep bedrock cliff with an intertidal zone too narrow to accumulate sediments. • Frequently found interspersed with wave-cut platforms. • Highly irregular surface. • Barnacles, mussels, snails, and algae are common in the mid and lower intertidal zones. • Oil is held offshore by wave reflection off the steep cliffs. • Deposited oil is removed rapidly from exposed faces. • Most resistant oil would remain as band at or above high-tide line. • Greatest impact would be to birds when present. • Cleanup not necessary on most shorelines. • Access is usually difficult. • High-pressure spraying with ambient water is effective when oil is fresh. • Spraying should be performed during mid and higher tides.
Exposed Rocky Platforms	• Highly variable width, backed by steep rocky scarp. • Surface is irregular and may have accumulations of sand- to boulder-sized material, but bedrock surface is dominant substrate. • Very high density and diversity of animals. • Tidal pools are common in mid to lower intertidal zone with biotic richness. • Oil will not adhere to the rock platform but would be transported across platform and accumulate along the high-tide line. • Oil can penetrate and persist in surficial sediments. • Heavy accumulations of oil can temporarily cover the entire intertidal zone during falling tides. • In areas of high exposure to waves and tidal flushing, no cleanup is necessary.

Table 3.9-3 Shoreline Type and Predicted Oil Behavior

	• In coarse sediments, where oil persists, the sediments can be relocated to the upper intertidal zone. • Manual removal of residual surface oil may be needed in wave shadows.
Fine-grained Sand Beaches	• Moderately sloping beach with at least 75% of the surface substrate made of sand particles. • Most sand beaches are coarse-grained. Fine gravel may be a minor component. • During a small spill, oil will concentrate in a band along the high-tide line. • Under heavy accumulations, oil can cover the entire intertidal area. • Oil will penetrate into coarse-grained sand slightly more than fine-grained sand. • Sand beaches are relatively easy to clean because the hard substrate can support pedestrian and vehicle traffic. • Oiled debris should be removed. • Natural cleansing is the best option, especially during storm seasons, unless there is the potential for contamination of other resources using the beach.
Mixed Sand and Gravel Beaches	• Moderately sloping beach composed of a mixture of sand and gravel (each greater than 25 percent). • The high-tide berm area is usually composed of sand or fine gravel (pebbles to cobbles), whereas the lower part of the beach is coarser, with cobbles to boulder. • During small spills, oil will be deposited along and above the high-tide swash. • During large spills, oil will spread across the entire intertidal area. • Oil penetration into the beach sediments may be up to 50 cm; however, the sand fraction can be quite mobile, and oil behavior is much like on a sand beach if the sand fraction exceeds about 40%. • Remove heavy accumulations of pooled oil from the upper beach face. • All oiled debris should be removed. • Low-pressure flushing can be used to float oil away from the sediments for recovery by sorbents. High-pressure spraying should be avoided because of the potential from transporting large amounts of oiled sediments to the lower intertidal or subtidal zone.
Gravel Beaches	• Moderately sloping beach with at least 75 percent of the surface substrate made of sand particles. • Most sand beaches are coarse-grained. Fine gravel may be a minor component. • During a small spill, oil will concentrate in a band along the high-tide line. • Under heavy accumulations, oil can cover the entire intertidal area. • Oil will penetrate coarse-grained sand slightly more than fine-grained sand.

Table 3.9-3 Shoreline Type and Predicted Oil Behavior

	• Sand beaches are relatively easy to clean because the hard substrate can support pedestrian and vehicle traffic. • Oiled debris should be removed. • Natural cleansing is the best option, especially during storm seasons, unless there is the potential for contamination of other resources using the beach.
Exposed Tidal Flats	• Flat and unvegetated intertidal habitats; however, the substrate is dominated by sand, exposure to tidal currents or wave activity is evidenced by the presence of wave-built sand ridges or bars. • Commonly associated with mouths of streams or rivers, fronting marsh vegetation. • Clams and worms are abundant. In glacial outwash areas, boulders and cobbles have attached algae. • Oil does not usually adhere to the surface of exposed tidal flats, instead moves across and accumulates at high-tide lines. • Heavy accumulations will cover the flat at low tide but will be lifted off at high tide. • Oil does not penetrate the sediments. However refined products will penetrate any part of the flat which drains at low tide. • Oil will persist longest in the upper part of the flat. • Currents and waves are usually very effective in natural removal of oil. • Cleanup activity must be sure to not mix oil deeper into sediments. • Cleanup should be focused at the high-tide line, particularly where flat adjoins a beach.
Sheltered Rocky Shores	• Bedrock shore of variable slope, which is sheltered from exposure to most wave and tidal energy. • Wider shores may have some surface sediments, but the bedrock is the dominant substrate type. • Species density and diversity vary greatly, with barnacles, snails, mussels, clams, periwinkles, amphipods, polychaetes, rockweed, and crabs being very abundant. • Oil will adhere readily to the rough, rocky surface, particularly along the high-tide line, forming a distinct oil band. • Fractures in bedrock will be sites of pooling and oil persistence. • Lower intertidal zone usually stays wet, preventing oil from adhering to rock surface. • Heavy and weathered oils can cover the upper zone with little impacts to the rich biological communities of lower zone. • Light refined products can affect attached organisms after even shore exposure. • Low- to high-pressure spraying at ambient water temperatures is most effective on fresh oil. • Extreme care should be taken to spray in the biologically rich lower intertidal zone. • Tidal action will eventually float oil off attached algae, sorbents should be deployed.

Table 3.9-3 Shoreline Type and Predicted Oil Behavior

Sheltered Tidal Flats	• Flat and unvegetated intertidal habitats, sheltered from strong tidal currents or wave action. • Dominated by soft, muddy substrate. • Support a large population of benthic organisms and are important feeding and resting areas for birds and fish. • Oil penetration into this type of substrate will be limited, except where these water-saturated sediments are highly burrowed. • High biological utilization, soft-substrate, and low-energy setting make these areas highly sensitive to oil spills and almost impossible to clean.
Salt- and Brackish-Water Marshes	• Vegetated middle intertidal habitats colonized by perennial vascular plants able to tolerate waterlogged soil conditions. • Substrate is usually fine and mud, but there may also be narrow band of sand and gravel at the high-tide line in more exposed settings. • Oil adheres readily to marsh vegetation. • Band of coating will vary widely, depending upon the tidal state at time oil slicks are in vegetation. There may be multiple bands. • Large slicks will persist through multiple tidal cycles and coat the entire area from the high-tide line to the base. • Light oils can penetrate the top few centimeters of sediment and deeply into burrows and cracks. • Under light to moderate oiling, natural recovery is the best option. • Any cleanup activity must be sure not to mix the oil deeper into the sediments. Root trampling must be minimized. • Cutting of oiled vegetation should only be considered when other resources present are at great risk from leaving the oiled vegetation in place. • Heavy accumulations of pooled oil can be removed by vacuum, sorbents, or low-pressure flushing.

Source: (ADEC 2025b, NOAA 2017 and NOAA 2025g)

Protection of Areas of Public Concern: The Alaska Sensitive Areas Compendium gives details on areas of public concern throughout the state and reference for information on each of the human uses with locations, contact information, and resources of concern information (ADEC 2025b). Listed below are human resource uses listed by level of concern.

Areas of Major Concern

- Historic properties
- Cultural resources
- High use subsistence and personal use harvests
- High use commercial fishing areas
- High use recreation sites and facilities
- Marinas and ports

Areas of Moderate Concern

- National and State parks
- Cultural resources

- Commercial use fish harvest
- Recreation sites and facilities
- Seafood processing facilities

Areas of Lesser Concern

- Public lands

Historical or Archeological Sites: The ACP contains information regarding known and unidentified archeological and historic sites. These sites are not identified here in order to protect them from scavenging. Oil spills and hazardous substance releases may result in direct and/or indirect impacts to those historic properties.

Caution will be used in cleanup operations to not disturb or impact any historical or archaeological sites during response. On-Scene Coordinators are responsible for ensuring that response actions take the protection of historic properties into account and that the statutory requirements for protecting them are met. The Alaska Regional Response Team (ARRT) has adopted the Alaska Implementation Guidelines for Federal On-Scene Coordinators for the Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan that outlines federal On-Scene Coordinator responsibilities for protecting cultural resources and provides an expedited process for compliance with Section 106 of the National Historic Preservation Act during the emergency response phase. A link to this document is located in Section 3.11 of this plan.

During the initial response to a spill from either facility, P49 will coordinate response actions with the federal and state On-Scene Coordinators (OSC), Alaska Department of Natural Resources Office of History and Archaeology (OHA), and other appropriate land managers. If previously undiscovered artifacts or areas of historic, prehistoric, or archaeological importance are encountered during response, the applicable facility IC will notify OHA immediately at the number listed in Table 1.2-5.

OHA will take the lead in working with the state and federal OSCs and P49 to ensure that response activities do not inadvertently injure or destroy historic properties (which are also known as historic and prehistoric archaeological resources). For significant spills, the federal OSC will assign a Historic Properties Specialist (HPS) to also coordinate with other stakeholders, including any cultural resource specialists working for P49.

Appendix B contains the application for an Alaska Cultural Resource Permit required from OHA for incident response actions that may affect known or suspected historic, prehistoric, or archaeological sites on Alaska state lands. This permit application must be submitted by the FOSC Historic Properties Specialist or other individual accepted as qualified by OHA. Similar actions on federal lands may require an Archaeological Resources Protection Act (ARPA) permit from the responsible agency.

Section 3.10 Additional Information

Section 3.10.1 List of Acronyms *18 AAC 75.451(m)*

AAC	Alaska Administrative Code
ACP	Area Contingency Plan
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ARRT	Alaska Regional Response Team
ARPA	Archeological Resources Protection Act
AST	Aboveground Storage Tanks
ASTM	American Society for Testing Materials
BAT	Best Available Technology
bbl	Barrel
bph	Barrels per Hour
CDL	Commercial Driver License
CFM	Cubic Feet per Minute
CFR	Code of Federal Registration
CIHSC	Cook Inlet Harbor Safety Committee
CISPRI	Cook Inlet Spill Prevention and Response, Inc.
CMDR	Commander
COTP	Captain of the Port
CUI	Corrosion Under Insulation
DIPAC	Douglas Island Pink and Chum, Inc.
DNR	Department of Natural Resources
DOT	Department of Transportation
DOI	Declaration of Inspection
DP&OR	Division of Parks and Outdoor Recreation
EA	Environmental Assessment
EDRC	Effective Daily Recovery Capacity
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FM	Frequency Modulation
FOSC	Federal On-Scene Coordinator
FWS	Fish and Wildlife Service
GMS	Gallagher Marine Systems, LLC
gph	Gallons per Hour
GRS	Geographic Response Strategy
HP	Horse Power
HPS	Historic Properties Specialist
IAP	Incident Action Plan
IBR	International Bird Rescue
IC	Incident Commander

ICS	Incident Command System
IDLH	Immediate Danger to Life or Health
IMH	Incident Management Handbook
IMO	International Maritime Organization
IMT	Incident Management Team
JBER	Joint Base Elmendorf-Richardson
kt(s)	Knot, (Knots)
LEL	Lower Explosive Limit
MAWP	Maximum Allowable Working Pressure
MESA	Most Environmentally Sensitive Areas
MRO	Medical Review Officer
MSO	Marine Safety Office
NACE	National Association of Corrosion Engineers
NIMS	National Incident Management System
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRC	National Response Center
OB	Out Board
OCIMF	Oil Companies International Marine Forum
ODPCP	Oil Discharge Prevention and Contingency Plan
OHA	Office of History and Archeology
OMM	Operations and Maintenance Manual
OPA	Oil Pollution Act
ORB	Oil Response Barge
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
OSRO	Oil Spill Removal Organization
OWS	Oil Water Separator
PAH	Polycyclic Aromatic Hydrocarbons
PEL	Personal Exposure Limit
PIC	Person in Charge
PIO	Public Information Officer
PPE	Personal Protective Equipment
ppm	Parts per Million
PRAC	Primary Response Action Contractor
PREP	Preparedness for Response Exercise Program
psi	Pounds per Square Inch
QI	Qualified Individual
RCP	Regional Contingency Plan
RPS	Response Planning Standard
RR	Railroad
SCA	Secondary Containment Area
SCAT	Shoreline Cleanup Advisory Technique team
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheets
SERC	State Emergency Response Commission

SMFF	Salvage and Marine Firefighting
SMT	Spill Management Team
SOLAS	Safety of Life at Sea
SOSC	State On-Scene Coordinator
STAR	Spill Tactics for Alaska Responders
TLV	Threshold Limit Value
TSC	Total Storage Capacity
TTLR	Tank Truck Loading Rack
UHF	Ultra-High Frequency
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
UT	Ultrasonic Thickness
VHF	Very High Frequency
VOO	Vessel of Opportunity
WCD	Worst Case Discharge

Section 3.11 Bibliography *18 AAC 75.451(n)*

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Section 4.0 Best Available Technology Review

18 AAC 75.452(a)
18 AAC 75.452(c)

Section 4.0 of this plan provides a discussion on the use of best available technology (BAT) requirements of 18 AAC 75.452(a) and consistent with applicable criteria in 18 AAC 75.452(c). It identifies available technologies applicable to P49 operations and includes a written analysis and justification of each technology that the technology is the best available.

4.1 Field Communications
4.2 Discharge Source Control Procedures
4.3 Trajectory Analysis and Forecasts
4.4 Wildlife Capture, Treatment, and Release Methods
4.5 Laden Oil Tank Vessel Prompt Detection of a Discharge

Section 4.1 Field Communications

18 AAC 75.452(a)(1)(A)
18 AAC 75.449(a)(4)

Field communications for spill response uses P49's portable marine VHF radios augmented by expanded networks built with SEAPRO's or Chadux's radios and portable repeaters. During spill response, frequencies are assigned to specific functions and task forces or groups as prescribed in the SEAPRO or Chadux Technical Manuals. The present technology offers more flexibility and expandability and is easily operated and familiar to most people. It is superior to higher technologies, which require more training and are more expensive but do not necessarily improve communications. Refer to Section 1.4 of this plan for a description of field communications.

Table 4.1-1 BAT: Field Communications

Evaluation Criteria	Existing	Existing	Option 1
Technology Options	*VHF Radios & Cell Phones*	*SEAPRO/Chadux VHF Radios*	*Satellite Phones*
AVAILABILITY: Is the technology available for use by the applicant? Is the technology the best in use in other similar situations?	Yes. Existing system is the standard marine radio communications available and in common use in the industry.	Yes. Existing system is the standard marine radio communications available and in common use in the industry.	Technology is available but not best in similar use due to potential gaps in coverage and lack of universal use.
TRANSFERABILITY: Can the technology be applied to the applicant's operation?	Yes.	Yes.	Yes.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Yes. Effective marine/ shore communications available in the port. Proven to be essential to increasing spill prevention.	Yes. Response contractors will provide communication support in an emergency situation, which may be essential to increasing spill prevention.	There is no reasonable expectation that satellite phones would provide increased spill prevention or other environmental benefits.
COST: Cost of achieving BAT, including consideration of cost relative to remaining years of service of current technology in use by applicant.	Low cost to service life.	Dependent on spill response contract and length of use.	Higher cost to service life.

Table 4.1-1 BAT: Field Communications

Evaluation Criteria	Existing	Existing	Option 1
Technology Options	*VHF Radios & Cell Phones*	*SEAPRO/Chadux VHF Radios*	*Satellite Phones*
AGE & CONDITION: Age and condition of current technology used (and considering similar equipment in current or past use under similar circumstances).	The technology in use is excellent and very widely used.	The technology in use is excellent and very widely used.	Satellite phone technology is newer than technology in use.
COMPATIBILITY: Is the technology compatible with existing operations?	Yes.	Yes.	Technology may be compatible with response contractor communications during emergency situations, not compatible with day-to-day operations.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	N/A	N/A	Less feasible than existing technology because of cost, lack of universal use, and additional training required.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None.	None.	None.

BAT Summary – Existing communication system has the capability to provide reliable communications between the Command Center and all Section Chiefs during a spill incident. Existing technology is justified by all evaluation criteria.

Section 4.2 Discharge Source Control Procedures

18 AAC 75.452(a)(1)(B)
18 AAC 75.449(a)(6)(G)

Procedures to stop the discharge include shutting down all transfer operations and plugging all scuppers if needed. Damage control equipment, including plugs, patches, and rerouting the flow will be employed as well. See Section 1.6.1 and Section 2.5 of this plan for more information.

Table 4.2-1 BAT: Source Control (1 of 2)

Evaluation Criteria	Existing	Existing	Option 1	Option 2
Technology Options	*Shut down pump and close valves*	*Plug flow and scuppers*	*Containment boom deployment of tankship*	*Tankship to tankship or tankship to tank barge*
AVAILABILITY: Is the technology available for use by the applicant? Is the technology the best in use in other similar situations?	Yes.	Yes.	Yes.	Yes.
TRANSFERABILITY: Can the technology be applied to the applicant's operation?	In use.	In use.	In use.	In use.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Effective and is used throughout Alaska.	Effective and is used throughout Alaska.	Effective and is used throughout Alaska.	Effective and is used throughout Alaska.
COST: Cost of achieving BAT, including consideration of cost relative to remaining years of service of current technology in use by applicant.	No change.	No change.	Cost would be $100/foot for boom and the cost for the response boat varies.	No change. Cost of onboard equipment is included in regular maintenance.

Table 4.2-1 BAT: Source Control (1 of 2)

Evaluation Criteria	Existing	Existing	Option 1	Option 2
Technology Options	*Shut down pump and close valves*	*Plug flow and scuppers*	*Containment boom deployment of tankship*	*Tankship to tankship or tankship to tank barge*
AGE & CONDITION: Age and condition of current technology used (and considering similar equipment in current or past use under similar circumstances).	Routine maintenance ensures good condition.	Good condition.	Routine maintenance ensures good condition.	Routine maintenance ensures good condition.
COMPATIBILITY: Is the technology compatible with existing operations?	Yes.	Yes.	Yes.	Yes.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	Yes.	Yes.	Yes.	Yes.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	Only if discharge escapes containment and enters water.	Only if discharge escapes containment and enters water.	Only if discharge escapes containment boom area.	Only if discharge escapes containment and enters water.

Table 4.2-2 BAT: Source Control (2 of 2)

Evaluation Criteria	Existing	Existing
Technology Options	*Isolate section causing discharge*	*SEAPRO/Chadux personnel and equipment*
AVAILABILITY: Is the technology available for use by the applicant? Is the technology the best in use in other similar situations?	Yes.	Yes.
TRANSFERABILITY: Can the technology be applied to the applicant's operation?	Yes, existing.	Yes, existing.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Effective and is used throughout Alaska.	Effective and is used throughout Alaska.
COST: Cost of achieving BAT, including consideration of cost relative to remaining years of service of current technology in use by applicant.	No change. Cost of onboard equipment is included in construction.	Cost is incurred through contract with SEAPRO/Chadux.
AGE & CONDITION: Age and condition of current technology used (and considering similar equipment in current or past use under similar circumstances).	Routine maintenance ensures good condition.	Only vessels and equipment in good condition will be used.
COMPATIBILITY: Is the technology compatible with existing operations?	Yes.	Yes.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	Yes.	Yes.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	Only if discharge escapes containment and enters water.	Only if discharge escapes containment and enters water.

BAT Summary – The combination of existing technology, transfer procedures, emergency training, and containment equipment provide for effective discharge control capability. Existing technology is justified by all evaluation criteria.

Section 4.3 Trajectory Analysis and Forecasts

18 AAC 75.452(a)(1)(C)
18 AAC 75.449(a)(6)(E)

Movement of the oil slick is monitored by observers from aircraft. Forecasting the slick movement is done based on observed movement and tide and wind forecasts. The existing system is the most easily employed and provides the most accurate information most promptly.

Table 4.3-1 BAT: Trajectory Analysis and Forecasts

Evaluation Criteria	Existing	Existing	Existing	Option 1
Technology Options	*Visual monitoring*	*WebGNOME*	*Aerial tracking*	*Hydrocarbon tracking buoy system (Satellite)*
AVAILABILITY: Is the technology available for use by the applicant? Is the technology the best in use in other similar situations?	Yes, existing.	Technology is available and used extensively in oil spill response.	Yes, observers in aircraft are best for the size of spill anticipated.	No.
TRANSFERABILITY: Can the technology be applied to the applicant's operation?	Yes, existing.	Yes, existing.	Yes.	Yes.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Effective for small to medium spills or spills entrained along the coastline.	The spill model is most effective for determining the trajectory of a release in open ocean.	Existing system is the most effective; information is reliable and is available immediately. Effective for all size spills during daylight hours.	Effectiveness increased with the size and distribution of the spill. Satellite data is very effective for advanced computer modeling and can provide information on spill trajectory.

Table 4.3-1 BAT: Trajectory Analysis and Forecasts

Evaluation Criteria	Existing	Existing	Existing	Option 1
Technology Options	*Visual monitoring*	*WebGNOME*	*Aerial tracking*	*Hydrocarbon tracking buoy system (Satellite)*
COST: Cost of achieving BAT, including consideration of cost relative to remaining years of service of current technology in use by applicant.	Annual costs for training personnel and maintenance of skiffs.	Model is free. No costs incurred.	Cost would include charter fees for aircraft and pilot. Costs can be reduced by pairing flyovers with aircraft already chartered to mobilize personnel and equipment.	Costs vary, would require investment for technology and training and logistical changes for storage and deployment.
AGE & CONDITION: Age and condition of current technology used (and considering similar equipment in current or past use under similar circumstances).	Skiffs are maintained in good condition.	GNOME was originally released in 2002. The program is continually updated, and new location files are added occasionally.	Only planes in good condition will be chartered.	Would be in similar age and condition of existing technology.
COMPATIBILITY: Is the technology compatible with existing operations?	Yes, existing.	Technology is compatible with facility operations.	Yes, existing.	No. Would require logistical and procedural changes.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	Yes.	This technology is feasible.	Yes.	Yes.

Table 4.3-1 BAT: Trajectory Analysis and Forecasts

Evaluation Criteria	Existing	Existing	Existing	Option 1
Technology Options	*Visual monitoring*	*WebGNOME*	*Aerial tracking*	*Hydrocarbon tracking buoy system (Satellite)*
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None.	None.	None.	None.

BAT Summary – The combination of the available surveillance, data, and tracking methods is the best available for facility operations. The existing technology/capability is justified by consideration of all evaluation criteria.

Section 4.4 Wildlife Capture, Treatment, and Release Methods

18 AAC 75.452(a)(1)(D)
18 AAC 75.449(a)(6)(M)

Contaminated birds and sea otters are captured and stabilized by qualified personnel contracted through SEAPRO and Chadux from the IBR, Alaska SeaLife Center, or other qualified agencies. After stabilization at the site, the injured animals are transported for rehabilitation to one of several facilities in the state. Contaminated pinnipeds and cetaceans are typically treated and rehabilitated in the field by qualified personnel through contract or other qualified agencies with equipment transported to the spill site. Refer to ODPCP Sections 1.6.4, 1.6.10, and 3.9.

The existing system provides the best level of animal care (and thus, is considered the best available technology) by assuring that cleanup and rehabilitation are done at proper facilities and by trained personnel.

If the situation warranted a mobile or field facility set up, SEAPRO, Chadux, IBR, and Alaska SeaLife Center have equipment and processes in place.

Table 4.4-1 BAT: Wildlife Capture, Treatment, and Release Methods

Evaluation Criteria	Existing	Existing
Technology Options	*Contract with SEAPRO/Chadux to provide wildlife response through subcontract with IBR and Alaska SeaLife Center.*	*Contracted experts capture and rehabilitate impacted animals.*
AVAILABILITY: Is the technology available for use by the applicant? Is the technology the best in use in other similar situations?	Yes, existing.	Yes, existing.
TRANSFERABILITY: Can the technology be applied to the applicant's operation?	Yes, existing.	Yes, SEAPRO/Chadux would contract additional resources.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide increased spill prevention or other environmental benefits?	Effective, as long as contracted staff arrive onsite quickly.	Effective, as long as contracted staff arrive onsite quickly.

Table 4.4-1 BAT: Wildlife Capture, Treatment, and Release Methods

Evaluation Criteria	Existing	Existing
Technology Options	*Contract with SEAPRO/Chadux to provide wildlife response through subcontract with IBR and Alaska SeaLife Center.*	*Contracted experts capture and rehabilitate impacted animals.*
COST: Cost of achieving BAT, including consideration of cost relative to remaining years of service of current technology in use by applicant.	Cost is incident dependent.	Cost is incident dependent.
AGE & CONDITION: Age and condition of current technology used (and considering similar equipment in current or past use under similar circumstances).	IBR and Alaska SeaLife Center staff are professionally trained and use field tested and agency approved methods for hazing and wildlife protection.	Contractors are expected to maintain personnel who are professionally trained and use agency approved methods for capture and rehabilitation.
COMPATIBILITY: Is the technology compatible with existing operations?	Yes, existing.	Yes, existing.
FEASIBILITY: Feasibility of this technology from an engineering and operational view.	Yes.	Yes.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	None.	None.

BAT Summary – Existing technology/capability is considered the best available by consideration of all evaluation criteria and in accordance with the *Wildlife Protection Guidelines (WPG) for Oil Spill Response in Alaska*.

Section 4.5 Laden Oil Tank Vessel Prompt Detection of a Discharge

18 AAC 75.452(a)(3)(A)
18 AAC 75.027(d)

Discharge detection technologies on board tank vessels chartered by P49 vary in design and capacity. While navigating State of Alaska waters, P49 provides chartered vessels with tug escorts. These tug escorts provide additional surveillance for oil leaks/spills to water.

During transfers, vessel deck watch and dock watch personnel visually monitor the waters surrounding the tank vessel and transfer equipment (hoses, manifolds etc.). Containment boom is deployed around the tank vessel prior to transfers unless it is technically unfeasible to do so. The containment boom will collect any spilled oil and assist in discharge detection.

At night, the dock and vessel, including surrounding water, are well lit.

Table 4.5-1 BAT: Laden Oil Barge Prompt Detection of a Discharge

Evaluation Criteria	Existing	Existing	Option 1
Technology Options	*Onshore and tanker lookouts; tanks sounded prior to, during, and after transfer; vents monitored and contained; high-level alarms/gauges built in*	*Electronic leak detection/ monitoring of interstitial space*	*Continuous electronic surface water monitoring*
AVAILABILITY: Is the technology available for use by the applicant? Is the technology the best in use in other similar situations?	Yes. Technology is in use.	Yes. Technology is in use.	Technology is available. Single units are limited in range; an array of units would be required to match capabilities of existing technology.
TRANSFERABILITY: Can the technology be applied to the applicant's operation?	Yes.	Yes.	Not known.
EFFECTIVENESS: Is there a reasonable expectation that the technology will provide	Existing.	Existing.	No.

Table 4.5-1 BAT: Laden Oil Barge Prompt Detection of a Discharge

Evaluation Criteria	Existing	Existing	Option 1
Technology Options	*Onshore and tanker lookouts; tanks sounded prior to, during, and after transfer; vents monitored and contained; high-level alarms/gauges built in*	*Electronic leak detection/ monitoring of interstitial space*	*Continuous electronic surface water monitoring*
increased spill prevention or other environmental benefits?			
COST: Cost of achieving BAT, including consideration of cost relative to remaining years of service of current technology in use by applicant.	Costs have been incurred.	Costs have been incurred.	Not known. Single units would likely exceed $50,000, and the number of units required to support continuous monitoring has not been established.
AGE & CONDITION: Age and condition of current technology used (and considering similar equipment in current or past use under similar circumstances).	Current practice and proven procedures.	Current practice and proven procedures.	Technology is developing, procedures have not been proven.
COMPATIBILITY: Is the technology compatible with existing operations?	Yes, existing.	Yes, existing.	Not known.
FEASIBILITY: Feasibility of this technology from an engineering and operational view	Yes.	Yes.	Not considered feasible due to cost and limited range.
ENVIRONMENTAL IMPACTS: Does the use of this technology impact the environment in a manner that offsets the technology's benefits?	No.	Physical monitoring is required in the event of technology failure.	Not known.

BAT Summary – System complies with ADEC standards/requirements. In consideration of AS 46.04.030(e), no further "alternative" analysis for this BAT is necessary.

Section 5.0 Response Planning Standard

18 AAC 75.453
18 AAC 75.440

Section 5.1 ADEC Adjusted Response Planning Standard

Per 18 AAC 75.440, the plan holder must be able to contain and control the ADEC RPS volume that enters open water within 48 hours and to clean up within the shortest possible time, being sure to minimize damage to the environment. A calculation of the ADEC response planning standard is displayed in the table below.

Table 5-1 Response Planning Standard Calculations

Total Oil Capacity (bbls)	15% of Total Oil Capacity (bbls)
Southeast Alaska Region RPS	
130,000	19,500
Cook Inlet Alaska Region RPS	
220,000	33,000

APPENDIX A

SPOT CHARTER CHECKLIST

Alaska Department of Environmental Conservation
Division of Spill Prevention and Response
Applicant Spot Charter Checklist

NO.	ITEM LIST	CHECK
1.	A cover letter that includes at the minimum numbers 1a-1e.	☐
1a.	Vessel name and IMO or Official Number	☐
1b.	Plan holder name and Plan number	☐
1c.	Dates spot charter amendment is in effect (e.g., March 15th , 2023 to March 31st, 2023)	☐
1d.	Type and volume of all cargo (include petroleum and non-petroleum cargo)	☐
1e.	Written assurance that all vessel specific items in Plan Holder's Prevention Plan have been addressed	☐
2.	Amendment Application (PDF)	☐
3.	Vetting Questionnaire (OCIMF or equivalent)	☐
4.	Primary Response Action Contractor (PRAC) contact between plan holder and vessel owner/operator	☐
5.	Vessel Operational Control	☐
6.	Specific oil transfer procedures for the terminal and the vessel	☐
7.	Vessel routing information into and out of State of Alaska waters	☐
8.	Safety Data Sheets (SDS) for all cargo transported	☐
9.	Drawings that identify 9a-9j	☐
9a.	Cargo	☐
9b.	Bunker and ballast tanks	☐
9c.	All tank capacities	☐
9d.	Cargo piping	☐
9e.	Ballast piping	☐
9f.	Winches	☐
9g.	Emergency towing equipment	☐
9h.	Power plants	☐
9i.	Manifold pipe size	☐
9j.	Containment structures and equipment	☐
10.	A description of the methods for containing a discharge from fuel oil tank vent overflow and fill pipes	☐
11.	A description of the methods for retention and disposal of oily waste and bilge slops	☐
12.	List of discharges greater than 55 gallons that have occurred in Alaska State Waters. Provide the information required by 18 AAC 75.450(b)(2)	☐
13.	Assurance that correspondence has been forwarded to 13a-13b	☐
13a.	Designated PRAC	☐
13b.	U.S. Coast Guard Marine Safety Detachment for Region	☐
13c.	Ensure adequate financial responsibility coverage as required by 18 AAC 75 Article 2	☐

APPENDIX B

FORMS

FORMS

- ☐ **Personnel Response Training Log**
- ☐ **Spill Prevention Meeting Log**
- ☐ **Monthly Oil Spill Reporting Log**
- ☐ **Contingency Plan Verification Log**
- ☐ **Annual PREP Training & Drills Documentation**
- ☐ **ADEC Oil & Hazardous Substances Spill Notification Form**
- ☐ **Oil Spill Decanting Application / Authorization Form**
- ☐ **State Cultural Resources Investigation Permit (SCRIP) Application**

PERSONNEL RESPONSE TRAINING LOG

Name	Response training date & number of hours	Prevention training date & number of hours

SPILL PREVENTION MEETING LOG

Date: _____

Attendees:	

Subject/Issue Identified	Required Action

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MONTHLY OIL SPILL REPORTING LOG

Only for hydrocarbon spills less than 10 gallons, solely to land, not to creeks, sewers or storm drains.
(see Discharge Reporting requirements, 18 AAC 75.300)

SPILLS GREATER THAN 55 GALLONS SOLELY TO LAND OUTSIDE SECONDARY CONTAINMENT, HAZARDOUS SUBSTANCE SPILLS OR SPILLS TO WATER MUST BE REPORTED IMMEDIATELY.

Call ADEC for more information: **1-800-478-9300**
Please submit the completed monthly spill reporting log to the nearest ADEC office:

Anchorage/Central Region: dec.carspillreport@alaska.gov
Anchorage/Western Alaska Region: dec.sparwregion@alaska.gov
Fairbanks: dec.narspillreport@alaska.gov
Juneau: dec.spar.seregion.spills@alaska.gov

FACILITY NAME AND ADDRESS:	
REPORT MONTH/YEAR:	
REPORTED BY:	**PHONE #:**
EMAIL:	

DATE / TIME OF SPILL	LOCATION	PRODUCT SPILLED	QTY SPILLED (GALLONS)	CAUSE OF SPILL & AREA AFFECTED	WHO RESPONDED	CLEANUP & METHOD / PLACE OF DISPOSAL

State of Alaska Department of Environmental Conservation

Contingency Plan Verification Log

This log is to be completed by terminal facility owners/operators who are subject to the requirements of AS 46.04.030 and 18 AAC 75, Article 4, and who transfer petroleum to or from tank vessels, oil barges, non tank vessels over 400 GRT or rail cars carrying petroleum products as cargo in Alaskan waters. Completion of this form is required by 18 AAC 75.465. Per regulation this form must be submitted to the department during the first five days of the current month for the previous month's deliveries.

Please Type or Print Clearly Month/Year _____

Terminal Name: _____

Terminal Owner: _____ **Telephone:** _____

Terminal Address: _____

Date	**Name of Vessel** (Please Print)	**Vessel Contingency Plan Holder** (Company Name) (Please Print)	**Vessel Operator Signature** [1]	**Terminal Owner or Operator Signature** [2]

[1] **VESSEL OPERATOR**, by signature, hereby certifies that a current copy of the response action plan section of the current approved oil discharge prevention and contingency plan for that vessel or barge is onboard the vessel or barge.

[2] **TERMINAL OWNER OR OPERATOR**, by signature, hereby certifies that the vessel operator has produced for his or her inspection an original or true photocopy of the certificate of approval for the oil discharge prevention and contingency plan which covers the operations of that vessel or barge. {An approval letter authorizing specific dates of operation is also required for a chartered vessel, which is temporarily covered under a contingency plan.}

18 AAC 75.465. Proof of approved plan

(a) The owner or operator of an oil terminal facility may not cause or permit the transfer of oil to or from a vessel, barge, or railroad tank car unless

(1) the operator of the vessel, barge, or railroad tank car has produced for inspection by the facility owner or operator the original certificate or a true photocopy of the original, approving the oil discharge prevention and contingency plan or nontank vessel plan for that operation; and

(2) the operator of the vessel, barge, or railroad tank car has certified, on a certification log form supplied by the department and maintained by the owner or operator of the oil terminal facility, that a copy of the response action plan section of the current approved oil discharge prevention and contingency plan, or the original certificate or a true photocopy of the original nontank vessel plan approval certificate, for that vessel or barge is on board the vessel or barge.

(b) The owner or operator of an oil terminal facility shall certify on the certification log form that the operator of the vessel or barge has complied with (a)(1) and (2) of this section. The facility owner or operator shall maintain the log on a monthly basis and shall submit the log for the previous month to the department within the first five days of the following month. Service is effective upon personal delivery or transmittal by facsimile or on the date of mailing by certified mail to the department. The department will retain copies of all log forms received under this subsection for three years after receipt.

(c) On the first working day after the operator of a vessel or railroad tank car fails to comply with the requirements of (a)(1) or (2) of this section, the oil terminal facility owner or operator shall report that failure to the department by telephone or facsimile.

(d) Verification and entry on the certification log form referred to under (b) of this section is required for each separate loading or unloading operation of a vessel at an oil terminal facility.

Form maybe mailed,e-mailed, or fax to the Department.

Mailing address: ADEC/PPR
555 Cordova St
Anchorage, AK 99501

fax number: (907) 269-7687

Email: DECSPARC-PLAN@alaska.gov

ANNUAL PREP TRAINING & DRILLS DOCUMENTATION

This form must be retained for five years.

1. QUALIFIED INDIVIDUAL NOTIFICATION DRILL (QUARTERLY)

Contact made with Q.I. or Alternate Q.I.

Date	Time	Person Initiating Call	QI Contacted

2. MANAGEMENT TEAM TABLETOP EXERCISE (ANNUAL)

Brief Description of Spill Response Exercise:

Date	Time	Participants

3. EQUIPMENT DEPLOYMENT EXERCISE (SEMI-ANNUAL)

Date:

Equipment/Personnel Deployed:

_____

_____

_____

_____

_____

Date:

Equipment/Personnel Deployed:

_____

_____

_____

_____

_____

4. UNANNOUNCED EXERCISE (ANNUAL)

Was one of the above exercises unannounced?

_____ Yes, date unannounced exercise performed: _____

_____ No, describe your unannounced drill and date performed here:

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORM

ADEC USE ONLY

ADEC SPILL #:	ADEC FILE #:	ADEC LC:

PERSON REPORTING:	PHONE NUMBER:	REPORTED HOW? (ADEC USE ONLY) ☐ Phone ☐ Fax ☐ PERS ☐ E-mail
DATE/TIME OF SPILL:	DATE/TIME DISCOVERED:	DATE/TIME REPORTED TO ADEC:

INCIDENT LOCATION/ADDRESS:	DATUM: ☐ NAD27 ☐ NAD83 ☐ WGS84 ☐ Other _____	PRODUCT SPILLED:
	LAT.	
	LONG.	

QUANTITY SPILLED: ☐ gallons ☐ pounds	QUANTITY CONTAINED: ☐ gallons ☐ pounds	QUANTITY RECOVERED: ☐ gallons ☐ pounds	QUANTITY DISPOSED: ☐ gallons ☐ pounds

	POTENTIAL RESPONSIBLE PARTY:	OTHER PRP, IF ANY:	VESSEL NAME:
Name/Business:			
Mailing Address:			VESSEL NUMBER:
Contact Name:			> 400 GROSS TON VESSEL: ☐ Yes ☐ No
Contact Number:			

SOURCE OF SPILL:	CAUSE CLASSIFICATION:
CAUSE OF SPILL: ☐ Under Investigation	☐ Accident ☐ Human Factors ☐ Structural/Mechanical ☐ Other

CLEANUP ACTIONS:

DISPOSAL METHODS AND LOCATION:

AFFECTED AREA SIZE:	SURFACE TYPE: *(gravel, asphalt, name of river etc.)*	RESOURCES AFFECTED/THREATENED: *(Water sources, wildlife, wells, etc.)*

COMMENTS:

ADEC USE ONLY

SPILL NAME:	NAME OF DEC STAFF RESPONDING:	C-PLAN MGR NOTIFIED? ☐ Yes ☐ No

DEC RESPONSE: ☐ Phone follow-up ☐ Field visit ☐ Took Report	CASELOAD CODE: ☐ First and Final ☐ Open/No LC ☐ LC Assigned	CLEANUP CLOSURE ACTION: ☐ NFA ☐ Monitoring ☐ Transferred to CS or STP

COMMENTS:

Status of Case: ☐ Open ☐ Closed DATE CASE CLOSED:

REPORT PREPARED BY:	DATE:

UNIFIED COMMAND

Oil Spill Decanting Application/Authorization Form

Incident Name: _____

Responsible Party: _____

Date(s) of Approval Requested: _____

Demonstration of Need for Decanting:

_____

Location and Description of Proposed Decanting Operation:

_____

_____

RP IC Signature **DATE**

Decanting is authorized with the intent to maximize storage capacity for recovered oil and expedite cleanup. If recovered fluids can be adequately managed using available storage, on-site treatment, or transport to a treatment facility without impeding ongoing oil recovery, recovered water shall not be decanted.

The decanting operation must meet the following conditions:

1. Decanted water must not cause a film, sheen or discoloration on the surface or floor of the waterbody or adjoining shorelines. Decanting must cease if oil is observed in water being discharged.
2. Operators must maintain continuous control over the decanting process to prevent discharge of concentrated oil.
3. Decanted water must be discharged within the collection boom or area, vessel collection well, recovery belt, weir area, or directly in front of a recovery system, unless approved otherwise.
4. Where decanted water will not pass through an oil/water separator prior to discharge, tanks must be allowed to settle without addition of fluids for a minimum time of _____ to allow separation before decanting commences.
5. The RP shall record the following data for all decanting operations: location of the decanting, time decanting started, time decanting stopped and decanting pump rates.
6. DEC staff shall have access to decanting operations in order to evaluate effectiveness and collect samples if needed.
7. Additional conditions (continued on reverse, if necessary):

_____

_____ _____

SOSC Signature **DATE** **FOSC Signature** **DATE**

***Note**: The RP may make a verbal request and receive verbal approval for decanting from the OSC or their designee, but a written application must follow as soon as possible.*

Form rev. 5/2012

State Cultural Resources Investigation Permit (SCRIP) Application

Alaska Department of Natural Resources, Office of History and Archaeology
550 W. 7th Ave., Suite 1310 Anchorage, AK 99501-3565
Questions about State Permits should be directed to the State Archaeologist either by email at oha.permits@alaska.gov or by phone at (907) 269-8728.

Permit #:

Date Received:

OHA USE

A. Applicant Section

1. Applicant: _____ 2. Date Submitted: _____

3. Institutional Affiliation: _____

4. Contact Information: Address: _____

Phone: _____ Email: _____

5. Contracting Agency: _____

6. Project Name: _____

7. Field Supervisor: _____

8. Brief Description of Project Area: _____

_____

9. Dates of Proposed Work: _____ to _____ 10. Acres to be Investigated: _____

11. MTRS: (ex. S021N005W|3-5|10) _____

_____

12. Permit Type: _____ If other, please specify: _____

13. Proposed Artifact Repository: _____ Curation Agreement: _____

B. Applicant Signature

By signing this document, the applicant confirms that they have read and agreed to comply with the provisions AS 41.35.080 and 11 AAC 16.020 - 16.090, as well as the Instructions and Stipulations for the Alaska SCRIP.

1. Signature of Applicant: _____ 2. Date: _____

3. Signature of Field Supervisor: _____ 4. Date: _____

C. Agency Land Manager Authorization

1. Land Manager (Print): _____ 2. Agency: _____

3. Land Manager (Sign): _____ 4. Date: _____

D. Office of History and Archaeology Authorization

1. Signature of DPOR Director: _____ 2. Date: _____

3. Expiration Date of Permit: _____

STATE CULTURAL RESOURCE INVESTIGATION PERMIT
Stipulations and Conditions

Stipulation Instructions can be found in OHA's *SCRIP STIPULATION INSTRUCTIONS.*
Instructions therein are not discretionary, are subject to update, and should be reviewed periodically.

On behalf of the Commissioner of the Department of Natural Resources, the Office of History and Archaeology (OHA) is responsible for administering programs under the Alaska Historic Preservation Act (AHPA) in the public interest (AK Constitution 8 § 1-2) including permits under AS 41.35.080 and 11 AAC 16.030-.900. A State Cultural Resource Investigation Permit (SCRIP) is required for any cultural resource investigation (survey, monitoring, excavation) on lands owned or managed by any and all State of Alaska agencies, political subdivisions, or entities (collectively referred to herein as "state lands"). Investigation of paleontological resources (fossils) also require a SCRIP, as they are considered a cultural resource under AS 41.35.230(2).

The OHA primarily issues one-year SCRIPs for business purposes, and up to three-year SCRIPs for academic research purposes.

SCRIPs issued for field investigations on state lands are subject to the following conditions:

1. Permit Applications:

A. A research design shall be attached to the permit application.
B. Applicants shall allow OHA at least 30 days to process SCRIP applications that are complete.
C. The permittee shall meet the professional qualification standards of 11 AAC 16.040 for work on state lands. However, for projects that are considered federal undertakings by the NHPA, the permittee must also meet the standards established in 43 CFR 7.8 and the Secretary of the Interior's Professional Qualification Standards, 48 FR 44738-44739.
D. It is the applicant's responsibility to determine land ownership for the investigation area, and list in the research design the Meridian/Township/Range/Section (MTRS's) for each state land managing agency / entity.
E. Indemnification. The permittee shall indemnify, hold harmless and defend the State, its officers, agents, and employees from liability of any nature or kind, including costs and expenses for or on account of any and all legal actions or claims of any character whatsoever resulting from injuries or damages sustained by any person or persons or property as a result of any error, omission, or negligent act of the permittee relating to this permit.

2. Permit Issuance and Termination:

A. OHA shall issue SCRIPs to one permit applicant per SCRIP.
B. If the permittee is removed from the permitted project, the permittee must forfeit their SCRIP, and remain responsible for reporting of work they completed under the SCRIP.
C. A SCRIP may be amended by request to account for deviations from the signed SCRIP application and research design. Amendments will only be issued at the discretion of OHA.
D. OHA may terminate a SCRIP if the permittee fails to comply with the terms of the SCRIP and stipulations, or with other applicable laws, statutes, and regulations.
E. SCRIP eligibility is contingent upon the satisfactory completion of prior SCRIPs. Applicants are not eligible for further SCRIPs until the requirements of SCRIPs from previous field seasons are satisfied.

3. Permit Fieldwork:

A. Investigation methodology shall be explicitly defined in the research design and supported in the report to enable review of work conducted under the SCRIP. Significant changes made to the research design, necessitated by field realities, shall be made in consultation with OHA.

B. The permittee shall ensure that the Field Supervisor is qualified, knowledgeable, and aware of the Permitted research design and SCRIP Stipulations.

C. If no Field Supervisor is assigned at the time of SCRIP application, upon assigning a Field Supervisor the permittee shall submit OHA's Field Supervisor form, prior to initiating fieldwork.

D. As a special permit condition, large projects fielding multiple crews may be required to report multiple field supervisors using OHA's Field Supervisor Form.

E. Subsurface shovel testing will be conducted for site identification and characterization.

1) This type of shovel test shall measure 0.25 square meters in size. The shape of the sample area will be justified in the research design.
2) All excavated materials will be screened. Screen mesh size shall be justified in the research design, and appropriate to anticipated sediments and artifact classes.
3) Artifacts recovered through subsurface testing shall be collected, analyzed, and curated.
4) If the Field Supervisor determines subsurface testing is not warranted, the survey report shall provide an explanation and images showing why subsurface testing was not appropriate. Inadequate time management is not acceptable justification.

F. A Curation Agreement is required for SCRIP applications that include any ground disturbing activities and/or the collection of archaeological or paleontological materials.

G. In the event that human remains are discovered, the permittee shall cease work that would further disturb the remains and immediately contact the OHA and other appropriate state agencies as required by AS 12.65.050.

H. Issuance of a SCRIP in no way absolves the permittee from complying with other laws and regulations that may apply.

I. For projects requiring fieldwork in frozen ground or low light conditions, permittees should first consult with OHA regarding appropriate methods and techniques to be used and will work with OHA as needed to revise their research design.

J. OHA personnel may visit SCRIP-permitted investigations at any time, as per 11 AAC 16.090.

4. Permit Reporting:

A. Reports shall be consistent with *SOI's Standards and Guidelines for Archaeology and Historic Preservation* as well as the *Alaska Historic Preservation Act*. If the report does not meet these standards, the permittee shall resolve the deficiencies identified by OHA to close the SCRIP.

B. Per 11 AAC 16.050, the final report is due to the State Archaeologist within six months after the completion of fieldwork. An interim report may be submitted three months after the completion of fieldwork. For multi-year SCRIPs, annual reports are required in addition to a final report.

C. The permittee shall ensure that Alaska Heritage Resources Survey (AHRS) records are submitted to the AHRS Manager for sites investigated under the SCRIP.

D. OHA will make submitted reports available to cultural resource professionals, land managers, and others authorized by AHRS user agreements to access OHA records.

E. Applicant Signature: SCRIP Stipulations

By signing this document, the applicant confirms that they have read and agreed to comply with the provisions AS 41.35.080 and 11 AAC 16.020 - 16.090., as well as the Instructions and Stipulations for the Alaska SCRIP.

1. Signature of Applicant: _____ 2. Date: _____

APPENDIX C

INCIDENT COMMAND SYSTEM

ICS Fillable Forms

To access FEMA's ICS Fillable forms online, visit Emergency Management Institute | ICS Fillable Forms (fema.gov).

SAFETY MESSAGE/PLAN (ICS 208)

1. Incident Name:	2. Operational Period: Date From: Date To: Time From: Time To:

3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:

4. Site Safety Plan Required? Yes ☐ No ☐

Approved Site Safety Plan(s) Located At:

5. Prepared by: Name: _____ Position/Title: _____ Signature: _____

ICS 208	IAP Page _____	Date/Time: _____

ICS 208
Safety Message/Plan

Purpose. The Safety Message/Plan (ICS 208) expands on the Safety Message and Site Safety Plan.

Preparation. The ICS 208 is an optional form that may be included and completed by the Safety Officer for the Incident Action Plan (IAP).

Distribution. The ICS 208, if developed, will be reproduced with the IAP and given to all recipients as part of the IAP. All completed original forms must be given to the Documentation Unit.

Notes:
- The ICS 208 may serve (optionally) as part of the IAP.
- Use additional copies for continuation sheets as needed, and indicate pagination as used.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	**Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan**	Enter clear, concise statements for safety message(s), priorities, and key command emphasis/decisions/directions. Enter information such as known safety hazards and specific precautions to be observed during this operational period. If needed, additional safety message(s) should be referenced and attached.
4	**Site Safety Plan Required?** Yes ☐ No ☐	Check whether or not a site safety plan is required for this incident.
	Approved Site Safety Plan(s) Located At	Enter where the approved Site Safety Plan(s) is located.
5	**Prepared by** • Name • Position/Title • Signature • Date/Time	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).

SITE SAFETY AND CONTROL PLAN ICS 208 HM	1. Incident Name:	2. Date Prepared:	3. Operational Period: Time:

Section I. Site Information

4. Incident Location:

Section II. Organization

5. Incident Commander:	6. HM Group Supervisor:	7. Tech. Specialist - HM Reference:
8. Safety Officer:	9. Entry Leader:	10. Site Access Control Leader:
11. Asst. Safety Officer - HM:	12. Decontamination Leader:	13. Safe Refuge Area Mgr:
14. Environmental Health:	15.	16.

17. Entry Team: (Buddy System) Name:	PPE Level	18. Decontamination Element: Name:	PPE Level
Entry 1		Decon 1	
Entry 2		Decon 2	
Entry 3		Decon 3	
Entry 4		Decon 4	

Section III. Hazard/Risk Analysis

19. Material:	Container type	Qty.	Phys. State	pH	IDLH	F.P.	I.T.	V.P.	V.D.	S.G.	LEL	UEL

Comment:

Section IV. Hazard Monitoring

20. LEL Instrument(s):	21. O_2 Instrument(s):
22. Toxicity/PPM Instrument(s):	23. Radiological Instrument(s):

Comment:

Section V. Decontamination Procedures

24. Standard Decontamination Procedures: YES: ☐ NO: ☐

Comment:

Section VI. Site Communications

25. Command Frequency:	26. Tactical Frequency:	27. Entry Frequency:

Section VII. Medical Assistance

28. Medical Monitoring: YES: ☐ NO: ☐ 29. Medical Treatment and Transport In-place: YES: ☐ NO: ☐

Comment:

Section VIII. Site Map

30. Site Map:

Weather ☐ Command Post ☐ Zones ☐ Assembly Areas ☐ Escape Routes ☐ Other ☐

Section IX. Entry Objectives

31. Entry Objectives:

Section X. SOP S and Safe Work Practices

32. Modifications to Documented SOP s or Work Practices:	YES: ☐	NO: ☐

Comment:

Section XI. Emergency Procedures

33. Emergency Procedures:

Section XII. Safety Briefing

34. Asst. Safety Officer - HM Signature:	Safety Briefing Completed (Time):
35. HM Group Supervisor Signature:	36. Incident Commander Signature:

INSTRUCTIONS FOR COMPLETING THE SITE SAFETY AND CONTROL PLAN
ICS 208 HM

A Site Safety and Control Plan must be completed by the Hazardous Materials Group Supervisor and reviewed by all within the Hazardous Materials Group prior to operations commencing within the Exclusion Zone.

Item Number	Item Title	Instructions
1.	Incident Name/Number	Print name and/or incident number.
2.	Date and Time	Enter date and time prepared.
3.	Operational Period	Enter the time interval for which the form applies.
4.	Incident Location	Enter the address and or map coordinates of the incident.
5 - 16.	Organization	Enter names of all individuals assigned to ICS positions. (Entries 5 & 8 mandatory). Use Boxes 15 and 16 for other functions: i.e. Medical Monitoring.
17 - 18.	Entry Team/Decon Element	Enter names and level of PPE of Entry & Decon personnel. (Entries 1 - 4 mandatory buddy system and back-up.)
19.	Material	Enter names and pertinent information of all known chemical products. Enter UNK if material is not known. Include any which apply to chemical properties. (Definitions: ph = Potential for Hydrogen (Corrosivity), IDLH = Immediately Dangerous to Life and Health, F.P. = Flash Point, I.T. = Ignition Temperature, V.P. = Vapor Pressure, V.D. = Vapor Density, S.G. = Specific Gravity, LEL = Lower Explosive Limit, UEL = Upper Explosive Limit)
20 - 23.	Hazard Monitoring	List the instruments which will be used to monitor for chemical.
24.	Decontamination Procedures	Check NO if modifications are made to standard decontamination procedures and make appropriate Comments including type of solutions.
25 - 27.	Site Communications	Enter the radio frequency(ies) which apply.
28 - 29.	Medical Assistance	Enter comments if NO is checked.
30.	Site Map	Sketch or attach a site map which defines all locations and layouts of operational zones. (Check boxes are mandatory to be identified.)
31.	Entry Objectives	List all objectives to be performed by the Entry Team in the Exclusion Zone and any parameters which will alter or stop entry operations.
32 - 33.	SOP s, Safe Work Practices, and Emergency Procedures	List in Comments if any modifications to SOP s and any emergency procedures which will be affected if an emergency occurs while personnel are within the Exclusion Zone.
34 - 36.	Safety Briefing	Have the appropriate individual place their signature in the box once the Site Safety and Control Plan is reviewed. Note the time in box 34 when the safety briefing has been completed.

Incident Commander (IC): The IC is the general manager of the oil spill response activities. These management functions include coordination and co-development of overall strategic goals with the FOSC and SOSC in the Unified Command. The IC assigns Command Staff personnel to account for safety, legal, public information (media), governmental liaison, and administrative support activities, as required.

The following is a task checklist for the IC:

- ☐ Refer to the Immediate Actions Checklist in Section 1.1.
- ☐ Obtain the initial oil spill incident briefing from the Operations Chief.
- ☐ Review the initial actions and advise the Operations Chief of additional actions to be taken.
- ☐ Activate additional management personnel and instruct to report to the Operational Command Center.
- ☐ Notify the Tier II response contractor, the Primary Response Action Contractor.
- ☐ Take control of the oil spill activities and assume responsibility for overall management
- ☐ Notify appropriate government officials (See Section 1.3).
- ☐ Assess the oil spill and, with the FOSC and SOSC, develop overall strategic goals for the response.
- ☐ Brief government officials on status of oil spill response activities.
- ☐ Approve safety plans developed by the Safety Officer.
- ☐ Conduct the initial briefing with the ICS and assign duties to personnel. Activate additional elements of the ICS, as needed, through the Section Chiefs.
- ☐ Establish and maintain a firm schedule of communications with the Forward Command Center at the Facility.
- ☐ Verify that planning meetings are conducted for each planning period.
- ☐ Review and authorize Incident Action Plans.
- ☐ Assist in the development of press releases and authorize as appropriate. Serve as a representative during major press briefings and public meetings.
- ☐ Delegate spending authorities and approve major expenditures.
- ☐ Coordinate with the FOSC and SOSC to declare response completion dates.
- ☐ Prepare summary reports, coordinate follow-up documentation, and participate in evaluations and critiques.

Deputy Incident Commander: A Deputy IC may be assigned in a large event to assist the IC in performing the necessary duties. The IC should identify and delegate as many of the operational and support management tasks to the Deputy IC as is possible.

The Deputy IC's specific duties are delegated to him directly by the IC. The Deputy IC may be requested to manage any of the IC's duties, including, but not limited to, direct oversight of the Section Chiefs and activities. A checklist for the Deputy IC is as follows:

- ☐ Obtain briefings from the IC.
- ☐ Ensure that Section Chiefs and the Command Staff have been notified and are assembled at the Emergency Operations Center.
- ☐ Review the IC's responsibilities.
- ☐ Assume responsibility and control for those components of the oil spill incident management as directed or authorized by the IC.
- ☐ Ensure that Section Chiefs and Command Staff understand their responsibilities and accomplish tasks in a timely manner.
- ☐ Lead manager for critical elements of the response.

Safety Officer: Responsible for establishing the appropriate and required safety standards for the response operations. He is also responsible for the development of safety plans and for ensuring that standards and plans are being followed through on-site inspections. A checklist for the Safety Officer is as follows:

- ☐ Obtain briefing from the Operations Chief.
- ☐ Identify hazardous situations associated with the incident and recommend appropriate safety equipment.
- ☐ Develop the general safety plan for response operations (See Section 1.3).
- ☐ Ensure that all personnel are informed of safety requirements in accordance with the safety plan.
- ☐ Maintain safety surveillance of all activities through on-site inspections and recommend measures to mitigate unsafe conditions.
- ☐ Exercise authority to stop and prevent unsafe acts.
- ☐ Investigate accidents that have occurred within the incident area.
- ☐ Coordinate activities and capabilities with medical staff.

Public Information Officer: Responsible for the formulation and release of information about the oil spill incident to the news media, non-governmental organizations, and other interested parties. The Public Information Officer reports directly to the Incident Commander. A checklist for the Public Information Officer is as follows:

- ☐ Obtain briefing from the IC.
- ☐ Establish a single authorized source of information for the media.
- ☐ Arrange for necessary media briefing facilities and establish a Press Room at the Command Center.
- ☐ Obtain ongoing status of spill response activities and status of efforts.
- ☐ Develop plans and procedures for advising the public on the progress of the cleanup.
- ☐ Prepare an initial press release as soon as possible and submit to the IC for approval.
- ☐ Develop, organize and schedule regular press briefings at the Press Room.
- ☐ Prepare periodic press releases for approval and release by the IC.
- ☐ Maintain a close working relationship with all news media, governmental agencies, conservation groups, and civic public organizations.
- ☐ Attend meetings to update information released.
- ☐ Respond to special requests for information.
- ☐ Assess published media information (radio, television, and newspaper articles) and brief the IC.

Legal Advisor/Counsel: Responsible for providing legal advice to the Incident Commander on all aspects of the oil spill. The Legal Advisor is also responsible for monitoring the spill, notifying the appropriate insurance representatives, investigating potential claims, and settling claims. The legal officer must be familiar with the Facility Response Plan. The Legal Advisor's checklist is as follows:

- ☐ Obtain a briefing from the IC.
- ☐ Be familiar with all aspects of the spill in anticipation of legal actions and take actions to protect the company's interests.
- ☐ Provide and give legal approval of oil spill reports for the government agencies prepared by the IC or his designee.
- ☐ Determine the legal responsibility for the incident as quickly as possible. If the facility operator/owner is found to be not responsible for the spill, notify the responsible party of the spill and obtain authorization to act as the agent for the responsible party. In this case, act as liaison between facility operator/owner and the responsible party.
- ☐ Ensure that the incident cause and amount of oil spilled is adequately investigated.
- ☐ Collect and maintain legally defensible investigative data and information.
- ☐ Ensure information that may be relevant to the defense and/or settlement of future claims is gathered and preserved. Advise the IC of the necessary documentation.
- ☐ Provide legal advice in matters related to insurance liabilities.
- ☐ Ensure that cleanup contracts and agreements are in sound legal form and in compliance with law, rules, and regulations.
- ☐ Maintain contact with insurers and develop plans for effective investigation and handling of insurance claims.
- ☐ Approve legal format of contracts and agreements established during the response not executed in accordance with the standard facility operator/owner format.
- ☐ Consult with the IC on matters related to labor disputes, sabotage, arson, and any illegal acts against facility operator/owner.
- ☐ Assist in obtaining permits and resolving permit issues such as right-of-way access, dispersant use, in-situ burning, and waste disposal.
- ☐ Review and approve press releases.
- ☐ Retain outside counsel, if necessary.
- ☐ Advise the Environmental Unit Leader concerning compliance with environmental laws, rules, and regulations.

Operations Section Chief: Develops, activates, and supervises operational elements of the oil spill response effort. The Plant Manager is assigned as the initial Operations Chief. The Operations Section Chief provides on scene coordination for source control and repair and directs containment, control, recovery, and protection operations. The Operations Section Chief also advises the IC, oversees all cleanup activities, and ensures that these activities are carried out safely and effectively.

- ☐ Initial Actions – See Checklist in Section 1.1. Develop immediate tactical plans.
- ☐ Organize arriving personnel into teams – assign group leaders. Assign deployment and operations tasks to operations groups. Supervise Operations.
- ☐ Evaluate the effectiveness of operations. Adjust tactical plans as appropriate and necessary. Monitor contractors' work and review daily performance reports to ensure accuracy.
- ☐ Ensure that appropriate government approvals have been obtained by the Environmental Group prior to any non-mechanical response operations that may be instituted.
- ☐ Maintain the highest level of safety awareness in all operations.
- ☐ Establish staging areas at the Operational Facility for any arriving Tier II equipment and provide transportation equipment and personnel for moving the equipment to the deployment location. Determine additional resource needs for oil spill containment, exclusion, and cleanup operations and request additional resources from the Command Center, as needed.
- ☐ Report information about activities, events, and actions to the IC.
- ☐ Identify resources not needed for operations so that they may be demobilized.
- ☐ Coordinate temporary storage for recovered oil and oily solid wastes.
- ☐ Provide a shoreline cleanup operations team member as representative on the SCAT Team. Conduct shoreline cleanup operations.

Onshore Operations and Support Unit Leader: Responsible for supervising onshore response activities. A checklist for the Onshore Operations and Support Unit Leader is as follows:

- ☐ Obtain briefing and instructions from the Operations Chief (Lead Fuels Operator).
- ☐ Outfit personnel with proper safety gear and personnel protective equipment.
- ☐ Identify and collect transportation equipment (trucks, cranes, forklifts, etc.).
- ☐ Obtain immediate response equipment in accordance with immediate tactical plan and transport from storage location to deployment location.
- ☐ With the Offshore Group, deploy equipment to water.
- ☐ Maintain shoreside aspect of entrapment and recovery operations.
- ☐ Transport arriving Tier II equipment to deployment locations and deploy with Offshore Group. Prepare and operate recovered oil transfer operations from temporary storage containers. Transport recovered oil to temporary storage tankage as necessary with tank trucks or through facility pipe systems.
- ☐ Ensure the safety of field personnel involved in onshore response activities.
- ☐ Work with the Environmental Unit to conduct shoreline cleanup assessment team surveys and to develop detailed shoreline cleanup plans.
- ☐ Provide the Operations Chief with information on the services, resources, and manpower required to support onshore response operations.
- ☐ Conduct shoreline cleanup operations.
- ☐ At conclusion of spill response, establish decontamination group.

Offshore Cleanup Unit Leader: Responsible for on-water activities including operation of offshore containment, control and recovery operations and on-water support of nearshore protection and entrapment operations. A checklist for the Offshore Cleanup Unit Leader is as follows:

- ☐ Obtain briefing and instructions from the Operations Chief (Plant Manager).
- ☐ Outfit personnel with proper safety gear and personnel protective equipment.
- ☐ Transport and deploy offshore response equipment.
- ☐ Operate vessels and conduct anchor and offshore boom leg deployment operations during the establishment of entrapment and nearshore protection tactics.
- ☐ Deploy towable on-water storage devices and operate skimming systems, boom towing vessels, and concentration boom associated with offshore containment and recovery operations.
- ☐ Ensure the safety of all field personnel involved in offshore response activities.
- ☐ Coordinate activities with arriving Tier II contractor personnel and equipment.
- ☐ Provide the Operations Chief with information on the services, resources, and manpower that is required to support long-term offshore response operations.

Tier II Response Contractor: The Tier II response contractor will be provided with a list of additional response equipment, personnel, and materials that may be required to support a large oil spill response effort. For the statement of contractual terms with the Tier II state registered primary response action contractor (PRAC), please refer to Section 3.7.

A checklist for the Tier II Response Contractor is as follows:

- ☐ Assist facility operator/owner in identifying and prioritizing equipment and personnel to be utilized.
- ☐ Maintain list of resources (personnel and equipment) available in local area.
- ☐ Callout personnel, subcontractors, transportation services, and air lift capabilities as required. Arrange for air cargo flight(s) to local area as necessary.
- ☐ Prepare necessary equipment, personnel, and materials from storage as necessary and required. Transport equipment to Air Transportation Staging area.
- ☐ Assist in loading aircraft.
- ☐ Notify facility operator/owner of time of arrival of air cargo flights at local area. Receive safety briefing and tactical instructions from Operations Chief.
- ☐ Assist in offloading aircraft and transportation of equipment to deployment location.
- ☐ Assist in deployment of equipment to water.
- ☐ Provide additional support to facility operator/owner personnel as directed.
- ☐ Operate vessels and response equipment as necessary to meet tactical plans.

Decontamination & Waste Management Unit Leader: Responsible of conducting onshore decontamination of equipment and materials, as well as management of liquid and solid wastes. This group will be formed after the offshore and onshore equipment is deployed and fully operational. A checklist for the Decontamination and Waste Management Unit Leader is as follows:

- ☐ Plan and obtain necessary equipment and materials needed for decontamination of response resources.
- ☐ Prepare decontamination locations for equipment and personnel.
- ☐ Decontaminate and return equipment to storage areas.
- ☐ Prepare post-incident inventory of response equipment and supply resources.
- ☐ Establish waste management segregation practices and procedures.
- ☐ Establish temporary waste management locations for liquid and solid wastes. Permits for temporary waste management to be obtained by Environmental Group.
- ☐ Arrange for transportation of wastes to disposal/treatment location (disposal and treatment permits to be obtained by Environmental Group).

Planning Section Chief: Responsible for management of short-term and long-term planning for the oil spill response; tracking, organizing, and posting information and data on the spill response effort, and support of operations in regard to environmental issues and permits. The checklist for the Planning Chief is as follows:

- ☐ Obtain a briefing from the IC.
- ☐ Alert and brief Unit leaders on the spill and activate additional personnel and specialists as needed to support the operational needs.
- ☐ Organize the planning section at the Emergency Operations Center.
- ☐ Ascertain the nature of the spill. Work to develop trajectory and mass balance projections. Periodically revise trajectory analysis based on actual observed oil spill location and nature. Provide regular predictions on oil spill potential, resources at risk, possible hazards, and weather information.
- ☐ Establish the planning cycle with strict planning timelines for strategy, planning, and team meetings to facilitate the development of Incident Action Plans for each operational period.
- ☐ Supervise the preparation of the Incident Action Plan.
- ☐ Identify regulatory permits necessary for operations; develop and submit applications to agencies.
- ☐ Supervise collection, dissemination, and documentation of information and data by the Situation Status/Documentation Group, as well as the development and maintenance of situation status boards at the command post.
- ☐ Prepare, distribute, and document IC orders and identify organizational elements responsible for executing those orders.
- ☐ Ensure that the Facility Response Plan and Incident Action Plan are available and utilized throughout the incident.
- ☐ Plan for demobilization through the Demobilization Unit.
- ☐ Develop waste management and disposal plans.

Situation Status/Documentation Unit Leader: Responsible for collection, dissemination, and documentation of information and data on the oil spill and response efforts. The Situation Unit Leader assembles and disseminates maps detailing the size and location of the spill and other relevant features or components of the oil spill incident response. A checklist for the Situation Status/Documentation Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Collect, maintain, and distribute oil spill related trajectory, surveillance, and fate data for the duration of the incident.
- ☐ Provide photographic services, maps, and situation status information as requested.
- ☐ Prepare Situation Status Reports and Emergency Operations Center status boards.
- ☐ Provide situation status information as requested by Section Chiefs.
- ☐ Establish a filing system for the incident files. Organize, maintain and store oil spill incident files in a convenient, secure location.
- ☐ Distribute copies of the file index to appropriate response personnel. Ensure that all response personnel are familiar with documentation guidelines.
- ☐ Work with Planning Section Chief to prepare the Incident Action Plan.
- ☐ Establish file duplication services for the incident and respond to file duplication requests.
- ☐ Obtain approval from Planning Section Chief prior to release of documentation.
- ☐ Duplicate and file all official forms and reports.
- ☐ Check records for completeness and accuracy prior to filing.

Resource Unit Leader: Maintains a record of the location and status of all equipment and personnel involved in the oil spill incident. The Resource Unit Leader is responsible for (1) verification that spill response resources (equipment and personnel) are properly checked in as they arrive in the local area from the Tier II contractor(s); (2) preparation and processing of response resource status change information including location of operations as the equipment and personnel is deployed and demobilized; and (3) preparation and maintenance of displays, graphs, and charts that reflect the current status of resources. A checklist for the Resource Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Obtain list of equipment, supplies, and personnel ordered from Tier II contractors and other sources from Logistics Section.
- ☐ Monitor status of acquisition and mobilization of resources to local area.
- ☐ Assist in the maintenance of the Situation Status Boards in regard to resource status.
- ☐ Document the arrival of resources at the staging area.
- ☐ Receive status updates from Operations Section in regard to deployment and location of resource operations.
- ☐ Maintain master list of all resources and monitor demobilization of resources including information on resources that are decontaminated and stored at the staging area and returned resources.
- ☐ Provide situation status information as requested by Section Chiefs.

Environmental Unit Leader: Responsible for environmental issues associated with the oil spill. The Environmental Unit provides advice and recommendations on environmental aspects of the spill including mechanical response, non-mechanical response, wildlife protection, shoreline cleanup, and oily waste disposal. The Environmental Unit also identifies environmentally sensitive areas including location and nature of the sensitivity. The Environmental Unit specialists may include a wildlife specialist, spill impact and modeling personnel, trajectory specialists, permit specialists, and technical advisors.

The Environmental Unit Leader participates in planning session activities, collects area environmental information and prioritizes mitigation measures. A checklist for the Environmental Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Establish staffing requirements for the Unit and assign duties to personnel.
- ☐ Collect and maintain existing and relevant environmental baseline data from the incident and potentially affected areas.
- ☐ With resource agencies (ADEC, ADFG, USFW, etc.), identify and prioritize environmentally sensitive areas for protection.
- ☐ Advise the operations section on these areas and priorities.
- ☐ Prepare Environmental Operations component of the Incident Action Plan.
- ☐ Prepare Wildlife Response Plan in accordance with the *Wildlife Protection Guidelines for Oil Spill Response in Alaska*.
- ☐ Coordinate with government agencies regarding obtaining the necessary permits, applications, and approvals.
- ☐ Ensure compliance with permit stipulations through inspections. Liaise with resource agencies regarding wildlife protection (hazing or pre-emptive capture), cleaning, and rehabilitation requirements and operations.
- ☐ Perform surveys of contaminated areas through Shoreline Cleanup and Assessment Technique (SCAT) Team surveys.
- ☐ Assist in preparing shoreline cleanup plans with the Onshore Cleanup Group.
- ☐ Assess the environmental damage to contaminated areas and potential impact of cleanup activities to support recommendation on cleanup methods through the Net Environmental Benefit Analysis (NEBA) process.
- ☐ Develop recommendations on mitigation and protection of key environmental areas and appropriate cleanup methodologies.
- ☐ Coordinate oversight of environmental monitoring activities and coordinate. Coordinate all materials and wastes analyses.
- ☐ Obtain briefings on the status of and the nature and quantity of liquid and solid waste being generated by the response operations.
- ☐ Develop and implement plans for the temporary storage and disposal of recovered oily waste and debris.

Demobilization Planning Unit Leader: Responsible for planning an orderly, safe and cost- effective demobilization of personnel and equipment. The Demobilization Planning Unit Leader will need to coordinate closely with the other incident response personnel. A checklist for the Demobilization Planning Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Develop and obtain workspace, equipment, and supplies required for demobilization.
- ☐ Maintain contact with Section Chiefs to ascertain the timing for the release of personnel and equipment involved in the response effort.
- ☐ Coordinate with other response personnel to develop and identify demobilization personnel responsibilities, resource release priority/procedures and travel instructions.
- ☐ Coordinate and supervise the decontamination and demobilization operations and keep Planning Section Chief informed of the status.
- ☐ Maintain personal notes of all relevant actions and decisions.
- ☐ Maintain status reports on demobilization resources.
- ☐ Document condition of equipment prior to release.
- ☐ Notify financial group of date of release of equipment components.

Logistics Section Chief: Responsible for ensuring that the response effort is provided with support in regards to resources. The Logistics Section receives information about required resources from the other sections including the equipment, materials, supplies, and personnel. The Logistics section sources, procures, orders, and transports the resources. A checklist for the Logistics Section Chief is as follows:

- ☐ Obtain a briefing from the IC.
- ☐ Notify and activate Logistics Section individuals as needed to fulfill tasks to be performed by the Section.
- ☐ Alert major service contractors of the oil spill emergency and activate them as necessary to support i.e. the Primary Response Action Contractor's operational needs (i.e., facilities, food, vessels, equipment, aircraft, sanitation, transportation services and materials, etc.).
- ☐ Assemble and hold periodic briefings with the Unit Leaders. Coordinate information with Resources Unit Leader in Planning Section.
- ☐ Participate in the preparation of the logistical components of the Incident Action Plan.
- ☐ Coordinate with other Section Chiefs to identify service and support requirements for planned operations.
- ☐ Coordinate and process response personnel requests for additional resources.
- ☐ Analyze resources planned and ensure that support (i.e. housing, food, water, sanitary facilities) is planned and provided.
- ☐ Source, acquire and transport equipment, personnel, and other resources to the appropriate locations as requested by the Operations Section.
- ☐ Review the Incident Action Plan and estimate section needs for next operational period.
- ☐ Estimate future service and support requirements.
- ☐ Identify the resources within the Logistics Section that are not needed or being utilized and reassign or release to decontamination/demobilization.

Procurement/Transportation Unit Leader: Responsible for sourcing and ordering resources and delivery of those resources to the spill work site. The Procurement/Transportation Unit Leader, with the Finance Section, negotiates prices with vendors and contracts with contractors; maintains time records for leased resources and for personnel; and provides ground, water, and air transportation to support response. The Procurement/Transportation Unit Leader reports to the Logistics Section Chief. A checklist for the Procurement/Transportation Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from the Logistics Section Chief.
- ☐ Obtain list of spill response vendors and contractors and prepare appropriate agreements as necessary to support the incident response effort, and/or as requested by the Section Chiefs.
- ☐ Coordinate with the Tier II Contractor, the Primary Response Action Contractor, and assist when possible, with the transportation requirements.
- ☐ Obtain equipment and services requested by Section Chiefs.
- ☐ Process all purchase orders and work orders for oil spill response vendors/service contractors. Order and coordinate aircraft services for Tier II personnel from Anchorage to local area.
- ☐ Mobilize transportation resources in local area in a timely manner to meet incoming air cargo flights. Oversee transport of equipment.
- ☐ Mobilize personnel transportation resources to the airport to meet incoming personnel transport aircraft.
- ☐ Coordinate with Facilities Unit to ensure adequate warehouse space is available for equipment being ordered and that adequate housing is available and reserved for Tier II personnel.
- ☐ Ensure that an adequate cash account is established and maintained. Maintain the time records for leased/rented resources.
- ☐ Determine the availability of transportation services and maintain a list of available services, schedules, etc.
- ☐ Assess the feasibility of using alternative transportation modes (i.e. fishing vessels, other companies' vessels, charters, etc.) and organize their involvement/assistance if feasible.

  Participate in the preparation of the Air Operations component of the Incident Action Plan. Arrange transportation to get response personnel, equipment, supplies, and materials to the incident area or other response facilities.
- ☐ Ensure that a sufficient number of aircraft are available to support the response effort and activate additional aircraft contracts as necessary.
- ☐ Coordinate and schedule vessel, vehicle, and aircraft schedules for operations.
- ☐ Request declaration or cancellation of restricted air and sea space through local or regional officials, as necessary.
- ☐ Coordinate with governmental agencies.

Facilities Unit Leader: Responsible for providing the facilities to support the oil spill response effort. This Facilities Unit Leader reports to the Logistics Section Chief. A checklist for the Facilities Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from the Logistics Section Chief.
- ☐ Coordinate with the Logistics Chief to understand the quantity of resources to be transported to local area.
- ☐ Make arrangements for adequate personnel housing, and sanitation facilities for incident response personnel.
- ☐ Provide for maintenance and housekeeping services.
- ☐ Ensure adequate personnel are available to operate and maintain the facilities.
- ☐ Provide security services for all facilities and limit access to authorized personnel only.
- ☐ Work closely with the Food Unit Leader to coordinate activities.

Medical Unit Leader: Responsible for providing medevac and medical care contingencies for response personnel. This includes first aid stations, emergency medical technicians, emergency transportation capabilities, and hospitalization capabilities as needed. The Medical Unit Leader reports to the Logistics Section Chief. A checklist for the Medical Unit Leader is as follows:

- ☐ Obtain briefing from Operations Chief and Safety Officer – maintain contact with the Logistics Section Chief.
- ☐ Assess current level of medical services available and activate additional facilities as necessary to provide adequate services for increased risks.
- ☐ Establish first aid stations and ensure that all first aid equipment is functional and that supplies are adequate and readily available.
- ☐ Ensure that medevac capabilities are ready to transport injured personnel to a facility for treatment.
- ☐ Respond to requests for medical aid, transportation or supplies.
- ☐ Establish procedures for major medical emergencies.
- ☐ Attend regular briefings with the Operations Chief and Safety Officer.

Food Unit Leader: Responsible for ensuring that personnel involved in the response are provided adequate food, water and sanitation areas. The Food Unit Leader reports to the Logistics Section Chief. A checklist for the Food Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Operations Section Chief and maintain contact with Logistics Section Chief.
- ☐ Maintain list of numbers of response personnel at each work location.
- ☐ Determine the food, potable water, and sanitation requirements for the response effort, both at the Operational Facility and in the field.
- ☐ Assess the conditions at each location needing food services and determine the most appropriate service method (i.e., restaurant, catering, mess hall).
- ☐ Establish meals schedules. Provide field lunches for field crews.
- ☐ Coordinate with Procurement/Transportation Unit Leader to ensure that contracts are activated to obtain necessary additional resources for increased food services.
- ☐ Verify that potable water and well-balanced meals are being served at each location under adequate health conditions.
- ☐ Increase or decrease food services as necessary.

Finance Section Chief: Responsible for ensuring that adequate financial processes are established to support the oil spill response activities; compensation, claims and insurance issues related to the oil spill and response activities; and cost tracking. The Finance Section is responsible for financial and cost analysis of the response including invoicing, auditing, billings, payments, and services used. A checklist for the Finance Section Chief is as follows:

- ☐ Obtain a briefing from the IC.
- ☐ Establish and obtain approval of spending authorities for personnel.
- ☐ Participate in the preparation of the financial aspects and section assignments of the Incident Action Plan.
- ☐ Develop and administer a cash account.
- ☐ Work with Procurement/Transportation Unit Leader to administer contracts and service agreements for necessary supplies, services, and consultants.
- ☐ Predict spill costs daily and provide to IC. Document incremental costs and revise predictions as appropriate.
- ☐ Provide accounting functions including auditing, billing, and invoice payments.
- ☐ Document labor, material, and services used during spill response operations.
- ☐ Verify that obligation documents initiated during the spill response are properly prepared. Monitor and record reimbursable expenditures.

Time/Cost Unit Leader: Responsible for personnel time records and for estimating the cost of the response. The Time/Cost Unit Leader establishes a procedure for recording personnel and equipment time and charge rates at each of the response locations. A checklist for the Time Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Finance Section Chief.
- ☐ Establish procedures for recording the time that response personnel and equipment utilized at each response location and implement.
- ☐ Establish procedures to periodically collect and review time reports from contractors and consultants.
- ☐ Establish procedures for generating, verifying, and adjusting costs of personnel, contractors, consultants, supplies, and other services.
- ☐ Maintain cost data and cost summaries and analyze for cost savings possibilities.
- ☐ Ensure that all cost records and documents are prepared accurately and maintain a cumulative cost/financial record.
- ☐ Develop and implement an auditing program.

Compensation/Claims/Insurance Unit: Responsible for claims resulting from a serious injury or death during the response effort and of claims for damages attributable to the spill, spill containment and spill cleanup operations. The Compensation/Claims/Insurance Unit Leader works closely with the Legal Advisor as to laws on damage compensation. A checklist for this Unit Leader is as follows:

- ☐ Obtain briefing and special instructions from Finance Section Chief.
- ☐ Establish and maintain contact with Safety Officer, Legal Advisor, and Medical Unit as required to prepare and process reports on injuries/deaths of incident response personnel.
- ☐ Follow the status of hospitalized personnel and coordinate/prepare required administrative paperwork for injuries or deaths.
- ☐ Oversee or conduct the administration, investigation and documentation required for all injury, death, or property damage claims.
- ☐ Consult with insurance representative, corporate insurance brokers, and underwriters to determine documentation required for insurance purposes. Liaison with insurance representatives during the response.
- ☐ Consult with Legal Advisor on potential and actual natural resource damage claims.

APPENDIX D

GEOGRAPHIC RESPONSE STRATEGIES (GRS)

Spring Creek, SZ-05

Center of map at 60° 05.1' N Lat., 149° 21.3' W Lon.

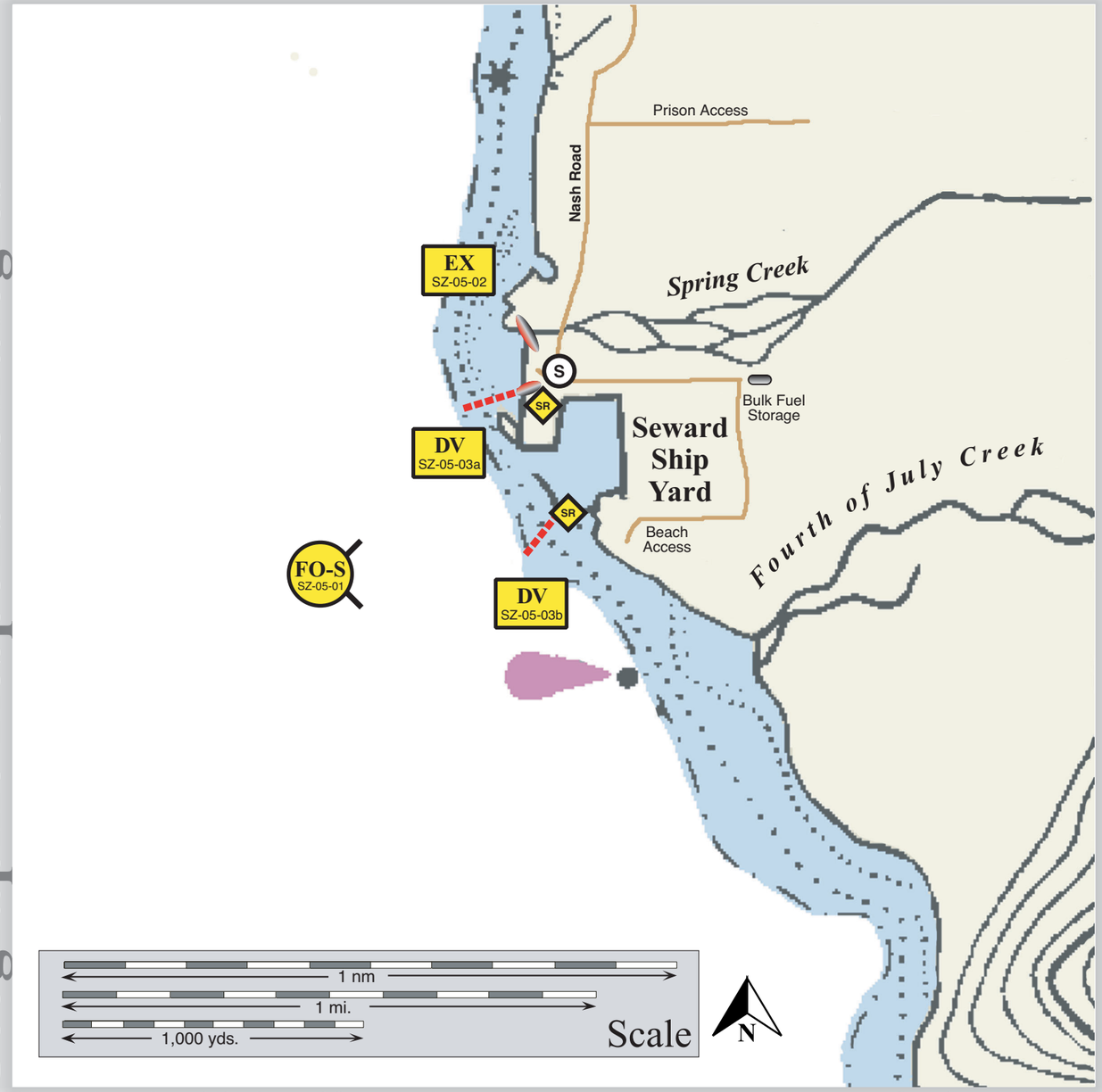
Map & Photo Legend

Spring Creek SZ-05, viewed from the southwest.

- FO-S — Free-oil Containment and Recovery, Shallow Water
- EX — Exclusion Booming
- DV — Diversion Booming
- Protected-water Boom
- Tidal-seal Boom
- SR — Shoreside Recovery
- S — Staging Area

Spring Creek SZ-05, viewed from the west.

Geographic Response Strategies for



This map is not intended to be used for navigation.

Soundings in fathoms

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
SZ-05-01	**Spring Creek** Nearshore waters in the general area of: Lat. 60º 05.65 N Lon. 149º 21.87 W	**Free-oil Recovery-Shallow Water** Maximize free-oil recovery in the offshore & nearshore environment of Spring Creek depending on spill source and trajectory.	Deploy free-oil recovery strike teams upwind and up current of Spring Creek. Use aerial surveillance to locate incoming slicks. If the spill is from the shipyard basin, concentrate efforts at the entrance to the basin.	Deploy multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Seward boat harbor	Via marine waters Chart 16682-1	Same as SZ-05-02	Vessel master should have local knowledge. Site surveyed: 6/26/02 GRS WG
SZ-05-02	**Spring Creek Mouth** Lat. 60º 05.4 N Lon. 149º 21.6 W	**Exclusion** Exclude oil from entering Spring Creek.	Transport equipment by road or vessel (class 6) from Seward. Deploy tidal-seal boom across Spring Creek mouth. Tend throughout the tide.	**Deployment** **Equipment** 120 ft. tidal-seal boom 3 ea. anchor systems (~20 lbs.) 4 ea. anchor stakes **Vessels** 1 ea. class 6 **Personnel/Shift** 3 ea. vessel crew **Tending** **Vessels** 1 ea. class 6 **Personnel/Shift** 2 ea. vessel crew	Seward Shipyard or Seward boat harbor	Via Nash Rd., 5.1 miles from the intersection of Nash Rd. and the Seward Highway or marine waters Chart 16682-1 Title 16 permitting required from ADF&G	Fish-intertidal spawning- salmon, herring (April-May), dolly varden Marine mammals- otters, seals Birds- waterfowl concentrations, seabird concentrations Habitat-sheltered tidal flats, marsh Human use- high recreational use (May–Sept.)	Vessel master should have local knowledge. The City of Seward owns the beach south of Spring Creek. Beach north of the Creek is privately owned. Site surveyed: 6/26/02 GRS WG Tested: not yet
SZ-05-03	**Shoreline and Shipyard Basin Jetty** a. Lat. 60º 05.3 N Lon. 149º 21.5 W b. Lat. 60º 05.2 N Lon. 149º 21.7 W	**Divert and Collect** Divert oil to shoreside collection points determined by spill source and course.	Transport equipment by road or by vessel from Seward. Deploy anchors and boom with skiffs (class 6). Place protected-water boom at the proper angle to divert oil to collection site. Site (b) should be placed at the end of the shipyard jetty to maximize the extension of the array. Set up collection unit and tend throughout the tide. Boom array: a. 500 ft. b. 500 ft.	**Deployment** **Equipment** 1000 ft. protected-water boom 1 sections ≥50 ft. tidal-seal boom 10 ea. anchor systems (~20 lbs.) 4 ea. anchor systems (~40 lbs.) 2 ea. shoreside collection units. **Vessels** Same as SZ-05-02 **Personnel/Shift** 6 ea. response techs **Tending** **Vessels** Same as SZ-05-02 **Personnel/Shift** 4 ea. response techs	Seward Shipyard or Seward boat harbor	Via Nash Road from Seward or marine waters Chart 16682-1	Same as SZ-05-02	Vessel master should have local knowledge. Take appropriate measures as outlined in Part 2, to protect the beach at the collection site. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. Site surveyed: 6/26/02 GRS WG Tested: not yet

Map & Photo Legend

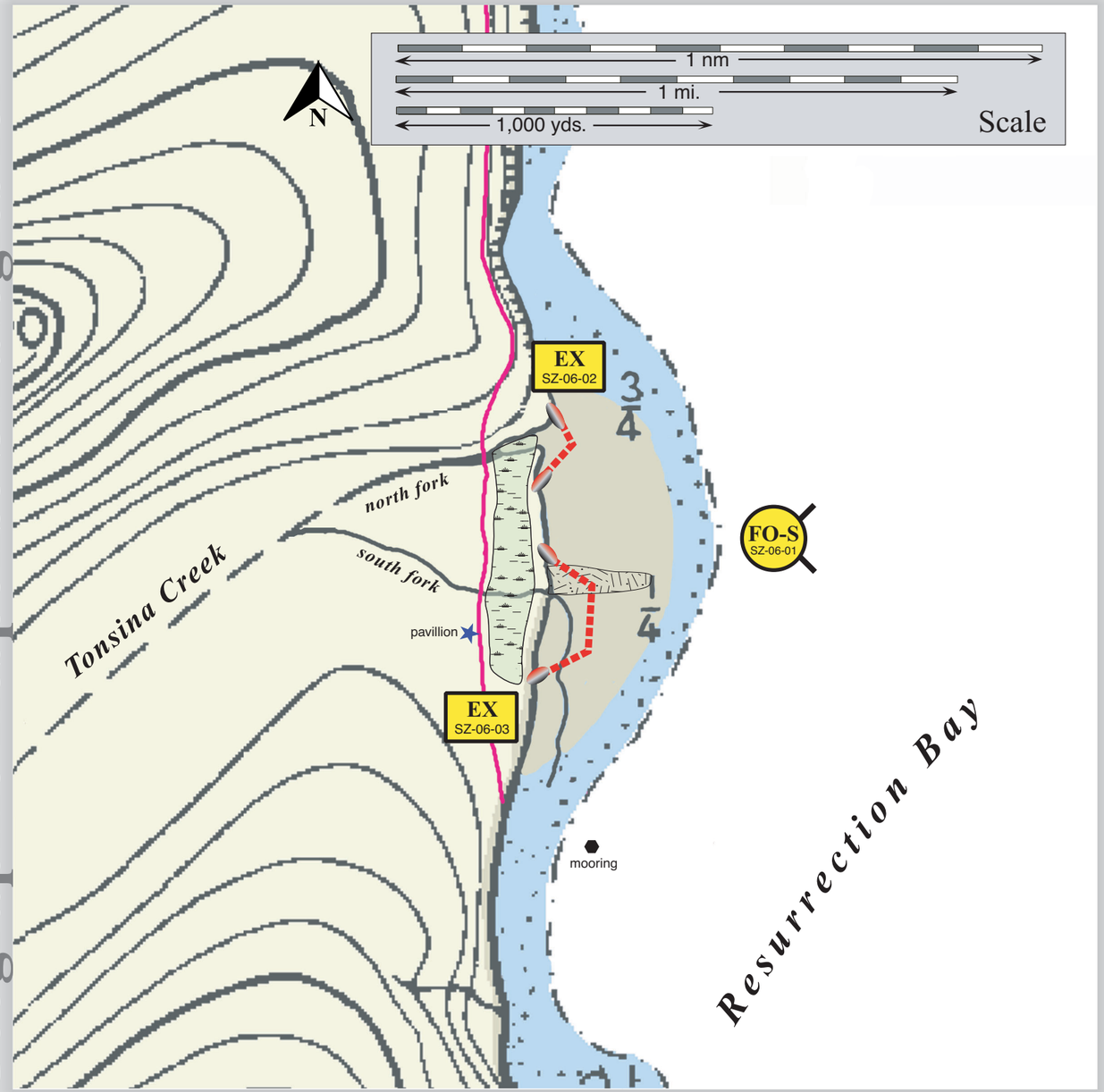
Tonsina Creek SZ-06, viewed from the east.

- FO-S — Free-oil Containment and Recovery, Shallow Water
- EX — Exclusion Booming
- Protected-water Boom
- Tidal-seal Boom
- Marsh
- Sandbar
- Hiking Trail

Tonsina Creek, SZ-06

Center of map at 60° 02.8' N Lat., 149° 26.2' W Lon.

Geographic Response Strategies for



This map is not intended to be used for navigation.

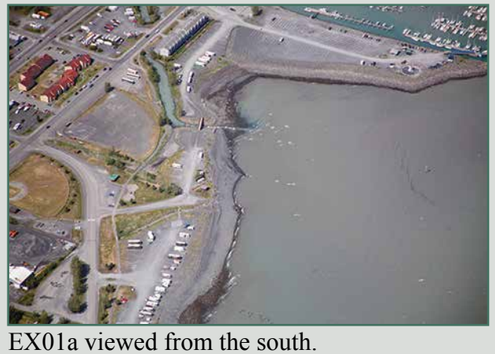
Soundings in fathoms

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
SZ-06-01	**Tonsina Creek** Nearshore waters in the general area of: Lat. 60º 02.79 N Lon. 149º 25.95 W	**Free-oil Recovery- Shallow Water** Maximize free-oil recovery in the offshore & nearshore environment of Tonsina Creek depending on spill source and trajectory.	Deploy free-oil recovery strike teams upwind and up current of Tonsina Creek. Use aerial surveillance to locate incoming slicks.	Deploy multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Seward	Via marine waters Chart 16682-1	Same as SZ-06-02	Vessel master should have local knowledge. Shallow waters present response hazard. Site surveyed: 9/09/02 and 9/10/02 GRS WG
SZ-06-02	**Tonsina Creek** Northern inlet Lat. 60º 02.98 N Lon. 149º 26.57 W	**Exclusion** Exclude oil from impacting the marsh and stream at northern fork of Tonsina Creek.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with skiffs (class 6). Place tidal-seal boom on the southern leg of across intertidal zone and protected-water boom around creek entrance in a chevron pattern. Tend throughout the tide.	**Deployment** **Equipment** 600 ft. protected-water boom 1 section ≥50 ft. tidal-seal boom 3 ea. anchor systems (~20 lbs.) 4 ea. anchor stakes **Vessels** 2 ea. class 3/4 2 ea. class 6 **Personnel/Shift** 10 ea. vessel crew **Tending** **Vessels** 1 ea. class 3/4 1 ea. class 6 **Personnel/Shift** 4 ea. vessel crew	Vessel platform	Via marine waters Chart 16682-1 Title 16 permitting required from ADF&G.	Fish- intertidal spawning- salmon, herring, dolly varden Birds- eagle nest (May-Sept.) Habitat-marsh Marine mammals- otters High recreational use (May–Sept.)	Vessel master should have local knowledge. Boom array across the northern inlet may be moved to accommodate surf conditions. Surrounding lands are an Alaska State Recreation Area. Site surveyed: 9/09/02 and 9/10/02 GRS WG Tested: not yet
SZ-06-03	**Tonsina Creek** Southern mouth a. North anchor point Lat. 60º 02.75 N Lon. 149º 26.43 W b. South anchor point Lat. 60º 02.46 N Lon. 149º 26.62 W	**Exclusion** Exclude oil from entering the southern fork of Tonsina creek or impacting the immediate intertidal area.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with skiffs (class 6). Place tidal-seal boom across intertidal zone and protected-water boom around creek. Tend throughout the tide.	**Deployment** **Equipment** 1800 ft. protected-water boom 2 sections ≥50 ft. tidal-seal boom 7 ea. anchor systems (~20 lbs.) 4 ea. anchor stakes **Vessels/Personnel/Shift** Same as SZ-06-02 **Tending** **Vessels/Personnel /Shift** Same as SZ-06-02	Vessel platform	Via marine waters Chart 16682-1 Title 16 permitting required from ADF&G	Same as SZ-06-02	Vessel master should have local knowledge. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. Site surveyed: 9/09/02 and 9/10/02 GRS WG Tested: not yet

Geographic Response Strategies for *COOK INLET Subarea, Seward Zone*

Resurrection Bay/Seward Lagoon, SZ-35

The Head of Resurrection Bay viewed from the south.



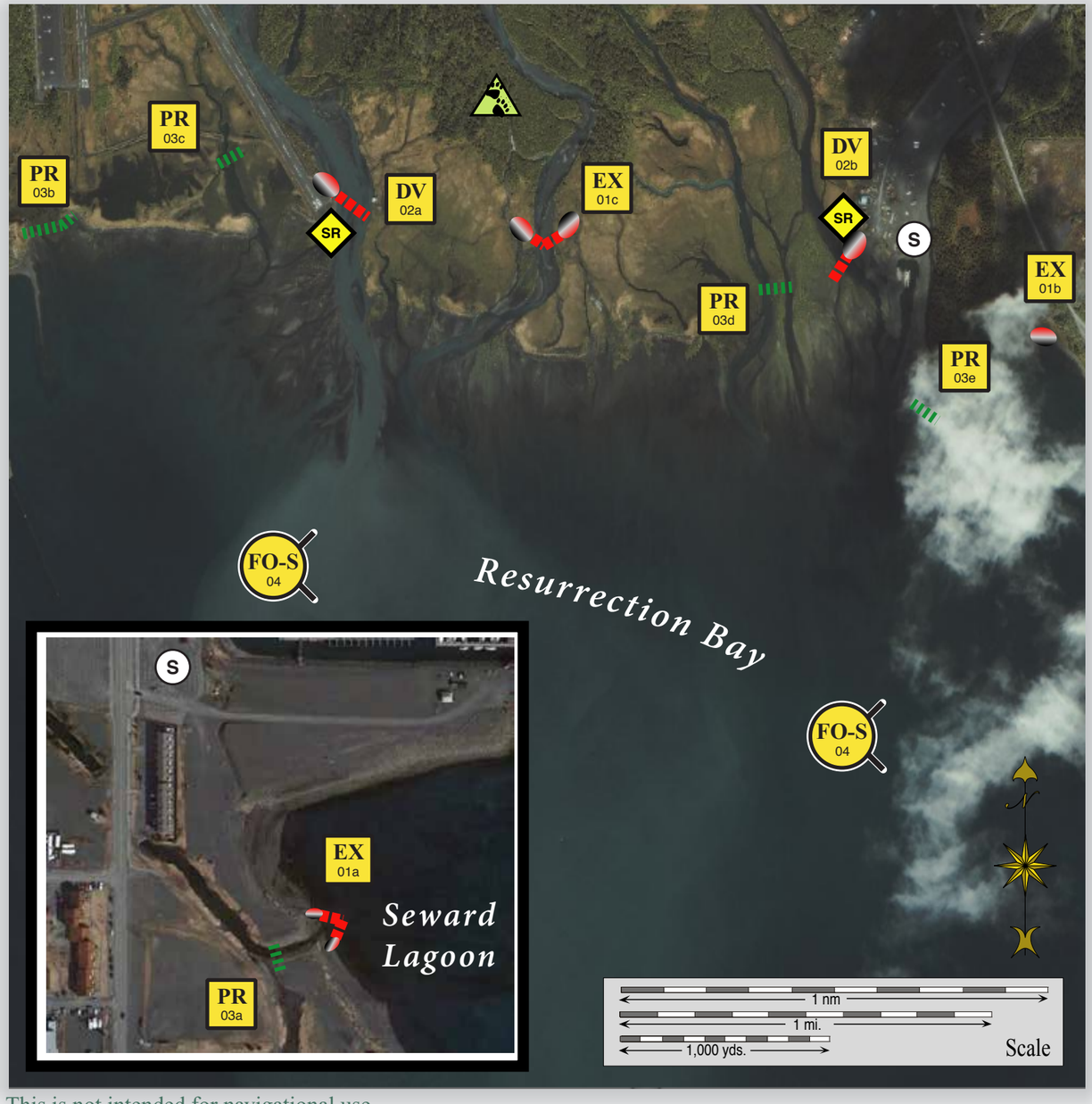
EX01a viewed from the south.

EX01b, PR03e, DV02b, PR03d – all viewed from the south.

Map Legend

- EX — Exclusion Booming
- PR — Passive Recovery
- SR — Shoreside Recovery
- DV — Diversion Booming
- FO-S — Free-oil Recovery
- Tidal-seal Boom
- Snare or Sorbent Boom
- Protected-water Boom
- S — Staging Area
- Bears in Area, Guards Recommended

Center of map at 60˚ 06.40' N Lat., 149˚ 23.95' W Lon.



This is not intended for navigational use.

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations

SZ-35-01
EX
	Head of Resurrection Bay
	a. Lat. 60° 06.81 N Lon. 149°26.27 W
	b. Lat. 60° 07.36 N Lon. 149°22.37 W
	c. Lat. 60° 07.35 N Lon. 149°23.87 W
		Exclusion
		Exclude oil from impacting the streams/river and intertidal area at the Head of Resurrection Bay.
			Deploy anchors and boom with inflatable raft or a skiff.
			For (a) and (c) place 60 ft. of tidal seal boom on each shore. Complete the array with protected water boom in a chevron pattern in front of the entrance to the river and streams.
			For (b) place 120 ft. of tidal seal boom across the entrance to the creek.
			Tend throughout the tide.
			Booms Length:
			a. 250 ft
			b. 120 ft. tidal seal boom
			c. 300 ft.
				Deployment
				Equipment
				550 ft. fast-water boom
				240 ft. tidal seal boom
				4 ea. anchor systems
				12 ea. anchor stakes
				Vessels
				1 ea. inflatable raft
				2 ea. class 6
				Personnel/Shift
				4 ea. vessel crew
				4 ea. skilled techs
				Tending
				Vessels
				1 ea. inflatable raft
				2 ea. class 6
				Personnel/Shift
				4 ea. vessel crew
				4 ea. skilled techs
					Seward Harbor	Via marine waters
						Chart 16682-1
							Fish- intertidal spawning-salmon (May-Sept.)
							Birds-waterfowl, seabird and shorebird nesting
							Habitat- Gravel beach, marsh, exposed tidal flats
							Human use-subsistence, commercial fishing, high recreational use
								Vessel master should have local knowledge.
								Title 16 permitting required from ADFG.
								Title 41 permitting required from ADNR.
								Bears are present during fish runs. Bear guard required.
								Surveyed: 6/29/12
								Tested: not yet

SZ-35-02 DV	**Head of Resurrection Bay** a. Lat. 60° 07.44 N Lon. 149°24.39 W b. Lat. 60° 07.52 N Lon. 149°22.99 W	**Divert and Collect** Divert oil to shore side collection sites at the specified locations at the Head of Resurrection Bay.	Deploy anchors and boom with skiffs or raft (class 6). Place tidal-seal boom at the shore side collection areas. Complete the array with protected-water boom at the proper angle to divert incoming oil to the collection site. Set up shoreside collection unit and tend throughout the tide. Booms Length: a. 400 ft b. 200 ft	**Deployment** **Equipment** 600 ft. protected-water boom 3 ea. anchor systems 4 ea. anchor stakes 2 ea. shore-side recovery system **Vessels/Personnel/Shift** Same as SZ-35-01 **Tending** **Vessels/Personnel/Shift** Same as SZ-35-01	Seward Harbor	Via marine waters Chart 16682-1	Same as SZ-35-01	Vessel master should have local knowledge. Consult the ADEC STAR Manual for tactics to protect the shoreline.
SZ-35-03 PR	**Head of Resurrection Bay** a. Lat. 60° 06.80 N Lon. 149°26.30 W b. Lat. 60° 07.44 N Lon. 149°25.29 W c. Lat. 60° 07.46 N Lon. 149°24.65 W d. Lat. 60° 07.49 N Lon. 149°23.19 W **e.** Lat. 60° 07.37 N Lon. 149°22.63 W	**Passive Recovery** Place passive recovery across entrances to the identified streams at the Head of Resurrection Bay.	For (a) place and anchor snare line or sorbent boom behind the exclusion tactic to capture any oil. For the remaining arrays place and anchor snare line or sorbent boom across the channels of streams at the head of the bay. Replace as necessary to maximize the recovery. Boom Lengths: a. 100 ft b. 350 ft c. 300 ft d. 150 ft e. 200 ft	**Deployment** **Equipment** 1100 ft. snare line or sorbent boom 8 ea. small anchor systems 20ea. anchor stakes (Adjust equipment to reflect survey findings) **Vessels/Personnel/Shift** Same as SZ-35-01 **Tending** **Vessels/Personnel/Shift** Same as SZ-35-01	Seward Harbor	Via marine waters Chart 16682-1	Same as SZ-35-01	Vessel master should have local knowledge.
Sz-35-04 FO-S	**Head of Resurrection Bay** Nearshore waters in the general area of: Lat. 60° 06.89 N Lon. 149°23.96 W	**Free-oil Recovery** Maximize free-oil recovery in the offshore & nearshore environment of Head of Resurrection Bay depending on spill location and trajectory.	Deploy free-oil recovery strike teams upwind and up current of the Head of Resurrection Bay. Use aerial surveillance to locate incoming slicks.	Deploy multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Seward Harbor	Via marine waters Chart 16682-1	Same as SZ-35-01	Vessel master should have local knowledge. Use extreme caution, shallow waters with shifting channels and bars.

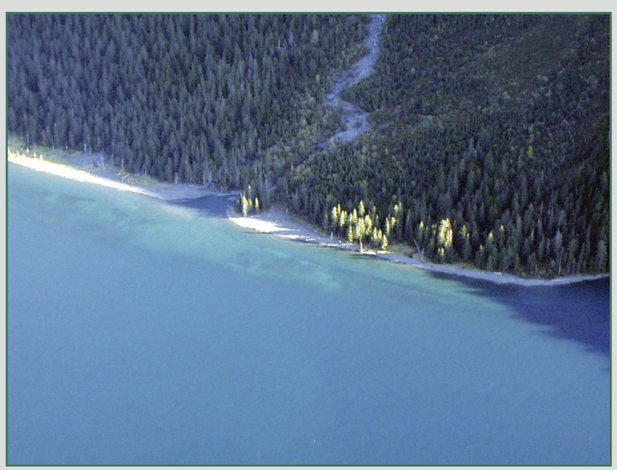
NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the Cook Inlet Sub-Area Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_ci.htm.

Map & Photo Legend

▲ Thumb Cove SZ-04, head of the cove.

◀ View of SZ-04-04 from the northwest.

- FO-S — Free-oil Containment and Recovery, Shallow Water
- EX — Exclusion Booming
- DV — Diversion Booming
- SR — Shoreside Recovery
- Protected-water Boom
- Tidal-seal Boom
- H — Helicopter Landing Zone
- Public Cabin

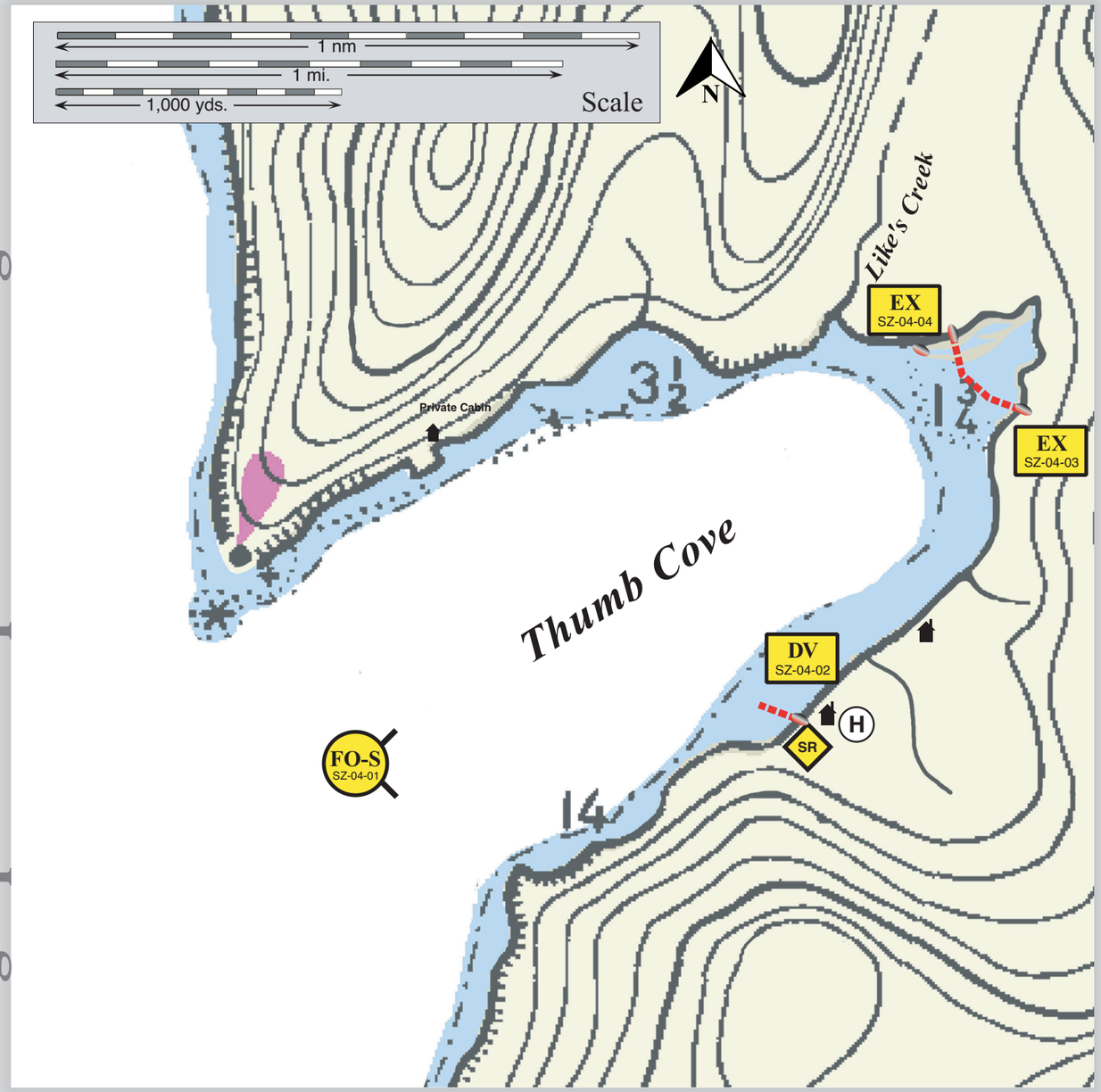


◀ View of SZ-04-02 from the northwest.

Thumb Cove, SZ-04

Center of map at 60° 00.2' N Lat., 149° 19.3' W Lon.

Geographic Response Strategies for



This map is not intended to be used for navigation.

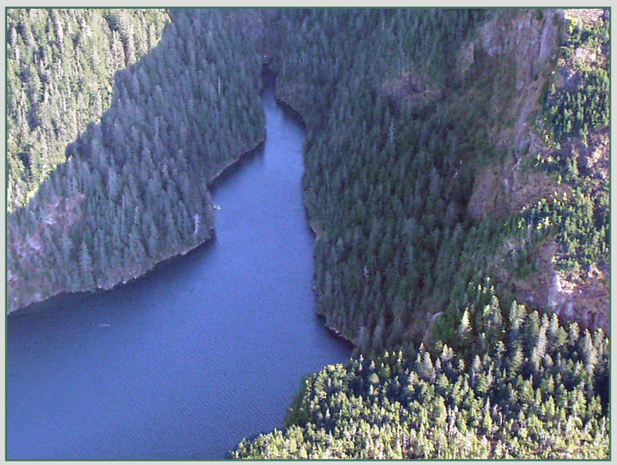
Soundings in fathoms

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
SZ-04-01	**Thumb Cove** Nearshore waters in the general area of: Lat. 60º 00.07 N Lon. 149º 19.64 W	**Nearshore Free-oil Recovery** Maximize free-oil recovery in the offshore & nearshore environment of Thumb Cove depending on spill source and trajectory.	Deploy nearshore free-oil recovery strike teams upwind and up current of Thumb Cove. Use aerial surveillance to locate incoming slicks.	Deploy multiple nearshore free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Seward	Via marine waters Chart 16682-1	Same as SZ-04-02	Vessel master should have local knowledge. Site surveyed: 9/09/02 GRS WG
SZ-04-02	**Thumb Cove** Lat. 60º 00.3 N Lon. 149º 18.02 W	**Divert and Collect** Divert oil to shore-side collection points determined by spill source and trajectory.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with fishing vessels or skiffs (class 3/4/6). Place protected-water boom at the proper angle to divert oil to collection site. Set up collection unit and tend throughout the tide.	**Deployment** **Equipment** 400 ft. protected-water boom 1 section ≥50 ft. tidal-seal boom 3 ea. anchor systems (~20 lbs.) 1 ea. deadman anchor for beach 1 ea. shore-side collection unit **Vessels** 2 ea. class 3/4 2 ea. class 6 **Personnel/Shift** 11 ea. vessel crew 3 ea. response techs **Tending** **Vessels** 1 ea. class 3/4 1 ea. class 6 **Personnel/Shift** 4 ea. vessel crew 2 ea. response techs	Vessel platform	Via marine waters Chart 16682-1	Fish-intertidal spawning-salmon, herring Marine mammals-sea otter, seals Birds- shorebird feeding, waterfowl-murrelets Habitat-sheltered tidal flats, eel grass, fucus, intertidal resources-mussels Human use- high recreational use (June–Sept.), commercial fishing	Take appropriate measures as outlined in Part 2 of this document to protect the beach at the collection site. Chugach National Forest owns the head of the cove and Like's Creek. State Park public use cabins are on the south side of the cove. Site surveyed: 9/09/02 GRS WG Tested: not yet
SZ-04-03	**Thumb Cove** Northeastern beach Lat. 60º 00.74 N Lon. 149º 17.47 W	**Exclusion** Exclude oil from impacting the northeastern beach.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with fishing vessels and skiffs (class 3/4/6). Place tidal-seal boom across intertidal zone and protected-water boom in a chevron pattern in front of the eel grass on northeastern beach. Tend throughout the tide.	**Deployment** **Equipment** 1200 ft. protected-water boom 2 sections ≥50 ft. tidal-seal boom 4 ea. anchor systems (~20 lbs.) 1 ea. apex anchor (~200 lbs.) 4 ea. anchor stakes **Vessels/Personnel/Shift** Same as SZ-04-02 **Tending** **Vessels/Personnel/Shift** Same as SZ-04-02	Vessel platform	Via marine waters Chart 16682-1	Same as SZ-04-02	Vessel master should have local knowledge. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. Site surveyed: 9/09/02 GRS WG Tested: not yet
SZ-04-04	**Thumb Cove** Lagoon at the head of the cove Lat. 60º 00.76 N Lon. 149º 17.53 W	**Exclusion** Exclude oil from entering the small lagoon near the head of Thumb Cove.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with skiffs (class 6). Place and anchor tidal-seal boom across the entrance to the lagoon. Tend throughout the tide.	**Deployment** **Equipment** 1 section ≥50 ft. tidal-seal boom 6 ea. anchor stakes **Vessels/Personnel/Shift** Same as SZ-04-02 **Tending** **Vessels/Personnel/Shift** Same as SZ-04-02	Vessel platform	Via marine waters Chart 16682-1	Same as SZ-04-02	Vessel master should have local knowledge. Site surveyed: 9/09/02 GRS WG Tested: not yet

Map & Photo Legend

Humpy Cove SZ-03-04, viewed from the south.

FO-S	Free-oil Containment and Recovery, Shallow Water		Tidal-seal Boom
EX	Exclusion Booming		Private Cabin
DF	Deflection Booming, Fixed		Boat Dock
	Protected-water Boom		Aquaculture Site
		G	Gate

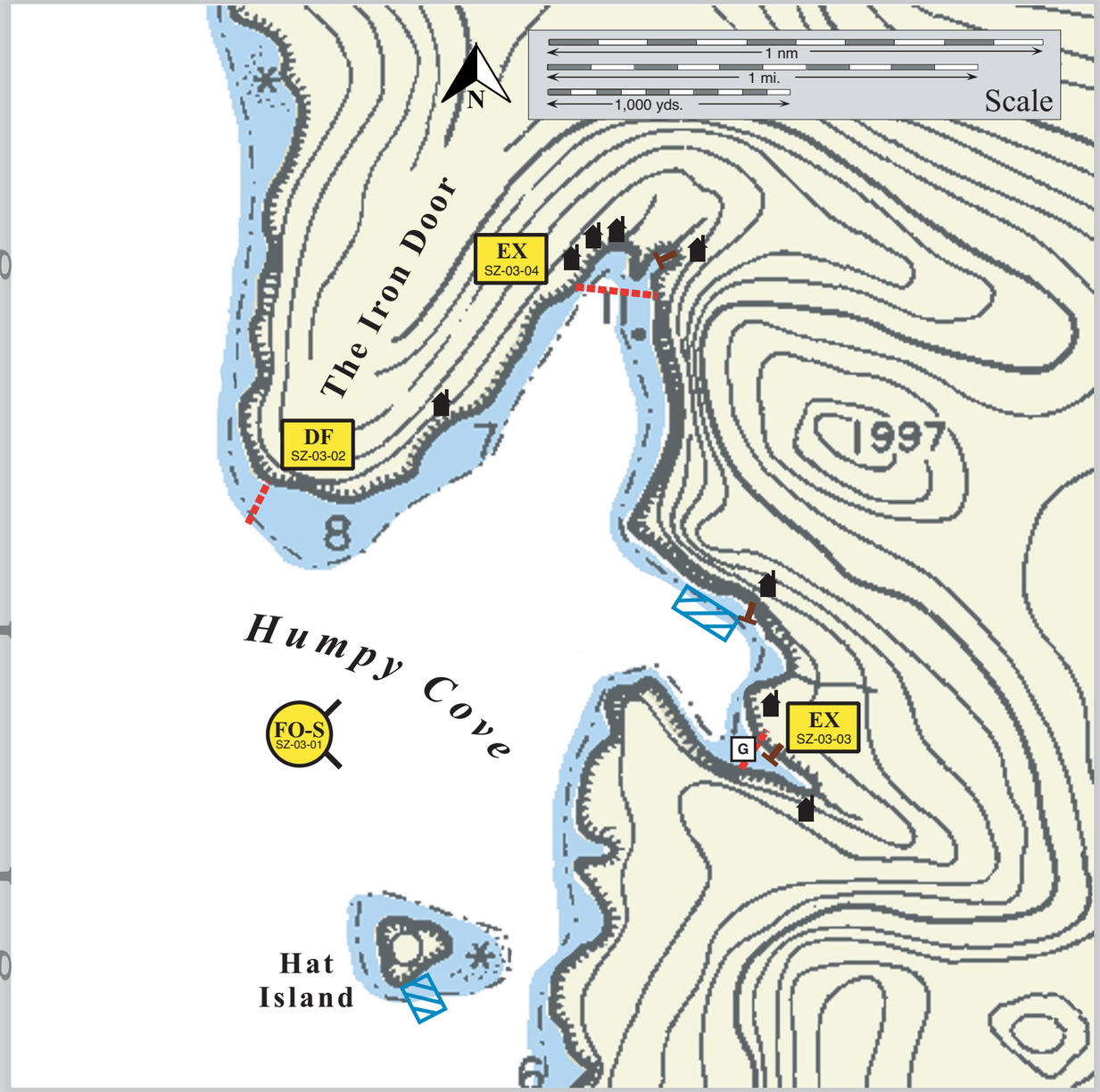


Humpy Cove SZ-03-03 tactic site, viewed from the northwest.

Humpy Cove, SZ-03

Center of map at 59° 58.1' N Lat., 149° 18.3' W Lon.

Geographic Response Strategies for



This map is not intended to be used for navigation.

Soundings in fathoms

ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
SZ-03-01	**Humpy Cove** Nearshore waters in the general area of: Lat. 59º 58.1N Lon. 149º18.3W	**Free-oil Recovery-Shallow Water** Maximize free-oil recovery in the offshore & nearshore environment of Humpy Cove depending on spill location and trajectory.	Deploy free-oil recovery strike teams upwind and up current of Humpy Cove. Use aerial surveillance to locate incoming slicks.	Deploy multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Seward	Via marine waters Chart 16682-1	Same as SZ-03-02	Vessel master should have local knowledge. Site surveyed: 9/09/02 GRS WG
SZ-03-02	**Humpy Cove** Lat. 59º 42.31 N Lon. 149º 19.41 W	**Deflection-Fixed** Deflect oil coming from the north from Humpy Cove and back into the channel for collection. Deploy this tactic only if oil is coming from the north.	Transport equipment to site by marine vessel (class 2/3/4). Deploy boom and anchor system with fishing vessel or skiff (class 3/4/6). Position boom at adequate angle to deflect oil from Humpy Cove and set up for near shore free oil recovery. Tend throughout the tide.	**Deployment** **Equipment** 400 ft. protected-water boom 2 ea. anchor systems (~40 lbs.) 2 ea. anchor systems (~200 lbs.) with 3 ea. 300 ft. anchor lines **Vessels** 1 ea. class 3/4 1 ea. class 6 **Personnel/Shift** 5 ea. vessel crew **Tending** **Vessels** 1 ea. class 3/4 1 ea. class 6 **Personnel/Shift** 3 ea. vessel crew	Vessel platform	Via marine waters Chart 16682-1 Private cabins are throughout the cove.	Fish- intertidal spawning-salmon, herring (April-May) Habitat-marsh, sheltered rocky shoreline Human use- high recreational use (May-Sept.), aquaculture sites	Vessel master should have local knowledge. Chugach National Forest-Seward Ranger District owns the surrounding lands. REPORT any cultural resources found during operations to FOSC Historic Properties Specialist. Site surveyed: 9/09/02 GRS WG Tested: not yet
SZ-03-03	**Humpy Cove** Lat. 59º 57.77 N Lon. 149º 17.87 W	**Exclusion** Exclude oil from entering the bight on the southeast side of Humpy Cove.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with fishing vessels and skiffs (class 3/4/6). Place calm-water boom across the bight. Tend throughout the tide.	**Deployment** **Equipment** 250 ft. calm-water boom 2 ea. rock bolt anchor systems **Vessels/Personnel/Shift** Same as SZ-03-02 **Tending** **Vessels/Personnel/Shift** Same as SZ-03-02	Vessel platform	Via marine waters Chart 16682-1	Same as SZ-03-02	Vessel master should have local knowledge. Site surveyed: 9/09/02 GRS WG Tested: not yet
SZ-03-04	**Humpy Cove** Lat. 59º 58.66 N Lon. 149° 17.87 W	**Exclusion** Exclude oil from entering streams in the northwest corner of Humpy Cove. If salmon runs are present, implement this tactic.	Transport equipment by vessel (class 2/3/4) from Seward. Deploy anchors and boom with fishing vessels and skiffs (class 3/4/6). Place tidal-seal boom and calm-water boom across stream mouths. Tend throughout the tide.	**Deployment** **Equipment** 1200 ft. calm-water boom 2 section ≥50 ft. tidal-seal boom 8 ea. anchor systems (~20 lbs.) 4 ea. anchor stakes **Vessels/Personnel/Shift** Same as SZ-03-02 **Tending** **Vessels/Personnel/Shift** Same as SZ-03-02	Vessel platform	Via marine waters Chart 16682-1	Same as SZ-03-02	Vessel master should have local knowledge. Site surveyed: 9/09/02 GRS WG Tested: not yet

Map & Photo Legend

SE08-02-02,03 & 04 Taiya River looking northwest.

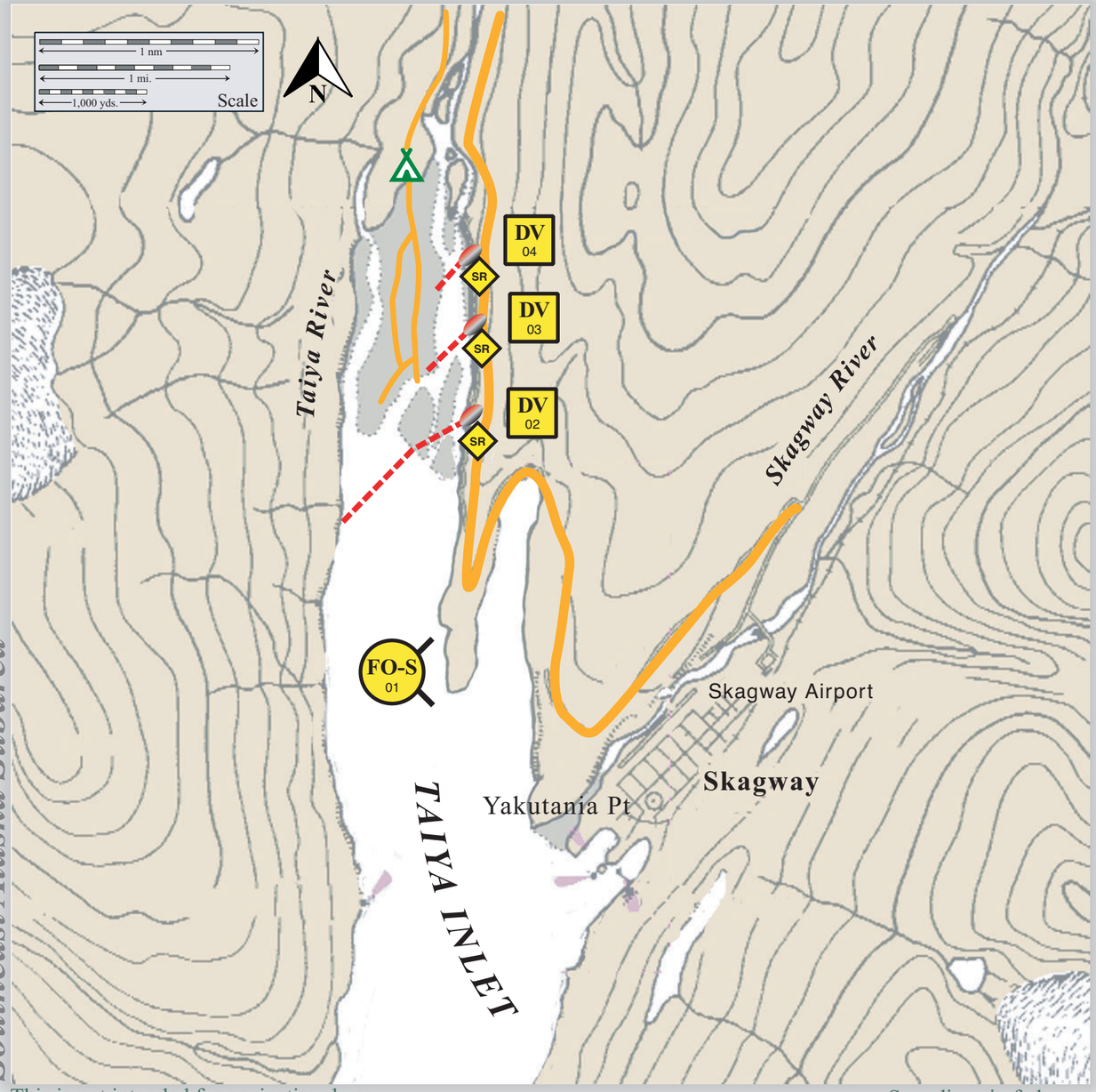
- FO-S — Free-oil Containment and Recovery, Shallow Water
- DV — Diversion Booming
- Protected-water Boom
- Tidal-seal Boom
- SR — Shoreside Recovery
- Road
- Campground

SE08-02-02,03 & 04 Taiya River looking north.

Taiya River, SE08-02

Geographic Response Strategies for Southeast Alaska Subarea

Center of map at 59° 28.6' N Lat., 135° 19.9' W Lon.



This is not intended for navigational use.

Soundings in fathoms

June 26, 2003

Tim L. Robertson

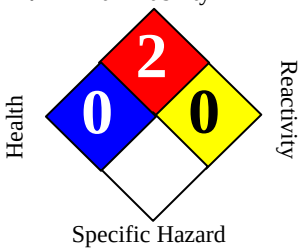
ID	Location and Description	Response Strategy	Implementation	Response Resources	Staging Area	Site Access	Resources Protected (months)	Special Considerations
SE08-02-01	**Taiya River** Nearshore waters in the general area of: Lat. 59º 27.9 N Lon. 135º 21.3 W	**Free-oil Recovery** Maximize free-oil recovery in the offshore & nearshore environment at the head of Taiya Bay.	Deploy free-oil recovery strike teams upwind and up-current of Taiya River. Use aerial surveillance to locate incoming slicks.	Multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Skagway and along road	Same as SE08-02-02	Same as SE08-02-02	Sand flat full of historical pilings (navigation hazard). Prevailing wind from south. Choppy waters common. Vessel masters should have local knowledge. Taiya River is within National Park. Title 41 permit may be necessary. Contact ADNR.
SE08-02-02	**Taiya River** Lat. 59º 28.9 N Lon. 135º 21.3 W	**Diversion / Recovery** Divert oil to east side of bay for shoreside recovery.	Transport equipment by truck. class 6 river skiffs to set boom and anchors. Place 4600 ft. of protected-water boom, with tidal-seal on the end, to divert oil to shoreside recovery site on east side of bay. Deploy at high tide. Tend on flood tide.	**Deployment** **Equipment** 4600 ft. protected-water boom 48 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. shoreside recovery unit **Vessels/Vehicles** 3 ea. 4 wheeler 2 ea. 4x4 truck 1 ea. transport truck 2 ea. class 6 **Personnel / Shift** 11 ea. crew **Tending** **Vessels/Vehicles** 2 ea. 4x4 truck 3 ea. 4 wheeler 2 ea. class 6 **Personnel / Shift** 6 ea. crew	Skagway and along road	May be able to access road from Skagway. Dirt road along middle of Taiya River flat (sand). Dirt road across delta on sand bar.	Marine mammals-harbor seal concentration, high concentration Steller sea lion feeding (spring-eulachon runs) Fish-eulachon spawning, intertidal salmon/tidal spawning (coho, chum, pink, king, Dolly Varden) Birds-waterfowl and shorebird concentration (spring & fall) Habitat-marsh, sheltered tidal flats, sheltered rocky shore Human use-high recreational use Land management-National Park	If deployed from water, 2 ea. class 3/4 vessels will be needed. FOSC Historic Properties Specialist should MONITOR on-site operations. See Figure G-3-16 for equipment locations. Tested: not yet
SE08-02-03	**Taiya River** Lat. 59º 29.4 N Lon. 135º 20.9 W	**Diversion / Recovery** Divert oil to east side of bay for shoreside recovery.	Place 1600 ft. of protected-water boom, in a cascade array, with eight 200 ft. sections, and tidal-seal on the end, to divert oil to shoreside recovery site on east side of bay.	**Deployment** **Equipment** 1600 ft. protected-water boom 17 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. shoreside recovery unit **Vessels / Personnel / Tending** Same as SE08-02-02	Skagway and along road	Same as SE08-02-02	Same as SE08-02-02	Same as SE08-02-02 Consider reversing angle and recovering from west bank of river. Tested: not yet
SE08-02-04	**Taiya River** Lat. 59º 29.8 N Lon. 135º 20.9 W	**Diversion / Recovery** Divert oil to east side of bay for shoreside recovery.	Place 1000 ft. of protected-water boom, in a cascade array, with five 200 ft. sections, and tidal-seal on the end, to divert oil to shoreside recovery site on east side of bay.	**Deployment** **Equipment** 1000 ft. protected-water boom 12 ea. anchor systems (~40 lbs.) 50 ft. tidal-seal boom 2 ea. anchor stakes 1 ea. shoreside recovery unit **Vessels / Personnel / Tending** Same as SE08-02-02	Skagway and along road	Same as SE08-02-02	Same as SE08-02-02	Same as 0SE08-02-02 Consider reversing angle and recovering from west bank of river. Tested: not yet

APPENDIX E

SAFETY DATA SHEETS

Safety Data Sheet
Diesel Fuel#1-Low Sulfur (LS) and Ultra Low Sulfur Diesel (ULSD)

NFPA:



TESORO

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Diesel Fuel#1-Low Sulfur (LS) and Ultra Low Sulfur Diesel (ULSD)			
Synonyms	:	888100004791			
SDS Number	:	888100004791	**Version**	:	2.14
Product Use Description	:	Fuel			
Company	:	Tesoro Refining & Marketing 19100 Ridgewood Parkway, San Antonio, TX 78259			
Tesoro Call Center	:	(877) 783-7676	**Chemtrec (Emergency Contact)**	:	(800) 424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classifications : Flammable Liquid – Category 3 or 4 depending on formulation.
Aspiration Hazard – Category 1.
Specific Target Organ Toxicity (Repeated Exposure) – Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3
Chronic Aquatic Toxicity – Category 2

Pictograms

Signal Word : **Danger**

Hazard Statements

Flammable liquid and vapor.
May be fatal if swallowed and enters airways – do not siphon diesel by mouth.
Suspected of causing skin cancer if repeated and prolonged skin contact occurs.
Suspected of causing cancer in the respiratory system if repeated and prolonged over-exposure by inhalation occurs.
May cause damage to liver, kidneys and nervous system by repeated and prolonged inhalation.
Causes eye irritation by eye contact with liquid.
Repeated or prolonged skin contact can cause skin irritation and dermatitis.
May cause drowsiness or dizziness by inhalation.

Precautionary statements:

Prevention : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, welding and hot surfaces.
No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical equipment.
Use only non-sparking tools if tools are used in flammable atmosphere.
Take precautionary measures against static discharge.
Wear gloves, eye protection and face protection as needed to prevent skin and eye contact with liquid.
Wash hands or liquid-contacted skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Do not breathe vapors.
Use only outdoors or in a well-ventilated area.

Response In case of fire: Use dry chemical, CO2, water spray or fire fighting foam to extinguish.
If swallowed: Immediately call a poison center, doctor, hospital emergency room, medical clinic or 911. Do NOT induce vomiting. Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
If in eye: Rinse cautiously with water for several minutes. Remove contact lenses,
if present and easy to do. Continue rinsing.
If skin or eye irritation persists, get medical attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Get medical attention if you feel unwell.

Storage Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed . Use only approved containers.

Disposal Dispose of contents/containers to approved disposal site in accordance with local, regional, national, and/or international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Fuels, diesel, Gasoil - unspecified	8008-20-6 64741-44-2 64741-77-1	100%
Naphthalene	91-20-3	5 - 7%
Nonane	111-84-2	1 - 1.5%
1,2,4-Trimethylbenzene	95-63-6	1 - 1.5%
Xylene	1330-20-7	1 - 1.5%

Sulfur	7704-34-9	15 ppm maximum

SECTION 4. FIRST AID MEASURES

Inhalation : Move to fresh air. Give oxygen. If breathing is irregular or stopped, administer artificial respiration. Seek medical attention immediately.

Skin contact : Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Eye contact : Remove contact lenses. Rinse thoroughly with plenty of water for at least 15 minutes and seek medical attention.

Ingestion : Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Seek medical attention immediately.

Notes to physician : Symptoms: Dizziness, Discomfort, Headache, Nausea, Disorder, Vomiting, Lung oedema, Aspiration may cause pulmonary edema and pneumonitis. Liver disorders, Kidney disorders.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray or fire fighting foam. LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers. Keep containers and surroundings cool with water spray.

Specific hazards during fire fighting : Fire Hazard Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

Further information : Exposure to decomposition products may be a hazard to health. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to contain spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact. Use personal protective equipment. Ensure adequate ventilation.

Environmental precautions : Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to

reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection. Discharge into the environment must be avoided. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Take up with sand or oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal - caution, flammable vapors may accumulate in closed containers. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling : Keep away from fire, sparks and heated surfaces. No smoking near areas where material is stored or handled. The product should only be stored and handled in areas with intrinsically safe electrical classification.

: Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static-initated fire or explosion during transfer, storage or handling, include but are not limited to these examples:

(1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators.
(2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such gasoline or naphtha).
(3) Storage tank level floats must be effectively bonded.

For more information on precautions to prevent static-initated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API Recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008).

Conditions for safe storage, including incompatibilities : Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

: Keep away from food, drink and animal feed. Incompatible with oxidizing agents. Incompatible with acids.

: Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

List	Components	CAS-No.	Type:	Value

OSHA Z1	Naphthalene	91-20-3	PEL	10 ppm 50 mg/m3
	Xylene	1330-20-7	PEL	100 ppm 435 mg/m3
ACGIH	Diesel Fuel	68476-30-2	TWA	100 mg/m3
ACGIH	Naphthalene	91-20-3	TWA	10 ppm
		91-20-3	STEL	15 ppm
	Xylene	1330-20-7	TWA	100 ppm
		1330-20-7	STEL	150 ppm
	Nonane	111-84-2	TWA	200 ppm

Engineering measures : Use adequate ventilation to keep gas and vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use only intrinsically safe electrical equipment approved for use in classified areas.

Eye protection : Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Hand protection : Gloves constructed of nitrile, neoprene, or PVC are recommended. Consult manufacturer specifications for further information.

Skin and body protection : If needed to prevent skin contact, chemical protective clothing such as of DuPont TyChem®, Saranex or equivalent recommended based on degree of exposure. The resistance of specific material may vary from product to product as well as with degree of exposure.

Respiratory protection : A NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection. NIOSH/MSHA approved positive-pressure self-contained breathing apparatus (SCBA) or Type C positive-pressure supplied air with escape bottle must be used for gas concentrations above occupational exposure limits, for potential of uncontrolled release, if exposure levels are not known, or in an oxygen-deficient atmosphere.

Work / Hygiene practices : Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear to straw colored liquid

Odor Characteristic petroleum or kerosene-like odor

Odor threshold	0.1 - 1 ppm typically reported
pH	Not applicable
Melting point/freezing point	Gel point can be about -15°F; freezing requires laboratory conditions
Initial boiling point & range	154 - 372 °C (310° - 702 °F)
Flash point	38°C Minimum for #1 Diesel, 52°C Minimum for #2 Diesel
Evaporation rate	Higher initially and declining as lighter components evaporate
Flammability (solid, gas)	Flammable vapor released by liquid
Upper explosive limit	6.5 %(V)
Lower explosive limit	0.6 %(V)
Vapor pressure	< 2 mm Hg at 20 °C
Vapor density (air = 1)	> 4.5
Relative density (water = 1)	0.86 g/mL
Solubility (in water)	0.0005 g/100 mL
Partition coefficient (n-octanol/water)	> 3.3 as log Pow
Auto-ignition temperature	257 °C (495 °F)
Decomposition temperature	Will evaporate or boil and possibly ignite before decomposition occurs.
Kinematic viscosity	1 to 6 mm²/s range reported for No.1 or No.2 diesel at ambient temperatures
Conductivity (conductivity can be reduced by environmental factors such as a decrease in temperature	Diesel Fuel Oils at terminal load rack: At least 25 pS/m Ultra Low Sulfur Diesel (ULSD) without conductivity additive: 0 pS/m to 5 pS/m ULSD at terminal load rack with conductivity additive: At least 50 pS/m JP-8 at terminal load rack: 150 pS/m to 600 pS/m

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Vapors may form explosive mixture with air. Hazardous polymerization does not occur.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Can react with strong oxidizing agents, peroxides, acids and alkalies. Do not use with Viton or Fluorel gaskets or seals.
Conditions to avoid	Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. Avoid static charge accumulation and discharge (see Section 7).
Hazardous decomposition products	Ignition and burning can release carbon monoxide, carbon dioxide, non-combusted hydrocarbons (smoke) and, depending on formulation, trace amounts of sulfur dioxide. Diesel exhaust particals may be a lung hazard (see Section 11).

SECTION 11. TOXICOLOGICAL INFORMATION

Inhalation	: Vapors or mists from this material can irritate the nose, throat, and lungs, and can cause signs and symptoms of central nervous system depression, depending on the concentration and duration of exposure.
Skin contact	Skin irritation leading to dermatitis may occur upon prolonged or repeated contact.

	Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed. Long-term, repeated skin contact may cause skin cancer.
Eye contact	Eye irritation may result from contact with liquid, mists, and/or vapors
Ingestion	Harmful or fatal if swallowed. Do NOT induce vomiting. This material can irritate the mouth, throat, stomach, and cause nausea, vomiting, diarrhea and restlessness Aspiration hazard if liquid is inhaled into lungs, particularly from vomiting after ingestion. Aspiration may result in chemical pneumonia, severe lung damage, respiratory failure and even death.
Target organs	Central nervous system, Eyes, Skin, Kidney, Liver

Further information : Studies have shown that similar products produce skin cancer or skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.
Positive mutagenicity results have been reported.
Components of the product may affect the nervous system.
IARC classifies whole diesel fuel exhaust particulates as probably carcinogenic to humans (Group 2A). NIOSH regards whole diesel fuel exhaust particulates as a potential cause of occupational lung cancer based on animal studies and limited evidence in humans.

Component:

Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6	Acute oral toxicity: LD50 rat Dose: 5,001 mg/kg Acute dermal toxicity: LD50 rabbit Dose: 2,001 mg/kg Acute inhalation toxicity: LC50 rat Dose: 7.64 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Result: Severe skin irritation Eye irritation: Classification: Irritating to eyes. Result: Mild eye irritation
Naphthalene	91-20-3	Acute oral toxicity: LD50 rat Dose: 2,001 mg/kg Acute dermal toxicity: LD50 rat Dose: 2,501 mg/kg Acute inhalation toxicity: LC50 rat Dose: 101 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Result: Mild skin irritation Eye irritation: Classification: Irritating to eyes. Result: Mild eye irritation Carcinogenicity: N11.00422130
Nonane	111-84-2	Acute oral toxicity: LD50 mouse Dose: 218 mg/kg

		Acute inhalation toxicity: LC50 rat Exposure time: 4 h
1,2,4-Trimethylbenzene	95-63-6	Acute inhalation toxicity: LC50 rat Dose: 18 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Result: Skin irritation Eye irritation: Classification: Irritating to eyes. Result: Eye irritation
Xylene	1330-20-7	Acute oral toxicity: LD50 rat Dose: 2,840 mg/kg Acute dermal toxicity: LD50 rabbit Dose: ca. 4,500 mg/kg Acute inhalation toxicity: LC50 rat Dose: 6,350 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Result: Mild skin irritation Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. Eye irritation: Classification: Irritating to eyes. Result: Mild eye irritation

Carcinogenicity

NTP	Naphthalene (CAS-No.: 91-20-3)
IARC	Naphthalene (CAS-No.: 91-20-3)
OSHA	No component of this product which is present at levels greater than or equal to 0.1 % is identified as a carcinogen or potential carcinogen by OSHA.
CA Prop 65	WARNING! This product contains a chemical known to the State of California to cause cancer. naphthalene (CAS-No.: 91-20-3)

SECTION 12. ECOLOGICAL INFORMATION

Biochemical Oxygen Demand (BOD) : No data available

Adsorbed organic bound halogens (AOX) : Not included

Additional ecological information : Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

Component:

Naphthalene	91-20-3	Toxicity to algae: EC50 Species: Dose: 33 mg/l Exposure time: 24 h

1,2,4-Trimethylbenzene	95-63-6	Toxicity to fish: LC50 Species: Pimephales promelas (fathead minnow) Dose: 7.72 mg/l Exposure time: 96 h Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia Dose: 3.6 mg/l Exposure time: 48 h

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal : Consult federal, state and local waste regulations to determine appropriate waste characterization of material and allowable disposal methods.

SECTION 14. TRANSPORT INFORMATION

CFR

Proper shipping name	: DIESEL FUEL
UN-No.	: 1202 (NA 1993)
Class	: 3
Packing group	: III

TDG

Proper shipping name	: DIESEL FUEL
UN-No.	: UN1202 (NA 1993)
Class	: 3
Packing group	: III

IATA Cargo Transport

UN UN-No.	: UN1202 (NA 1993)
Description of the goods	: DIESEL FUEL
Class	: 3
Packaging group	: III
ICAO-Labels	: 3
Packing instruction (cargo aircraft)	: 366
Packing instruction (cargo aircraft)	: Y344

IATA Passenger Transport

UN UN-No.	: UN1202 (NA 1993)
Description of the goods	: DIESEL FUEL
Class	: 3
Packaging group	: III
ICAO-Labels	: 3
Packing instruction (passenger aircraft)	: 355
Packing instruction (passenger aircraft)	: Y344

IMDG-Code

UN-No.	:	UN 1202 (NA 1993)
Description of the goods	:	DIESEL FUEL
Class	:	3
Packaging group	:	III
IMDG-Labels	:	3
EmS Number	:	F-E S-E
Marine pollutant	:	No

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Toxic by ingestion
Severe skin irritant
Moderate eye irritant
POSSIBLE CANCER HAZARD

TSCA Status : On TSCA Inventory

DSL Status : All components of this product are on the Canadian DSL list.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard
Fire Hazard

CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIROMENT)
The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil. Fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

PENN RTK — US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components	CAS-No.
Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6
Naphthalene	91-20-3
Xylene	1330-20-7
1,2,4-Trimethylbenzene	95-63-6
Nonane	111-84-2

MASS RTK — US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Components	CAS-No.
Nonane	111-84-2
1,2,4-Trimethylbenzene	95-63-6
Xylene	1330-20-7
Naphthalene	91-20-3

NJ RTK — US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Components	CAS-No.
Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6
Naphthalene	91-20-3
Xylene	1330-20-7
1,2,4-Trimethylbenzene	95-63-6
Nonane	111-84-2

SARA III: US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Components	CAS-No.
1,2,4-Trimethylbenzene	95-63-6
Xylene	1330-20-7
Naphthalene	91-20-3

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

Naphthalene 91-20-3

SECTION 16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

10/17/2013

1352, 1680, 1766, 1877, 1906, 1907, 1908, 1909, 1910, 1911, 1912

Safety Data Sheet
Diesel Low Sulfur (LSD) and Ultra Low Sulfur Diesel (ULSD)

NFPA:

TESORO

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Diesel Low Sulfur (LSD) and Ultra Low Sulfur Diesel (ULSD)		
Synonyms	:	CARB Diesel , 888100004478		
MSDS Number		888100004478	**Version**	2.34
Product Use Description				
Company		For: Tesoro Refining & Marketing Co. 19100 Ridgewood Parkway, San Antonio, TX 78259		
Tesoro Call Center		(877) 783-7676	**Chemtrec (Emergency Contact)**	(800) 424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classifications

Flammable Liquid – Category 3
Skin Irritation – Category 2
Eye Irritation – Category 2B
Aspiration Hazard – Category 1
Carcinogenicity – Category 2
Acute Toxicity - Inhalation – Category 4
Chronic Aquatic Toxicity – Category 2

Pictograms

Signal Word

Danger

Hazard Statements

Flammable liquid and vapor.
May be fatal if swallowed and enters airways – do not siphon diesel by mouth.
Causes skin irritation.
Causes eye irritation.
Suspected of causing skin cancer if repeated and prolonged skin contact occurs.
Suspected of causing cancer in the respiratory system if repeated and prolonged over-exposure by inhalation occurs.
May cause damage to liver, kidneys and nervous system by repeated and prolonged inhalation.

Toxic if inhaled.
May cause drowsiness or dizziness by inhalation.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, welding and hot surfaces.
No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical equipment.
Use only non-sparking tools if tools are used in flammable atmosphere.
Take precautionary measures against static discharge.
Wear gloves, eye protection and face protection as needed to prevent skin and eye contact with liquid.
Wash hands or liquid-contacted skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid breathing vapors or mists.
Use only outdoors or in a well-ventilated area.

Response

In case of fire: Use dry chemical, CO2, water spray or fire fighting foam to extinguish.
If swallowed: Immediately call a poison center, doctor, hospital emergency room, medical clinic or 911. Do NOT induce vomiting. Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
If in eye: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin or eye irritation persists, get medical attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Immediately call or doctor or emergency medical provider. See Section 4 and Section 11 for medical treatment information.

Storage

Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed . Use only approved containers.

Disposal

Dispose of contents/containers to approved disposal site in accordance with local, regional, national, and/or international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6	100%
Nonane	111-84-2	0 - 5%
Naphthalene	91-20-3	0 - 1%

1,2,4-Trimethylbenzene	95-63-6	0 - 2%
Xylene	1330-20-7	0 - 2%
Sulfur	7704-34-9	15 ppm maximum

SECTION 4. FIRST AID MEASURES

Inhalation : Move to fresh air. Give oxygen. If breathing is irregular or stopped, administer artificial respiration. Seek medical attention immediately.

Skin contact : Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use. If skin irritation persists, seek medical attention immediately.

Eye contact : Remove contact lenses. Rinse thoroughly with plenty of water for at least 15 minutes. If symptoms persist, seek medical attention.

Ingestion : Do not induce vomiting without medical advice. If a person vomits when lying on his back, place him in the recovery position. Seek medical attention immediately.

Notes to physician : Symptoms: Dizziness, Discomfort, Headache, Nausea, Disorder, Vomiting, Lung edema, Liver disorders, Kidney disorders. Aspiration may cause pulmonary edema and pneumonitis.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO_2, water spray or fire fighting foam. LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers. Keep containers and surroundings cool with water spray.

Specific hazards during fire fighting : Fire Hazard Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

Further information : Exposure to decomposition products may be a hazard to health. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to contain spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact. Ensure adequate ventilation. Use personal protective equipment.

Environmental precautions	:	Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection. Discharge into the environment must be avoided. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods for cleaning up	:	Take up with sand or oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal - caution, flammable vapors may accumulate in closed containers. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

: Keep away from fire, sparks and heated surfaces. No smoking near areas where material is stored or handled. The product should only be stored and handled in areas with intrinsically safe electrical classification.

: Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static-initated fire or explosion during transfer, storage or handling, include but are not limited to these examples:

(1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators.

(2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such gasoline or naphtha).

(3) Storage tank level floats must be effectively bonded.

For more information on precautions to prevent static-initated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API Recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008).

Conditions for safe storage, including incompatibilities

: Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

:

Keep away from food, drink and animal feed. Incompatible with oxidizing agents. Incompatible with acids.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

List	Components	CAS-No.	Type:	Value
OSHA Z1	Xylene	1330-20-7	PEL	100 ppm 435 mg/m3
	Naphthalene	91-20-3	PEL	10 ppm 50 mg/m3
ACGIH	Diesel Fuel	68476-30-2	TWA	100 mg/m3
	Xylene	1330-20-7	TWA	100 ppm
		1330-20-7	STEL	150 ppm
	Naphthalene	91-20-3	TWA	10 ppm
		91-20-3	STEL	15 ppm
	Nonane	111-84-2	TWA	200 ppm

Engineering measures : Use adequate ventilation to keep gas and vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use only intrinsically safe electrical equipment approved for use in classified areas.

Eye protection : Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Hand protection : Gloves constructed of nitrile, neoprene, or PVC are recommended. Consult manufacturer specifications for further information.

Skin and body protection : If needed to prevent skin contact, chemical protective clothing such as of DuPont TyChem®, Saranex or equivalent recommended based on degree of exposure. The resistance of specific material may vary from product to product as well as with degree of exposure.

Respiratory protection : A NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection. Use a NIOSH/ MSHA-approved positive-pressure supplied-air respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Work / Hygiene practices : Where potential for splash exposure exist emergency eye wash capability should be available. Refer to ANSIZ238.1 or manufacturers instruction for specific requirements relating to care and use of emergency eye care equipement. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear to straw colored liquid
Odor	Characteristic petroleum or kerosene-like odor
Odor threshold	0.1 - 1 ppm typically reported
pH	Not applicable
Melting point/freezing point	Gel point can be about -15°F; freezing requires laboratory conditions
Initial boiling point & range	154 - 372 °C (310° - 702 °F)
Flash point	38°C Minimum for #1 Diesel, 52°C Minimum for #2 Diesel
Evaporation rate	Higher initially and declining as lighter components evaporate
Flammability (solid, gas)	Flammable vapor released by liquid
Upper explosive limit	6.5 %(V)
Lower explosive limit	0.6 %(V)
Vapor pressure	< 2 mm Hg at 20 °C
Vapor density (air = 1)	> 4.5
Relative density (water = 1)	0.86 g/mL
Solubility (in water)	0.0005 g/100 mL
Partition coefficient (n-octanol/water)	> 3.3 as log Pow
Auto-ignition temperature	257 °C (495 °F)
Decomposition temperature	Will evaporate or boil and possibly ignite before decomposition occurs.
Kinematic viscosity	1 to 6 mm²/s range reported for No.1 or No.2 diesel at ambient temperatures
Conductivity (conductivity can be reduced by environmental factors such as a decrease in temperature	Diesel Fuel Oils at terminal load rack: At least 25 pS/m Ultra Low Sulfur Diesel (ULSD) without conductivity additive: 0 pS/m to 5 pS/m ULSD at terminal load rack with conductivity additive: At least 50 pS/m JP-8 at terminal load rack: 150 pS/m to 600 pS/m

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Vapors may form explosive mixture with air. Hazardous polymerization does not occur.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Can react with strong oxidizing agents, peroxides, acids and alkalies. Do not use with Viton or Fluorel gaskets or seals.
Conditions to avoid	Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. Avoid static charge accumulation and discharge (see Section 7).

Hazardous decomposition products	Ignition and burning can release carbon monoxide, carbon dioxide, non-combusted hydrocarbons (smoke) and, depending on formulation, trace amounts of sulfur dioxide. Diesel exhaust particals may be a lung hazard (see Section 11).

SECTION 11. TOXICOLOGICAL INFORMATION

Inhalation : Vapors or mists from this material can irritate the nose, throat, and lungs, and can cause signs and symptoms of central nervous system depression, depending on the concentration and duration of exposure.

Skin contact Skin irritation leading to dermatitis may occur upon prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed. Long-term, repeated skin contact may cause skin cancer.

Eye contact Eye irritation may result from contact with liquid, mists, and/or vapors.

Ingestion Harmful or fatal if swallowed. Do NOT induce vomiting. This material can irritate the mouth, throat, stomach, and cause nausea, vomiting, diarrhea and restlessness Aspiration hazard if liquid is inhaled into lungs, particularly from vomiting after ingestion. Aspiration may result in chemical pneumonia, severe lung damage, respiratory failure and even death.

Target organs Central nervous system, Eyes, Skin, Kidney, Liver

Further information Studies have shown that similar products produce skin cancer or skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.
Repeated over-exposure may cause liver and kidney injury
IARC classifies whole diesel fuel exhaust particulates as carcinogenic to humans (Group 1). NIOSH regards whole diesel fuel exhaust particulates as a potential cause of occupational lung cancer based on animal studies and limited evidence in humans.

Component:

Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6	Acute oral toxicity: LD50 rat Dose: 5,001 mg/kg Acute dermal toxicity: LD50 rabbit Dose: 2,001 mg/kg Acute inhalation toxicity: LC50 rat Dose: 7.64 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Nonane	111-84-2	Acute oral toxicity: LD50 mouse Dose: 218 mg/kg Acute inhalation toxicity: LC50 rat Exposure time: 4 h
Naphthalene	91-20-3	Acute oral toxicity: LD50 rat Dose: 2,001 mg/kg

		Acute dermal toxicity: LD50 rat Dose: 2,501 mg/kg Acute inhalation toxicity: LC50 rat Dose: 101 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes. Carcinogenicity: N11.00422130
1,2,4-Trimethylbenzene	95-63-6	Acute inhalation toxicity: LC50 rat Dose: 18 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Xylene	1330-20-7	Acute oral toxicity: LD50 rat Dose: 2,840 mg/kg Acute dermal toxicity: LD50 rabbit Dose: ca. 4,500 mg/kg Acute inhalation toxicity: LC50 rat Dose: 6,350 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.

Carcinogenicity

NTP	Naphthalene (CAS-No.: 91-20-3)
IARC	Naphthalene (CAS-No.: 91-20-3)
OSHA	No component of this product which is present at levels greater than or equal to 0.1 % is identified as a carcinogen or potential carcinogen by OSHA.
CA Prop 65	WARNING! This product contains a chemical known to the State of California to cause cancer. naphthalene (CAS-No.: 91-20-3)

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information : Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

Component:

Diesel	68476-34-6	Toxicity to fish: LC50 Species: Jordanella floridae Dose: 54 mg/l

Exposure time: 96 h

Toxicity to crustacia:
Species: Palaemonetes pugio
TLm (48 hour) = 3.4 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal : Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14. TRANSPORT INFORMATION

CFR

Proper shipping name	: DIESEL FUEL
UN-No.	: UN1202 (NA 1993)
Class	: 3
Packing group	: III

TDG

Proper shipping name	: DIESEL FUEL
UN-No.	: UN1202 (NA 1993)
Class	: 3
Packing group	: III

IATA Cargo Transport

UN UN-No.	: UN1202 (NA 1993)
Description of the goods	: DIESEL FUEL
Class	: 3
Packaging group	: III
ICAO-Labels	: 3
Packing instruction (cargo aircraft)	: 366
Packing instruction (cargo aircraft)	: Y344

IATA Passenger Transport

UN UN-No.	: UN1202 (NA 1993)
Description of the goods	: DIESEL FUEL
Class	: 3
Packaging group	: III
ICAO-Labels	: 3
Packing instruction (passenger aircraft)	: 355
Packing instruction (passenger aircraft)	: Y344

IMDG-Code

UN-No.	: UN 1202 (NA 1993)
Description of the goods	: DIESEL FUEL
Class	: 3
Packaging group	: III
IMDG-Labels	: 3

EmS Number	:	F-E S-E
Marine pollutant	:	No

SECTION 15. REGULATORY INFORMATION

: **CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIROMENT)**
The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil. Fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

TSCA Status : On TSCA Inventory

DSL Status : All components of this product are on the Canadian DSL list.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Chronic Health Hazard

SARA III — US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Components	CAS-No.
Xylene	1330-20-7
1,2,4-Trimethylbenzene	95-63-6
Naphthalene	91-20-3

PENN RTK — US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components	CAS-No.
Nonane	111-84-2
Naphthalene	91-20-3
1,2,4-Trimethylbenzene	95-63-6
xylene	1330-20-7
Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6

MASS RTK — US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Components	CAS-No.
Xylene	1330-20-7
1,2,4-Trimethylbenzene	95-63-6
Naphthalene	91-20-3
Nonane	111-84-2

NJ RTK — US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Components	CAS-No.
Nonane	111-84-2

Naphthalene	91-20-3
1,2,4-Trimethylbenzene	95-63-6
Xylene	1330-20-7
Fuels, diesel, No 2; Gasoil - unspecified	68476-34-6

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

Naphthalene	91-20-3

SECTION 16. OTHER INFORMATION

Further information

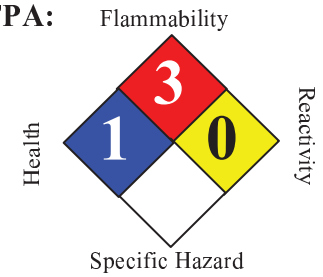
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

03/03/2014

1153, 1250, 1443, 1454, 1814, 1815, 1866, 1925

Safety Data Sheet
Gasoline, Unleaded

NFPA:



SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Gasoline, Unleaded			
Synonyms	:	Blend of Highly Flammable Petroleum Distillates, Regular, Mid-Grade, Premium , 888100008809			
SDS Number	:	888100008809	**Version**	:	1.6
Product Use Description	:	Fuel			
Company	:	For: Tesoro Refining & Marketing Co. 19100 Ridgewood Parkway, San Antonio, TX 78259			
Tesoro Call Center	:	(877) 783-7676	**Chemtrec (Emergency Contact)**	:	(800) 424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classifications :
Flammable Liquid – Category 1 or 2 depending on formulation.
Aspiration Hazard – Category 1
Carcinogenicity – Category 2
Specific Target Organ Toxicity (Repeated Exposure) – Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3
Skin Irritation – Category 2
Eye Irritation – Category 2B
Chronic Aquatic Toxicity – Category 2

Pictograms :

Signal Word : **Danger**

Hazard Statements

Extremely flammable liquid and vapor.
May be fatal if swallowed and enters airways – do not siphon gasoline by mouth.
Suspected of causing blood cancer if repeated over-exposure by inhalation and/or skin contact occurs.
May cause damage to liver, kidneys and nervous system by repeated and prolonged inhalation or skin contact. Causes eye irritation. Can be absorbed through skin.
May cause drowsiness or dizziness. Extreme exposure such as intentional inhalation may cause unconsciousness, asphyxiation and death.
Repeated or prolonged skin contact can cause irritation and dermatitis.

Harmful to aquatic life.

Precautionary statements

Prevention : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, welding and hot surfaces.
No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical equipment.
Use only non-sparking tools (if tools are used in flammable atmosphere).
Take precautionary measures against static discharge.
Wear gloves, eye protection and face protection (as needed to prevent skin and eye contact with liquid).
Wash hands or liquid-contacted skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Do not breathe vapors.
Use only outdoors or in a well-ventilated area.

Response : In case of fire: Use dry chemical, CO2, water spray or fire fighting foam to extinguish.
If swallowed: Immediately call a poison center, doctor, hospital emergency room, medical clinic or 911. Do NOT induce vomiting. Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eye: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin or eye irritation persists, get medical attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Get medical attention if you feel unwell.

Storage : Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed . Use only approved containers. Some containers not approved for gasoline may dissolve and release flammable gasoline liquid and vapors.

Disposal : Dispose of contents/containers to approved disposal site in accordance with local, regional, national, and/or international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Gasoline, natural; Low boiling point naphtha	8006-61-9	10 - 30%
Toluene	108-88-3	10 - 30%
Xylene	1330-20-7	10 - 30%
Ethanol; ethyl alcohol	64-17-5	0-8.2%
Trimethylbenzene	25551-13-7	1 - 5%
Isopentane; 2-methylbutane	78-78-4	1 - 5%

Naphthalene	91-20-3	1 - 5%
Benzene	71-43-2	Less than 1.3%
Pentane	109-66-0	1 - 5%
Cyclohexane	110-82-7	1 - 5%
Ethylbenzene	100-41-4	1 - 5%
Butane	106-97-8	1 - 20%
Heptane [and isomers]	142-82-5	0.5 - 0.75%
N-hexane	110-54-3	0.5 - 0.75%

SECTION 4. FIRST AID MEASURES

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Contaminated leather, particularly footwear, must be discarded. Note that contaminated clothing may be a fire hazard. Seek medical advice if symptoms persist or develop.

Eye contact : Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical advice if symptoms persist or develop.

Ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

Notes to physician : Symptoms: Dizziness, Discomfort, Headache, Nausea, Kidney disorders, Liver disorders. Aspiration may cause pulmonary edema and pneumonitis. Swallowing gasoline is more likely to be fatal for small children than adults, even if aspiration does not occur.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray or fire fighting foam. LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers. Keep containers and surroundings cool with water spray.

Specific hazards during fire fighting : Extremely flammable liquid and vapor. This material is combustible/flammable and is sensitive to fire, heat, and static discharge.

Special protective equipment for fire-fighters : Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

Further information	:	Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam. Exposure to decomposition products may be a hazard to health. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Evacuate personnel to safe areas. Ventilate the area. Remove all sources of ignition. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).
Environmental precautions	:	Discharge into the environment must be avoided. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods for cleaning up	:	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling :

Keep away from fire, sparks and heated surfaces. No smoking near areas where material is stored or handled. The product should only be stored and handled in areas with intrinsically safe electrical classification.

Hydrocarbon liquids including this product can act as a non-conductive flammable liquid (or static accumulators), and may form ignitable vapor-air mixtures in storage tanks or other containers. Precautions to prevent static-initated fire or explosion during transfer, storage or handling, include but are not limited to these examples:

(1) Ground and bond containers during product transfers. Grounding and bonding may not be adequate protection to prevent ignition or explosion of hydrocarbon liquids and vapors that are static accumulators.

(2) Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such gasoline or naphtha).

(3) Storage tank level floats must be effectively bonded.

For more information on precautions to prevent static-initated fire or explosion, see NFPA 77, Recommended Practice on Static Electricity (2007), and API Recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents (2008).

Conditions for safe storage, including incompatibilities : Keep away from flame, sparks, excessive temperatures and open flame. Use approved containers. Keep containers closed and clearly labeled. Empty or partially full product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose containers to sources of ignition. Store in a well-ventilated area. The storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

Reports suggest that government-mandated ethanol, if present, may not be compatible with fiberglass gasoline tanks. Ethanol may dissolve fiberglass resin, causing engine damage and possibly allow leakage of explosive gasoline.

Keep away from food, drink and animal feed. Incompatible with oxidizing agents. Incompatible with acids.

No decomposition if stored and applied as directed. Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Store only in containers approved and labeled for gasoline.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

List	Components	CAS-No.	Type:	Value
OSHA	Benzene	71-43-2	TWA	1 ppm
		71-43-2	STEL	5 ppm
		71-43-2	OSHA_ACT	0.5 ppm
OSHA Z1	Xylene	1330-20-7	PEL	100 ppm 435 mg/m3
	Ethanol; Ethyl alcohol	64-17-5	PEL	1,000 ppm 1,900 mg/m3
	Naphthalene	91-20-3	PEL	10 ppm 50 mg/m3
	Cyclohexane	110-82-7	PEL	300 ppm 1,050 mg/m3
	Ethylbenzene	100-41-4	PEL	100 ppm 435 mg/m3
	Heptane [and isomers]	142-82-5	PEL	500 ppm 2,000 mg/m3
	N-hexane	110-54-3	PEL	500 ppm 1,800 mg/m3
ACGIH	Toluene	108-88-3	TWA	50 ppm
	Xylene	1330-20-7	TWA	100 ppm
		1330-20-7	STEL	150 ppm
	Ethanol; Ethyl alcohol	64-17-5	TWA	1,000 ppm
	Trimethylbenzene	25551-13-7	TWA	25 ppm
	Isopentane; 2-Methylbutane	78-78-4	TWA	600 ppm
	Naphthalene	91-20-3	TWA	10 ppm
		91-20-3	STEL	15 ppm
	Benzene	71-43-2	TWA	0.5 ppm
		71-43-2	STEL	2.5 ppm
	Pentane	109-66-0	TWA	600 ppm
	Cyclohexane	110-82-7	TWA	100 ppm
	Ethylbenzene	100-41-4	TWA	100 ppm
		100-41-4	STEL	125 ppm
	Heptane [and isomers]	142-82-5	TWA	400 ppm
		142-82-5	STEL	500 ppm

	N-hexane	110-54-3	TWA	50 ppm

Engineering measures : Use adequate ventilation to keep gas and vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Use only intrinsically safe electrical equipment approved for use in classified areas.

Eye protection : Safety glasses or goggles are recommended where there is a possibility of splashing or spraying. Ensure that eyewash stations and safety showers are close to the workstation location.

Hand protection : Gloves constructed of nitrile or neoprene are recommended. Consult manufacturer specifications for further information.

Skin and body protection : If needed to prevent skin contact, chemical protective clothing such as of DuPont TyChem®, Saranex or equivalent recommended based on degree of exposure. Flame resistant clothing such as Nomex ® is recommended in areas where material is stored or handled.

Respiratory protection : A NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection. Use a NIOSH/ MSHA-approved positive-pressure supplied-air respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Work / Hygiene practices : Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear to straw colored liquid

Odor : Characteristic hydrocarbon-like

Odor threshold 0.5 - 1.1 ppm

pH : Not applicable

Melting point/freezing point About -101°C (-150°F)

Initial boiling point & range Boiling point varies: 30 – 200°C (85 – 392°F)

Flash point < -21°C (-5.8°F)

Evaporation rate : Higher initially and declining as lighter components evaporate

Flammability (solid, gas) : Flammable vapor released by liquid

Upper explosive limit	7.6 %(V)
Lower explosive limit	1.3 %(V)
Vapor pressure	345 - 1,034 hPa at 37.8 °C (100.0 °F)
Vapor density (air = 1)	Approximately 3 to 4
Relative density (water = 1)	0.8 g/mL
Solubility (in water)	Negligible
Partition coefficient (n-octanol/water)	2 – 7 as log Pow
Auto-ignition temperature	Approximately 250°C (480°F)
Decomposition temperature	Will evaporate or boil and possibly ignite before decomposition occurs.
Kinematic viscosity	0.64 to 0.88 mm²/s range reported for gasoline
Conductivity (conductivity can be reduced by environmental factors such as a decrease in temperature)	: Hydrocarbon liquids without static dissipater additive may have conductivity below 1 picoSiemens per meter (pS/m). The highest electro-static ignition risks are associated with "ultra-low conductivities" below 5 pS/m. See Section 7 for sources of information on defining safe loading and handling procedures for low conductivity products.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Vapors may form explosive mixture with air. Hazardous polymerization does not occur.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	Can react with strong oxidizing agents, peroxides, alkaline products and strong acids. Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.
Conditions to avoid	: Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. Avoid static charge accumulation and discharge (see Section 7).
Hazardous decomposition products	: Ignition and burning can release carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Skin contact	: Irritating to skin. Can be partially absorbed through skin.
Eye contact	: Irritating to eyes.
Ingestion	: Aspiration hazard if liquid is inhaled into lungs, particularly from vomiting after ingestion. Aspiration may result in chemical pneumonia, severe lung damage, respiratory failure and even death. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death may occur.

Inhalation and further information

Acute toxicity of benzene results primarily from depression of the central nervous system (CNS). Inhalation of concentrations over 50 ppm can produce headache, lassitude, weariness, dizziness, drowsiness, over excitation. Exposure to very high levels can result in unconsciousness and death.

Repeated over-exposure may cause liver and kidney injuries.
Components of the product may affect the nervous system.

IARC has determined that gasoline and gasoline exhaust are possibly carcinogenic in humans. Inhalation exposure to completely vaporized unleaded gasoline caused kidney cancers in male rats and liver tumors in female mice. The U.S. EPA has determined that the male kidney tumors are species-specific and are irrelevant for human health risk assessment. The significance of the tumors seen in female mice is not known. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with effects to the central and peripheral nervous systems, liver, and kidneys. The significance of these animal models to predict similar human response to gasoline is uncertain.
This product contains benzene. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-forming system (particularly bone marrow), and serious blood disorders such as aplastic anemia and leukemia. Benzene is listed as a human carcinogen by the NTP, IARC, OSHA and ACGIH.

Component:

Gasoline, natural; Low boiling point naphtha	8006-61-9	Acute oral toxicity: LD50 rat Dose: 18.8 mg/kg Acute inhalation toxicity: LC50 rat Dose: 20.7 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Toluene	108-88-3	Acute oral toxicity: LD50 rat Dose: 636 mg/kg Acute dermal toxicity: LD50 rabbit Dose: 12,124 mg/kg Acute inhalation toxicity: LC50 rat Dose: 49 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Xylene	1330-20-7	Acute oral toxicity: LD50 rat Dose: 2,840 mg/kg Acute dermal toxicity: LD50 rabbit Dose: ca. 4,500 mg/kg Acute inhalation toxicity: LC50 rat Dose: 6,350 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Ethanol; Ethyl alcohol	64-17-5	Acute oral toxicity: LD50 rat

		Dose: 6,200 mg/kg Acute dermal toxicity: LD50 rabbit Dose: 19,999 mg/kg Acute inhalation toxicity: LC50 rat Dose: 8,001 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Naphthalene	91-20-3	Acute oral toxicity: LD50 rat Dose: 2,001 mg/kg Acute dermal toxicity: LD50 rat Dose: 2,501 mg/kg Acute inhalation toxicity: LC50 rat Dose: 101 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes. Carcinogenicity: N11.00422130
Benzene	71-43-2	Acute oral toxicity: LD50 rat Dose: 930 mg/kg Acute inhalation toxicity: LC50 rat Dose: 44 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes. Result: Risk of serious damage to eyes.
Pentane	109-66-0	Acute oral toxicity: LD50 rat Dose: 2,001 mg/kg Acute inhalation toxicity: LC50 rat Dose: 364 mg/l Exposure time: 4 h Skin irritation: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. Eye irritation: Classification: Irritating to eyes.
Cyclohexane	110-82-7	Acute dermal toxicity: LD50 rabbit Dose: 2,001 mg/kg Acute inhalation toxicity: LC50 rat Dose: 14 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
Ethylbenzene	100-41-4	Acute oral toxicity: LD50 rat Dose: 3,500 mg/kg Acute dermal toxicity: LD50 rabbit Dose: 15,500 mg/kg

		Acute inhalation toxicity: LC50 rat Dose: 18 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes. .
Heptane [and isomers]	142-82-5	Acute oral toxicity: LD50 rat Dose: 15,001 mg/kg Acute inhalation toxicity: LC50 rat Dose: 103 g/m3 Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes.
N-hexane	110-54-3	Acute oral toxicity: LD50 rat Dose: 25,000 mg/kg Acute dermal toxicity: LD50 rabbit Dose: 2,001 mg/kg Acute inhalation toxicity: LC50 rat Dose: 171.6 mg/l Exposure time: 4 h Skin irritation: Classification: Irritating to skin. Eye irritation: Classification: Irritating to eyes. Teratogenicity: N11.00418960

Carcinogenicity

NTP	:	Naphthalene (CAS-No.: 91-20-3) Benzene (CAS-No.: 71-43-2)
IARC	:	Gasoline, natural; Low boiling point naphtha (CAS-No.: 8006-61-9) Naphthalene (CAS-No.: 91-20-3) Benzene (CAS-No.: 71-43-2) Ethylbenzene (CAS-No.: 100-41-4)
OSHA	:	Benzene (CAS-No.: 71-43-2)
CA Prop 65	:	WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Toluene (CAS-No.: 108-88-3) Benzene (CAS-No.: 71-43-2)

SECTION 12. ECOLOGICAL INFORMATION

Additional ecological information : Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

Component:

Toluene	108-88-3	Toxicity to fish: LC50 Species: Carassius auratus (goldfish) Dose: 13 mg/l Exposure time: 96 h

		Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 11.5 mg/l Exposure time: 48 h Toxicity to algae: IC50 Species: Selenastrum capricornutum (green algae) Dose: 12 mg/l Exposure time: 72 h
Ethanol; Ethyl alcohol	64-17-5	Toxicity to fish: LC50 Species: Leuciscus idus (Golden orfe) Dose: 8,140 mg/l Exposure time: 48 h Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 9,268 - 14,221 mg/l Exposure time: 48 h
Isopentane; 2-Methylbutane	78-78-4	Toxicity to fish: LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 3.1 mg/l Exposure time: 96 h Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 2.3 mg/l Exposure time: 96 h
Naphthalene	91-20-3	Toxicity to algae: EC50 Species: Dose: 33 mg/l Exposure time: 24 h
Pentane	109-66-0	Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 9.74 mg/l Exposure time: 48 h
Cyclohexane	110-82-7	Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 3.78 mg/l Exposure time: 48 h
Heptane [and isomers]	142-82-5	Toxicity to fish: LC50 Species: Carassius auratus (goldfish) Dose: 4 mg/l Exposure time: 24 h Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 1.5 mg/l Exposure time: 48 h

N-hexane	110-54-3	Toxicity to fish: LC50 Species: Pimephales promelas (fathead minnow) Dose: 2.5 mg/l Exposure time: 96 h Acute and prolonged toxicity for aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 2.1 mg/l Exposure time: 48 h

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal : Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14. TRANSPORT INFORMATION

CFR

Proper shipping name	: Petrol
UN-No.	: 1203
Class	: 3
Packing group	: II

TDG

Proper shipping name	: Gasoline
UN-No.	: UN1203
Class	: 3
Packing group	: II

IATA Cargo Transport

UN UN-No.	: UN1203
Description of the goods	: Gasoline
Class	: 3
Packaging group	: II
ICAO-Labels	: 3
Packing instruction (cargo aircraft)	: 364
Packing instruction (cargo aircraft)	: Y341

IATA Passenger Transport

UN UN-No.	: UN1203
Description of the goods	: Gasoline
Class	: 3
Packaging group	: II
ICAO-Labels	: 3
Packing instruction (passenger aircraft)	: 353
Packing instruction (passenger aircraft)	: Y341

IMDG-Code

UN-No.	: UN 1203

Description of the goods	:	Gasoline
Class	:	3
Packaging group	:	II
IMDG-Labels	:	3
EmS Number	:	F-E S-E
Marine pollutant	:	No

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Flammable liquid
Highly toxic by ingestion
Moderate skin irritant
Severe eye irritant
Carcinogen

TSCA Status : On TSCA Inventory

DSL Status : . All components are on the Canadian DSL list.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Chronic Health Hazard

CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIROMENT)
The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil. Fractions of crude oil, and products (both finished and intermediate) from the crude oil refining process and any indigenous components of such from the CERCLA Section 103 reporting requirements. However, other federal reporting requirements, including SARA Section 304, as well as the Clean Water Act may still apply.

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Toluene	108-88-3
Benzene	71-43-2

SECTION 16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Date : 03/06/2014

6, 8, 10, 12, 14, 16, 64, 68, 91, 112, 306, 1092, 1106, 1500, 1570, 1571, 1651, 1652, 1654, 1700, 1701, 1702, 1710, 1711, 1714, 1726, 1729, 1730, 1732, 1733, 1826, 1848, 1880, 1950